Meeting the Workforce Needs of the Unionized Sheet Metal Industry

Report submitted to the
National Labor-Management Cooperative Committee

By

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Executive Summary

The labor pool from which the unionized sheet metal industry will draw its future workforce is very different from the historical pool. Because of the intense physical demands of the work, few workers work past the age of 60. The Baby Boomer generation, those individuals born between 1946 and 1964, has been the largest group in the workforce and its leading edge will reach 60 years of age in 2006 and begin to retire. Approximately 40% of the construction workforce and 42% of the sheet metal workforce will be eligible to retire during the next ten years. One industry observer estimates that the construction industry will need to add 185,000 new workers each of the next ten years to offset the wave of retirements. Another observer sets the figure at 250,000. Both of these figures were determined prior to the extensive damage wrought by hurricanes Katrina and Rita, which will increase these figures significantly. Thus, demand for skilled construction workers will be strong for the foreseeable future.

At the same time, the US labor force will undergo significant demographic change as a consequence of:

- a declining male labor force participation rate;
- an increasing female labor force participation rate;
- a declining male birth rate such that only 1.06 males are being born for each one female;
- a declining birth rate such that the current birth rate is the lowest in recorded history;
- high birth rates of immigrant populations, particularly Latino; and
- immigration.

The result will be a labor force that is more female, more Latino, and more Asian. The construction industry, with sheet metal as no exception, has been a bastion for white males. In 2002, the sheet metal industry was 3.6% female, 3.5% African-American, 2.4% Asian, and 17.2% Latino (includes persons formerly labeled as Hispanic). In other words, it was 73.8% white male. The Latino participation is concentrated in Florida and the Southwest.

Absent strong external pressure for change, the industry has historically focused its recruiting attention on what is knows best: young, white males. Recruiting consisted of participating in career fairs and running advertisements in local papers alerting the community that application for apprenticeship will be accepted within a specified time frame. Until recently, this was adequate to attract a sufficient number of applicants. However, the skill shortage has been growing due to a combination of factors: increasing college attendance, societal bias against blue collar jobs and in favor of college attendance and white collar jobs, a negative image of construction work, and a negative image of unions. In addition, other factors, such as the high incarceration rate of African American youths have contributed. Thus, the future of the unionized sheet metal industry depends upon its ability to recruit a workforce from population groups it has historically neglected: women and minorities.

To do so requires a radical change in the way in which workforce development is conducted. The workforce development process is identified as consisting of six related activities: awareness, familiarization, recruitment, selection, training, and retention. Seventy-one recommendations are presented to change the way workforce development is conducted in the unionized sheet metal industry. Some are basic and not likely to generate any concern or opposition. Others, however, will raise significant concerns among union members and contractors. Two of the recommendations are critical. First, management, i.e., the contractors, must become more actively involved in the workforce development process. Too often, this process is left to the union, which, for the contractors, is allowing someone else to pick their workforce. The apprenticeship programs in the unionized industry are legally jointly operated. It is time for the contractors to return the “joint” to the committee. Second, a fulltime director of outreach and recruitment position should be created within each JAC or JATC. This individual should be a human resources professional with appropriate training.

A series of appendices are presented that identify resources that may be used to increase the number of women and minorities in the sheet metal industry.

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PREFACE

In conducting this project, the principal investigator talked with many sheet metal workers and contractors. In addition, he received notes, letters, and phone calls from others. There were three themes contained in these messages: depression, despair and pessimism about the future. It is important that these concerns be examined before addressing the recruitment and retention of women and minorities in the sheet metal industry.

Issues

- Time after time, when a group of sheet metal workers was questioned, less than 25% of the group indicated that they would like their children, either male or female, to follow them into the sheet metal trade. The percentages were even lower when the question was limited to daughters. There were numerous reasons cited for this reluctance: the work is too hard, employment is too unstable, and there is no future. One caller said "I don't want my daughter working with these guys; they're a bunch of animals!"

  If the current members of the industry do not want their children coming into their trade, it will be extremely difficult to attract well-qualified individuals to the industry. How does one recruit with enthusiasm absent a belief in the future viability and attractiveness of the trade?

- The latest unemployment figures for the country (May, 2006) indicate that 4.6% of the civilian workforce is currently unemployed. On a historical basis, this figure is relatively low; the average unemployment rate for the civilian labor force for the period 1980-2005 was 6.2%. The economy has been growing at a healthy rate for several quarters and unemployment has been decreasing. However, it appears that the unionized sheet metal industry has not been experiencing this growth. Discussions with local union officials and members from around the country reveal that some locals have from 1/4 to 1/3 of their membership on the bench even though there has been a significant reduction in the number of members. A journey worker wrote that despite the fact that he had completed all of the upgrade courses available and had had a steady employment record, he has only been able to work 15 of the last 40 months and, as a result, lost his health benefits twice.

- There is a perception among the Union's membership that the markets for unionized sheet metal have been lost: (1) the off-shoring of American industry has removed a significant market from the union construction sector. The manufacturing industry that was once the pride of America is now located in Southeast Asia; (2) the gross mismanagement and refusal of its executives to look to the future has led the American auto industry, a major source of work for unionized sheet metal, to the brink of bankruptcy; (3) high rise buildings are now being built by non-signatory contractors and their unorganized employees in former bastions of union construction such as Manhattan; and (4) there is a rapidly decreasing percentage of decision makers in this growing industry choosing to use Union labor. Many Union members realize this and stated that they just want to hold on until they can retire.

- There is a general uneasiness about retirement because of concerns about the financial viability of Social Security and the SMWIA national pension plan. Both are significantly under-funded. Social Security's problems arise because of a significant reduction in the ratio of workers paying into the fund to the number of individuals receiving benefits and an expansion in benefits without corresponding increases in taxes. The problem is exacerbated by the demographics; the relative size of the Baby Boomer generation dwarfs that of Generation X and the Millennial generations

  For the national pension fund, the problem is one of too few younger workers paying into the fund as a consequence of the loss of market share to the open shop. An industry that has gone from over 85% unionized to one that is less than 20% unionized, at best, has contracted by retirements, members resigning and seeking employment elsewhere, and not replacing retirees with younger

workers. As a consequence, the average age of the membership of the SMWIA is increasing. There is a plan in effect to restore the national pension plan to full funding, but there is not a lot of optimism among SMWIA members that it will be successful.

- Just like auto and other industries, the unionized sheet metal industry, 30 plus years ago, established the concept of early retirement using a defined benefit pension plan. As these industries shrunk due to market share losses to competitors, the number of workers paying into the fund was drastically reduced thereby creating the basis of the under-funding crisis. Plans such as the Rule of 85 that allow retirement when age and service equal 85 and plans in California that allow retirement at 50 or 52 have created a situation in which members can collect retirement benefits for 15 years before they can collect full Social Security benefits.

  Early retirement created another problem, which was the need to provide medical benefits to retirees until they were eligible for Medicare at 65. The cost of providing retiree health coverage was covered by increased payments into the health and welfare fund by workers or by requiring retirees to pay all or a portion of the cost. These problems have been compounded by rapidly escalating health care costs and the reality that retirees are the single most expensive age group to insure.

  As a consequence of these funding problems, greater proportions of negotiated increases are being used to cover the pension and health and welfare shortfalls. Because of general inflation and increased energy costs, the working members have less discretionary income. Benefit contributions are increasing to meet the increasing costs driven by the retirement of Baby Boomers with the consequence that sheet metal contractors employing younger workers are not competitive and cannot provide jobs to these workers.

- Rightly or wrongly, there is a perception among Union members that their union's leadership, at both the local and national levels, has few, if any, ideas and is content to hold on until retirement.

- When used, hiring hall procedures are causing productive and better workers to be blocked from jobs by lesser quality workers. Contractors have said that they will take on more work if they could be assured of the quality of the workers they would receive from the hall. Without the assurances of good quality workers, contractors do not believe it is worth the risk to undertake new work. Contractors have set their work levels such that they avoid additional risk and earn an acceptable profit.

- For years, union construction has tried to sell itself on the basis of having the best trained and most productive craftsmen in the industry. Clients are voting with their dollars and purchasing construction services from nonunion firms. This decision is attributed to three factors:: (1) union firms are simply too costly and not competitive and the alleged better training does not result in sufficiently greater productivity; (2) worker and union inflexibility; and (3) little concern for the client. Clients today question the value of using a supplier who is not committed to the success of the client.

The future for the unionized sheet metal industry does not look bright. Unless the SMWIA and SMACNA begin a complete examination of how they do business, particularly in terms of the needs of their clients, and develop a radically new way of doing business, the question of recruitment of new workers will be moot. There will be no need for new workers because there will be no unionized sheet metal industry.

Meaning

It is important to understand these issues because of their impact on attracting new entrants to the unionized sheet metal industry.

An individual evaluating potential careers looks for the opportunity:

- to develop proficiency in a set of skills that will allow the individual to be marketable now and into the future. The SMWIA/SMACNA apprenticeship program together with journey worker upgrades is, without question, the best sheet metal training program in the country.
- to complete required training programs and move to higher pay levels as expeditiously as possible. This will require apprenticeship programs to be flexible in granting credit for work completed in other training programs. An apprentice related his experience in having to take a CAD class in the apprenticeship program after having completed a one semester CAD course at a community college.
- to earn an income that will allow the person to have an appropriate standard of living. The wages negotiated for sheet metal workers between the SMWIA locals and SMACNA chapters allows individuals to maintain a good standard of living. However, the average construction worker works approximately 1600 hours per year. Conditions that render union contractors uncompetitive reduce the hours available to workers and, thereby, their income.
    - workers need to work 2000 hours per year to earn an amount that will provide them and their families with the standard of living commensurate with the training completed.
- to earn benefits, e.g., health insurance, that provide for the security of the worker's family.
- to earn a comfortable retirement.
- to work in a professional work environment where they are treated with respect, not subjected to repeated hazing and harassment, and forced to work with uncommitted people.

Without the perception of these opportunities, an individual will not choose to join and remain in an occupation. The choice is simple – what job will provide you with more of what you want.

The report that follows examines the current workforce situation in the sheet metal industry in terms of demographics, education, and the history of efforts to integrate women and minorities into the industry. It then presents a model of recruitment and retention and examples of programs that may be used to form a comprehensive program to recruit and retain women and minorities in the sheet metal industry.

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Introduction

As we move through the 21st century, it is becoming increasingly evident that the construction industry in the United States is experiencing a shortage of skilled workers that will only get worse. The US workforce is changing at a rapid rate as a result of several factors: demographic, educational, and sociological. The industry that built the United States using the backs of immigrants will continue to do so, with several significant changes.

The Situation - Demographics

The labor force in the United States is undergoing significant demographic changes that have the potential to create serious short-term imbalances in the supply and demand for workers. These imbalances may limit economic growth if not addressed. The construction industry is especially vulnerable to the effects of the imbalances.

High birth rates after World War II resulted in what has been termed the Baby Boomer Generation (individuals born between 1946 and 1964). The leading edge of this group will turn 60 in 2006 and is beginning to retire.

Robert M. Gasperow, director of the Construction Labor Research Council, published an analysis of U.S. Bureau of Labor Statistics and U.S. Bureau of the Census data and the implications for the construction labor market in a paper titled "Craft Labor Supply Outlook 2005 - 2015" (Gasperow, 2005). His analyses of Bureau of Labor Statistics data and conclusions have significant implications for the construction industry: Gasperow's conclusions and other BLS data add insight to the issue.

- Recent labor shortages in the construction industry have increased the awareness of the need for recruiting, training, and retaining new entrants to the industry
- Because of the time required for training, there is a lag between recruiting new entrants and the availability of trained craft workers. Craft-based apprenticeship programs range from three to five years in length. Skill-based programs that do not provide the breadth of skills of craft training are shorter in duration.
- Gasperow concludes that the construction industry will need to add 185,000 workers annually over the next ten years to replace workers retiring or otherwise leaving the industry and to allow for growth. Of this number, the sheet metal industry will need 6200 new entrants per year The Construction Users Roundtable estimates that this need is be closer to 200,000 to 250,000 new entrants per year (CURT 2004). It is important to note that these estimates were prepared prior to the devastating impact of hurricanes Katrina and Rita on the Gulf Coast. At the same time, the petrochemical industry in Alberta, Canada is experiencing a construction boom.
- Because of the physical demands of construction work, the working life of construction workers is shorter than that of workers in other industries. Consequently, construction workers retire earlier or move to less physically demanding occupations in other industries. Either way, the worker is lost to the construction industry.
- A large influx of Latino workers allowed the industry to meet increasing demand in recent years.
- The number of Baby Boomers leaving the industry will increase faster than the number of Millennial Generation members (individuals born between 1980 and 2000) and entering the industry, thus creating significant competition for the new labor force entrants.
- Approximately 40% of the current construction workforce is eligible to retire in the next ten years. For the membership of the Sheet Metal Workers International Association, this figure is 42%.
- The composition of the new entrants will change because of differences in population growth rates: Whites, 6%; Blacks, 21%, and Latinos, 23%.
- There will be increasing competition between construction and all other industries for new entrants. For example, one estimate reveals that the US is currently short 110,000 over the road truckers.
- The median age of all construction craft workers was 33 years of age in 1988 and 37 in 1997. By 2003, it had increased to 38 and for union members it was 39.
- The growth rate in the number of males in the labor force is expected to be 1.0% and for women 1.3%. The projected labor force growth rate for Latinos is 2.9%.

- While women are participating in greater numbers in the work force in general, they are not doing so in construction. The increasing entry of Latinos represents the biggest change in construction.
- "An actual shortage of bodies is highly unlikely. A shortage of labor in construction means a shortage of adequately trained, skilled, productive persons. In addition, shortages can occur when there are an adequate number of persons, but there is a mismatch between skills available and skills required. There is also the possibility that there is a geographic imbalance in available craft workers" (CURT 2004).
- The availability of retirement and health care benefits influences the retirement decision. Workers with those benefits will be more likely to retire than workers without the same benefits. Historically, these benefits have been more prevalent in the union sector suggesting high retirement rates in the union sector.
- There are more two wage earner families today, which makes early retirement easier.

Other statistics that bear on the situation:

- The US birth rate at 13.9/1000 people is the lowest since records have been kept.
- The ratio of males to females – 1.06/1 is dropping as fewer males are being born.

The Hudson Institute's book *Workforce 2020*, a sequel to its thought provoking *Workforce 2000*, estimates that the ethnic composition of the US workforce will continue diversifying and in 2020 will be as shown in Table 1 (Hudson Institute, 1998).

Ethnic Group	2000	2020
Caucasian	72%	69%
Latino	11%	14%
African American	12%	11%
Asian	5%	6%

2000 – BLS estimates; 2020 – Workforce 2020 estimates

Table 1 - Workforce Composition by Ethnic Group

The figure for Latino workers significantly understates the Latino share of the construction workforce. BLS data reported by the Center to Protect Workers Rights indicate that Latinos represented 17% of the construction labor force in 2000 and that the number of Latino construction workers in the United States had quadrupled between 1980 and 2000 (CPWR, 2003).

In addition, at the same time that the participation rate of women is increasing (See Table 2), several of the traditionally female occupations (office and administrative support occupations) will suffer some of the largest predicted job losses (Heckler, 2001). Consequently, many women will be searching for nontraditional jobs that pay good wages and provide good benefits. The increasing numbers of single mothers, whether it is by choice or not, is increasing the need to find "good" jobs (A good job is one that provides the jobholder with good earnings and benefits). The declining participation rate for males may be attributed, at least in part, to the impact of 30 year and out retirement programs and significant buyout programs as many industries restructure to increase profitability.

Gender	1975	2005
Male	77.9%	73.3%
Female	46.3%	59.3%

BLS statistics

Table 2 - Labor Force Participation Rate by Gender

Gender or Race	Percentage of Population
Male	**49.3%**
Female	**50.7%**
White	**67.1%**
Black	**13.0%**
Latino	**14.4%**
Asian	**4.3%**

U.S. Bureau of the Census
Table 3 - U.S. Population - 2005 - Estimated

Summary
The demographic changes discussed above have the following ramifications for the construction and sheet metal industries:

- The pool of workers seeking employment, i.e., the pool from which industry hires its employees, will be
    - More female as a result of fewer males in the population, higher participation rates for females, and lower participation rates for males.
    - More Latino as a function of higher birth rates and immigration.
    - Older as a consequence of job loss resulting from the restructuring going on in many industries
- Historically, the industry has traditionally focused its recruiting efforts on young, white males most of whom were related to persons already in the industry or acquainted with someone in the industry.
- To meet the demand for labor in the future, the industry must turn its attention to neglected groups:
    - Women
    - African Americans
    - Latinos
    - Asians
    - Older workers
    - Other immigrant groups
- Most sheet metal locals have little experience recruiting from these groups.
- A common mistake is treating Latinos as a monolithic group. This could not be more wrong. Cubans are very different from Mexicans; Puerto Ricans are very different from Guatemalans. A paper titled "Hispanics in the United States: An Insight into Group Characteristics" that was prepared by the Office of Minority Health Resource Center within the Department of Health and Human Services is presented in Appendix 1. It examines differences between Latino groups that may be relevant in recruiting.

  Appendix 2 contains a report prepared for the National Council of La Raza by Lourdes Tinajero of the Cuban-American National Council that is an excellent look at Latino construction workers.

The construction industry will continue to be an industry of immigrants, but instead of being one of Irish, Italians, and Poles it will be one of Cubans, Mexicans, and Vietnamese. It will also be more female.

The Situation - Education

Construction work has long had a public image of being done by workers with a strong back and weak mind. This may be true for a few construction activities, but is certainly not true for the sheet metal craft. Sheet metal workers must have knowledge of mathematics and science if they are to meet the needs of 21st century. Many high school students are not completing courses in these areas, which is unfortunate in an increasingly technology-driven society. In many states, it is possible to earn a high school diploma while completing only one year of math and one year of science.

The basic qualifications for admission to a SMWIA/SMACNA apprenticeship program are:

- Be a high school graduate or have earned a GED
- Be at least 18 years of age
- Possess a valid driver's license
- Pass an appropriate aptitude test (typically the Differential Aptitude Test)
- Successfully complete an interview with members of the Joint Apprenticeship and Training Committee.

In spite of the fact that a high school diploma is necessary for almost any type of job in today's economy, a significant number of students fail to graduate from high school. Table 4 presents high school graduation rates by race and gender for 2003. For all races, females have a higher graduation rate than males. Caucasians and Asians have significantly higher graduation rates than do Hispanics and African Americans.

Race	Graduation Rate (%)		
		Gender	
	Total	Female	Male
Caucasian	78	79	74
Hispanic	53	58	49
African American	55	59	48
Asian	72	73	70
Total	**70**	72	65

Source: Leaving Boys Behind: Public High School Graduation Rates by Jay P. Greene and Marcus A. Winters. Manhattan Institute for Policy Research. Civic Report, No. 48, April, 2006

Table 4 - High School Graduation Rates – 2003

There are no specific requirements in terms of math and science proficiency for admission to an apprenticeship program. Most aptitude tests address basic mathematical concepts, numerical aptitude, and visual and spatial reasoning. However, basic mathematical competency may not be sufficient for tomorrow's sheet metal worker. For some, it may be necessary to have algebra, geometry, and trigonometry skills as well as knowledge in chemistry and physics. It is highly likely that not all sheet metal workers will need skills in these areas. The mathematics and science work completed by high school students varies considerably. Table 5 presents the percentages of graduates who complete specific math and science courses during their high school.

It is imperative that the mathematical and science proficiencies required in the sheet metal trade be identified and translated into high school course requirements. In turn, the requirements and their importance must be communicated to students and teachers.

The pool of workers from which to recruit construction apprentices has been declining since the 1950s as the percentage of high school graduates going on to postsecondary education has steadily increased. Figures 1(a) & 1(b) below present postsecondary participation rates by race and sex for 1974-2003. Postsecondary participation is increasing as a result of several factors:

Subject	Percentage of High School Graduates Completing Subject						
	Total	Gender		Race			
		Male	Female	Caucasian	African American	Hispanic	Asian
Algebra I	62.8	62.0	63.8	63.5	62.3	61.4	56.8
Geometry	75.1	73.7	77.3	77.7	72.6	62.3	79.9
Algebra II	61.7	59.8	63.7	64.6	55.6	48.3	70.1
Trigonometry	8.9	8.2	9.7	10.0	4.8	6.6	11.7
Biology	92.7	91.4	94.1	93.7	92.8	86.5	92.9
Chemistry	60.4	60.4	63.5	63.2	54.6	46.1	72.4
Physics	28.5	31.7	26.2	30.7	21.4	18.9	46.4

Source: National Center for Education Statistics, *Digest of Education Statistics 2000*, table 140, NCES 2001-034, Washington, D.C. Department of Education, Office of Educational Research and Improvement, 2001.

Table 5 - Percentage of High School Graduates Completing Subject

- Parents always want their children to have a better quality of life and be better off financially than they were. The way to do this is to go to college.
- President Bill Clinton is alleged to have said that "What you earn is the result of what you learn" in his effort to convince the public of the necessity of attending college.
- The second industrial revolution, i.e., the shift from manufacturing to services, along with productivity improvements and automation dramatically changed the jobs and skill mix in the economy. More and more workers are becoming knowledge workers rather than producing tangible objects. A college degree is normally a prerequisite for knowledge work. These workers provide services to clients on a face to face basis.

It is not enough to consider college attendance rate. Graduation rates are also important. Table 6 – presents four year graduation rates by race and sex for two recent cohorts at public universities. For all races, women have a higher graduation rate. Many students are working part-time today to help defray the cost of college. These students are taking longer, many require six years to graduate. Less than a third of students attending a public two-year college graduate in two years.

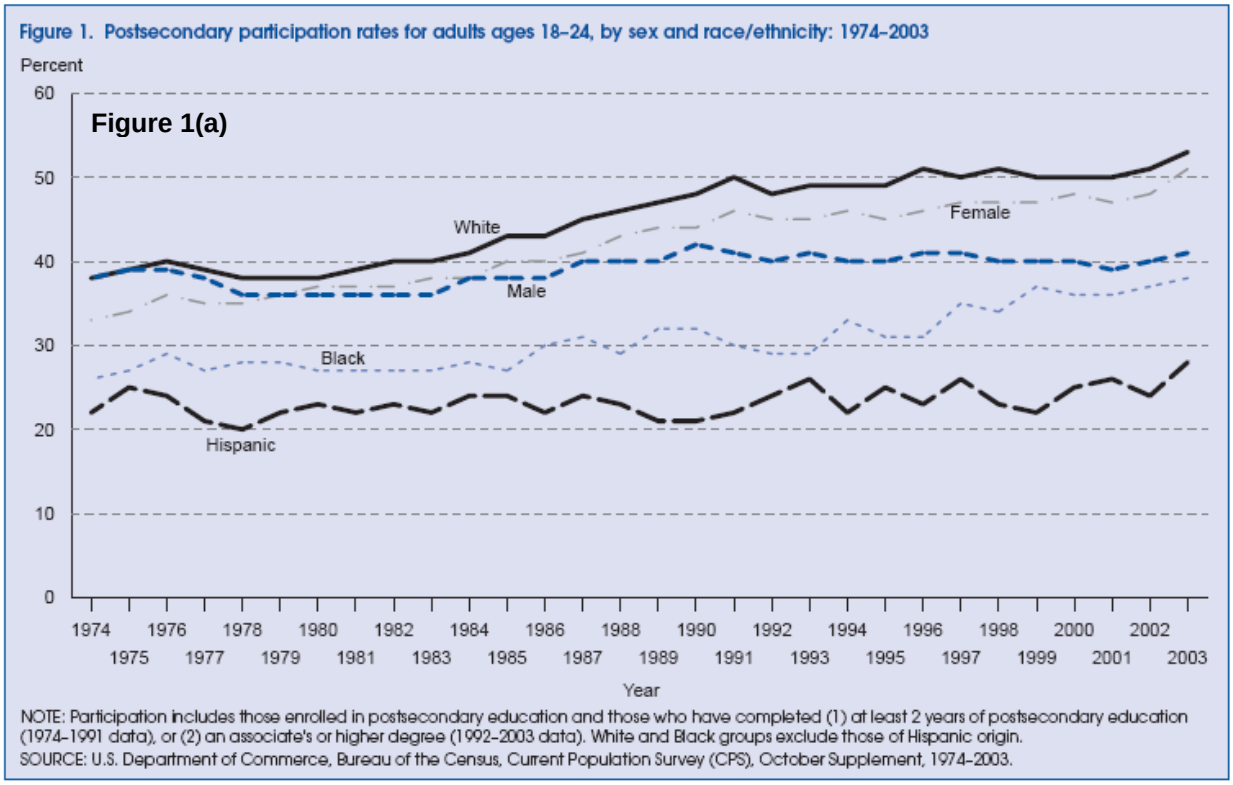
Race	College Graduation Rates – 4 Year (%)	
	Gender	
	Female	Male
Caucasian	57.5	51.3
African American	41.6	37.3
Hispanic	44.8	35.7
Asian	65.3	56.9

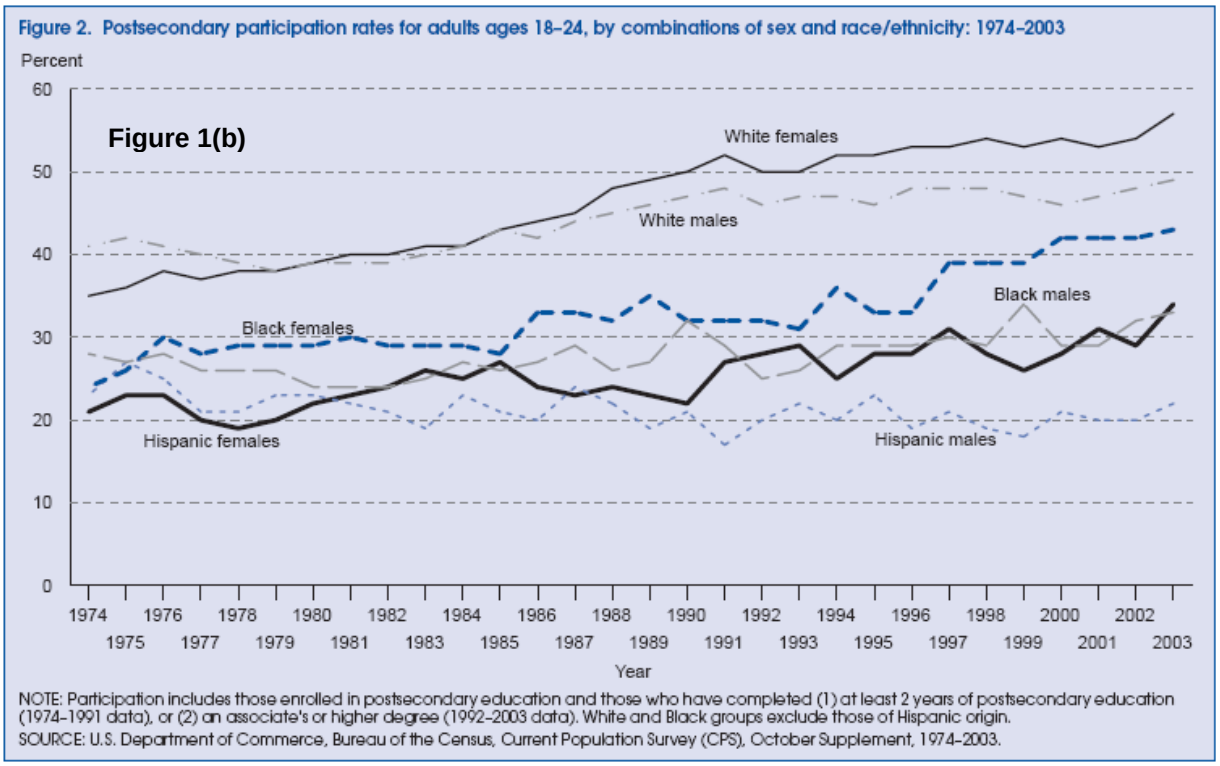
Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Spring, 2005.

Table 6 - Four Year College Graduation Rates

Possession of a college degree does not guarantee stable employment or employment that makes use of the subject matter studied in college. The world is in the midst of the third industrial revolution as it moves forward in the digital age. With increasing rapidity, information technology is eliminating the need for services to be provided face to face. Satellite technology now allows:

- X-rays to be read thousands of miles from the site of the x-ray.
- General Electric to design appliances in India using teams of Americans and Indians.
- The Internal Revenue Service to process tax returns in India.

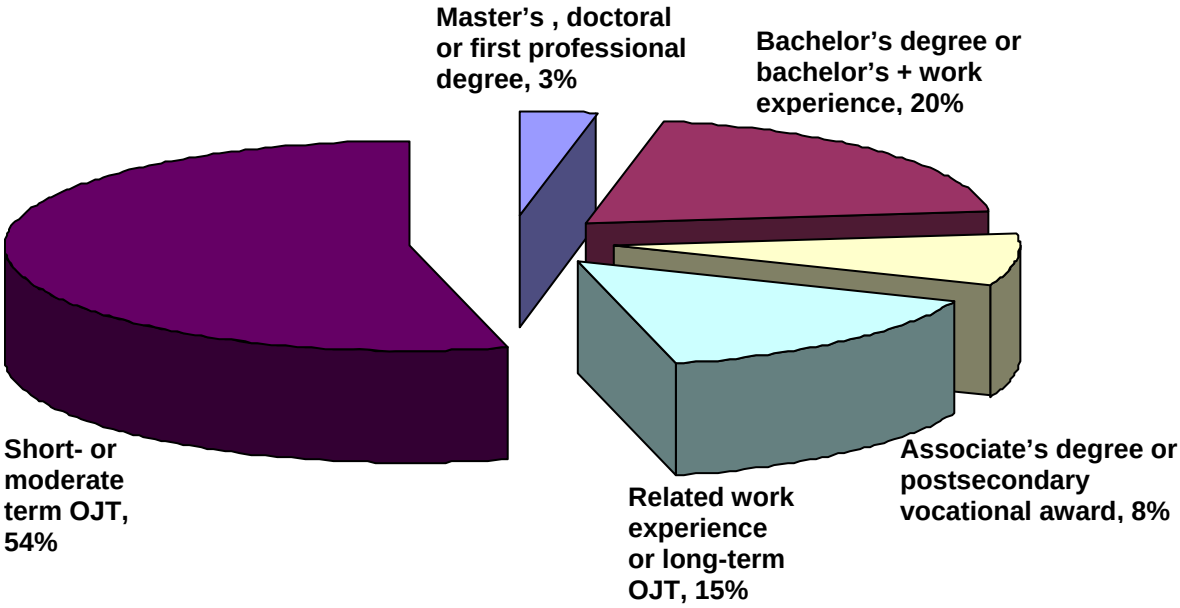




Source of both charts: Institute of Education Sciences, National Center for Education Statistics, U.S. Dept. of Education. Postsecondary Participation Rates by Sex and Race/Ethnicity: 1974-2003.

Figure 1 - Postsecondary Participation Rates by Sex and Race

Consequently, the jobs of college educated workers are being outsourced to countries with lower labor costs. For example, Microsoft has established operations in India where it can pay computer programmers, which typically requires a college degree, $6,000 per year rather than the $60,000 the jobs pay in the United States. Dell Computer has established call centers in India rather than the United States. The result is that a college degree is no longer the guarantee of the good life.



Source: Occupational Outlook Quarterly, Winter 2001-02, p. 12

Figure 2 – U.S. Employment by Education and Training Required, 2000

As seen in Figure 2, only 23% of the jobs in the U.S. economy require a four year college degree. At the same time, college attendance rates have been increasing for the last 50 years. Approximately 50% of Caucasians, 40% of African Americans, and 30% of Hispanic high school graduates are enrolled in postsecondary education.

Perceptions of Construction Employment

At the same time as the American public has an overwhelming belief that college attendance is mandatory if a person is to secure a solid middle class life, the perception of construction craft work is extremely negative. The *Jobs Rated Almanac, Sixth Edition*, rated 250 jobs on the basis of the following criteria:

- Environment
- Income
- Outlook
- Physical demands
- Security
- Stress
- Travel opportunities
- Extras, perks, and amenities

(Environment, Income, Outlook, Physical demands, Security, Stress: Core dimensions)

The Top 3 and Bottom 3 rated jobs were:

Top 3	Bottom 3
1. Biologist	248. Cowboy
2. Actuary	249. Fisherman
3. Financial Planner	250. Lumberjack

Others of interest: 51 – Attorney; 70 – Mechanical Engineer; 175 – President of the United States

Construction jobs were rated as follows:

- Surveyor – 173
- Construction Foreman – 182
- Carpet Installer – 205
- Painter – 215
- Glazier – 216
- Drywall Finisher – 220
- Plasterer – 222
- Equipment Operator – 224
- Bricklayer – 225
- ***Sheet Metal Worker – 227***
- Carpenter – 228
- Roofer – 242
- Laborer – 244
- Ironworker - 247

On the eight dimensions used for rating jobs, sheet metal work is described and evaluated in the *Jobs Rated Almanac* as below. Some of the statements are of questionable accuracy, e.g., "Most sheet metal workers are union members."

- Environment – rank 210
  - Duties – Constructs, installs, and maintains sheet metal products for home, commercial, and industrial use.
  - Sheet metal workers are employed by construction contractors primarily those specializing in roofing, heating and air-conditioning, and by general contractors engaged in residential, commercial, and industrial construction. These workers follow blueprints or other instructions and cut, bend, and fasten pieces of sheet metal to construct ducts, roofs, gutters, kitchen counters, and other common products, which are then installed at construction sites. Often, sheet metal workers operate computerized metal working equipment, in addition to using saws, shears, presses, hammers, drills, and measures. This work entails a good deal of bending, lifting, and standing, often in awkward positions or at great heights. Workers may suffer injury from falls, or cuts from tools, machinery, and sharp metal edges. Sheet metal workers normally wear gloves and eye protection. Members of this profession work closely with other construction trade workers.
  - The following categories were used for the physical work environment:
    - The "necessary energy" component
    - Physical demands (crawling, stooping, bending, etc.)
    - Work conditions (toxic fumes, noise, etc.)
    - Physical environment extremes (treated as negative scores)
    - Stamina required
    - Degree of confinement
  - The following categories were used to asses the emotional environment:
    - Degree of competitiveness
    - Degree of hazards personally faced
    - Degree of peril faced by others
    - Degree of public contact
- Income – rank 152
  - Starting: $29,000; Mid-level: $37,000; Top: $60,000. Growth potential – 200%
  - Most sheet metal workers are union members. Since the availability of jobs in this occupation is tied to the volume of new construction, union assistance to sheet metal workers is helpful under certain economic conditions. When construction slows, and unemployment rises accordingly, sheet metal workers can draw a stipend from the union. Apprentice sheet metal workers start at about 40 percent of the wages paid to experienced workers. Wages in this occupation increase regularity with seniority.

- Outlook – rank 143;
    - Job growth 23%
    - Promotion Opportunities: Seasoned sheet metal workers often assume supervisory positions or establish their own contracting business.
    - Opportunities in this field will increase steadily through the next decade, with most openings arising from the departure of current workers. Although overall employment will rise, sheet metal workers may be subject to long layoffs during periods of economic sluggishness. Seasonal unemployment of sheet metal fabricators and installers, however, will be substantially less severe than in other construction trades.
- Physical demands – rank 233
    - Basic day – 8.5 hours
    - Sheet metal workers normally work indoors, but spend some time outdoors at construction sites. These workers are required to lift, carry, bend, stoop, reach, and climb. Members of this trade often have to work in uncomfortable positions for extended periods. The safe operation of tools and equipment in this line of work calls for good vision and manual dexterity. The construction site is a noisy work environment. Sheet metal workers face the risk of injuries, including burns and cuts, while on the job. Stamina and strength are required in this occupation.
- Security – rank 224
    - Job Growth 23%
    - Unemployment: Very High

Sheet metal work offers good geographic flexibility. The number of job opportunities in this trade is expected to rise steadily through the next decade, though unforeseen downswings in the construction industry could alter the employment for workers in this occupation. Sheet metal workers face potential injury from the dangerous power tools they must use. The construction site is a hazardous work environment.

- Stress – rank 160
    - Hours per Day: 8.5
    - Average work week: 43.66
    - Time pressure: Low/Moderate
    - Competition: Low
    - Sheet metal workers use a variety of potentially hazardous equipment, such as chain saws, presses, and power tools. They sometimes work high above the ground on ladders and scaffold and must remain alert to avoid injury. Precision is required for building and installing sheet metal. Completing projects on time can also cause stress for sheet metal workers.

Sheet metal worker was not rated for travel opportunities and extras, perks, and amenities.

The perceptions of these raters are that sheet metal work is not a relatively attractive or desirable job given opportunities in the economy today.

The Situation - History

Historically, the construction industry in the United States has been a bastion of white males organized into building and construction trades unions that operated with extremely exclusionary membership practices. Membership was restricted to relatives and friends, who, in many instances, were members of the same ethnic group. As a consequence, trades in many areas became associated with particular ethnic groups, e.g., bricklayers in Philadelphia were Irish. The unions controlled the industry's training and labor supply and, until the 1950s, there was no alternative to the unions. Because there was no legal prohibition against it, the unions practiced racial and sexual discrimination [The racial group impacted the most was African American because it was, by far, the largest non-white group in the country until the latter part of the 1900s].

The legal environment began to change in the 1960s as the civil rights movement gained momentum. President John Kennedy, in March, 1961, issued Executive Order 10925, which prohibited federal contractors from discriminating on the basis of race. The order required not only that federal contractors pledge nondiscrimination, but that they also "take affirmative action to ensure" equal opportunity. Violators were subject to sanctions including suspension of contracts.

On July 2, 1964, Congress passed, and President Johnson signed, the 1964 Civil Rights Act, the most far-reaching civil rights legislation in the country's history. Title VII, prohibits employment discrimination based on race, sex, color, religion and national origin. It applies to private employers and labor unions and prohibits discrimination in recruitment, hiring, wages, assignment, promotions, benefits, discipline, discharge, layoffs and almost every aspect of employment. Sex was not initially included in the legislation, but was added by southern senators in an effort to derail the passage of the legislation in a belief that the Senate would never agree to prohibit discrimination based on sex.

President Lyndon Johnson, in September, 1965, issued Executive Order 11246. The order required federal contractors not to discriminate and to "take affirmative action to ensure that applicants are employed and that employees are treated during employment, without regard to their race, creed, color, or national origin." A prohibition against sexual discrimination was added in 1967. The order did not specify what would constitute affirmative action and did not apply to private sector firms not doing business with the federal government. The Office of Federal Contract Compliance was created to enforce the order.

In a speech on civil rights, President Kennedy first used the term "affirmative action" in the context of doing something positive to end racial discrimination. Thus, it is not sufficient to eliminate policies that foster racial discrimination; it is necessary to publicize the new policies and recruit applicants negatively affected by the old policies. This was a view shared with many who believed that employment policies should be color-blind. By removing the barriers, racial minorities could compete on the same basis as other groups. This would be true in an ideal world. However, years of discrimination in housing, education, and employment created inequalities that put minorities at a significant disadvantage.

After a series of civil rights protests in major cities over racism in construction and the urban riots of the mid-1960s, President Johnson concluded that color-blind policies were not sufficient to bring about the integration of the building trades unions in an expeditious manner. He believed that affirmative action should be a process of using race- (or gender-) conscious actions on behalf of a group to reverse race- or gender-conscious actions that had been taken against members of the group. Thus, the impacts of negative actions in the past can only be neutralized by positive actions in the present in order to provide a color-blind society utilizing neutral actions in the future.

Johnson tried to use the Housing and Urban Development Department's Model Cities program as a vehicle to increase black employment in construction. The Department of Labor developed a paradigm best known as the Philadelphia Plan that required construction unions in that city to hire a specified minimum number of African American employees or, in other words, a quota. In November, 1968, the General Accounting Office declared the Philadelphia Plan illegal and the Johnson administration dropped it without implementing it.

Upon taking office in 1969, President Nixon resurrected the Philadelphia Plan and pushed it through to approval. This led to the development and administration of local plans based on the idea of goals and timetables that reflected the demographics of the local area. The New Philadelphia Plan set percentages for minority hiring with which contractors would be required to make a "good faith" effort to comply. The plan was highly controversial. The Office of Federal Contract Compliance Programs (OFCCP) coordinated these equal opportunity efforts and helped to improve their management.

Because of the skilled nature of the trades and the poor educational background of most of the minority applicants, federal funds were provided to establish Labor Education Advancement Programs (LEAP) that provided remedial education, training in life skills, and a pre-apprenticeship program to give applicants knowledge of construction and work processes and fundamentals of tool usage. These programs were successful in opening the doors of the trades to minorities. However, because of the societal belief that construction was men's work, women were not included.

In 1978, President Jimmy Carter amended Executive Order 11246, which requires affirmative action in federal procurement, to include specific goals and timetables for the inclusion of women and minorities in the construction of federally funded facilities. Goals for minorities were to be determined using the percentages of the local workforce represented by minorities. Because of the extremely low numbers of women in the trades, a national goal of 3.1% rising to 6.9% was established. The actual rate at the time was 2%. Progress and compliance were to be assessed by the Office of Federal Contract Compliance Programs (OFCCP).

The Department of Labor's Bureau of Apprenticeship and Training (BAT) established affirmative action requirements for the apprenticeship programs that it certifies as well as for those certified by state apprenticeship councils. For women, the goal was set as 50% of the female labor force participation rate within a local area. Thus, the goal ranged from 20% to 25% depending upon the area.

The Comprehensive Training and Employment Act enacted in 1973, together with the growth of tradeswomen advocacy organizations, established female pre-apprenticeship programs patterned after the LEAP programs of the early 1970s.

The goals and timetables of affirmative action began to be seen as reverse discrimination and quotas because they were perceived as favoring minorities over Caucasians. A series of lawsuits resulted in judges significantly constraining the use of affirmative action programs. In the past twenty-five years, the use of affirmative action has been greatly reduced.

The Results

The 2002 gender and racial composition of selected construction occupations is shown in Table 7. Women, African Americans and Asians are significantly underrepresented while Hispanics or Latinos are overrepresented. Minority men have entered the construction trades with much less difficulty than white and minority females because of a long-held societal belief that construction is men's work. Minority females have experienced the greatest difficulty in breaking into the trades because the need to overcome both gender- and racial- based discrimination.

By 2003, women represented only 2.5% of the construction skilled workforce (Eisenberg and Mastracci, 2003). Given the federal actions identified above, what explains this almost complete lack of progress? To understand the reasons causing the lack of progress, it is necessary to examine the legal environment within which the industry functions as well as the industry itself.

Construction Occupations	Percent of Total			
	Women	Black or African American	Asian	Hispanic or Latino
First line supervision/manager	2.9	5.2	0.7	12.6
Brick masons, block masons, stonemasons	0.9	8.7	0.6	33.7
Carpenters	1.9	4.8	1.1	24.4
Carpet, floor, tile installers and finishers	2.3	4.5	1.4	40.0
Cement masons, concrete finishers, terrazzo workers	1.7	7.5	0.4	54.4
Construction laborers	3.5	10.5	1.2	40.5
Operating engineers and other construction equipment operators	2.7	6.2	1.1	10.1
Drywall installers, ceiling installers, and tapers	0.8	3.2	1.1	46.8
Electricians	2.6	8.1	1.7	15.1
Painters, construction and maintenance	7.5	7.4	1.8	35.0
Pipelayers, plumbers, pipefitters, and steamfitters	1.2	8.9	0.4	18.1
Roofers	2.4	7.2	0.7	42.0
Sheet metal workers	3.6	3.5	2.4	17.2
Structural iron and steel workers	1.6	2.2	5.7	7.9
Helpers, construction trades	3.2	8.9	0.9	38.6
U.S. Population	50.9	12.0	4.0	13.5

2005 Current Population Survey, U.S. Department of Labor, Bureau of Labor Statistics – Year 2002

Table 7 - Employed Persons by Selected Construction Occupation, Sex, and Race

The primary reason is the lack of institutional will on the part of government and the industry itself. With the election of Ronald Reagan, the philosophy of government changed to one of distrust of government, believing it to be too large and intrusive. The administration's approach was not to repeal legislation, but to slash the budget to prevent agencies from pursuing their missions. Discussions with former government officials indicated that succeeding administrations have followed this approach with the result that the EEOC, OFCCP, and the Department of Justice's Civil Rights Division are unable to aggressively pursue the integration of women into the construction industry. At the same time, thinking in the country has shifted from pro affirmative action to government remaining neutral. A series of reverse discrimination lawsuits has led the Federal courts to exercise strict scrutiny to ensure that any affirmative action requirement is tailored narrowly to benefit only the individuals harmed by discrimination. States such as California have utilized ballot initiatives to greatly restrict the use of affirmative action.

Historically, the construction industry has been predominantly male. Construction jobs were considered male jobs. Even when women have demonstrated an interest and capability in performing construction jobs such as during wartime, they were forced to give up the jobs to the men returning from war. As said earlier, construction is an industry of men, by men and for men. There is a belief that to be a construction worker, you must be a macho man to be able to do the outside, heavy, and dangerous work that requires great skill with tools. Any intrusion by women is a threat to that image and, consequently the ego of construction workers. The industry has fought any effort to integrate women.

For a truly enlightening look at the life of women attempting to integrate the trades, the reader is directed to three works in which women presented their own stories in all the vivid and graphic detail that would be lost in surveys: *We'll Call You If We Need* You by Susan Eisenberg, *Hard-Hatted Women – Life on the Job*, by Molly Martin, and *Alone in a Crowd – Women in the Trades Tell Their Stories* by Jean Ruth Schroedel. A summary of the reasons advanced in these books for the lack of women in the construction trades today include:

- Discrimination in hiring – Many women assert that contractors simply will not hire them either because of a belief that women are unable to do the work or because of a fear of negative reactions from the contractors' male employees resulting in turmoil on the site.
- Hiring women only in response to outside requirements, e.g., government affirmative action requirements. Women are hired and placed on government jobs and laid off when no longer needed to meet government requirements.
- Discrimination in training – For women, apprenticeship is the primary pathway into the trades. These programs typically require 160 hours of classroom instruction and 2000 hours of on-the-job (OJT) training each year of the program. The OJT is divided into hours by subject area to allow the development of skills taught in the classroom. Many women allege that they are not provided with the full spectrum of training in the apprenticeship program. Instead, they are assigned to work that is menial, boring, and having little potential for skill development. This results in a potential mismatch between the skills required to perform the available work and the skills possessed by the available women.
- Lack of a job – The lack of a job, whether it be a result of a business downturn or discrimination in hiring and/or training is a serious matter for any worker. Many of the women who have tried to enter the trades are single mothers, with serious financial obligations. They typically lack the financial cushion to ride out an extended period of unemployment. They may be forced to leave the industry to support their family.
- Although there are exceptions, many apprenticeship programs have adopted a passive approach to recruit women and have exhibited little commitment to it. Why go after females when you can get enough males to fill the available slots? A lot of people want jobs; we'll wait for them to knock on the door.
- Sexual harassment - Sexual harassment violates laws prohibiting sex discrimination in employment. As amended, Title VII of the 1964 Civil Rights Act established that unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitutes sexual harassment when:
  1. submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment;
  2. submission to, or rejection of, such conduct by an individual is used as the basis for employment decisions affecting such individual; or
  3. such conduct has the purpose or effect of unreasonably interfering with an individual's work performance or creating an intimidating, hostile, or offensive work environment.

  Construction workers, in general, are perceived to be sexist and racist. There is a great deal of history to support this perception. The sexual harassment of female workers is a major impediment to attracting and retaining highly qualified women as craft workers. Some women have survived by putting up with the harassment until they qualify as journey workers and then moving on to jobs such as electrical inspectors that do not require them to work with male construction workers. These are government jobs that have better protection against sexual harassment.

  Many construction sites satisfy criterion 3 above as an intimidating, hostile, or offensive work environment. Upon entering a site, women may be subjected to taunts and requests for sexual favors, find crude sexual objects left in their tools, pornographic pictures posted around the job site, and physical assault including groping, unwanted touching, and assault. Harassment appears to be perceived as a means of driving women off the sites. A recent survey of female journey workers and apprentices in California determined that 57% of the women had been sexually harassed during the past year (California Apprentice Council, 2004). Is it any wonder why many women do not want to subject themselves to life on a construction site? Many female apprentices see leaving the industry as their only option if they are to retain their dignity.

In 2005, the skilled trades are only 2.5% female, essentially unchanged in twenty-seven years.

In the 19802, recessionary economic conditions combined with the Business Roundtable companies' shifting their procurement to open shop firms resulted in significant downward pressure on wages and

benefits in the industry. Consequently, construction industry wages stagnated while those in other industries did not. Construction craft work became less attractive economically and when coupled with the employment practices and working conditions made construction work less desirable. The shift from union to open shop dominance also resulted in a dramatic decrease in the training being performed in the industry, which seriously negatively impacted the movement of women into the industry.

Where does the construction industry stand in early 2006?

- There is a shortage of skilled workers in all categories within the industry.
- There is a significant need over the next 10-15 years for new entrants into the construction labor force.
- The supply of traditional entrants, white males, is declining.
- The supply of African Americans is expected to remain stable while that of Asians and Latinos will increase, particularly for Latinos.
- The ratio of males to females in the workforce is approaching parity.
- The industry is perceived to be less attractive than its alternatives.

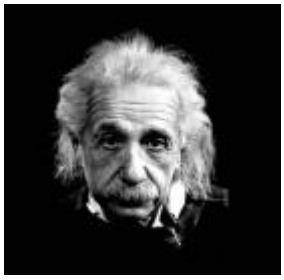
There has been speculation about the existence and extent of a craft shortage for several years. The issue of a skilled craft shortage is at the critical stage for the country. The destruction caused by Hurricanes Katrina and Rita created a major demand for infrastructure construction. The increase in energy prices has generated a need for new oil refineries and power generation facilities. This will include nuclear power as the country finally beings to respond to the global warming crisis and a desire to reduce its dependence on oil.

In summary, the situation is as follows:

- There is likely a strong increase in the demand for skilled construction workers.
- There is a declining supply of people interested in employment in construction.
- The workforce is going to become younger, more female, and more diverse.

CONCLUSION: We cannot continue to do business as usual!

As old Albert said -



Insanity is doing the same thing over and over again and expecting different results!

Figure 3 - Albert Einstein

Model

The pathways to journeylevel status are presented in Figures 4 to 7. The ultimate objective of this model is to provide a skilled, productive journey worker. As seen in the figure, there are several pathways to reach journey worker status.

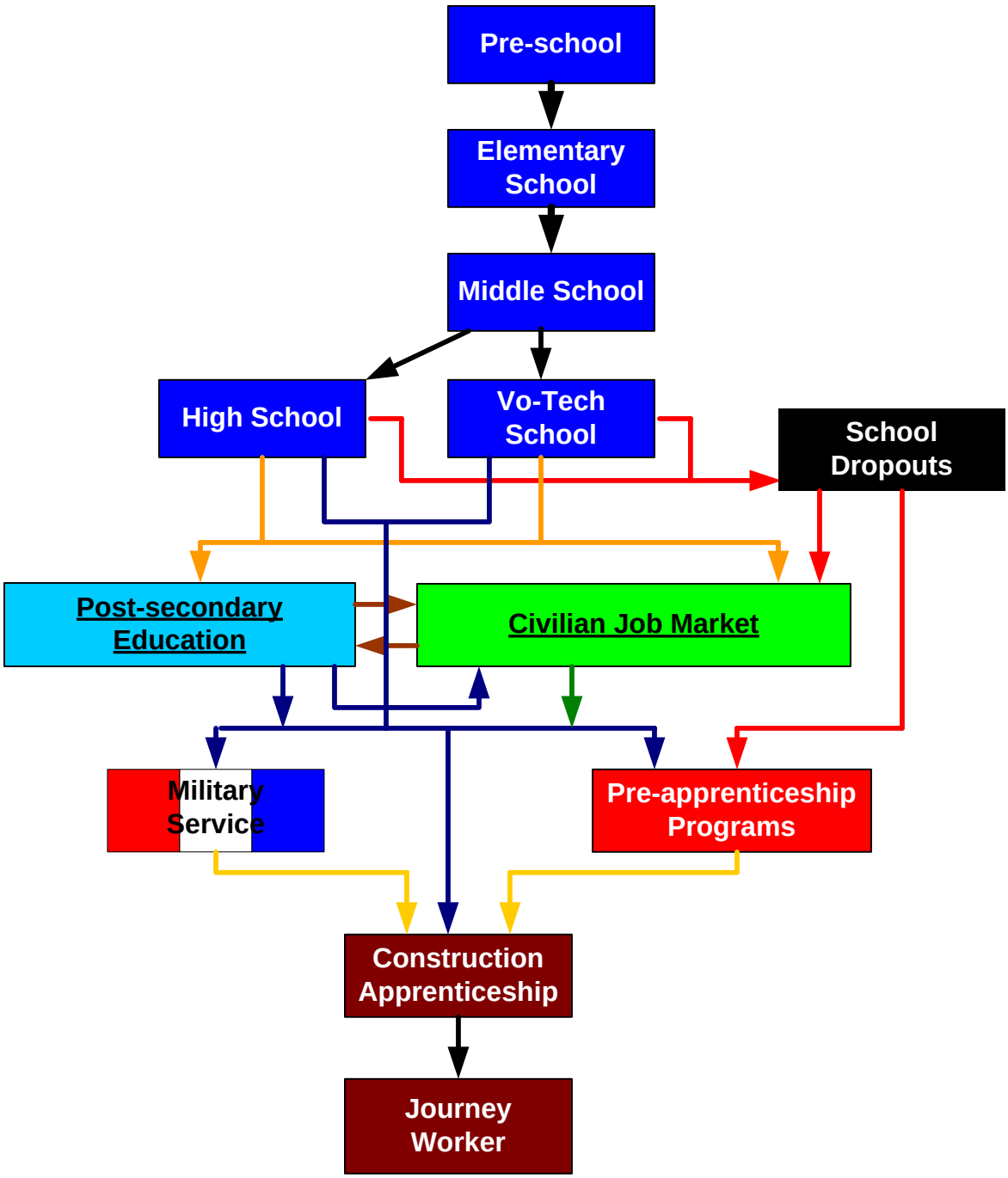


Figure 4 - Integrated Pathways Model

Figure 4 illustrates the various pathways by which an individual can progress through the education system, enter the workforce, and progress to journey worker status. It tends to hide the three distinct pathways that are used.

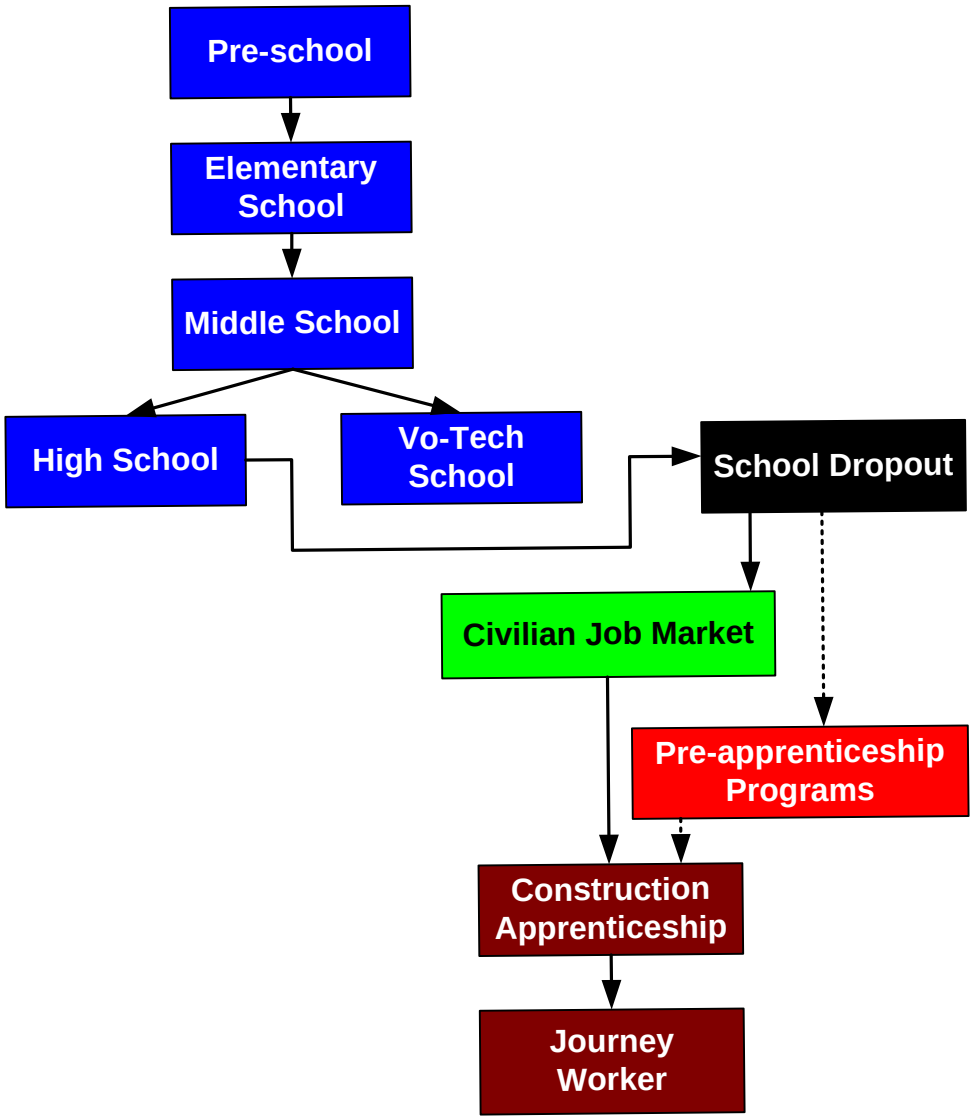


Figure 5 - Pathway #1

Figure 5 illustrates the pathway that has been followed by individuals who drop out of school. Access to apprenticeship is normally only an option once an individual completes a pre-apprenticeship program that requires work on school skills such as math, on work skills such as interviewing, and on life skills such as financial management. These pre-apprenticeship programs are typically run by community organizations that will be discussed later. The jobs that dropouts obtain are often in the secondary labor market, which consists of high-turnover, low pay, and usually part-time and/or temporary jobs. Most of these jobs are filled by ethnic minorities, women, and older laid-off workers. Because many of these jobs are in the fast food industry, the jobs have been termed “McJobs.” The major question about people from this background is whether they possess the work skills and, even more importantly, the appropriate work attitudes and discipline necessary to be successful in the cost-driven construction world. An unknown portion of these workers have had experience with the judicial system that may raise concerns, particularly if felony offenses were involved. Having said that, it is also important to recognize all it takes

for many people is a second chance. A felony conviction may prevent someone from being employed on a particular site, but that person may be a highly productive worker in the shop or on other sites.

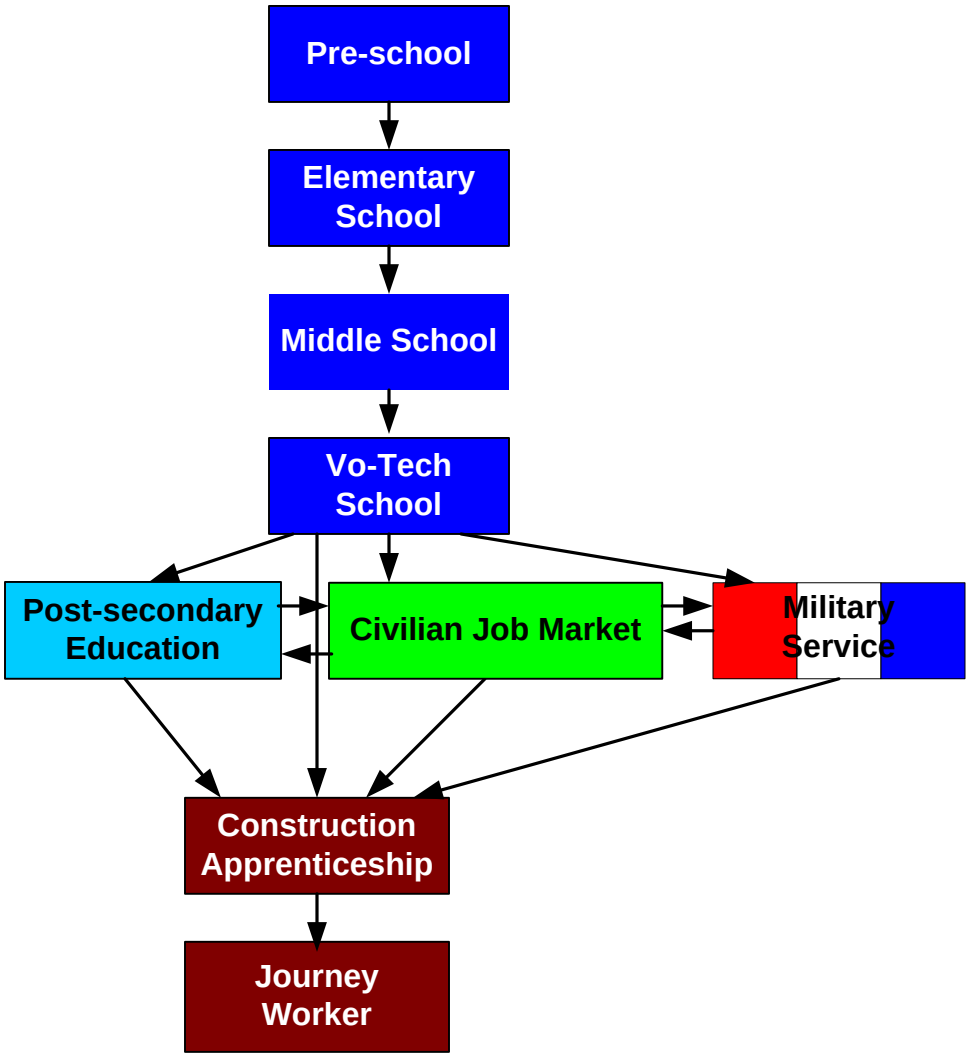


Figure 6 - Pathway #2

Figure 6 illustrates a path into the industry by a graduate of a vocational-technical school whereby the graduate enters the apprenticeship program directly or enters after a period of time pursuing further education, working at a job not related to the craft of the apprenticeship, or serving in the military. SMWIA and SMACNA have made a commitment to working with the Helmets to Hardhats program to provide military veterans with the opportunity to enter an apprenticeship program upon completion of their military service. The program had its successes, but it has also experienced problems: lack of openings in the trades of interest; lack of openings in the geographic areas of interest; and lack of flexibility on the part of the unions in granting credit for prior training and education.

Finally, Figure 7 indicates the paths that may be followed by individuals completing high school within a traditional timeline. The pathways are similar to those for graduates of vocational-technical schools. Pre-apprenticeship programs are included here to reflect the fact that some individuals, including some women, know little about the trades and need a program that will provide them with the basic knowledge and skills necessary to be successful in an apprenticeship program. Successful completion of the pre-apprenticeship program then becomes a prerequisite for admission to the apprenticeship program.

Given the potential pathways to apprenticeship, how should SMWIA and SMACNA use them to develop the workforce the industry needs in the 21st century.

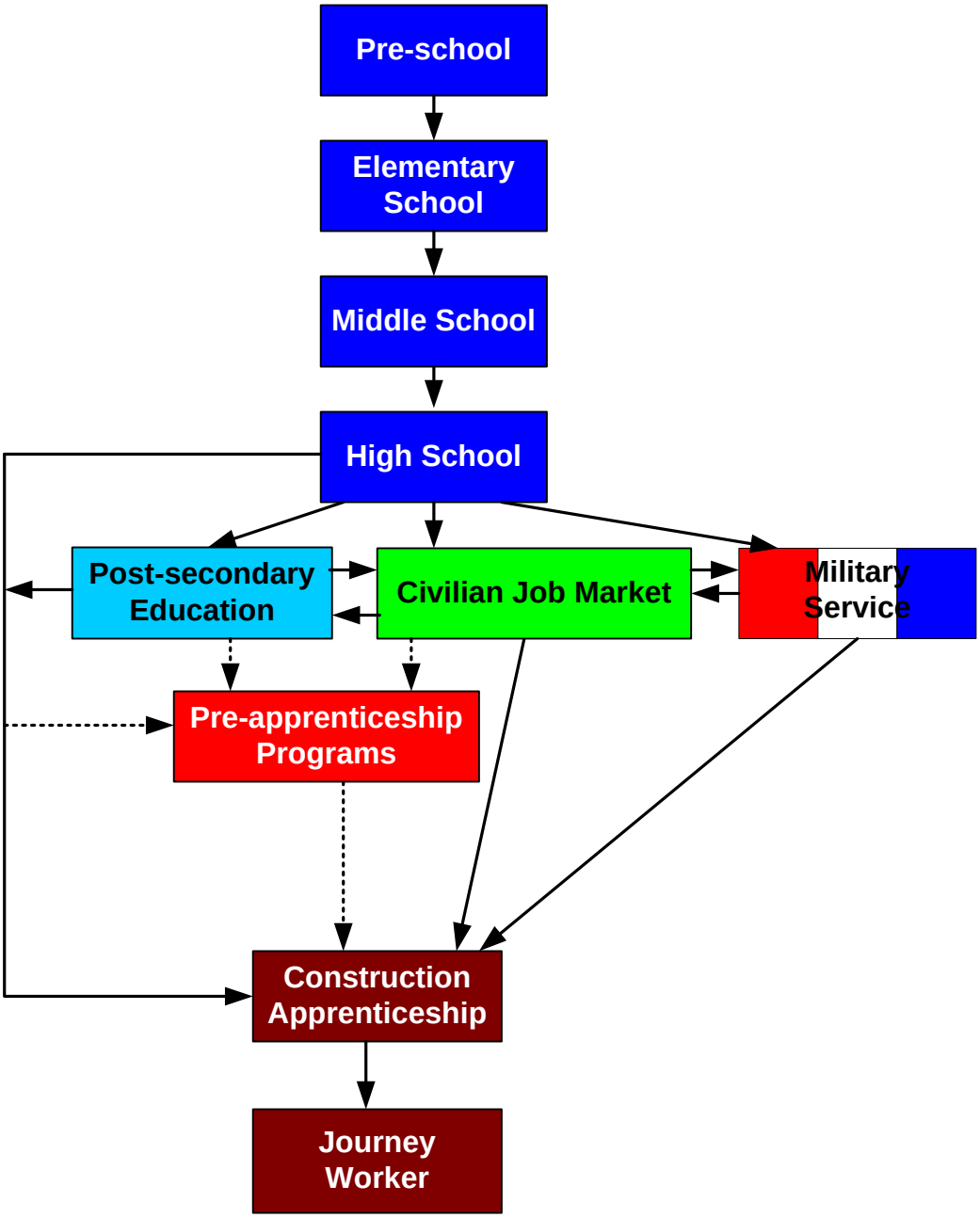


Figure 7 - Pathway #3

Workforce Development Process

The process of developing a workforce to meet both the short-term and long-term needs of the sheet metal industry consists of the six phases identified below and must be continuous. Because of the current lead time necessary to educate and train a journey worker, it is necessary to be looking into the future and begin preparing workers early.

Workforce Development Phase	Stage of Life					
	Preschool	Elementary School	Middle School	High School	Postsecondary School	Adulthood
Awareness						
Familiarization						
Recruitment						
Selection						
Training						
Retention						

Figure 8 - Workforce Development Process

The six phases of the workforce development process are sequential and are applicable to different people at different stages of their lives.

Awareness

The United States in particular and the world in general, have become captives of mass media and its ability to influence public perception. For years, the video media has glorified lawyers, doctors, fire fighters, and police. Today, attention has been focused on security forces in the United States, i.e., the FBI and CIA. These occupations are seen as exciting and sexy. In most TV shows, it appears that no one over the age of 30 is employed. In a recent survey, the top five organizations in terms of employment desirability were Disney, Google, the FBI, the CIA, and the NSA.

Construction and construction workers are rarely portrayed in the media and, if they are, it is not likely in a positive light. How many jokes have been made about bent over plumbers? It is such a widely accepted image that one company (Duluth Trading Company) is marketing a plumber's T-shirt that has an extra long tail.

The general population knows very little about construction and the occupations within it. They may see workers on jobsites, but still know little about what they do. Some occupations are more well-known than others. Ask most of the general public about what a carpenter or an electrician does and they will be able to tell you. On the other hand, ask them what a sheet metal worker or a millwright does and they will have little idea. The lack of industry and occupational knowledge is fostered by the failure of school guidance and career counselors to provide information to students on careers that do not require a college education. One reason for this is that counselors and teachers themselves have very little knowledge of the construction industry. The result is that students and their parents have very little information with which to make decisions for career preparation.

As seen in Figure 4, individuals make career decisions at various points in their lives. The ideal point is during middle school, which allows students to make decisions regarding necessary school coursework that will prepare them for the selected occupation. Individuals waiting until adulthood may be required to undergo significant remedial schooling, the cost of which in terms of both money and time may be prohibitive and, in most cases, born by the individual. Because construction work is physically demanding, it is desirable to have construction workers begin their career as soon as possible after completing high school. Construction is not a career one begins after retiring or having one's job outsourced in midlife. Therefore, it is crucial to begin to make children aware of the industry and its opportunities, whether they desire to be in the trades or in management.

Awareness is the process of creating knowledge of the construction industry, the various crafts within it, and the opportunities presented by it to individuals. It is possible to begin this process with preschoolers and continue through adulthood. Different types of awareness activities are presented later in this report.

The six phases of this process are not necessarily mutually independent. A sheet metal worker participating in an outreach program with high school students may simultaneously be making students aware of the occupation and industry; familiarizing the students with terminology, tools, and processes used in the industry; and conducting early recruiting for the apprenticeship program.

Familiarization

Familiarization is the process of learning about specific occupations, what they do, what they use to do it, how they do it, etc. It involves individuals acquiring a basic knowledge and limited skills about an occupation and career. For example, a person may know that a sheet metal worker bends metal in the process of fabricating a piece of duct, but know nothing about layout, plasma jet cutting machines, and breaks. Familiarization may begin for a boy or girl in Scouts with a project such as the Metalworking merit badge or Project Dollhouse, a joint project of Girls, Inc. and the Home Depot.

Recruitment

Recruitment is the process of identifying individuals with an interest in an occupation and employment context and influencing their decision-making process with regard to occupational choice. Most people are familiar with recruiting as applied to college athletics in which assistant and head colleges spend sometimes years trying to influence a boy to come play basketball for their school rather than some other school. These coaches use techniques ranging from phone calls, emails, letters, and in-home visits to communicate to the boy why their school and football program would be a better choice for the boy than any other program.

Recruitment for careers in sheet metal can begin with students in middle school. Students, in whatever venue, who demonstrate an interest in sheet metal work, can be identified. Information can be gathered from the individuals such as name, address, phone, email address, cell phone number, school, etc. Periodically, the recruiter can contact the student to see how they are doing, to determine if the student has an interest in participating in particular events. Recruitment opportunities also allow the recruiter to inform the student of events, discuss educational choices, and possibly discuss summer job opportunities. A steady recruitment effort over a period of years is preferred over a recruiting blitz toward the end of high school. Any opportunity for a recruiter to meet with a potential sheet metal apprentice is a great opportunity to discuss school and careers. Talking with a ninth grade student about the importance of mathematics and science and how it is used in the craft may encourage the student to take the math and science courses. Face to face communication is critical to establishing a relationship between prospective sheet metal apprentices and the sheet metal recruiter.

Recruitment does not have to be conducted in person, by email, or snail mail. The Millennial Generation, individuals born between 1980 and 2000 is the most technological sophisticated generation in history. Recruitment must involve the Internet and not just sites as Monster.com. Sites that cater more to the Millennial Generation such as SnagAJob.com must be used as well as those that target minority youths and women.

Advertising and recruitment must be undertaken in nontraditional places if the objective is to reach the greatest number of potential applicants from a particular group:

- Ethnic and minority media that are targeted to readers and listeners with particular demographics: newspapers, magazines, radio
- Churches: particularly in the African American and Latino communities
- Cable TV networks that cater to younger and minority viewers.

Selection
Selection is the process of developing criteria that will likely predict success in the occupation and utilizing those criteria to distinguish those who will be likely to succeed. The criteria that are broadly used are:

- High School diploma or GED
- Possess a valid driver's license
- 18 years of age or older
- Pass an aptitude test – typically the Differential Aptitude Test.
- Successful completion of an interview with the local training director, representatives from the union, and representatives from the local contractors' association.

The United States Equal Employment Opportunity Commission requires that all criteria used for the purposes of selection be validated, i.e., that they be shown to predict job performance. There is no universal set of criteria for the trade and there should be. Does a worker need to be able to lift a certain amount of weight from the floor over his/her head? If so, how much? 50 pounds? 75 pounds? 100 pounds? The lack of specific, validated physical criteria has been used in the past to discriminate against certain classes of workers, particularly women. The failure to develop validated criteria for school subjects such as math and science has allowed discrimination against minorities.

All women, just as all men, do not want to become sheet metal workers. Those that do want a fair opportunity to do so. They do not want to be rejected on the basis of an arbitrarily set criterion.

Training
Training is the process of developing the knowledge and skills necessary be considered skilled and is done through a combination of classroom instruction and on-the-job training under the direction of journey workers. Today, training for sheet metal workers is conducted through an apprenticeship program approved by the Office of Assessment and Training (OAT), a unit of the U.S. Department of Labor. The OAT may delegate this certification process to state apprenticeship councils.

Apprenticeship is a 4 to 5 year program consisting of 168 hours of classroom instruction and 2000 hours of on-the-job training per year under the guidance of journey workers. Pay begins at approximately 40% of the journey worker's rate and is increased at six month increments.

There is a considerable amount of discussion about the need for an apprenticeship to require the time it currently takes. There is also discussion about whether the program should be craft or skill based or skill versus time based.

<u>International Training Institute</u>
The International Training Institute is in the process of revising the sheet metal apprenticeship program. The program is designed with a core and elective modules. A CORE curriculum consisting of Math, Drafting (including CAD), Fabrication Skills, Installation Skills, Reading Blueprints, Knowledge of Materials and Tools, and Safety Resources and Procedures is required of all students in the program. The CORE provides the foundation and the basic knowledge and skills of every professional in the sheet metal industry. The programs are taught at state-of-the-art training centers throughout the country.

After completing the CORE, students will be asked to select from one or more specialty areas:

- HVAC Commercial
- HVAC Residential
- HVAC Service Work
- Architectural Sheet Metal
- Welding/Industrial Sheet Metal
- Detailing and Drafting
- Testing and Balancing

The CORE curriculum is designed to be completed in two years. One elective area will be selected and will constitute the remainder of the apprenticeship. Upon completing the apprenticeship, a journeylevel worker may undertake one or more of the elective areas under a journeylevel upgrade program.

There has been discussion about incorporating self-paced elements into the apprenticeship, but as of yet, nothing has been resolved.

Retention

Retention is the process of influencing an individual's perceptions of the work, work environment, and employment opportunities so that he/she remains with the organization. People leave an occupation for a variety of reasons. Among these are:

- Lack of employment opportunities
- Being forced to work under unsafe conditions
- Unfair treatment
- Sexual harassment
- Physical condition
- Childcare difficulty

It does an industry little good to attract bright, qualified individuals into its training program and then lose them shortly after completion of the training There will always be voluntary attrition such as relocation to take advantage of better opportunities, retirement, and starting one's own business. It is those losses that occur because of discrimination in referrals, training, and other aspects of employment that are unacceptable.

Outreach

For years, all a local union had to do to obtain a sufficient number of qualified applicants was to place a notice in the local newspaper that applications were to be accepted until a specified date along with the details of how to submit the application. For the most part, that is no longer the case because, among other things:

- There are many more occupations from which to choose
- There is a lack of awareness and knowledge of the sheet metal trade
- There is a societal bias against blue collar work and in favor of college attendance
- Newspaper readership, especially among younger individuals is down dramatically

The sentiment expressed in the movie Field of Dreams of "Build it and they will come" is no longer viable, if indeed it ever was. Today, the identification of sufficient numbers of qualified individuals requires unions and contractors to get out of their offices into the community.

Figure 9 - JATC Outreach & Recruitment

Although there are significant differences between joint labor-management apprenticeship training programs as a result of size, resources, and demand, it is reasonable to say that the job of training director or apprentice coordinator is a fulltime job, if it is to be done well. Therefore, it is necessary to have a person responsible for outreach or, as shown in Figure 9 above, the interaction with educational, community, and other organizations through which awareness, familiarization, and recruitment can take place. While performing these functions, the Director of Outreach and Recruitment can identify

individuals with an interest in sheet metal work and other construction trades. The objectives of the outreach program must be to:

- Spread awareness of the sheet metal industry, occupations, and careers
- Identify boys, girls, young men, and young women who have the interest and motivation to become sheet metal workers
- Impress upon kids the importance of math and science in school
- *Track these people!*
- *Get them into the trade*

The remainder of the report consists of two parts: (1) a set of recommendations that will facilitate the workforce development process in the sheet metal industry and (2) a series of appendices that identify resources that may be used. The appendices are to be considered illustrative and not inclusive. They are to be examples for labor and management to use in the development of their own program.

A Cautionary Note –

Before proceeding to our recommendations, the following are some basic issues that must be examined:

- The education community is engaged in a great deal of discussion today about the validity of educational assessment. The volume of this discussion has been increased by the No Child Left Behind Act or, as many teachers derisively call it, the No Teacher Left Standing Act. A major point in the discussion is whether students actually learn material that can be used in their real life jobs or whether they simply learn material that will be on the standardized test. Another issue in the discussion is that of long-term skill retention. The question becomes "What is the actual level of skill possessed by a person with a high school diploma that is based upon successful completion of a series of standardized tests?"
- A GED in lieu of a high school diploma is acceptable to many JATCs. Several years ago, the U.S. Department of Defense implemented a policy that a GED would not serve as an equivalent for a high school diploma. An inability to recruit sufficient numbers of troops resulted in a reversal of the policy. The initial concern is still valid. What is the actual level of skills possessed by an individual completing a GED? A particular concern is with math skills.
- There is sufficient doubt associated with the high school diploma and the GED to question their usefulness in determining the level of skills possessed by an individual. In a recent survey of training needs in an area, basic math, including fractions, was identified as a significant need by contractors and craft workers. The participants in the survey were already working in the industry and expressed a need for math training.

A discussion of the skills possessed by an individual is not complete without a consideration of the skills required by the task to be performed by that individual. In any job situation, the individual brings certain skills and abilities with him/her to the work. Similarly, the work requires certain skills and abilities that tend to be expressed in terms of job requirements. There are three potential outcomes for this situation:

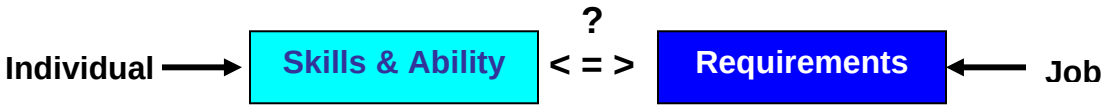


Figure 10 – Skills and Ability vs. Requirements

1. If the job's requirements are equal to the worker's capabilities, there is a good match with the result that the worker is productive, comes to work, and is satisfied with the work.
2. If the job's requirements are less than the skills of the worker, the individual will end up overmatched with the likely result that after a period of absenteeism, tardiness, and declining productivity, the worker will leave to search for a job more compatible with his skills and abilities.
3. If the job's requirements are greater than the skills of the worker, the same situation will prevail and the worker will eventually leave.

Thus, the goal must be to assign people to jobs in a way that provides the best match between the skills and abilities of the worker and the requirements of the job.

Implication

Interview after interview with contractors and supervisors in all parts of the construction industry reveal that the most difficult characteristic to find in an applicant today is that of a work ethic. There is a common belief that the Millennial Generation is characterized by a low work ethic. Many contractors have expressed the belief that the best approach to developing new workers is to identify people with strong work ethics and, if necessary, train them in any missing skills. This would be achieved by having all apprentice applicants take a placement test, which would be used to determine competency and additional training required, if any. To do this requires an accurate understanding of the skills required by a job as it is performed today with today's technology. Computerized layout and cutting machines have

changed the way sheet metal work is done. In doing so, it has reduced or eliminated the need for some skills while creating or increasing the need for others. In addition, the worker must be trainable.

Workforce Development Process Recommendations

General

1. ***Contractors must stop abdicating their responsibilities in the workforce development process to the local union.*** The quality of a firm's workforce is a key to its success. Contractors must take an active role in all phases of the workforce development process. The employers know the characteristics of the people they want working for them and, as such, should be involved in the process of obtaining and developing them. After all, it is a ***Joint*** Apprenticeship and Training Committee.

2. ***Establish a mechanism for removing unprofessional and unproductive workers from the membership rolls to free up available hours for the hardworking professionals in the union and create opportunities for new members.*** In the video "Live Up to the Promise," Michael J. Sullivan, general president of the SMWIA, recognized that 90% of the membership produces a fair day's work for a fair day's pay, but that is not good enough. If a customer sees 1 or 2 workers not carrying their share of the load, that is who will be remembered. The customer's perception is the union's reality. One or two workers slacking off means all of the workers are slacking off. Coworkers can no longer standby and let customer perceptions be determined by the slackers. The slackers are costing SMACNA contractors and SMWIA members work. Their attitudes are highly corrosive and have a negative impact on other members. If this group of members cannot change their attitudes and behavior, a mechanism must be developed to remove them from the rolls. The members of the SMWIA are in this together. President Sullivan said "If we let a small number of fellow workers bring us all down, then shame on us." This could be a procedure such that a member rejected by three contractors in a specified period of time be brought up on charges of conduct detrimental to the union and voted out of the union. For this to work, contractors must be honest and spell out the reasons for termination. The small minority cannot be allowed to destroy employment opportunities for the productive majority. Local union officials must likewise refrain from the temptation to simply re-shuffle unprofessional or unproductive workers from employer to employer.

3. ***Establish a formal five (5) year apprenticeship with the first year designated as a probationary period.*** Admission to an apprentice program is typically based on paper applications, test scores, and interviews. There is little in the way of an applicant's work performance taken into account in making the decision to accept an applicant into an apprenticeship program because most applicants lack relevant work experience. A one year probationary period will allow an in-depth assessment to be made of the first year apprentice in terms of work ethic, integrity, character, and potential to become an excellent sheet metal worker, all of which would be consistent with the goal of SMWIA/SMACNA craftsmen as top-quality craftsmen. During the first-year probationary period, the apprentice would be subject to employment at will, i.e., a contractor would not need reasons to let the apprentice go. In addition, the apprentice could be dropped from the program at will.

4. ***Redesign the apprenticeship program to reflect time served and proficiency.*** There is a significant difference in the time in which people acquire proficiency in a set of tasks and in the actual proficiency attained. A minimum proficiency level should be established for a specified set of skills. A minimum number of classroom and on-the-job hours should be established for the acquisition of that set of skills. Once the classroom training and the minimum number of on-the-job hours has been completed, the apprentice can undergo a proficiency test. If the hours served meets the minimum and the test is completed successfully, the apprentice is promoted to the next level. If the apprentice reaches the maximum number of hours allowed without passing the proficiency test, the apprentice will be required to undergo a period of remedial classroom instruction and work. Upon completion of the remedial work, a second proficiency test will be administered. Failure of the second proficiency test will result in the worker being dropped from the union. If, after a period of time, the worker desires a third attempt at the exam, the worker must document that he/she has undergone additional training at their own expense before being allowed to retake the exam. Failure of the third attempt is final; the worker will not be given another chance.

Apprentices typically work approximately 650-750 hours in each six month period. Strict adherence to the 1,000 hours per six months of the apprenticeship program will require an additional 2-3 months of on the job performance to complete the requirement.

5. ***Create the position of Director of Outreach and Recruitment***. This should be a fulltime position held by a professional with training and experience in human resource management and workforce development. It is important that the individual be available most times, but especially during school hours. The Director should be employed directly by the JATC rather than by the union or contractors' association. The need for this position is a function of the size of the local union and the number of apprentices it wishes to train. In any decent size local union, the Training Director or Apprentice Coordinator has a fulltime position and cannot devote the time necessary to cultivate prospective apprentices.

6. ***Establish an annual Workforce Development Workshop for JATCs, including the Training Director and the Director of Outreach and Recruiting.*** The purpose of the workshop would be to develop an understanding of common concerns, share best practice and success stories, and, in general, promote a sharing of ideas and concerns to improve the overall effectiveness of the workforce development process. Prior to the workshop and to serve as a discussion tool, a directory of information on each JATC should be prepared containing the basis information on each program. This would include the web URL if the program utilizes a web home page. There are numerous excellent examples provided of local union web pages.

7. ***Establish an on-line list serve for JATCs, including the Training Director and the Director of Outreach and Recruiting, to serve as a forum for discussion and sharing of ideas between annual workshops.*** All construction local unions should be included. The list serve should be established and maintained by the International Training Institute.

8. ***Create a social network map of the members of the local union and the local SMACNA chapter.*** The network will identify school, church, and community based organizations in which the members of the union and contractor's staff participate. In turn, this will facilitate the identification of organizations in which workforce development efforts can be initiated. Once the social network has been determined, programs in which the union members and contractor representatives do not participate should be overlaid to identify potential opportunities for involvement. Some of the organizations in which there is no participation may hold greater promise for recruitment than the ones with current participation.

9. ***Where it is in use, create a role in the outreach programs for apprentices participating in the Youth to Youth Program.*** In many cases, these apprentices may be considered peers by the potential applicants and will be much more effective in communicating with younger individuals than will white-haired, middle-aged workers. General President Michael J. Sullivan's paper "Youth to Youth: One Trade Unionist's Dream That Became a Reality," written for the National Labor College, identifies outreach and recruitment as prime activities for apprentices participating in the Youth to Youth program.

10. ***Create a national effort to develop a uniform body of literature about the industry, occupations, and opportunities.*** With 150+ local unions, each working on its own, the industry's message is fragmented, much like the industry itself. The message is inconsistent and its development a waste of precious resources. There is a large variation in quality. A centralized effort will be more focused, professional, and cost effective. It will also allow the development of different themes and messages that will be targeted to different populations such as women, African Americans, Latinos, etc.

11. ***Develop a professionally conducted job analysis and description.*** There is a great need for a job analysis and job description that accurately identifies the requirements of the job and the qualifications necessary to meet those requirements. This will allow for more professional selection. The minimal requirement for admission to the apprenticeship program in most areas is a high school

diploma or a GED. What are the math competencies necessary for someone to be a first class sheet metal mechanic? In many localities, a person may earn a high school diploma with as little as one year of general math. Is this sufficient? Does the possession of a GED indicate that a person has those competencies?

The development of the job analysis requires the parties to make several critical decisions. First, there are two levels of quality that must be understood. The absolute best can be considered the potential quality. This is workmanship with no deviation from the design, no imperfections, and is essentially designed to last forever. The second is the level of quality for which the customer is willing to pay. This level is always equal to or less than the potential quality. In today's extremely competitive marketplace, few customers are willing to pay for the absolute best quality. Those that are, make no tradeoffs because cost is of no concern. However, most construction clients have a responsibility to shareholders or partners to seek the best return for their investment. Thus, it is necessary to talk about an appropriate level of quality, which is the level of quality for which the customer is willing to pay.

Given that there is an appropriate level of quality for each customer, the question that must be addressed is to what level of capability workers should be trained. Should they be trained to produce the best level of quality or the appropriate level? Do we train workers to produce a Cadillac when the customer wants a Chevrolet? Should we train all workers to produce the Chevrolet and then use the journey worker upgrade training process to bring some workers up to Cadillac capability? This would call for the creation of a mechanic/master mechanic distinction.

The issue that must be addressed here by the parties is that of the level of performance demanded by the customers and the level of capability developed within the workforce through the workforce development process. In many respects what has happened is that the market has reduced its demands while the unionized industry has continued to produce mechanics capable of producing better quality than the market is willing to buy.

12. ***SMACNA and the SMWIA must push for the establishment and maintenance of a professional work environment on all sites.*** James R. Ball, writer on professionalism has written in his $10 book "Professionalism is for Everyone – 5 Keys to Being a True Professional" that professionalism involves five issues:
    - Character
    - Attitude
    - Excellence
    - Competency
    - Conduct

    Professionalism will make the worksite a more enjoyable and productive place and should lead to more work. Construction workers are results oriented and respond favorably to a work environment that is professional. If you want to be the best, you must act like the best. There was a cliché circulated several years saying that if you want to soar with eagles, you can't associate with turkeys. What should be included in a professionalism program will vary from setting to setting. Some examples of possible inclusions are:
    - Code of professional conduct
    - Dress code
    - Customer bill of rights – Central Pennsylvania has a multi-trade example.

    These should be in the collective bargaining agreement to ensure enforceability.

13. ***Establish a partnership with the Boy Scouts of America.*** The Scouts are focused on boys 11-14 years old and have 15 merit badges that are directly related to construction and one, metal working that has direct applicability to sheet metal work. Working with boys 11-14 years of age provides an outstanding opportunity to identify, influence, and cultivate boys who have the abilities and interest

in becoming a sheet metal worker. See Appendix 3 for a list and description of the merit badges. If the Boy Scouts are to become a source of sheet metalworkers, it is crucial that SMWIA members and SMACNA contractor representatives become active in the Scouts as troop leaders and merit badge counselors. A positive experience while earning the metalworking merit badge or any of the other construction merit badges may convince a boy to want to become a sheet metal worker. Boys at this age need a strong, positive, male role model. Scouting provides an excellent opportunity to do this.

George Meany, a plumber before becoming AFL-CIO president, was honored by the creation of the George Meany Award to recognize union members for their contribution to the Boy Scouts. It has been estimated that one out of four scout leaders are union members. A description of the award is presented in Appendix 4.

14. ***Establish a partnership with the Girl Scouts of America and provide scout leaders and merit badge counselors.*** The Girl Scouts have several merit badges that are related to construction. Despite changes in the job market for women, many of the Girl Scout merit badges are still oriented to traditional female jobs and stereotypical female activities such as homemaking. It is important to work with the Girl Scouts to introduce the issue of nontraditional jobs and begin to acquaint younger girls with opportunities in the skilled trades. This would be best done at the national level using a coordinated approach by the building trades. See Appendix 5 for a list of potentially applicable Girl Scout merit badges.

15. ***Establish high school age skilled trades Exploring posts***. This is a program developed by the Boy Scouts that is targeted to high school age boys and girls. It involves the establishment of a formal organization called a post that focuses on specific occupations or industries. There are some established for police work, firefighting, as well as the skilled trades. See Appendix 6 for information on Learning for Life, Exploring, and skilled trades. Exploring would appear to be a great opportunity for the Youth to Youth participants. See http://www.learning-for-life.org/exploring/index.html for further information.

16. ***Work with local school systems to create opportunities for students to learn about construction and the occupations that are available within it.*** There is a great opportunity to influence school kids with a variety of programs that can begin in the 5th grade:
    - If I Had a Hammer – 5th grade – designed to acquaint students with the basics of building a house and to provide assistance in helping students in mathematics. Can be expanded to include science issues and serve as an introduction to building. See Appendix 7.
    - From Crayons to CAD –6th to 9th grade – Created as a design-build program to acquaint students with the process of design and construction as well as other issues. The program has been formally endorsed by the Building and Construction Trades Department, which is working with the program's developer, the National Institute for Construction Excellence, to promote and assist in its further development. See Appendix 8.
    - Buildup – a program developed by the AGC for use in elementary schools to acquaint students with construction. See Appendix 9.
    - Career Summer Camp – a program designed for 6th and 7th graders tat Delcastle High School in Newport, Delaware to expose them to construction and some of the trades. The goal is to expose them to the trades early enough that they can make decisions about attending vocational school. See Appendix 10.
    - Vocational High Schools – Delcastle High School, Newport, Delaware offers a three-year program in sheet metal and HVAC. Partnerships should be developed with these programs to capture the best students into the SMWIA. For a detailed description of the Delcastle Sheet Metal Fabrication program go to http://nccvotech.com/smf.asp. There are many other vocational high schools that offer similar programs.
    - Charter schools for the building trades – See Appendix 11 for an example of a new charter high school program in California. There are similar schools in other cities such as St. Louis and Philadelphia.

17. ***Develop a program in sexual discrimination and harassment and their prevention. Require all members of the SMWIA and contractor officials to complete it***. The program must examine what constitutes sexual discrimination and harassment, what is a hostile work environment, and the role of craft workers, forepersons, and contractor officials in preventing it. See Appendix 12 for a sample outline. Depending upon the local situation, it may be advisable to conduct the program annually. A majority of female craft workers have reported sexual harassment; experienced unwanted sexually suggestive looks, comments, joking, or gestures from their supervisors; and many have reported being touched or asked for sex. Conduct such as this is intolerable and must be stopped and prevented from reoccurring. Being forced to work in a hostile workplace can be considered a safety hazard because of the possibility of distractions caused by the hostility in the workplace. The distractions can lead to overlooking proper safety precautions and to on-the-job accidents and injuries.

    The policy should prohibit all types of discrimination and harassment. The public focus has been on sexual harassment, but other activities are more insidious. For example, gender harassment involves the harassment of women, but has no sexual overtones. Its goal is to simply drive women off the jobsite. Defecating in a woman's boots or upending a portable toilet while a woman is using it have nothing to do with sex, but everything to do with the use of power to drive women away. The concern in today's school about the use of bullying should be extended to the construction jobsite. The physical mismatch between most male construction workers and most female workers is great. This may create a basis for bullying.

18. ***Where at all possible, a woman should not be assigned as the only woman on a jobsite to minimize the feeling of isolation.*** Isolation leads to fear of harassment and assault because of the feeling of one woman against a group of men.

19. ***Develop a program in cultural awareness and sensitivity. Require all members of the SMWIA and contractor officials to complete it***. As presented in the examination of the demographic situation in the beginning of this report, the demographic makeup of the workforce is changing rapidly. A foreperson made the comment "We are moving from the Old World to the Third World." That is a fact that today's workers need to understand. The United States is a country of immigrants. The only thing that changes from time to time is the country of origin. The construction industry has always been and will continue to be made up of the immigrants and the sons of immigrants and now today with the daughters of immigrants.

20. ***Draft a policy and develop a program on sexual harassment and gender discrimination that would be included in local collective bargaining agreements.*** Sample language can be found in Appendix 13.

21. ***The SMWIA must include a section in its Constitution on sexual, gender, and racial harassment including mechanisms for enforcement***. In construction, sexual harassment and the maintenance of a hostile work environment typically involve coworkers or fellow union members. The union has detailed procedures for dealing with members who do not honor their financial obligations. Prevention of the harassment of fellow members should be at least as important. If the union's assertions of brotherhood, equality, and mutual respect are valid, steps must be taken within the union to educate members in order to change their behavior or, if that does not work, to discipline the offending members.

    The only applicable reference with the Constitution is Article Seventeen (17) - Misconduct and Penalties, Section 1(a – "…any…member of this Association may be disciplined by imposition of one or more of the following penalties: reprimand, fine, removal from office, suspension or expulsion from membership [for] (Section 1(m) "Engaging in any conduct which is detrimental to the best interests of this Association or any subordinate unit hereof which will bring said unions into disrepute."

NOTE: *At the SMWIA 2004 convention, the Constitution was amended to include both male and female pronouns wherever possible. Although there is not a specific constitutional section on sexual, gender, and racial harassment, members have been disciplined for sexual and racial harassment under the above mentioned Article Seventeen (17) – Misconduct and Penalties, and the penalties have been upheld on appeal.*

22. ***Professionally design and develop a highly interactive demonstration of sheet metal work***. It must demonstrate state of the art sheet metal technology and employ state of the art presentation technology. There must be hands-on interaction. The Millennial Generation is the most technologically advanced generation ever. The materials developed must be targeted to and tested by the Millennial generation because this group is the future of unionized sheet metal. Unless the demonstration grabs them, you will lose them.

    There will be great differences in locales in terms of potential uses of this demonstration, some of which will include: career fairs, pre-apprenticeship programs, trades shows, county fairs, shopping mall exhibitions, etc. The goal is to have a demonstration that can readily be used at a location where potential apprentices may gather. ***It is also important to reach the parents of potential apprentices***. The author attended a charity concert in Baltimore headlined by Lee Greenwood and was able to sample dishes cooked by members of the Baltimore-'Washington Chefs Association. He was also able to obtain information on the apprentice program run by Association. His son completed the apprentice program and became a journeyman chef, an occupation he practiced until he quit after 10 years to become a plumber's apprentice.

23. ***Provide a mechanism whereby apprentices can obtain financial assistance in paying for tools, clothes, boots, initiation fees, school costs, etc.*** Many young people do not have the financial resources to acquire the necessary items at the beginning of the apprenticeship.

24. ***Develop and implement a program in which teachers and guidance counselors are brought to training centers and job sites to develop a better understanding of sheet metal work***. One chapter invites middle and high school math teachers to visit the training center where they are shown the nature of the mathematics involved in the trade and the types of applications in which it is used. The teachers have returned to their schools and incorporated this information into their classes.

25. ***Develop a web-based application process that facilitates the timely and effective processing of applicants.*** The program should be web-based because of the computer proficiency of the Millennial generation and should consist of the following:
    1. Application forms should be available on line and be able to be completed and submitted on line at any time. The Millennial Generation operates 24/7. The application process should reflect this.
    2. Testing and scoring should be done on line so that the potential applicant's score is available to the test taker and the union without delay. The ACT and SAT tests are currently done this way.
    3. Official high school and other transcripts should be required and submitted such as two forms of identification one of which must have a photograph, a valid driver's license, and an application fee.
    4. Interviews should be conducted once a month to prevent the loss of good applicants.
    5. The goal must be to get good applicants working.

26. ***Develop a mechanism whereby an applicant approved for admission to the apprenticeship program is hired immediately.*** Stories were shared with the author in which applicants got the final approval from the JATC and had to wait from 1 to 18 months to begin work and the apprenticeship. Younger applicants are seeking a job that provides them with an immediate income rather than a career. Many women encountered this problem in the 1980s and even into the 1990s.

A significant number of people in this situation gave up waiting for the sheet metal job to open up and took other employment. Many locals already do this.

27. ***The primary focal point for recruitment should be high schools and vocational-technical schools at the secondary level and community college and technical colleges at the post-secondary college level.*** The quality of potential applicants is indicated by their accomplishments Dropping out of high school is not a good predictor of workforce success. You are recruiting students to be successful in a 4-5 year training program. Academic achievement is a good predictor of success in training as well as in future work. The days of finding potentially good workers standing on the street corner are gone. Students dropping out of community college should be good applicants.

28. ***Negotiate arrangements with local community/technical colleges that create a link so that apprenticeship courses may be accepted for credit toward an Associate's Degree.*** Many young people and their parents as well as guidance counselors believe that everyone has to attend college. Linking apprenticeship to community and technical colleges' degree programs creates the opportunity for craft workers to earn college credit while serving the apprenticeship, thereby creating the opportunity for further college study.

29. ***Focus on identifying persons with strong work ethic.*** The most critical characteristic necessary for success is that of a strong, positive work ethic. The desire to come to work everyday on-time, take only allowed breaks, put the needs of the employer and client ahead of one's own needs, and let the employer know if an unforeseeable reason arises to prevent coming to work makes a significant difference in the efficiency and effectiveness of the work process. Identifying people with this characteristic and recruiting them to come to work for your business is critical. Workers with this characteristic and who are trainable will be the ideal candidates. Math skills can be obtained through training; work ethic cannot.

Women and Minorities

1. ***Create a position that reports directly to the General President to provide advice on women's issues***. ***Such a position should also be created within each local union.*** All of the Executive Board positions of the SMWIA are filled by males. The union lacks the mechanism for generating input from female members; input that it vitally needs to increase the number of women in the trade.

2. ***The local union and contractors group must undergo an in-depth analysis of their membership to identify the gender and racial composition of the industry.*** This is necessary to establish a baseline.

3. ***Appoint a female representative to the Building and Construction Trades Department's Committee on Women in the Trades***. When meeting with the co-chair of this committee to discuss actions that could be taken to improve the sheet metal industry's ability to attract and retain women, the author was met with chuckling and the comment "If they are so concerned, why don't they have a representative on this committee?" See Committee on Women in the Trades, BCTD, Co-chair Shannon Brett, Boilermakers at 703-560-1493 or sbrett@boilermakers.org. Brochure is presented in Appendix 14.

4. ***Create a program within the SMWIA, similar to the IBEW's Women's Conference.*** The last conference was held in September, 2004 and was designed to "bring together IBEW members interested in building and strengthening the IBEW and the communities in which they live. Delegates participated in plenary sessions, branch caucuses, round table discussions, and worker-friendly workshops to help equip them to take on the challenges facing working families in a proactive, strategic and practical manner. "This would provide a mechanism for women to discuss relevant issues. For information on the IBEW's Women's Conference program contact Carolyn Williams at the IBEW . In addition, see Appendix 15.

5. ***Create a program similar to the Electrical Workers' Minority Caucus (Appendix 16) that would be independent of the SMWIA, but would be dedicated:***
   - To promote equal opportunity and employment for minorities at all levels of the SMWIA structure; to foster leadership development and empower minorities to become active participants and leaders in the SMWIA;
   - To assist SMWIA minority members who have discrimination complaints;
   - To promote, support and assist the organizing of minority workers in the SMWIA; to encourage minority workers to be greater activists in community and political affairs; and
   - To be actively involved in AFL-CIO Constituency Groups, human, civil, and women's rights organizations to advance the cause of minority workers.

   See http://www.ibew-ewmc.com/ for further information.

6. ***Establish a national point of contact to serve as the liaison between SMWIA/SMACNA and national organizations dealing with minority and female workforce issues.*** Examples of such organizations are listed in recommendations below.

7. ***Work with the General Contractor or Construction Manager to create site welfare conditions that reflect the needs of women.*** This must include clean and sanitary permanent or portable toilets with running water and that are maintained in such a fashion. The facility doors should be lockable from both sides of the door and keys provided only to female workers. This would also apply if change rooms were provided.

8. ***Establish relations with minority and female labor-affiliated organizations to provide the opportunity and basis for a dialogue on minority and female issues***. These would include
   - Asian Pacific American Labor Alliance - http://www.apalanet.org/
   - Coalition of Black Trade Unionists- http://www.cbtu.org/
   - Coalition of Labor Union Women - http://www.cluw.org/

- Labor Council for Latin American Advancement - http://www.lclaa.org/

See Appendix 17 for further information.

9. ***Establish partnerships with minority and female neighborhood or community based organizations committed to workforce development and the access of minority and female workers to good paying jobs***. This should include national organizations such as these listed below. See Appendix 18 for information on these organizations.
   - The Urban League – http://www.nul.org
   - The National Council of La Raza - http://www.nclr.org/
   - Wider Opportunities for Women - http://www.wowonline.org/
   - Legal Momentum – formerly the NOW Legal Defense Fund http://www.legalmomentum.org/
   - Women Build - http://aawomenbuild.org/
   - List of local tradeswomen and related organizations.
   - Depending upon the locality, there may be Native American groups.

   The local union must work with community organizations such as these to organize and conduct career fairs. There are numerous examples of how to conduct these efficiently and effectively. Local 16 in Portland, Oregon has worked closely with Oregon Tradeswomen, Inc. to increase the number of female apprentices.

   See Appendix 19 for guidelines on establishing a preapprentice program. The pre-apprenticeship program must be seen as much more than an educational vehicle to convey knowledge and skills to the participants. The program should be used as an assessment tool whereby the instructors are able to assess the pre-apprentice's attitudes, work ethic, ability to work with a team, etc.

10. ***Establish partnerships and/or sponsor programs focused on young people that are not connected with schools***. These would be programs that meet outside of school or during the summer. See Appendix 20 for the following examples.
    - Youth Build - http://www.youthbuild.org/site/c.htIRI3PIKoG/b.1223921/k.BD3C/Home.htm
    - Rosie's Girls - http://www.nnetw.org/pgm_for_girls/rosies_girls/intro/rosies_intro.htm
    - BEK Girlpower – http://www.bekgirlpower.com/home.htm
    - Girls Inc. - http://www.girlsinc.org
    - Craftsman's Kid's Club - http://66.84.26.222/

11. ***Identify female and minority sheet metal workers who have the experience and credibility to serve as role models.***

12. ***Develop an occupational fitness program for all women***. Most women (and some men) are not in the physical condition to perform sheet metal work eight hours a day, five days a week. See Appendix 21 for a proposed program. This program could be run in conjunction with a preapprenticeship program.

13. ***Meet with the makers of sheet metal hand tools to discuss the problems that females with smaller hands have with using the hand tools.*** Using tools that are too large creates a safety hazard that must be eliminated.

14. ***Together with the other construction unions meet with manufacturers of work clothes and work boots to discuss the problems that females have with finding appropriately sized clothes and boots.*** Clothes and boots that do not fit create potential safety hazards.

15. ***Together with the other construction unions, meet with manufacturers of Personal Protective Equipment to discus the problems that women have in obtaining PPE that fits properly.*** Ill-fitting PPE (harnesses, respirators, and gloves) creates potential safety hazards in addition to the hazards crated by the work itself.

16. ***Together with the other construction unions, pressure the Bureau of Labor Statistics to conduct in-depth analyses and reporting of non-fatal occupational injuries and illnesses to women in the construction industry that result in days away from work.*** Gender-based safety and health data are collected by the Bureau of Labor Statistics but are typically not analyzed or reported.

17. ***Together with the other construction unions and construction safety experts, develop an ergonomically based training program for women for material handling.*** Typically, women have less upper body strength than men and, consequently, loads should be handled differently to minimize ergonomic problems. All women should be required to complete the training program.

18. ***Develop information for women on being a sheet metal worker that presents information on surviving and being successful within a historically male trade.*** Examples are available from a variety of women's organizations. Appendix 22 contains the Manual for Survival for women workers prepared by Legal Momentum and the Association for Union Democracy.

19. ***Establish a program to be conducted by the local union or in conjunction with other local unions of the construction unions that will assist workers in obtaining citizenship***. This is currently done by universities and organizations seeking high tech personnel. There is no reason why it cannot be done by unions seeking to fill the demand for skilled workers.

20. ***For areas with a significant Latino/Latina population, develop a training program to educate the union membership and contractor representatives about the Latino/Latina population.*** Appendices 1 and 2 provide an excellent introduction to the topic. Some of the factors that must be examined are:
    - Cultural differences between minority groups and the trade as well as the union training center
    - Importance of social networks for Latinos/Latinas
    - The American culture is high individualistic while the Latino/Latina culture is focused more on community.
    - The successful minority mechanics and contractor representatives are seen as role models that form a bridge between the Latino/Latina community and the perceived white business community. Word of mouth advertising by these role models is very effective in that they are able to tell stories about their experiences in the trade and to develop trust with their listeners.
    - There are significant differences between Latino/Latina groups, e.g., the Cuban culture is very different from that of a Mexican culture.
    - The Latino community has the highest overall dropout rate of any minority group although Mexican Americans have high aspirations and attain higher education leadership positions in community colleges. Social promotions create a wall that it difficult to overcome.

21. ***Together with the General or Prime Contractor and other trade contractors on the site, post Material Safety Data Sheets for each chemical present on the worksite.*** Women who may become pregnant must pay special attention to reproductive hazards present on site and protect themselves from the hazards. When possible, employers should make reasonable accommodations for workers in late stages of pregnancy rather than forcing them out of the workplace.

22. ***SMACNA contractors, JATCs, and SMWIA local unions must review all communication materials to ensure that they are gender and racially neutral and include positive images of the different faces of workers in all visual materials (visuals, posters, pictures, etc.)*** Picture after picture of middle-aged white men does not present an image of an organization welcoming women and minority applicants.

Awareness

1. ***Together with the other construction unions, approach the makers of kids' toys and shows, such as Bob the Builder and Construction Jack, and discuss with them the creation of a line of construction figures that are ethnically and gender diverse and that represent the various trades in the industry.*** Women must be portrayed as equals, i.e., Wendy must be shown doing the same types of tasks as Bob. It is important to begin to create awareness when children are young. See Appendix 23 for examples.

2. ***Together with the other construction unions approach the publishers of children's books and arrange for the publication of construction coloring books that present a diverse workforce and books that provide information about the construction process that are targeted at late elementary school students.*** See Appendix 24 for examples.

3. ***Develop a modern day icon similar to Rosie the Riveter that can be used as the brand for female union construction workers.*** Rosie was a very popular icon during World War II, one in which women took great pride. See Appendix 25.

Recruitment

1. ***Develop a comparative study of the financial returns to a sheet metal apprenticeship and career with a set of other occupations and pathways to those occupations***. The occupations chosen for comparison should be diverse and include some that require a college education such as mechanical engineer. This needs to be a fairly sophisticated analysis and examine factors that influence the number of hours worked per week and per year, and average hours worked by different crafts.

   Young adults have limited understanding of fringe benefits and the role that they can play in improving working life. This needs to be explained and used as a recruiting advantage. See Appendix 26.

2. ***Prepare a detailed case study of a young person who has had a career whereby he/she moved from apprentice to journey worker and then on to becoming a contractor***. Self-employment is an issue of interest to the Millennial Generation. Sheet metal provides such an opportunity

3. ***Develop a recruitment incentive program that will provide a reward (monetary or otherwise) to a SMWIA member who recruits an apprenticeship applicant who successfully completes the apprenticeship program***. Every member is in the position of marketing a career as a sheet metal worker. They must take advantage of these opportunities to sell the career.

4. ***A training program for recruitment for all union members and contractor representatives should be developed and required of these parties to ensure that a professional, consistent message be developed and delivered.*** It is crucial that every member of the union and representative of the contactor understand that the best recruitment is done face to face. Every one of these people must recognize that they have recruitment responsibilities and that they must be able to respond in an appropriate manner.

5. ***JATCs must engage everyone in the union and contractor organizations to participate in the workforce development process***. It is crucial that women and minorities be involved because they can refute misperceptions of the trade and the treatment of women and minorities. More than forty years after the passage of Title VII of the 1964 Civil Rights Act, there is a fear of discrimination. Success stories can reinforce the beliefs that hard work does pay off.

6. ***Develop a contact tracking system to maintain contact with individuals of interest.*** This would allow the JATC to maintain contact via email and invite the contact to specific events, make them aware of events, or simply to say hello. Identifying people with interest in a potential sheet metal

career and that have the capabilities allows the JATC to cultivate that person and increase the likelihood of the person seriously considering a career in sheet metal.

Selection

1. ***Develop a real or simulated work situation within which to evaluate applicants*.** It is important to go beyond paper documents and oral interviews to evaluate an applicant's behavior, particularly factors such as motivation, discipline and willingness to learn.

Training

1. ***Improve on the job apprentice training by adopting the Transition to Trainer program developed in Wisconsin***. On the job training of apprentices is haphazard. Many times apprentices are taught how to do things the correct way in class and then are told by journey workers in the field that that is wrong. This is particularly a problem of attitudes. Bad attitudes of journey workers contaminate the good attitudes developed by apprentices in their classes. The Transition to Trainer program trains apprentices in their last period to become effective trainers as journey workers. See Appendix 27.

2. ***Develop a more structured and controlled on the job training program with appropriate documentation of the hours spent in the various activities***. It is critical that an apprentice receive on the job training in all aspects of the trade. An apprentice trained in one area, e.g., architectural, will not have the flexibility to work at duct fabrication in the event demand for architectural work declines.

3. ***Develop and implement an extensive and effective safety training program*.** Women are more concerned about safety than their male counterparts. It is extremely important that women feel safe on the job. The relatively smaller physical stature of women together with their psychological concerns about well-being and nurturing make them more aware of and concerned with safety. For their peace of mind, it is crucial that women feel well-prepared through extensive and effective safety training and practice.

4. ***Develop and implement a hazard reporting system in which the person reporting the hazard is free from retaliation.*** Women are more safety conscious than men and are more afraid of losing their jobs for creating problems for management such as reporting hazards. Fear of retaliation may inhibit their reporting of hazards. They may remain silent or attempt to move to a job perceived as safer.

Retention

1. ***Contractors must establish a training program for forepersons and require its completion as a prerequisite to being a foreperson.*** The foreperson is the critical individual on a site because that person establishes the culture and climate and the types of behavior that are allowable. The program and required completion should be repeated on an annual basis. The foreperson is an agent of management and an agent for change.

2. ***Develop and implement a mandatory mentoring program for all female and minority apprentices. A similar program for female and minority journey persons should be available on a request basis.*** The mentor should be someone who has gone through an apprenticeship that an apprentice can talk with. The mentor does not have to be a women or minority, but simply must be someone who understands the pressures experienced by apprentices and how to deal with them. It is important that apprentices, particularly women, be taught the tricks of the trade that allow work to be performed more easily and safely.

   Mentors are especially needed for women because of the special problems they encounter in fitting in or becoming acculturated into the workforce. Men are used to sitting around talking with other men such as during lunch or in a bar after work. Women are not accustomed to doing this. Women are also accustomed to subordinate roles such as an apprentice. This is difficult to change when

becoming a journeyperson. As a result, one must constantly prove oneself. The challenge is how to do your job and not lose your integrity. Women and minorities entering a relatively all white male domain need support emotionally and psychologically to ease their way into the trade.

3. ***Each local union should create a position of ombuds, i.e., one that investigates reported complaints, reports findings, and helps to achieve equitable settlements.*** The ombuds system provides an informal method of resolving disputes without resorting to formal mechanisms that tend to harden positions and create animosity.

4. ***Each local union should establish an Office of Member Assistance.*** This office would serve as a clearinghouse for information on childcare [construction work presents a set of circumstances that makes obtaining childcare difficult] and information on where members are working to facilitate the matching of members with temporary transportation needs with those who might be willing to offer a ride. Childcare and transportation are not solely female concerns. This office also could help members deal with these issues during training sessions for apprentices.

5. ***Establish a workshop on life skills and financial management***. Younger workers today have few, if any, financial management skills. To help prevent apprentices and younger journeypersons from getting into financial trouble, a life skills and financial management workshop should be developed and offered as part of the apprenticeship program and on demand to journeypersons. Good financial management may prevent some apprentices from dropping out of the program as well as helping to eliminate financial problems experienced by journeypersons.

6. ***Create teambuilding opportunities to strengthen the sense of community within the unionized sheet metal industry***. It is critical that labor and management get to know one another and one way to do this is through activities outside of work. For example, participation in a challenge or ropes course program has been shown to have benefits as has outward bound types of programs. Activities such as union-contractor association trips to a baseball game with recognition by the baseball team during the game also create opportunities for community building.

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APPENDIX 1

Hispanics in the United States: An insight into Group Characteristics

- Size of Group and Distribution
- Ethnic Composition and Historical Settlement Patterns
- Nomenclature
- Major Stereotypes About Hispanics in the U.S.
- Cultural Commonalities Among All Hispanic Groups
- Regional Cultural Distinctions
- Indo-Hispanic Cultural Areas
- Afro-Hispanic Cultural Area (Caribbean)
- Euro-Hispanic Cultural Area

Size of Group and Distribution
Hispanic-Americans are an increasingly significant portion of the U.S. population, yet the group remains an enigma to many Americans. This essay will attempt to deal with issues of nomenclature, group stereotypes and the origins of the major subgroups. Hispanics overall exhibit a number of commonalities, but individual subgroups also reflect distinctive traits and cultural differences.

The Hispanic population in the U.S. has witnessed tremendous growth over the last thirty years, moving from roughly six percent of the population in 1960 to about ten percent in 1995. About 27 million Americans are identified as Hispanic in the fifty states, and another 3.6 million reside in the Commonwealth of Puerto Rico. Puerto Ricans have all had U.S. citizenship since the First World War by an act of Congress. The rapid growth in the Hispanic component of the population nationwide has been fueled both by significant immigration, particularly since 1965, and high fertility rates. Hispanics, on average, reflect larger families than either non-Hispanic Whites or African- Americans, although there are differences in family size among the major subgroups in the Hispanic population. Mexican- Americans, generally, have the largest families within this grouping, particularly in rural areas or small towns, followed in order by Puerto Ricans, Central Americans and Cubans. The latter population has the highest median age and smallest family size of any of the Hispanic groups. Socio-economically, Cuban-Americans have the highest educational and income levels, followed in order by Latin American immigrants, Mexicans and Puerto Ricans.

Hispanics tend to remain heavily concentrated in certain regions of the United States, notably the Southwest (including, significantly, California), the Northeast, south Florida and several urban centers of the Midwest. However, evidence exists that a diffusion of Hispanics to many "nontraditional" areas of the country is occurring. The states with the largest absolute numbers of Hispanics are California, Texas, New York, Florida, Illinois and New Jersey. In percentage terms as a part of the total population, the largest concentrations of Hispanics are found in New Mexico, California, Texas, Arizona, Colorado, Florida and New York. Significant state-wide growth of this population is also occurring in New Jersey, Connecticut, Massachusetts, Washington, Nevada, and there are notable concentrations in Pennsylvania, Michigan, Oregon, Idaho, Louisiana, Missouri, Kansas, Nebraska, the Washington, DC, area and Hawaii.

Several metropolitan areas account for a large percentage of the total Hispanic population. Foremost among these is Los Angeles, and several other California urban areas (San Diego, Riverside, San Bernardino, Ventura, the San Francisco Bay Area and Fresno), as well as New York City, Miami, Chicago, San Antonio, Phoenix, Denver, Houston, Dallas, El Paso, Albuquerque, Tampa, Kansas City, Tucson, Corpus

Christi and Austin. Many smaller and mid- size cities also evidence high Hispanic population percentages, notably Santa Fe (NM), Pueblo (CO), Yuma (AZ), Salinas, Modesto, Stockton (CA), Hialeah (FL), Brownsville, Laredo, Midland- Lubbock-Odessa (TX), Hartford, Bridgeport (CT), Newark, Trenton, Camden (NJ) Springfield (MA), Saginaw (MI), Gary (IN), Racine (WI) and Cheyenne (WY).

Ethnic Composition and Historical Settlement Patterns
While the entire population is classified as Hispanic," there are major ethnic subdivisions within the population. The largest group, by far, is Mexican-American, accounting for about 60% of the total Hispanic population. Most of this population originated in northern Mexico, know in Spanish as "nortenos," although much of the recent immigration from Mexico is coming from deep in the interior of that country. There are many regional variations within the Mexican-American population, and Mexican-Americans in California, for example, often set themselves apart from "Tejanos, "Texans of Mexican ancestry, not to mention populations located in Arizona, New Mexico and Colorado.

Much of the Mexican-ancestry population preceded the English- speaking population of the Southwest, and length of settlement plays a major factor in issues of identity. The fact that so many of our states have Spanish names is indicative of this historical item, and Spanish-speaking settlers tanned out of Mexico as early as the 1600s in New Mexico; the 1700s in Texas and southern Arizona; the late 1700s and early 1800s in California and Colorado. In fact, the Hispanic people of northern New Mexico and southern Colorado refer to themselves as hispanos," and often reflect cultural patterns very distinct from other Southwestern Hispanic people. Additionally, the Southwest experienced huge waves of Mexican immigration following the 1910 revolution in that country, and the majority of the well- established Hispanic population of the Southwest probably traces its origins to this group of settlers. The diffusion of Mexican- ancestry population out of the Southwest into the Midwest and Prairie States occurred as early as the 1920s, and much of the Hispanic population of Chicago, for example, can trace its origins to this pattern. Since the 1960s, Mexican immigration has grown, and, while most of that new population has settled in the traditional areas of the Southwest, many have also dispersed throughout the United States.

Puerto Ricans, who number about 15% of the total US Hispanic population, began settling in the mainland United States soon after Spain ceded that island as a result of the Spanish-American War of 1898. The first major settlements occurred in New York City, notably Brooklyn, in the 1920s, but the very large migration of Puerto Ricans occurred with the end of the Second World War. New York was the initial attraction, but by the 1950s, and accelerating in the 1960s, Puerto Ricans began moving in significant numbers to Connecticut, New Jersey, Pennsylvania (Philadelphia, Allentown, Reading), Illinois (Chicago), Massachusetts (Boston, Springfield), Ohio (Lorrain), south Florida and the West Coast. Interestingly, there was a significant Puerto Rican settlement in Hawaii in the first two decades of this century.

Cuban settlements occurred in the New York area and Tampa (Ybor City) late in the last century. The great Cuban immigration, however, occurred after the accession of Fidel Castro to power, and there have been continuing waves of Cuban immigrants, mostly into south Florida, New York and northern New Jersey, since then. Major Cuban communities can also be found in some other cities, notably Chicago, New Orleans, Atlanta and Los Angeles. Cubans number somewhat less than ten percent of the total Hispanic population.

An interesting, often forgotten, Hispanic settlement occurred in southern Louisiana during the colonial period. Settlers mostly from the Canary Islands established themselves in New Orleans (as they did around San Antonio) and the surrounding

bayou parishes at the end of the 18th century. Most of these individuals were eventually assimilated into the Creole culture of southern Louisiana and today often identify as "French."

Large-scale immigration from different parts of Latin America has been taking place since the 1960s. The largest source of immigrants--often the result of political strife in the countries of origin--has been Central America. About a tenth of the population of El Salvador (circa 500,000 people) is estimated to have entered the United States beginning in the 1970s, and large numbers of Salvadorenos now live in Los Angeles, the San Francisco Bay Area, New York City and Washington, DC. Guatemaltecos, in lesser numbers, followed the Salvadorean pattern, as have Nicaraguenses, except that the latter have established a major presence in Miami. Dominicanos now account for the largest single Hispanic source of immigrants to New York City, and Colombianos have also established a major presence in New York City and Miami. Communities of Hispanics from other parts of Latin America are found scattered across the country.

Nomenclature

The nomenclature for Hispanics remains problematic. The term is meant to be all inclusive of anyone with linguistic or cultural antecedents in Latin America and Spain, but major differences, as well as commonalities, exist among these populations. Additionally, it is clear that the level of Hispanic identity depends in large part on the level of acculturation, i.e., length of stay, within the country and whether a specific population lived in a relatively isolated geographic area, e.g., New Mexico or the rural Southwest.

For a long time, Hispanics were generically described as "Spanish-Speaking" people. The problem with this descriptor is that many Hispanics do not speak Spanish, or at least cannot use it fluently. Also, there are a good number of non-Hispanics who do speak Spanish, so, again, this categorization has not been helpful.

Similarly, Hispanics have often been described as "Spanish- Surnamed," and, again, the problem here is that a good number of Hispanics do not have Spanish surnames. There were a large number of immigrants to various parts of Latin America who were not Iberian, yet they became Hispanicized and thus "Hispanic." Furthermore, as a result of intermarriage in the United States, many people have been raised as Hispanic, yet do not reflect Spanish surnames. There is also as subset of people who, by virtue of intermarriage or personal choice in changing their names in the process of assimilation, who were not brought up in a Hispanic cultural context and do not identify as such.

Sometimes Hispanics are simply referred to as "Spanish," but this name does not take into account the fact that the overwhelming part of our Hispanic population originated in Latin America and not in Spain. Many Hispanics, especially Mexican-Americans, choose not to identify with Spain because of the often tragic colonial experience--and by virtue of the fact that most possess mixed racial antecedents, either Native American or African, who are not of European origin. Most Hispanics in the US, although not all, are, therefore, mestizo. For lack of a better term, most Mexican-Americans and Central Americans are "Indo-Hispanic," i.e., a mixture of Spanish and native American genes, and many Caribbean-origin people are "Afro-Hispanic," i.e., a mixture of West African and Spanish moss. It is only in the southern part of South America where one witnesses a predominance of European- based people in the general population, although many of the socioeconomic elites throughout Latin America reflect European origins.

Hispanics are increasingly referred to as "Latino(a)," and that term is gaining

acceptance particularly on the West Coast and in the Northeast. Generally, this term reflects the origin of the population in Latin America and exists most broadly where an ethnic diversification of the Hispanic population has occurred. It should be noted that 'Latino" is an umbrella term. When people are asked whether they are Latino, they often respond by say, 'Yes, I'm Latino. I'm Puerto Rican (or Colombian, Salvadorean, etc.)." In other words, they agree on the overall term, but then provide a more specific ethnic identification. In this context, it's interesting to note that Latino is used more rarely by Mexican-Americans due to a specific historical occurrence. The term "Latin America" was invented by the French at a time when they had imperial ambitions in Mexico, i.e., the Imposition of Maximilian as emperor of Mexico. In essence, the French of that time argued that both France and Mexico were "Latin" countries--and, therefore, had a kinship--and they used this connection to impose a regime that was universally unpopular in Mexico. Thus, the term, Latin," left a bad taste in Mexico's consciousness. That memory, however, is fading, and a number of Mexican-Americans today feel comfortable with the generic term Latino.

Sometimes people use the term "raza" to refer to Hispanics, although it should be noted that this is a uniquely Mexican adaptation. In the Mexican context, raza means someone of Mexican extraction, usually someone who is mestizo. The term raza in the Spanish context, as originally coined in Spain, has a different connotation, as, for example, in the celebration in much of Latin America of "el dia de la raza," i.e, Columbus Day, It refers to the Spanish conquest of Latin America, and to people from Spain in particular, and, again, by virtue of a negative colonial experience does not have positive implications to many Latin Americans.

The term "Chicano" arose out of the Mexican-American political movement in the 1960s, although the term, itself, is probably several generations older. Chicano, here, again, was/is used by a subset of the Mexican-American population to avoid the hyphenation implicit in the latter term and generally refers to mestizo people of Mexican extraction. The term never gained acceptance with large numbers of Mexican-Americans because, in its older variation, it signified someone of lower socioeconomic status. To some people, it also implied a certain political radicalism or separatism. The origins of the term Chicano are obscure, and no definite conclusions ran be reached about its provenance. Some people in the Rio Grande Valley of Texas argue that the term came about, because so many people from there settled in Chicago, hence Chicano. That theory is unlikely. Another, more viable theory, stems from the fact that so much Mexican immigration into the US came from the state of Chihuahua, there the combination of the "chi" of Chihuahua with the "cano" of "Mexicano." The most likely theory is the fact that the native languages of Mexico, prior to the Spanish arrival, e.g., Nahuatl, possessed a sound, "esh," that does not exist in Spanish. Since the Spanish alphabet did not possess this sound, they wrote the symbol "x" when writing it down, as in "Mexico" (originally pronounced "Meshico" from the earlier "Meshica" for the people of the valley of today's Mexico City). The shortening of "Meshicano" produced "Chicano."

The current, most widely-used term, is Hispanic, a descriptor that does not exist spontaneously in any Latino population. This term was created by the US federal government in the early 1970s in an attempt to provide a common denominator to a large, but disparate, population. The assumption behind the term was that the only thing that tied these differing populations together was some sort of connection to Spanish language or culture, ergo "Hispanic." The sometimes tenuous connection to Spain does remain the major commonality linguistically and culturally for all Hispanic populations. The term is not used in everyday parlance by Latinos, although most people understand its intent. It seems to be most widespread among more acculturated, economically successful Latinos in the US and is often used by Latino professional or political organizations. It is also the term used widely by the federal

government and many state or local political jurisdictions when capturing data about populations.

Major Stereotypes About Hispanics in the U.S.
All groups that are seen as different, i.e. minorities, are viewed in stereotypical fashion by majority populations. Hispanics, in this context, are no different, and there are five that come to mind readily.

The most significant stereotype that affects Hispanics is the presumption often by the majority population that Hispanics are "foreign." People, for example, often consider Spanish surnames (and certainly given names) to be somehow "not American," even though such a large number of US geographic place names are indeed of Spanish origin. There is the secondary presumption that all Hispanics are also recent immigrants, even though the settlement patterns described briefly above more than suggest a Spanish-speaking presence dating way back. The oldest European-influenced settlements in the US are of Spanish origin and include St. Augustine, Florida (1565), and Santa Fe, New Mexico (1610), both established prior to any major English-speaking settlements on the continent. The oldest city under the American flag remains San Juan, Puerto Rico (1521). There are, thus, countless Hispanic families whose antecedents in this country go back in some instances to ten generations or more. Why is the "foreign" stereotype an issue? When people are presumed to be foreign, it is also assumed that this population, therefore, has no stake in this system, much less made a major contribution to the building of the country. Similarly, when a Hispanic on occasion is critical of this society or some of its politics, as is every citizen's right that person is branded as "ungrateful," and people are often told to "go back to wherever they came from, if they don't like it here."

The second stereotype deals with definitions of race as it applies to Hispanics. Hispanics are not a racial category and may, in fact, be of many--usually mixed--race backgrounds. American society has attempted to be very neat about racial divisions and identifications, and a mixed-race people wreak havoc with this framework. Additionally, and very important, definitions of race are culturally bound, i.e., different cultures may define the same race differently, and Hispanic definitions of race often vary from Anglo-American norms. For example, Mexico defines someone as a native American (Indian) only if that person speaks a native language of Mexico as a first language. Once that person speaks Spanish as a first language-- irrespective of genetic pool--that person is no longer considered an Indian. In the US, we apply a genetic standard (one needs to be at least one-quarter Indian regardless of cultural affiliation), rather than a purely cultural one. Similarly, a person in the US who has any African ancestry, regardless of appearance, is considered African-American (Black), while in the Hispanic Caribbean only a "pure" Black person is considered such. Once people have mixed, they are assigned other categories. This racial ambiguity within the Hispanic population confuses both White and Black Americans and can lead to social conflict between groups.

Issues relating to language frame another stereotype about Hispanics. Many people assume implicitly that Hispanics either do not speak English, or have learned it rather recently. Many Hispanics are asked regularly where they learned English, even though many people have never spoken anything other than English. A significant percentage of the Hispanic population speaks no Spanish whatsoever, although many are bilingual and another segment monolingual in Spanish only. Generally, it can be said that knowledge of Spanish, or fluency in that language, is less widespread regionally in the urban centers of the Southwest and Midwest than elsewhere among the Mexican-American population, or among people who have been here for several generations. Spanish dominance is most common among older people, recent immigrants and along settlements along the Mexican border. South Florida and the New York area

evidence a high usage of Spanish, although, generationally, younger people are less fluent than older ones. Clearly, Hispanics born in the US reflect less usage of Spanish than those who have immigrated. This stereotype is potentially damaging, because, implicitly, it is believed that, due to absence of language skills, Hispanics are not suitable for occupations in the white collar area or professions.

Some people, by way of stereotype, believe that Hispanics are a rural phenomenon. Ironically, other than Chinese Americans, there is no population in the United States more urban than Hispanics (almost 90% of the total--a percentage much higher than the population overall). While Hispanics are disproportionately represented in the rural workforce, e.g., particularly migrant workers, the overwhelming number of Hispanics are based in urban areas. The danger with this stereotype revolves around the assumption that rural people do not possess the skills to work in urban-based occupations, nor are they seen as the actual or potential consumers for products.

The final stereotype centers on the assumption that Hispanics are a regional phenomenon in the US. While, as indicated above, the Hispanic population is heavily concentrated in a number of (significant) parts of the country, i.e., the Southwest, Pacific Coast, New York corridor and south Florida, the most interesting recent demographic trend is the diffusion of that population beyond its "traditional" settlements. Chicago, case in point, is the third-largest Hispanic city in the country with about 750,000 Hispanic people, and the growth of the Hispanic population in a variety of other US urban centers has been spectacular. The regional stereotype fails to see the Hispanic population as a national presence, and, under our system of federalism, ignoring its national dimension makes it a "local" question. Hispanics have become too large a population nationally to relegate their issues, concerns and opportunities to local concerns. This item has major implications politically, but also impacts how and why US corporations look at this phenomenon as a major market opportunity.

Cultural Commonalities among All Hispanic Groups

While each of the Hispanic subgroups in the US has its own distinctiveness, there are a number of commonalities which serve to unite the larger group. All the groups share a common colonial founding and experience with Spain, and all geographic areas of Latin America witnessed a subjugation, or virtual elimination, of a native population. The native presence remains strong in many, though not all, parts of Latin America, and this characteristic is most prominent in Mexico, most of Central America and the Andean chain. Many parts of Latin America also experienced the introduction of African slavery, although this phenomenon was most pronounced in the countries of the Caribbean basin. Similarly, all countries of Latin America developed an uneasy relationship with the United States reaching back centuries, and the friction between an essentially Mediterranean culture with an Anglo-Saxon one continues to this day. In the United States, few non-Hispanics make -- or are aware of -- significant distinctions among the different Hispanic groups, and it is not unusual for all groups to be seen as a unified, "Hispanic" category.

The universal connection throughout Latin America to a Spanish colonial experience is the key to the cultural commonalities among all the Hispanic subgroups. While the Spanish influence is stronger in some regions than in others, the unifying theme regionally--whether linguistic or cultural--remains the connection back to Spain. For example, local linguistic variations exist, but Latin Americans of all backgrounds can easily communicate with one another in basically the same language. Language is a very important hallmark of culture, and this common language does provide a sense of unity, a factor, by the way, that has been enhanced with the rise of modern communications. People throughout the Latin American region and even Hispanics within the US, often watch the same television programs, listen to the same music and read the same authors.

Although harder to define, there are also many common cultural reflexes that originated in the Iberian Peninsula. The stress on the importance of a large, extended family, the cultivation of personal relationships and alliances, definitions of honor and respect, the distrust of government in general, stratifications based on class and occupation and the adherence, generally, to the same religious identification all stem from Spain. Anyone who has spent any time in both Spain and any part of Latin America can readily sense and observe the commonalities.

Regional Cultural Distinctions

Although Spain has provided the themes common to the Latin American experience, many, significant differences exist on a regional basis. Many of these have to do with the strength and, where appropriate, the survival of native populations, as, for example, in Mexico, Central America and the Andean chain. Others, notably the Caribbean basin, were influenced in a major way by the presence of an African population. Still others, particularly in southern South America, were shaped by non-Hispanic immigrants. Throughout Latin America it is also important to observe the specific nature of the original Spanish settlement, i.e., where the settlers came from in Spain. Spain has strong regional variations of its own with unique cultural traits, and it is important to note whether the Spanish settlement patterns originated in Andalucia, the Canary Islands, Castilla, the north of Spain (Galicia, Asturias, the Basque country) or Cataluna, including the Balearic Islands (Mallorca). Thus, the importance of the south of Spain and the Canary Islands is strongest in the Caribbean (witness the commonalities of dialect among these areas), whereas the provinces of Castilla and Extremadura influenced Mexico, Central America and northern South America and the Andean chain in a major way. Hispanicized Basques were prominent in many parts of the region, and Catalan immigrations, as well as northern Spaniards, were important in the late nineteenth century. The latter groups, in fact, as well as non-Hispanic immigrants, often became the new business elites of Latin America.

Having said all of the above, one can divide Latin America to some extent into three major cultural groupings. These are, for lack of better terminology, (a) Indo-Hispanic, (b) Afro-Hispanic and (c) Euro-Hispanic.

Indo-Hispanic Cultural Areas

The largest grouping of Hispanics in the US originates to a large extent in Mexico and, more recently, in Central America. This geographic area, along with the Andean chain (Ecuador, the highlands of Colombia, Peru and Bolivia; Paraguay, while not Andean, also fits this description), possessed large and sophisticated native populations and civilizations at the time of the Spanish arrival. While large numbers of these populations did not survive Spanish colonialism initially, a significant enough genetic and cultural pool did persevere in order to shape present-day cultural patterns.

In all of these areas, the native stock remains at the lower end of social stratification, but this group has, nevertheless, influenced the larger culture. One example of this cultural influence is the survival in most of this region of native, i.e. Non-Spanish, languages. About ten percent of Mexicans still speak an indigenous language, e.g., Nahuatl, Zapotec, Mixtec and Maya; a larger percentage of Guatemala's population speaks one of the Maya languages; Quechua and Aymara often predominate in the Andean highlands of Peru and Bolivia; and Guarani is significant in Paraguay.

In this geographical area, indigenous people remain prominent in the genetic pool also. Indigenous people, in this context, probably remain the majority of the population in Guatemala, Peru and Bolivia, and significant indigenous minorities remain in the rest of these countries. Mixed-race people, i.e., Indian-White "mestizos, and form the bulk of the population in the remaining countries, and those of "pure" European extraction

generally form small minorities in all.

The cultural influence of native populations has been major in all these countries and affects factors such as language, religion, music and food to this day. In the Mexican context, for example, while the population fairly universally speaks a clear "Castilian" Spanish, many words and expressions were assimilated from the native populations. Words like guajolote (from guajolotl, turkey), cacao, chocolate (from chocolatl), aguacate (from ahuacatl, avocado), and tomate (from tomatl, tomato), which describe foods indigenous to the Americas, were taken directly into the national language. Similarly, other expressions, like cuate (from cuatl, literally, "twin," but meaning best friend), tecolote (from tecolotl, owl) and milpa (a farm patch) were also borrowed from Nahuatl. There are many such words in Mexican and Central American usage, for example, the bird "turkey" in Guatemala and El Salvador is tzompipe, the Maya word. The word, potato, originated in the Andean highlands, as did the food itself.

Catholicism, imposed by the Spanish on native populations and African slaves, remains the major religious orientation of most of the people, but in each instance there are native influences. The Church often imposed Catholic observances on traditional native celebrations and days, as in the case of the Day of the Dead (el dia de los muertos) in Mexico. A pre-Columbian religious festival was thus Christianized. More significantly, the patron saint of Mexico is Our Lady of Guadalupe, also known as the "Virgen Morena," or Brown Virgin (her skin coloration). The Virgin is said to have appeared very early in the Conquest to Juan Diego, a pure-blooded Indian and recent convert to Catholicism, at the site, perhaps coincidentally, on the same spot exactly where the ancient Aztecs used to venerate their chief female goddess, Tonantziuh. Likewise, religious healers, or, "curanderos, remain prominent in Mexican society, and, in most cases, their practices precede the Christianization of the populace.

Very little indigenous music survived into modern times, although one can assume that some of the strains heard in rural areas originated in ancient times. Mexican and Central American music, however, was influenced heavily in the nineteenth century by some of the court music of Europe, particularly with the importation of the waltz and polka during Maximilian's time. This feature is most prominent in so-called norteno music, and, interestingly, later influenced American country and western music. What most people consider quintessentially Mexican music, i.e., Mariachi, also originated during the time of the French occupation, and the word, itself, is a corruption of the French word, marriage. It was music that was first played at weddings, and soon evolved into a uniquely Mexican musical adaptation found nowhere else.

The oldest Spanish-influenced music of Mexico, corridos (songs that are made up and improvised as a particular story develops), may have originated in the flamenco of southern Spain, which also depends on the guitar as a prime instrument and on improvisation lyrically.

The native cultural presence is felt most in the everyday food consumed by the people. While the Spanish introduced rice, wheat, citrus fruits and a host of domestic livestock, what the average person eats today in Mexico (and what North Americans normally consider "Mexican food") is probably not too dissimilar from what people ate prior to the Conquest. Corn (maize), tamales, tortillas (in Spain, a tortilla is an omelet), enchiladas, frijoles (beans) are all indigenous means of cooking, and drinks like pulque (a form of beer), mezcal and tequila all preceded the Spanish.

Afro-Hispanic Cultural Area (Caribbean)
Native people, of course, resided in the Caribbean littoral (Cuba, Hispaniola and Puerto Rico) at the time of the Spanish arrival. Unfortunately, theirs was an extremely tragic encounter, and very little of the original genetic stock survived the Spanish

Conquest. The people living on the major Caribbean islands at the time of the Spanish arrival were known as Taino and were members of the Arawak ethnic group, originally from the Orinoco basin of northern South America. These people were for all intent and purposes destroyed within about one generation. They did leave their language in the form of geographical place names, e.g., numerous town and province names like Camaguey, Cuba, Haiti, Quisqueya (the original name of what is now the Dominican Republic), Borinquen (a Spanish corruption of the original name for Puerto Rico, Borinquen), Mayaguez, Arecibo, Utuado, Cayey and so on. They also left a number of other words, some of which were also incorporated into Spanish and other European languages, e.g., huracan (hurricane), Jamaica (hammock), and tabaco (tobacco). Other Taino words are also used in Caribbean Spanish, e.g., yuca (the manioc root) and bohio (a small country hut).

The earliest Spanish settlers of the Caribbean originated mostly in Andalucia and the Canary Islands. The speech patterns of the Caribbean reflect this influence strongly, as in the case of very rapid speech, dropped endings, elimination of the letter "d" between vowels and the unaspirated letter us" at the endings of words. Puerto Ricans, additionally, have the tendency to change the letter "r" to an "l" when followed by a consonant or at the end of a word, e.g, pol favol (por favor), talde (tarde), polque (porque). The trilled "rr", common in Spanish, in Puerto Rico often sounds like a Germanic "r." In Cuba, the letter "r" is often dropped altogether, as in poque, instead of porque. Overall, however, the various Caribbean Spanish dialects, including the coastal areas of Venezuela, Colombia and Panama, have more in common with one another, than they do with the Spanish of the continent of America.

The most significant cultural difference in the Caribbean, especially when compared to the American continent itself, relates to the large-scale introduction of an African population, usually, but not always, through slavery. While most of the original population of African ancestry has roots in slavery, there were at all times significant numbers of African or mixed- race people who were free citizens of Spain. With the elimination of the native population, the Spanish began importing African slaves, mostly from West Africa. These populations were heavily from certain African ethnic groups, notably the Yoruba, Ibo, Ibibio, Mandingo, Ife, Ewe and, later, from the Congo or Angola. Although generally Hispanicized during slavery, many of the original African cultural characteristics persevered and influenced the larger culture.

The language of the Spanish Caribbean was heavily affected by African grammatical patterns and loan words. It is fairly safe to say, for example, that virtually any word in the local dialects that contain combinations of "mb," "ng" or begin with "n" are originally of African origin. Actual examples of these types of loan words would be: name (yams), quimbombo (okra), malanga (a root plant), rumba (the dance), conga (the drum), bomb& (someone with African ethnic facial features), mondongo (a stew) and mofongo (a food). Additionally, although harder to measure, the tonal patterns and pitch of much Caribbean speech evidences strong West African influence.

The predominant religion of the Caribbean, as elsewhere in Latin America, was and remains Spanish Catholicism. However, major African influences are also found in the everyday practices of the population. This phenomenon is called santeria in Cuba and espiritismo in Puerto Rico, and similar variants occur in much of the Caribbean basin (including, of course, in non-Hispanic areas such as Haiti and Jamaica). Again, as in the rest of Latin America, formal observance of Catholicism was mandated, and non-Catholic religious practices were often veiled in Catholic terms. In most of the Caribbean, there are significant groups of people who use primarily Yoruba-origin religious rites supplicating water, fire and wind spirits. Most of the original African deities have also assumed the names of Catholic saints, e.g., Chango, Babalu), who are also known as Santa Barbara and San Lazaro. Cuban home altars often possess

both a White and a Black Virgin, and it is not unusual to see the placement of the jimaguas, African spirit dolls in the same setting. In the Puerto Rican countryside, it is not unusual to come across the ceremony of a Baquine on a Saturday night where, as in the Yoruba religion, prayers are made accompanied by drums to the air and water spirits. These religious practices have historically been more pronounced in the lower socioeconomic strata of society, but, more recently, have gained wider acceptance in the larger population.

The African influence in Caribbean music is quite pronounced, and it is probably fair to say that Caribbean music without this influence would not exist as we know it today. Although the original folk music of the Caribbean is in many ways derived from similar patterns in southern Spain, as in the improvisandos (originally related to the improvised nature of flamenco), and in the later danza (Puerto Rico) and danzon (Cuba), other musical styles such as the bomba, plena (Puerto Rico), guaguanco, sonmontuno, rumba, mambo (Cuba), and merengue (Dominican Republic) all have African roots. This music clearly uses the rhythm patterns of West Africa emphasizing the drum, and the choral patterns, with a lead singer being answered with a group refrain, are also of African origin. Modern salsa music derives from the same patterns, as does the cumbia, originally from coastal Colombia (and in its Portuguese version, the samba of Brazil).

Africans also influenced the food of the Caribbean, most importantly in the use of stews (Mondongo), root plants and cooking bananas. Caribbean cuisine without the use of some form of banana, whether green or ripe, is virtually unthinkable, and bananas were brought to Caribbean from West Africa, as were okra, yams and peanuts. The Puerto Rican word for a cooking banana, guineo, shows its origins in the name of the present-day West African country of Guinea.

Euro-Hispanic Cultural Area

The southern part of South America is culturally and genetically the most European part of the continent. This area would encompass Argentina, Uruguay, Chile and, in its Portuguese version, southern Brazil. Spanish language and cultural norms, of course, dominate the three listed Spanish-speaking countries, but each one of these saw significant immigration from places other than the Iberian Peninsula. Most of the indigenous population did not survive the Spanish conquest, and the African presence was quite minimal. Immigration to the United States from this region is relatively low, probably a function of distance as well as a relatively higher standard of living.

Argentina and Uruguay, especially, experienced tremendous immigration from Italy, and some people say that up to half of their respective populations are of that origin. The Spanish speech patterns of these countries often reflect Italian intonation patterns, and the use of the "soft" double "ll" in the Spanish there, as well as the use of familiar address "che", probably stem from the Italian influence. This speech characteristic is most pronounced among portenos, i.e., residents of Buenos Aires, and neighboring Uruguay.

Non-Hispanic immigration other than Italian has been significant in Argentina, Uruguay and Chile. While the Spanish language is dominant, as well as Spanish cultural norms, major segments of the population derive from German, English, Welsh, Irish, Arabic and eastern European Jewish sources. Argentina, for example, has the largest Jewish population in the hemisphere other than the US, and the overall mixture of immigrants approaches the US model somewhat more closely. Polo and rugby -- brought by the English -- are a staple of Argentinean and Uruguayan society; German clubs abound; and variants on Italian food are common. The educational system is also modeled much more on European patterns.

Indigenous influences do exist in all of these countries, notably in the ranch and farming societies of the interior. The ubiquitous use of mate tea is native to the region, and the influence of the guarani harp music is growing. The tango, a uniquely Argentinean musical form, has obscure origins in Buenos Aires itself, but may even have some African roots. More recently, these countries are also experiencing increasing immigration and migration from Andean area bringing Indian and mestizo cultural patterns with them.

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Appendix 2

Latinos in Construction: Breaking Barriers, Building Hope

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The National Council of La Raza (NCLR) - the largest national Hispanic civil rights and advocacy organization in the United States - works to improve opportunities for Hispanic Americans. Through its network of more than 300 affiliated community-based organizations (CBOs), NCLR reaches millions of Hispanics each year in 41 states, Puerto Rico, and the District of Columbia. To achieve its mission, NCLR conducts applied research, policy analysis, and advocacy, providing a Latino perspective in five key areas - assets/investments, civil rights/immigration, education, employment and economic status, and health. In addition, it provides capacity-building assistance to its affiliates who work at the state and local level to advance opportunities for individuals and families.

Founded in 1968, NCLR is a private, nonprofit, nonpartisan, tax-exempt organization. Headquartered in Washington, DC, NCLR serves all Hispanic subgroups in all regions of the country. NCLR has operations in Atlanta, Chicago, Los Angeles, New York, Phoenix, Sacramento, San Antonio, and San Juan, Puerto Rico. For more information, please visit www.nclr.org.

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I. Introduction

The landscape of the American workforce has changed. Today, Hispanics are the largest minority group in the U.S., accounting for 14% of the total U.S. population and a similar share of the total American labor force. This development reflects significant demographic growth for Latinos since the early 1990s, and an increased presence of Latinos in all areas of employment, including the construction sector.

Although construction, after agriculture, is the most common field in which Latinos are employed, not enough is known about the experience of Latinos in the different segments within the construction field. Through this paper, the National Council of La Raza (NCLR) contributes new knowledge to employment research on Latinos. Indeed, this paper is part of NCLR's broader effort to identify employment sectors with promising career pathways, in order to maximize the contributions of Latinos to the labor force and increase the economic mobility and status of Hispanics. It is also intended as a tool to expand a base of knowledge and strategic thinking about Latinos in construction, a dynamic industry requiring multiple layers of basic, technical, and professional skills.

To gain a comprehensive view of Latinos and construction, the following resources and approaches were used:

Interviews with NCLR staff members, NCLR affiliate leaders, and construction professionals

A limited literature review and analysis of print and Web-based information and statistics

While some sections of the paper relate to all construction-related occupations, other segments focus attention on particular occupational categories (e.g., construction laborer, small business owner). This paper by no means exhausts all aspects related to Latinos in the construction industry; it intends, rather, to present major issues and promising approaches to enhance the status of Hispanics in this critical industry.

The paper seeks to accomplish four goals:

1. To document the status of Latinos in the construction industry.
2. To assess the construction industry from a Latino perspective in terms of workforce development challenges, career pathways, and opportunities for small business ownership.
3. To highlight concerns for Latinos in construction, as well as promising practices that can enhance their status.
4. To identify gaps in the industry with respect to the experience and status of Latino workers which can be addressed through research, public policy, and program efforts.

* The terms "Latino" and "Hispanic" are used interchangeably by the U.S. Census Bureau and throughout this document to identify persons of Mexican, Puerto Rican, Cuban, Central and South American, Dominican, and Spanish descent; they may be of any race.

II. Latinos in the U.S.: Population Highlights and Economic Impact

Latinos are a diverse population, in terms of both ethnic and racial composition and history in the U.S. Mexicans constitute the majority of Hispanics (64%), and Puerto Ricans are the next identifiable subgroup in terms of proportion of the overall Hispanic population (approximately 10%). The population also includes about 3% each of those of Cuban, Salvadoran, and Dominican origins, while the remainder are of Central American, South American, or other Hispanic/Latino origin. Latinos vary greatly by a number of social and economic characteristics, including country of origin, educational levels, recency of immigration, and occupational, demographic, and language profiles.

Latinos have been a part of the American landscape for generations. While there are a number of states, such as California, Texas, New York, Colorado, and Florida, that traditionally have had a strong Latino presence, dramatic growth in the Hispanic population has occurred throughout the country, including in "nontraditional" states such as North Carolina and Georgia.

According to the U.S. Census Bureau, the Latino population numbered 41 .3 million persons as of July 1, 2004. One in seven Americans is of Hispanic origin. Among the states, New Mexico has the highest proportion of Hispanics (43%) in comparison to the total state population and California has the largest number of Latinos (12.44 million).[1] Other states not traditionally associated with the Hispanic community are now home to large numbers of Latinos. States with the most robust Latino growth rates between 1990 and 2002 were North Carolina (544%), Georgia (410%), Arkansas (396%),Tennessee (350%), South Carolina (286%), Nevada (28 1%), Alabama (266%), Kentucky (238%), Minnesota (220%), and Nebraska (195%). Among these states, those with the largest Hispanic populations were Georgia (5 16,530), Nevada (462,690), and North Carolina (444,463).[2] In North Carolina, specifically, the Hispanic population is expected to increase by an additional 238% over the next 50 years.[3] Florida, California, and Texas are projected to experience the highest growth rates between 2000 and 2030.[4]

Although approximately half of the population growth in the past decade was due to new immigration, recent data show that natural increases now account for more of the share of the growth in the Hispanic population than does immigration;[5] 88% of Hispanics under 18 were born in the U.S. In addition, Latinos are a young population and half of Hispanics are under the age of 25. The nation's future economic and social stability will, therefore, be determined largely by the well-being of Hispanics.

Dramatic increases in the size of Latino communities are also recognized by mainstream businesses and organizations, particularly in regions with large emerging Latino communities. For example:

> The chamber of commerce of Nashville, Tennessee reports that in 2000 the Hispanic population in Davidson County - composed primarily of Cubans, Puerto Ricans, and Mexicans - grew from approximately 8,000 in 1990 to 45,550 in 2000. Local businesses and organizations are now beginning to respond to the needs, interests, and preferences of this new Latino customer base.
>
> According to the Selig Center for Economic Growth at the University of Georgia, North Carolina, Georgia, and Tennessee were "among the top ten emerging states, as ranked by the rate of growth of Hispanic buying power during 1990-200 1."[7] Moreover, "Latino workers in the Memphis area have a total economic impact of $1,020,000,000 and 35,972 jobs .. . Of the $570.8 million that they earned in 2000, we estimate that Latino workers paid at least $85.6 million in payroll/income taxes .. . and approximately $12.3 million in local and state taxes . . . The multiplier impact of these expenditures of

$359.6 million by local Latino workers . . . [results] in another $664.0 million spent locally by workers and businesses that benefit from Latino workers in the Memphis economy."[8]

Census data show that Latinos residing in Nevada - the majority of whom work in three industries, including construction - earned $3.45 billion in direct wages." Non-native Hispanic immigrants [held] 152,635 jobs in Nevada [and] created another 85,525 jobs."[9] Almost $3 billion in taxes was generated in 2001 by the Latino labor force. Media reports indicate that "immigrant Hispanics pump as much as $20 billion into Nevada's economy a year, contributing to the vitality of the nation's fastest growing state."[10]

Overall Hispanic purchasing power, according to the Selig Center, is now estimated at $686 billion dollars and is expected to exceed $992 billion in 2009. Latino workers are contributors to the economy through productivity, taxes, and significant purchasing power. Demographic shifts mean that the future growth of major U.S. industries, such as construction, depends on their ability to respond and adapt to demographic changes, and create viable employee recruitment and career ladder programs to fill their workplace needs.

III. The U.S. Construction Industry

Research suggests that the construction industry is a complex sector that includes multiple players and sources of employment.[11] The industry is broad and inclusive of several fields which in and of themselves are large enterprises meriting public attention and research. The construction industry is highlighted by numerous factors, including the following:

Construction careers are varied and include occupations such as construction laborer/helper; roofer; bricklayer; welder; carpenter; plumber; electrician; heating, ventilation, and air conditioning (HVAC) mechanic; foreman; operations engineer; project manager; and business owner.

In 2004, seven million Americans were employed in the construction industry, which represented 5% of nonfarm payroll employment.[12] In addition, the industry "is the largest and fastest source of employment growth among goods-producing industries."[13]

Educational preparation of workers in the industry varies, although there is a tendency for workers not to have formal advanced schooling or high levels of educational attainment, in part because of the large need for "production workers." For example, slightly more than one-third (35%) of construction workers had some postsecondary education compared to half (56%) of the total workforce.[14]

"Of construction production workers, in 2000, 25% had less than a high school diploma, 47% had a high school diploma, and 28% had some postsecondary education."[15]

While construction workers' earnings vary according to seasonal workloads - changes in weather and other factors - average hourly wages are higher for those of private non-supervisory or production workers ($19.21 per hour in January 2005) when compared to seasonally adjusted wages ($15.88 per hour).[16]

Occupational fields in the construction industry require employees with diverse skill sets, as well as formal and informal education and training experience. Vocational/technical certification, apprenticeship training, and/or undergraduate or graduate degrees are needed in many construction positions. Future human

resource needs in the construction industry will be determined by multiple factors including population growth, the economic well-being of local communities, and individual consumer buying power and interests. These factors influence the number and kind of orders for construction of homes, health care facilities, roads and highways, schools, energy facilities, and retail businesses. In 2004, spending on private and public construction, according to the U.S. Department of Commerce, was at a seasonally adjusted annual rate of $789 billion and $242.8 billion, respectively.[17]

IV. The Latino Construction Workforce: Characteristics and Key Challenges

A. Overview

Latinos constitute about 12% of the U.S. workforce. Industries in the United States with the highest proportions of Latino workers are agriculture (37%) and construction (17%).[18]

The Latino construction workforce grew from approximately 342,000 persons in 1980 to almost 1.4 million in 2000.[19] Between 1980 and 1990, Latinos experienced a 150% increase in construction employment, compared to 120% for the overall Hispanic labor force. Recent research shows that jobs in the construction field generated more than half of the total increase in employment for Hispanic workers in 2003.[20] As of the first quarter of 2004, the overall Latino construction workforce was estimated to be 2.15 million.[21]

A profile of Hispanic construction workers shows that:

A notable share of Latinos works in construction. In 2000, one in eight (12.5%) employed Hispanics worked in the construction industry - a total of 1.4 million workers.[22]

Of these, Latinos are overrepresented in laborer and production positions. One in five (21%) Latino construction workers is a laborer, compared to one in ten (10%) of all construction workers.[23] In 2000, Hispanics made up 18% of the workforce in construction production occupations, even though Hispanics have a 15% share of all types of construction employment."[24]

Wages for Latinos in construction are higher, on average, than for Latinos in other fields, but they are lower compared to wages of non-Latinos in construction. The real mean weekly earnings of Hispanic construction workers was $527 in 2003 compared to $502 for Hispanics overall and $752 for non-Hispanic construction workers.

The aging of the current workforce overall, as well as robust growth and youthfulness of the Hispanic population, have significant implications for the construction industry. Recent information suggests that in the next five years, Hispanics may represent almost one-half of construction industry employees.[25] In particular, the share of workers nearing retirement may represent an opportunity for Latino workers to fill these positions. Occupational areas in crafts in which there may be the largest need for human resource replacements are boilermakers, bricklayers, equipment operators, and pipe fitters/plumbers.[26] "For most crafts, 8% to 11% of workers are 55 or older . . .The [increase in the number of] older workers in the industry will lead to greater numbers of retirements throughout the 2005 to 2015 period."[27]

Specific characteristics of the Latino construction workforce are reflected in the following:

Geographical Diversity. The size of the Latino construction workforce generally reflects Latino population counts and growth trends in the U.S. as a whole. In New Mexico, for example, Latinos constitute 43% of the total population while Latino construction workers account for 48% of all construction workers in that state.[28] Regional data show that almost half (47%) of Hispanic construction workers can be found in the South, while about two in five (39%) are in the West. Fewer than one in ten Hispanic construction workers are in either the Midwest (6%) or the Northeast (8%).[29] These data are a sign of the demand for workers, especially in the South.[30]

Age. As in other industries, Hispanic workers in construction are younger, on average, than other American workers. Research shows that the median age for Hispanic construction workers is 33 compared to 39 for non-Hispanic workers. One-fifth of Hispanic workers are less than 25 years old compared to one-tenth of non-Hispanic workers.[31]

Gender. Men hold most of the jobs in the construction industry. Only about one in 25 (4%) construction workers is an Hispanic woman - including administrative support (clerical) positions - compared to one in ten (10%) non-Hispanic women.[32]

Immigration. Attention to the subject of immigrants and the construction industry is necessary for a number of reasons. While most Latinos are native-born, many are immigrants. Both documented and undocumented immigrants are employed by large and small construction companies. The construction industry - as well as other industries that do not require high levels of education and/or pay low wages - depends on these workers to meet their human resource demands. According to the Center to Protect Workers' Rights (CPWR), the nonprofit research arm of the Building and Construction Trades Department, AFL-CIO, 70% of Hispanic construction workers in 2000 were born outside the U.S. and 57% were not U.S. citizens as of 2000. CPWR also reports that 32% of the Hispanic construction workforce speaks only Spanish at home.[33] Furthermore, documented and undocumented immigrants make up a large segment of construction workers injured or killed on the job. Documented and undocumented reports on illness, injury, and fatality rates led the Occupational Safety and Health Administration (OSHA) to begin "tracking the immigration status of workers injured or killed on the job."[34]

Union Membership. Union membership has been noted to be higher among construction workers (14.7%) than among those in the private sector (7.9%).[35] By contrast, Latinos who work in the construction industry are less likely than non-Hispanics to belong to a union.[36] Data show that in 2000, 13% of Hispanic wage-and-salary workers were union members compared to 21% of non-Hispanics.[37] Overall, 19.4% of the 7.2 million wage-and-salary construction workers were union members in 2000.[38]

B. Challenges for Latino Workers in the Construction Industry

Research conducted for this paper revealed three particular areas of challenges and concerns for Latino workers in construction: injuries, illnesses, and fatalities.

Recent data show that U.S. injury/illness rates for all occupations dropped 3 1% from 1992 to 2000 and fatality rates decreased by 2%. However, for the same period, Hispanic fatality rates increased 11.6%.[39] By 2002, the fatality rate for Spanish-speaking construction workers had increased to 20% of the workforce. Moreover, the fatality rate may, in fact, be greater given the likelihood of unreported deaths of

undocumented workers from Latin America. In numerous cases, injuries to undocumented workers are not likely to be reported by construction businesses.

In addition, the Bureau of Labor Statistics (BLS) reports that the overall incidence of construction-related fatalities in private industry decreased by 35% between 1992 and 2001 and by almost 40% in the general construction industry. By contrast, "fatalities among [the Latino population] increased 67%."[40]

Additional information of significance relates to:

- **Injuries.** Musculoskeletal disorders - including most sprains and strains - are the most common type of nonfatal injury in construction. In 1999, sprains and strains resulted in lost workdays for 72,371 construction workers, according to an analysis of the BLS.* These and other injuries, including bone fractures, often have short- and long-term impact on a worker's health, personal and family finances, and overall quality of life. Moreover, there is a concern of underreporting of nonfatal injuries for Latinos, especially for those who are day laborers or undocumented workers.[41]

Illnesses. Many illnesses that affect those in the construction industry take years to surface. These include various types of lung problems, diseases caused by exposure to crystalline silica in dust, tuberculosis, and asthma. For those working on tunnel and highway construction projects, carbon monoxide poisoning is also a concern.[42] Other illnesses include hearing loss; research indicates that "the average 25-year-old carpenter has the hearing of a 55-year-old."[43]

Fatalities. BLS data show that the number of Latino fatalities in construction more than doubled from 104 in 1992 to 277 in 2000 - a 166% increase. OSHA reports that in 2001, construction-related accidents accounted for 3 1.5% of Latino worksite fatalities, up from 20.3% in 1992."[44] In fact, according to OSHA, "The number of [overall] fatal work injuries among Latino workers went up from 730 in 1999 to 8 15 in 2000 [largely due to] . . . a 24% jump in construction fatalities involving Latino workers.[45]

As noted above, data show that Latinos are overrepresented among occupational fatalities; in 2002, 15% of all workers who died were Hispanic, although Hispanics constituted less than 13% of the workforce that year. U.S. Department of Labor (DOL) data from 2002 also show that fatalities among Hispanic workers in all industries fell for the first time in seven years.[46] That year, however, OSHA reported that, "25% of fatal workplace incidents in the U.S. involved either workers who did not speak English or a supervisor unable to communicate with employees."[47] Although not all Latino construction workers are Spanish speakers, statistics indicate the need for continued examination of this issue in light of today's multilingual society.

According to the U.S. Hispanic Contractors Association, the safety of the Latino construction worker is at risk due to his/her strong desire to work and need to earn a living. Fearing deportation or job loss, undocumented workers may assume tasks they know to be unsafe. In particular, workers with language barriers are often not trained on safety procedures. Supervisors at many construction sites do not speak Spanish and, therefore, are unable to communicate task assignments or provide guidance to ensure the safety of Latino workers and others at construction sites.[48] Other factors that contribute to injuries, illnesses, and fatalities of Latino construction workers include unfamiliarity with equipment used in the U.S.; lack of awareness regarding the safe use of tools, machinery, and vehicles; and, particularly for undocumented workers, the tolerance to endure injury or illness given their personal and family's financial needs.

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* These data appear to conflict with data from the U.S. Army Corps of Engineers, which supervised 66 million to 68 million work hours yearly by contractors in the United States in 1996-2000 and reported a rate

of nonfatal injuries with days away from work of one-fourth or less of the BLS rate for construction. This suggests the need for additional analyses.

C. Approaches to Reducing Injury, Illness, and Fatality Rates

Both the government and private sectors have begun to address the serious problem of injury, illness, and fatality rates among Latino construction workers. Several noteworthy efforts include:

Spanish-language training materials delivered by native-language speakers; weekly or periodic safety meetings and training sessions in Spanish; and, "worker-to-worker observations . . . to supplement formal classroom safety training."[49]

Bilingual testing programs (BTP) which "allow employees to demonstrate proficiency and the ability to communicative effectively in their non-native language. One BTP provides employees who demonstrate language proficiency an achievement award of $1,000. In that program employees must pass a series of tests (English for Spanish-speaking employees and Spanish for English-speaking employees) in human resources, safety, and general and customer service. Skill may be demonstrated at five proficiency levels: elementary, limited working, general professional, advanced professional, and functionally native. Tests are administered by an independent company. To qualify for the achievement award, the employee must achieve general professional proficiency and be able to communicate (speak, not write) with sufficient vocabulary and structure." [50]

Federal government and other efforts to address Latino issues. One example is the DOL Hispanic Summit on Occupational Safety and Health held in July 2004 which brought together more than 500 representatives from government, community and faith-based organizations, nonprofits, industry, academia, and organized labor to share practical safety and health information, present success stories, and discuss gaps in communication, training, and outreach for Hispanic workers in the United States.[51] Similar activities include the Hispanic Construction Forum held in Raleigh, North Carolina in 2004, which "was presented entirely in Spanish . . . and [involved] many Hispanic news publications and community organizers as well as the Mexican consulate"[52] and a Spanish-language safety training session for Hispanic workers in construction and farming sponsored by the Houston Home Builders Association and the Houston OSHA area office.

Hispanic Workers Task Force. In 2002, OSHA founded the Hispanic Workers Task Force which established a 24-hour toll-free number (800-321 -OSHA) with Spanish-speaking operators available for eight hours each day; a Spanish-language OSHA Website (www.osha.gov) for construction employers and employees; and a resource list of OSHA employees fluent in the Spanish language.

Alliance formed in 2002 between OSHA and the U.S. Hispanic Contractors Association to plan and implement outreach and communication tools that promote safe work conditions for Hispanic construction workers. Some efforts focus on construction business compliance with OSHA standards while others concentrate on expanding safety and health training resources in Spanish.[53]

Grants for research and programs in this area, including a recent DOL grant to study English-language proficiency levels required of Hispanic workers by various employers. HMA Associates, Inc., a Latina-owned firm based in Washington, DC, will conduct the study in collaboration with the U.S.-Mexico Chamber of Commerce. Additionally, 26 Susan Harwood Training Grants with an Hispanic component were awarded in 2004 to organizations and educational institutions that will "provide

Spanish-language safety and health training programs targeted for hard-to-reach workers," including those in the construction industry. One of the 26 grants was awarded to the National Safety Council (NSC) for the purpose of conducting a ten-hour safety and health training for Hispanic workers in the roadway construction industry.

Spanish-Language Safety Information. The OSHA Training Institute offers employers Spanish-language safety and health videos and literature, as well as contact information for OSHA regional and area offices, and ten regional English-as-a-Second-Language coordinators. The coordinators assist employers with outreach training and consultation on compliance and serve as outreach liaisons to the OSHA Hispanic Workers Task Force. Spanish-language information pertinent to employees and employers is also offered online and through a telephone hotline.

State government agencies are also taking steps to curb the rate of injury, illness, and fatalities among Latinos. For example, in 2005 the North Carolina Department of Labor (NCDOL) sponsored five free safety construction forums at various locations throughout the state. The forums were conducted in Spanish primarily for the purpose of helping to reduce construction fatality rates. In 2004, the Department, "investigated a total of 35 construction fatalities, 18 of which involved construction workers struck by equipment. Another 10 fatalities resulted from falls. Nine of the 35 employees were Hispanic." As noted by Eddie Allen, co-chair of the NCDOL construction special emphasis program which organized the forums, the Department chose ,"to focus on the areas that cause the most fatalities. These forums are an opportunity for employees and employers to hear from safety experts and gain valuable insight into reducing construction fatalities and injuries."[54]

Nonprofit organizations are also contributing direct efforts to reduce the rate of Latino construction injuries and illnesses. The Associated General Contractors (AGC) (www.agc.org) has produced and makes available an extensive series of Spanish-language training materials. AGC offers more than 30 Spanish-language videos and CD-ROMs in addition to many more safety-oriented educational booklets, on-site training modules, and posters. Topics covered in videos, for example, are: Face and Face Protection, The Best Strategy: Personal Protective Equipment, Back to Back: Back Injury Prevention, Breathing Easier: Basics of Respiratory Protection, On Your Guard: Power Tool Safety, Putting It All Together: Scaffold Safety, Trenches Excavation Safety for Workers, and Health Hazards in Highway Construction Safety.

A novel approach was launched in October 2005 by the El Paso, Texas, chapter of the Associated General Contractors. Eighteen neighborhood billboards focused on construction safety were posted in English and Spanish throughout El Paso, a city with a Hispanic population of 78%.[55] The outreach campaign was a collaborative effort between AGS, JDW Insurance, T&T Staff Management, and the American Society of Safety Engineers.

V. Entry and Mobility for Latino Workers in the Construction Industry

The following section examines ways in which Latinos enter the construction industry: as workers and owners. Other significant avenues into the construction industry for Latinos include social and familial networks, and unions, although exploration of these issues is beyond the scope of this paper. More research is needed on these aspects of the experience of Latinos in the construction industry.

A. Career Pathways and Mobility

The existence of career pathways and opportunities for mobility would help to break down some barriers faced by workers in the construction industry. However, there is a major absence of systematically-derived information on construction career pathway and mobility programs for the Latino community, including career entry programs for Latinos in all construction occupations, and career mobility of the existing Latino construction workforce. In general, information on Latino construction workers suggests that career mobility, as achieved, is on a horizontal rather than vertical plane and greater information is needed to understand the factors related to this stagnation, including wages, skill and education levels, and demand.

In the absence of data, anecdotal information may be considered on Latino construction workers who aspire to move up from lower paying positions. Ed Hicks of the *Memphis Business Journal* observed, for instance, that, "The first wave of workers to Memphis brought mostly laborers, who worked with framing, brick laying and concrete, but the workforce has matured somewhat. Now more Hispanics have worked their way into insulation crews, heating and air conditioning and wiring."[56]

A representative of an NCLR affiliate in Northern California remarked that some agricultural workers move into the construction industry in which better paying occupations are available. Elizabeth Aguilera refers in her article "A Wealth of Diversity in a Valley of Riches"[57] to an immigrant who, "left Mexico in the mid-80's to harvest fruit in the U.S., first in Phoenix and then in Hotchkiss [Colorado]. While picking applies in Hotchkiss, he met a man who owned a hotel in Aspen. When the season was over in 1989, he traveled to Aspen to work in housekeeping ... He made the switch from full-time cook to full-time carpenter five years ago after working his way up and training on construction sites during summers and while doing part-time work."[58]

Programs are needed to assist individuals in developing new skill sets which result in promotions and better paying positions. Brad Sant, Vice President of Safety and Education for the American Road and Transportation Builders Association, stated at the 2005 Annual Meeting of the Construction Writers Association that employers can, "offer mentoring opportunities to Hispanic employees, who could then be trained to become future foremen and supervisors."[59]
Mentoring is one tool offered by Irene Ram Irez, Assistant City Engineer for the City of El Paso, Texas. As the second-in-command in her department, Ms. Ramirez exemplifies the value of hard work, intelligence, and perseverance in a primarily male-dominated career field. Her career pathway began in 1982 soon after her college graduation and placement as a traffic engineer working on the municipality's road designs and speed limit requirements. She moved to the city's overall engineering department operation in 1984 and was promoted in 1984 to a Civil Engineer III position after achieving licensed engineering status. Her subsequent promotion to Engineering Section Chief in 1989 was followed 12 years later by an

appointment to Assistant City Engineer. Ms. Ramirez, a second-generation U.S. citizen and first-generation college graduate, mentors high school students with whom she shares that ,"Engineering is not easy work, but it is satisfying."[60] Ramirez encourages other construction professionals to mentor students, particularly Latinas who may not otherwise consider careers in the construction industry. She lets students know that, "There's a lot of opportunity in the construction field. Whether you're going to the field or management, Latinas shouldn't be intimidated. Know your stuff...and succeed."[61]

Research for this paper suggests that community-based organizations (CBOs) play an important role in assisting with mobility for workers in construction and other fields. CBOs have a direct connection to communities and potential workers, so they are often the first point of contact for potential workers in different industries. Moreover, they can collaborate with private- and public-sector partners to create greater opportunities for Latinos and help to respond to industry needs, as well as shape workforce programs.

B. Workforce and Economic Development Intermediaries – Program and Advocacy Models

Several NCLR affiliates are implementing workforce development programs and approaches to prepare Latino workers for diverse jobs in the construction field. These efforts are geared to providing job training and employment preparation; increasing employment opportunities and placements; and facilitating career pathways for individuals to move into new career fields or different industries.*

Programs are tailored especially to individuals who are unemployed or seeking better paying positions. As the research has documented, partnerships among community-based organizations, education institutions, and employers are key to planning and executing effective programs. Below are descriptions of three workforce development models being implemented by NCLR affiliates. These models show potential for adaptation and replication in communities throughout the U.S.

Calexico Community Action Council (CCAC) - California

CCAC is based in Calexico, a border town with a population of 30,000, situated adjacent to Mexicali, Mexico whose population exceeds 1,000,000. In 1966, a few local citizens envisioned an approach to assist local residents with low incomes. Their vision to provide education and workforce development training and other services laid the foundation for CCAC. CCAC was formally established in 1968. In 2002, CCAC developed a construction workforce training program that has evolved into an electrical apprenticeship program. The school was approved in February 2005 as a candidate for accreditation by the Western Association for Schools and Colleges (WASC). CCAC hopes to receive full accreditation for the construction and building trades program in 2007. Under the current program, students will soon be eligible to apply for government-subsidized grants offered through Pell and other financial assistance programs. CCAC's candidate status from WASC leveraged another opportunity: Valley Independent Bank (now Rabo Bank) founded the CCAC loan program. The program provides students enrolled at CCAC with a 7% interest rate, a deferred payment plan, and the opportunity for both parties - students and bank - to establish a business relationship with potential short- and long-term benefits.

More than 300 students between the ages of 18 and 55 have graduated from the CCAC vocational school, which is open to low-income individuals eligible to live and work in the U.S. Students have included migrant farm workers, displaced farm workers from fallowed farmland, high school dropouts, juvenile delinquents, and former state and federal prisoners. As noted by Enrique G. Alvarado, CCAC Compliance Supervisor and OSHA-certified safety trainer," these are people who want to improve their

lives. We here at CCAC seek to make a difference by encouraging them to achieve. By doing so, we continue the legacy of the Council's founders, people whose memory we honor today."[62]

Students are required to complete a minimum of 30 hours of OSHA-approved safety training in addition to courses in mathematics, blueprints, and other vocational skills training areas. The school offers an electrical apprenticeship program complemented by "soft skill" training in communication and employment skills, as well as training in ten trade areas including plumbing, carpentry, HVAC, drywall, and cement.

The vocational school's overall student retention rate is 90%. Approximately 5% of the student enrollment has been female, all of whom have successfully completed the construction apprenticeship program. Key ingredients to the success of this program are personal attention, a commitment to student achievement, and a passionate determination to assist individuals. CCAC's impact on individuals may be gauged, in part, by the success of students such as one CCAC graduate who was unemployed upon entering the electrician training program. The graduate now works as a construction crew supervisor for an electrical contractor. He and his wife own a home in Calexico where they and their children reside.

CCAC's role in workforce development is particularly relevant and needed given a California regulation which became effective in January 2005. All individuals, including those with many years of direct electrical work experience, are required to pass a standardized, PC-based test in order to work as a General Electrician. Individuals with this designation are authorized to install fire/life safety systems, voice data and video installations, etc. The three-hour timed test may be taken by computer in English and/or Spanish. A similar test is required of those who wish to have a career as a Residential Electrician. CCAC and other vocational and/or education institutions thus play a critical role in assisting current and potential electricians to prepare for the standardized test and develop basic personal computing skills. California currently has nine authorized test sites.

Community colleges may be authorized as additional test locations. The cost for taking one exam, $175.00, likely poses a challenge to individuals with limited financial resources. In addition to apprenticeship training, CCAC also operates an industrial park housing a business incubator facility. Over the past 25 years of its existence, CCAC has assisted more than 1,000 enterprises with a variety of business development resources (e.g., guidance, mentoring, and financial counseling assistance), as well as space for offices, conference rooms, and warehouses.

The CCAC electrical apprenticeship program and business incubator center provide the local community with critical resources. The value of CCAC will continue to be assessed by its impact in the Calexico area, as well as through a new initiative in Yuma, Arizona. CCAC will work with local leaders to establish a program modeled after the CCAC electrical apprenticeship program in Calexico. The pilot program will therefore serve as a test site to gauge the potential to replicate CCAC programs in urban and rural areas.

El Centro, Inc. - Kansas

The misclassification of workers is an area of focus for El Centro in Kansas City, Kansas. Major efforts have been undertaken by the organization to better inform construction workers of their rights and the practice of some companies - including construction businesses - to classify individuals as "subcontractors" rather than as full-fledged employees. As noted by Melinda Lewis, Director of Policy and Advocacy at El Centro, misclassification results in many losses.

> Misclassified workers do not build Social Security reserves.

Misclassified workers who are injured are not covered by workers' compensation, medical insurance, or a sick leave plan.

Misclassified workers are not covered under minimum wage or overtime laws.

State and federal governments do not collect income taxes and incur the health care costs of workers without medical coverage.

Construction companies that do not misclassify workers may lose business due to more competitive bids of companies which routinely misclassify workers and incur lower employee benefit expenses.[63]

El Centro has partnered with other organizations including the Carpenter's District Council of Kansas City and Vicinities and the Tri-County Labor Council, the latter of which serves Northeast Kansas. Two community forums at churches were conducted to inform individuals about worker misclassification and worker rights and responsibilities. El Centro and other organizations are working to encourage the Kansas state legislature's adoption of legislation against worker misclassification. In addition, El Centro refers clients, as needed, to the U.S. Department of Labor's Wage and Hour Division which has the authority to conduct investigations of construction companies. Measures such as these may be replicated in areas where misclassification occurs. The reported rate of incidence may be quite significant. For instance, "During the years 2001-03, at least one in seven, or 14%, of [Massachusetts] construction employers [were] estimated to have misclassified workers as independent contractors."[64]

Hispanic Economic Development Corporation - Missouri

The Hispanic Economic Development Corporation (HEDC) of Kansas City, Missouri serves approximately 115 new clients each year. Roughly 15% of those served are Latino-owned construction companies or individuals aspiring to establish construction enterprises. HEDC assists these businesses and individuals by providing information and guidance on starting and managing a construction business, and information and technical assistance in pricing bids.

As Erika Ramirez, Manager of Business and Economic Development, states, "Owning a business is not right for everyone." However, knowing how to manage a business is critical for the individual seeking to establish a business. HEDC provides information on regulatory compliance, licensing, permits, minority/women business certification, marketing, and bid development. Ramirez states that one of the most critical services HEDC offers is information and technical assistance in developing bids. "Bids are usually developed with consideration to labor and materials. They are sometimes, however, developed without respect to indirect costs such as insurance, taxes, depreciation of equipment, and marketing. We work with construction business owners to better assure their bids reflect both direct and indirect expenses."

HEDC has been contacted by individuals who desire to establish their own construction businesses. Many are construction workers who are being encouraged by their employers to launch businesses with which they can subcontract. While building a business may prove to be lucrative to both the contractor and subcontractor, Ramirez maintains the importance of strategic thinking on the part of potential Latino business owners who may not be equipped to assume the financial and legal responsibilities of business ownership. Subcontractors, for example, must cover the cost of employee benefit packages, provide workers' compensation insurance, and assume other government-mandated responsibilities. Business owners are legally bound not to employ undocumented immigrants. Furthermore, although states such as Kansas and Missouri incorporate businesses, a business owner seeking minority and/or women business certification may not receive the designation if he or she is not a U.S. citizen.

In addition to assisting current and potential construction business owners, HEDC also familiarizes construction workers regarding worker rights and responsibilities. Individuals learn about misclassification of workers - the process by which employers knowingly "subcontract" with individuals who should otherwise be company employees covered by insurance and other employee benefits.

HEDC services to the Latino construction community make a difference and reinforce the organization's hope, plan, and commitment to "serve as a catalyst for change within the Latino community" [67]

C. Latino-Owned Construction Businesses

While most Latinos enter the construction industry through the traditional pathway as workers, an increasing number are moving up the ranks or entering as owners. According to a recent report by the U.S. Census Bureau, as of 2002, there were 1.6 million Hispanic-owned businesses in the U.S., up 3 1% from 1997. The rate - more than three times that of all U.S.-based enterprises - closely reflects the growth of the Hispanic population which grew 33% during the same time frame. Growth in small business development and ownership has a direct impact on the construction industry through generation of employment opportunities and the creation of new jobs.

More than one-third of all Hispanic-owned businesses are owned by women; this represents more than 553,000 businesses in the U.S., generating $44.4 billion in sales and employing more than 320,000 individuals.[68] In 2002, the five states which had the largest number of Latina-owned firms were Texas (18%), California (17.2%), Florida (16%), New York (14%), and Arizona (13%).

Of all Latino-owned businesses, approximately 13% were in construction.[69] In addition, recent research notes that 1.8% of immigrant women entrepreneurs were in the construction industry.[70] "The field of construction bears special mention given that it is not a traditional field for women, yet ranks eleventh in the list of top [twenty] industries for immigrant women entrepreneurs. This field has more immigrant women businesses than industries such as retail bakeries and travel arrangement and reservation services. Women have entered construction fields in gradually increasing numbers since Presidential Executive Order 11246 of 1978 amended the 1964 Civil Rights Act to establish goals and timetables to expand the role of women in nontraditional industries such as construction. The rate of business ownership by women in the construction field increased 36% between 1997 and 2002."[71]

Interviews conducted for this paper highlighted several challenges for Latino-owned construction businesses, including:

- Access to capital and bonding, knowledge of business and trade rules, and high technology issues.
- Greater understanding of business practices. [73]
- Certification of minority business ownership. [74]
- Identification of business opportunities.[75]

More data and analyses are needed on Latino-owned construction businesses, especially with respect to their role as a means to job creation and mobility in this industry.

Hispanic Business Magazine: Representation of Construction Businesses

Each year *Hispanic Business* magazine names the top 500 Hispanic-owned businesses in the United States. Ninety-five businesses - self-identified as construction-related enterprises - are included in the 2005 list. Three of the ninety-five construction businesses are Latina-owned. Construction fields represented include, but are not limited to, general contracting; electricity; heating, ventilation, and air conditioning; asphalt; concrete; and masonry.

Businesses represented on the list are located in 19 states and the District of Columbia. The three states with the largest number of Latino-owned construction businesses are Florida (22), California (21), and Texas (12). States with historically small Latino populations which have one Latino-owned construction business on the list are Missouri, Nevada, Tennessee, and Wisconsin. States with the largest number of businesses ranked in the top 25 segment are Florida (11); Texas (3); California, New Jersey, and Virginia (2 each); and Colorado, Georgia, and Missouri (1 each). The Related Group, a company based in Miami, Florida, is ranked number one. Its annual revenue in 2004 was $2.1 25 billion which represents a 96.4% increase from 2003 to 2004.[76]

VI. Key Findings and Next Steps

Research on Latinos in the construction industry points to a number of key findings regarding:

Representation of Latinos in construction. Latinos constitute a significant segment of workers in the construction industry, but tend to be overrepresented among laborers and underrepresented in management. Not surprisingly, Latinas are also underrepresented in this traditionally male-dominated industry.

Injuries and fatalities. Latinos are overrepresented among those who experience injury, illnesses, and fatalities in the construction field. Of special concern are safety issues for those who do not speak English fluently.

Business ownership. Of all Latino businesses in the U.S., one in seven is in construction. Challenges remain for Latinos to expand their share of the market.

Lack of information on key aspects of the Latino experience in this industry. Based on this paper, more data, analysis, and research is needed on Latinos in construction, especially on the different entry and mobility points available to them. Additional areas for research include the roles of unions and social networks, the challenges for business ownership, the impact of Latino-owned construction businesses on job creation, and the role of intermediaries.

Research suggests that:

A range of efforts are needed to promote Latino construction workforce development career paths, with a focus on mobility toward management and on increasing the representation of Hispanic women in construction fields. Attention from the construction industry, research, and community programs is warranted to address the occupational divide in the construction industry, especially the absence of Latinos at the supervisory and management ranks, the dearth of women workers, and the impact of English-language proficiency on the career mobility of Latino construction workers.

Particular attention is needed in both public policy and public education to reduce construction-related injuries, illnesses, and fatalities among Latino workers. Studies should be conducted to understand the factors that are associated with the disproportionately high rates of injury, illness, and fatality among Latinos. In particular, there is a need for comparative studies on injuries, illnesses, and fatalities at construction sites supervised by Spanish-speaking and non-Spanish speaking supervisors. Research would shed light on the role of language and worker-supervisor communications and contribute to the development of practices which reduce injuries, illnesses, and fatalities among all construction workers. In addition, policies and practices should be adopted at the federal, state, and municipal levels that specifically target worker safety and expand Spanish-language training. Public information campaigns should be conducted to educate Latino workers on safety issues and their rights. Other collaborations with national public health associations and Latino community-based organizations should be explored in an effort to reduce injury, illness, and fatality rates.

Construction industry data can be enhanced. Data should be collected on Latinos in construction to supplement existing data sets. For example, according to the trade magazine *Roofing Contractor,* the Occupational Safety and Health Administration does not collect data on the ethnicity of construction workers who are injured or become ill.

Community-based efforts, such as those described in this paper, are a few of several existing models that may be adapted and implemented in the construction industry. Resources are needed to break existing barriers and produce significant improvements that will expand the number of career mobile Latino construction workers and business owners; reduce injury, illness, and fatality rates among Latino workers; and improve methods for assessing the status of Latinos in the construction industry. Through thoughtful deliberation and planning, policies, processes, and programs can be utilized to break barriers and build hope in the construction industry and Latino community.

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Appendix B

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U.S. Department of Commerce, www.doc.gov
- Bureau of the Census, www.census.gov
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U.S. Small Business Administration, www.sba.gov
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U.S. Department of Transportation, www.dot.gov

U.S. Federal Deposit Insurance Corporation, www.fdic.gov

Army Corps of Engineers, www.usace.army.mil

Research and Policy Institutes

Pew Hispanic Center, www.pewhispanic.org

Tomas Rivera Policy Institute, www.trpi.org

Midwest Consortium for Latino Research, www.mclr.org

National Associations

Associated General Contractors (AGC) of America, www.agc.org
This national trade association produces a number of education and training materials, conducts training on numerous subjects including construction safety, and disseminates information via its website.

Institute for Supply Management (ISM), www.ism.ws
ISM conducts surveys of purchasing managers for manufacturing and nonmanufacturing companies, the latter of which includes data on construction companies.

U.S. Hispanic Chamber of Commerce, www.ushcc.com
The U.S. Hispanic Chamber of Commerce works with its network of 150 local Hispanic chambers of commerce and business organizations to build business opportunities of Hispanic-owned companies. Among other roles, the network focuses on economic development partnerships that strengthen Hispanic business opportunities; monitors legislation, policies, and programs affecting Hispanic businesses; and promotes international trade between businesses in the United States and Latin America.

U.S. Hispanic Contractors Association, www.ushca.org

The U.S. Hispanic Contractors Association (USHCA) is a national, nonprofit association which aims to strengthen the advancement, economic growth, and participation of Hispanic-owned businesses in contracting and procurement. The association currently includes seven chapters in Texas, the Hispanic

Contractors Association of Georgia, the Hispanic American Construction Industry Association in Chicago, Illinois, and the Hispanic Contractors Association of the Midwest.

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Appendix 3 – Boy Scouts of America

The Boy Scouts of America - http://www.scouting.org

The Boy Scouts of America is an organization with three age-based programs: Cub Scouts oriented toward boys 8-10; Boy Scouts focused on boys 11-17; and Explorers who are 15-20. Scouts progress through ranks Tenderfoot, Second Class, First Class, Star, Life, and Eagle. Progression to Star, Life, and Eagle is accomplished by earning merit badges with a minimum number specified for each of the ranks.

Boy Scout Merit Badges Relevant to Construction

- American Labor
- Communications
- Computers
- Drafting
- Electricity
- Emergency Preparedness
- Engineering
- First Aid
- Home Repairs
- Metalwork – Option 1 Sheet Metal Mechanic
- Model Design and Building
- Painting
- Plumbing
- Safety
- Surveying
- Woodwork

AMERICAN LABOR

1. Do ONE of the following:
    a. Develop a time line of significant history of the American labor movement from the 1770's to today.
    b. Prepare an exhibit or a scrapbook illustrating three major achievements of the American labor movement.
    c. In 500 words or more, write about one of the founders of organized labor in the United States.
    d. In 500 words or more, write how the work force fits into the economic system of the United States.
2. Check with some news sources where you live -- public library, federal, state, county, or municipal employment office; labor union office -- for information about working people and their concerns. Discuss your findings with your counselor.
3. Discuss with your counselor how you would lead a discussion on the subject of worker concerns about job-related issues. Issues should be related to the workplace (safety, job assignments, seniority, wages, child care, etc.).
4. With the help of your counselor, prepare an exhibit or scrapbook illustrating ONE of the following:
    a. Issues that concern American workers
    b. Federal and state labor laws showing how these laws affect American workers
    c. Current issues you have learned about from a national union or employee group
5. Visit the office or attend a meeting of a local union, an AFL-CIO labor council, or an independent employee organization. Talk with some people there and find out what the organization does. Draw a diagram of the organizational structure of the association you visited from the local to the national level, if applicable.
6. Be prepared to define and discuss some of the key terms used in labor relations.
7. With help from your counselor, determine some of the basic rights and responsibilities that members of unions, employee organizations, and those not belonging to a collective association have.
8. With help from your counselor, chart a comparison of wages, benefits, and working conditions in a union shop and a nonunion shop in the same industry.

9. Discuss why it is important to maintain good relationships among business, labor, and government. Describe to your counselor what can happen when these relationships get out of balance.
10. Discuss with your counselor the different goals that may exist with owners of a business, its stockholders, its customers, its employees, the employees' representatives, the community, and public officials. Explain why agreements and compromises are made and how they affect each group in attaining its goals.

COMMUNICATIONS

1. Do ONE of the following:
    a. For one day, keep a log in which you describe your communication activities. Keep track of the time and different ways you spend communicating, such as talking person-to-person, listening to your teachers or the radio, watching television, reading books, and other print media, and communicating online. Discuss with your counselor what your log reveals about the importance of communication in your life. Think of ways to improve your communications skills.
    b. For three days, keep a journal of your listening experiences. Identify one example of each of the following, and discuss with your counselor when you have listened to:
        1. Obtain information
        2. A persuasive argument
        3. Appreciate or enjoy something
        4. Understand someone's feelings
    c. In a small-group setting, meet with other scouts or with friends. Have them share personal stories about significant events in their lives that affected them in some way. Take note of how each scout participates in the group discussion and how effective each one is in telling his story. Report what you have learned to your counselor about the differences you observed in effective communication.
    d. List as many ways as you can think of to communicate with others (face-to-face, by telephone, letter, e-mail, fax). For each type of communication discuss with your counselor an instance when that method might not be appropriate or effective.
2. Do ONE of the following:
    a. Think of a creative way to describe yourself, using, for example, a collage, short story or autobiography, drawing or series of photographs, or a song or skit. Using the aid you created, make a presentation to your counselor about yourself.
    b. Choose a concept, product, or service in which you have great confidence. Build a sales plan based on its good points. Try to persuade the counselor to agree with, use, or buy your concept, product or service. After your sales talk, discuss with your counselor how persuasive you were.
3. Write a five-minute speech. Give it at a meeting of a group.
4. Interview someone you know fairly well, like, or respect because of his or her position, talent, career or life experiences. Listen actively to learn as much as you can about the person. Then prepare and deliver to your counselor an introduction of the person as though this person were to be a guest speaker, and include reasons why the audience would want to hear this person speak. Show how you would call to invite this person to speak.
5. Attend a public meeting (city council, school board, debate) approved by your counselor where several points of view are given on a single issue. Practice active listening skills and take careful notes of each point of view. Present an objective report that includes all points of view that were expressed, and share this with your counselor.
6. With your counselor's approval, develop a plan to teach a skill or inform someone about something. Prepare teaching aids for your plan. Carry out your plan. With your counselor, determine whether the person has learned what you intended.

7. Do ONE of the following:
    a. Write to the editor of a magazine or your local newspaper to express your opinion or share information on any subject you choose. Send your message by fax, email or regular mail.
    b. Create a web page for your scout troop, school, or other organization. Include at least one article and one photograph or illustration, and one link to some other web page that would be helpful to someone who visits the web page you have created. It is not necessary to post your web page to the internet, but if you decide to do so, you must first share it with your parents and counselor and get their permission.
    c. Use desktop publishing to produce a newsletter, brochure, flier or other printed material for your scout troop, class at school, or other group. Include at least one article and one photograph or illustration.
8. Plan a troop court of honor or campfire program. Have the patrol leaders' council approve it, then write the script and prepare the program. Serve as master of ceremonies.
9. Learn about opportunities in the field of communication. Choose one career in which you are interested and discuss with your counselor the major responsibilities of that position and the qualifications, education, and preparation it requires.

COMPUTERS

1. Give a short history of computers. Describe the major parts of a computer system. Give four different uses of computers.
2. Do the following:
    a. Tell what a program is and how it is developed.
    b. Give three examples of programming languages and what types of programming they are used for.
    c. Describe a source program and an object program.
3. Show how the following may be stored in computer memory: text, numbers, pictures, and sound.
4. Do THREE of the following:
    a. Use a database manager to create a troop roster, providing name, rank, patrol, and telephone number of each Scout. Sort the register by rank, by patrol, and alphabetically by name.
    b. Use a spreadsheet program to develop a weekend campout food budget for your patrol.
    c. Use a word processor to write a letter to parents of your troop's Scouts, inviting them to a court of honor. Use the mail merge feature to make a personalized copy of the letter for each family.
    d. Use a computer graphics program to design and draw a campsite plan for your troop.
5. Do TWO of the following:
    a. Visit a business or industry that uses computers. Study what the computer accomplishes and be prepared to discuss what you observed.
    b. Use a computer attached to a local area network or equipped with a modem to connect to a computer network or bulletin-board service such as Prodigy, CompuServe, or America Online. Send a message to someone on the network or download a program or file from the network.
    c. Use a general-purpose programming language to write a program application of your choice, subject to approval by your counselor.
6. Be prepared to discuss several terms used in each of the following categories:
    a. Input/output devices
    b. Storage media
    c. Memory
    d. Processors and coprocessors
    e. Modems

   f. Networks
   g. Electronic mail
   h. Robotics
7. Be prepared to discuss various jobs in the computer field.
8. Is it permissible to accept a free copy of a computer game or program from a friend? Why or why not?
9. Describe several ways in which you and your family could use a personal computer other than for games and recreation.

DRAFTING

1. Format four sheets of drawing paper (or two sheets of paper if you are completing requirement 3) with proper borders and title blocks for your projects.
   a. Make a rough sketch of your project drawings to determine the correct size of paper to format.
   b. Using single-stroke vertical or slant Gothic lettering, fill in all important information in the title block sections of the formatted paper.

   Complete requirement 2 or 3 for your drawing projects.

2. Prepare two of the following pencil drawings for reproduction, using two of the formatted sheets of paper and being sure to fill in the title block information.
   a. Architectural: Make a rough sketch of a room. From it, make a finished scale floor plan. Using conventional symbols, show all openings, equipment, lights, and safety devices. Use an architectural scale size.
   b. Mechanical: Make a scale drawing of some piece of craft work or interesting object. Use the orthographic projection technique to show at least three views. Use dimension lines to show the actual size.
   c. Electrical: Draw a simple schematic of a radio or electronic circuit. Properly print a bill of materials of the major electronic parts of the radio or circuit. Use standard drawing symbols for the electronic components.
3. Using a CAD (computer-aided drafting) system, prepare and plot one of the drawings in requirements 2a, 2b, or 2c. Create the format (border and title block) on the computer before starting the drawing.
4. Using a formatted sheet of paper, prepare an isometric drawing of something not drawn in requirement 2 or 3. On the drawing, list which instruments you used.
5. Lettering: Using single-stroke vertical or slant Gothic lettering, describe in forty words or less why CAD is used in a particular industry (aerospace, electronics, architectural, or other). Use the 8½-by-11-inch formatted sheet.
6. Describe the three most common methods of reproducing pencil drawings. Describe one method of reproducing a computer drawing. Make copies of one of your drawings using one of these methods.

ELECTRICITY

1. Demonstrate that you know how to respond to electrical emergencies by doing the following:
   a. Show how to rescue a person touching a live wire in the home.
   b. Show how to render first aid to a person who is unconscious from electrical shock.
   c. Show how to treat an electrical burn.

   d. Explain what to do in an electrical storm.
   e. Explain what to do in the event of an electrical fire.
2. Complete an electrical home safety inspection of your home, using the checklist found in this pamphlet or one approved by your counselor. Discuss what you find with your counselor.
3. Make a simple electromagnet and use it to show magnetic attraction and repulsion.
4. Explain the difference between direct current and alternating current.
5. Make a simple drawing to show how a battery and an electric bell work.
6. Explain why a fuse blows or a circuit breaker trips. Tell how to find a blown fuse or tripped circuit breaker in your home. Show how to safely reset the circuit breaker.
7. Explain what overloading an electric circuit means. Tell what you have done to make sure your home circuits are not overloaded.
8. On a floor plan of a room in your home, make a wiring diagram of the lights, switches, and outlets. Show which fuse or circuit breaker protects each one.
9. Do the following:
   a. Read an electric meter and, using your family's electric bill, determine the energy cost from the meter readings.
   b. Discuss with your counselor five ways in which your family can conserve energy.
10. Explain the following electrical terms:

volt	ampere	watt
ohm	resistance	potential difference
rectifier	rheostat	conductor
ground	circuit, and	short circuit

11. Do any TWO of the following:
   a. Connect a buzzer, bell, or light with a battery. Have a key or switch in the line.
   b. Make and run a simple electric motor (not from a kit).
   c. Build a simple rheostat. Show that it works.
   d. Build a single-pole, double-throw switch. Show that it works.
   e. Hook a model electric train layout to a house circuit. Tell how it works.

EMERGENCY PREPAREDNESS

1. Earn the First Aid Merit Badge.
2. Do the following:
   a. Discuss with your counselor these three aspects of emergency preparedness:
      1. **Recognition** of a potential emergency situation
      2. **Prevention** of an emergency situation
      3. **Reaction** to an emergency situation

      Include in your discussion the kinds of questions that are important to ask yourself as you consider each of these.

   b. Make a chart that demonstrates your understanding of each of the three aspects of emergency preparedness in requirement 2a (recognition, prevention, and reaction) with regard to 10 of the situations listed below. **You must use situations 1, 2, 3, 4, and 5*** but may choose any other five for a total of 10 situations. Discuss this chart with your counselor.
      1. **Home kitchen fire***
      2. **Home basement/storage room/garage fire***
      3. **Explosion in the home***
      4. **Automobile accident***

        5. **Food-borne disease (food poisoning)***
        6. Fire or explosion in a public place
        7. Vehicle stalled in the desert
        8. Vehicle trapped in a blizzard
        9. Flash flooding in town or the country
        10. Mountain/backcountry accident
        11. Boating accident
        12. Gas leak in a building
        13. Tornado or hurricane
        14. Major flood
        15. Nuclear power plant emergency
        16. Avalanche (snow slide or rockslide)
        17. Violence in a public place
    c. Meet with and teach your family how to recognize, prevent, and react to the situations on the chart you created for requirement 2b. Then meet with your counselor and report on your family meeting, discussing their responses.
3. Show how you could safely save a person from the following:
    a. Touching a live electric wire.
    b. A room with carbon monoxide
    c. Clothes on fire.
    d. Drowning using non-swimming rescues (including accidents on ice).
4. Show three ways of attracting and communicating with rescue planes/aircraft.
5. With another person, show a good way to move an injured person out of a remote and/or rugged area, conserving the energy of rescuers while ensuring the well-being and protection of the injured person.
6. Do the following:
    a. Tell the things a group of Scouts should be prepared to do, the training needed, and the safety precautions they should take for the following emergency services:
        1. Crowd and traffic control
        2. Messenger service and communication.
        3. Collection and distribution services.
        4. Group feeding, shelter, and sanitation.
    b. Identify the government or community agencies that normally handle and prepare for the emergency services listed under 6a, and explain to your counselor how a group of Scouts could volunteer to help in the event of these types of emergencies.
    c. Find out who is your community's disaster/emergency response coordinator and learn what this person does to recognize, prevent and respond to emergency situations in your community. Discuss this information with your counselor and apply what you discover to the chart you created for requirement 2b.
7. Take part in an emergency service project, either a real one or a practice drill, with a Scouting unit or a community agency.
8. Do the following:
    a. Prepare a written plan for mobilizing your troop when needed to do emergency service. If there is already a plan, explain it. Tell your part in making it work.
    b. Take part in at least one troop mobilization. Before the exercise, describe your part to your counselor. Afterward, conduct an "after-action" lesson, discussing what you learned during the exercise that required changes or adjustments to the plan.
    c. Prepare a personal emergency service pack for a mobilization call. Prepare a family kit (suitcase or waterproof box) for use by your family in case an emergency evacuation is needed. Explain the needs and uses of the contents.
9. Do ONE of the following:
    a. Using a safety checklist approved by your counselor, inspect your home for potential hazards. Explain the hazards you find and how they can be corrected.
    b. Review or develop a plan of escape for your family in case of fire in your home.

c. Develop an accident prevention program for five family activities outside the home (such as taking a picnic or seeing a movie) that includes an analysis of possible hazards, a proposed plan to correct those hazards, and the reasons for the corrections you propose.

ENGINEERING

1. Select some manufactured item in your home (such as a toy or an appliance) and, under adult supervision and with the approval of your counselor, investigate how and why it works as it does. Find out what sort of engineering activities were needed to create it. Discuss with your counselor what you learned and how you got the information.
2. Select an engineering achievement that has had a major impact on society. Use the resources available to you to research it. Tell your counselor about the engineer(s) who made it possible, the special obstacles they had to overcome, and how this achievement has influenced the world today.
3. Explain the work of six types of engineers. Pick two of the six and explain how their work is related.
4. Visit with an engineer (who may be your counselor or parent) and do the following:
    a. Discuss the work this engineer does and the tools the engineer uses.
    b. Discuss with the engineer a current project and the engineer's particular role in it.
    c. Find out how the engineer's work is done and how results are achieved.
    d. Ask to see the reports that the engineer writes concerning the project.
    e. Discuss with your counselor what you learned about engineering from this visit.
5. Do ONE of the following:
    a. Use the engineering-systems approach to make step by step plans for your next campout. List alternative ideas on such items as program schedule, campsites, transportation, and costs. Tell why you made the choices you did and what improvements were made.
    b. Make an original design for a piece of patrol equipment. Use the engineering-systems approach to help you decide how it should work and look. Draw plans for it. Show the plans to your counselor, explain why you designed it the way you did, and explain how you would make it.
6. Do TWO of the following:
    a. *Transforming Motion.* Using common material or a construction set, make a simple model that will demonstrate transforming motion. How does this make use of basic mechanical concepts like levers and inclined planes? Describe an example where this mechanism is used in a real product.
    b. *Using Electricity.* Make a list of 10 electrical appliances in your home. Find out approximately how much electricity each uses in one month. Learn how to find out the amount and cost of electricity used in your home during periods of light and heavy use. Tell five ways to conserve electricity.
    c. *Using materials.* Do experiments to show the differences in strength and heat conductivity in wood, plastic, and metal. Discuss with your counselor what you have learned.
    d. *Converting Energy.* Do an experiment to show how mechanical, heat, chemical, solar, and/or electrical energy may be converted from one or more types of energy to another. Explain your results. Describe to your counselor what energy is and how energy is converted and used in your surroundings.
    e. *Moving people.* Find out the different ways people in your community get to work. Make a study of traffic flow (number of vehicles and relative speed) in both heavy and light traffic periods. Discuss with your counselor what might be improved to make it easier for people in your community to get where they need to go.
    f. *Science Fair*. Build an engineering project for a science or engineering fair or similar competition, and enter it. (This requirement may be met by participation on an

engineering competition project team.) Discuss with your counselor what your project demonstrates and what kind of questions visitors to the fair asked you about it. How well were you able to answer their questions?

7. Find out what high school courses you need to take to be admitted to an engineering college. Find out what other subjects would be helpful in preparing for an engineering career.
8. Explain what it means for an engineer to be a registered Professional Engineer (P.E.). In what types of engineering work is registration most important?
9. Study the Engineer's Code of Ethics. Explain how this is like the Scout Oath and Scout Law.

FIRST AID

1. Satisfy your counselor that you have current knowledge of all first-aid requirements for Tenderfoot, Second Class, and First Class ranks.
2. Do the following:
   a. Explain how you would obtain emergency medical assistance from your home, on a wilderness camping trip, and during an activity on open water.
   b. Prepare a first aid kit for your home. Display and discuss its contents with your counselor.
3. Do the following:
   a. Explain what action you should take for someone who shows signs of a heart attack.
   b. Identify the conditions that must exist before performing CPR on a person.
   c. Demonstrate proper technique in performing CPR **using a training device approved by your counselor.**
   d. Show the steps that need to be taken for someone suffering from a severe laceration on the leg and on the wrist. Tell the dangers in the use of a tourniquet and the conditions under which its use is justified.
   e. Explain when a bee sting could be life threatening and what action should be taken for prevention and for first aid.
   f. Explain the symptoms of heat stroke and what action needs to be taken for first aid and for prevention.
4. Do the following:
   a. Describe the signs of a broken bone. Show first-aid procedures for handling fractures, including open (compound) fractures of the forearm, wrist, upper leg, and lower leg using improvised materials.
   b. Describe the symptoms and possible complications and demonstrate proper procedures for treating suspected injuries to the head, neck, and back. Explain what measures should be taken to reduce the possibility of further complicating these injuries.
5. Describe the symptoms, proper first-aid procedures, and possible prevention measures for the following conditions:
   a. Hypothermia
   b. Convulsions / seizures
   c. Frostbite
   d. Dehydration
   e. Bruises, strains, sprains
   f. Burns
   g. Abdominal pain
   h. Broken, chipped, or loosened tooth
   i. Knocked-out tooth
   j. Muscle cramps
6. Do the following:
   a. If a sick or injured person must be moved, tell how you would determine the best method.
   b. With helpers under your supervision, improvise a stretcher and move a presumably unconscious person.
7. Teach another Scout a first-aid skill selected by your counselor.

HOME REPAIRS

1. Discuss general precautions related to home repairs. Name at least 10 safe practices that every home repairer should exercise.
2. Under the supervision of your merit badge counselor, do FOUR of the following:
    a. Maintain or recondition a garden tool and show that you know how to clean up and properly store it and other tools.
    b. Install insulation in an attic, wall, or crawl space.
    c. Caulk cracks or joints open to the weather.
    d. Waterproof a basement.
    e. Repair a break in a concrete or asphalt surface.
    f. Repair the screen in a window or door.
    g. Replace a pane of glass.
    h. Solder a broken wire or metal object.
3. Under the supervision of your merit badge counselor, do THREE of the following:
    a. Install or build equipment for storing tools.
    b. Build a workbench
    c. Repair a piece of furniture.
    d. Paint or varnish a piece of furniture, a door, or trim on a house.
    e. Repair a sagging door or gate.
    f. Repair a loose step.
    g. Repair a fence.
4. Under the supervision of your merit badge counselor, do TWO of the following:
    a. Locate a main electrical switch box and know how to replace a fuse or reset a circuit breaker.
    b. Replace an electrical cord or repair a plug or lamp socket.
    c. Install a single-pole light switch.
    d. Replace an electrical wall outlet.
5. Under the supervision of your merit badge counselor, do TWO of the following:
    a. Clear a clogged drain or trap.
    b. Repair a leaky water faucet.
    c. Repair a flush toilet.
    d. Repair a leaky hose or connector.
    e. Clean or replace a sprinkler head.
6. Under the supervision of your merit badge counselor, do THREE of the following:
    a. Paint a wall or ceiling.
    b. Repair or replace damaged tile or linoleum.
    c. Install drapery or curtain rods and then hang drapes or curtains.
    d. Replace window blind cords.
    e. Repair or replace a window sash cord.
    f. Reinforce a picture frame.
    g. Mend an object made of china, glass, or pottery.

METALWORK

1. Read the safety rules listed in the Metalwork merit badge pamphlet. Describe to your counselor how to be safe while working with metal. Because this merit badge offers four options, show your counselor which additional safety rules apply to the discipline you choose and discuss them with your counselor.
2. Do the following:

   a. Define the term **native metal**.
   b. Define the term **malleable**.
   c. Define the term **metallurgy**.
   d. Define the term **alloy**.
   e. Name two **nonferrous** alloys used by pre-Iron Age metalworkers, and name the metals that are combined to form these alloys.
   f. Explain the term **ferrous**, and name three ferrous alloys used by modern metal workers.
   g. Describe how to **work-harden** a metal.
   h. Describe how to **anneal** a nonferrous and a ferrous metal.
3. Do the following:
   a. Put a 45-degree bend in a small piece of 26- or 28-gauge sheet brass or sheet copper. Note the amount of effort that is required to overcome the yield point in this unworked piece of metal.
   b. Work-harden another piece of the same sheet brass or sheet copper, and then put a 45-degree bend in it. Note the amount of effort that is required to overcome the yield point.
   c. Soften the same bent, work-hardened piece by annealing it, and then try to remove the 45-degree bend. Note the amount of effort that is required to overcome the yield point.
   d. Join two small pieces of scrap metal using a hammered rivet. Repeat the process using a pop rivet.
   e. Using a flat lock seam, join two pieces of scrap metal together with either lead-free solder or silver solder.
   f. Make a temper color index from a flat piece of steel. Using hand tools, make and temper a center punch of medium-carbon or high-carbon steel.
   g. Using metal cans, practice using the basic metalworking tools and techniques by making at least two tasteful objects that require cutting, bending, and edging.
4. Do ONE of the following:
   a. Visit an experienced sheet metal mechanic, tinsmith, coppersmith, silversmith, jeweler, founder, or a blacksmith at his or her workshop. You may select a skilled hobbyist or a professional. Ask permission to see the tools used and to examine examples of the work made at the shop. Inquire about the level of education required to become an apprentice craftsman.
   b. If you have (or your counselor has) access to the Internet, explore metalworking occupations by conducting a Web search. With your counselor's help and guidance, find at least five metalworking-related Web sites. Print a copy of the Web pages and discuss them with your counselor.

      When conducting your Web search, use keywords such as *metallurgy, metalwork, spinning metal, metal fabrication, steel fabrication, aluminum fabrication, casting metal, pattern making, welding, forge welding, blacksmith, art metal, Artist Blacksmith Association of North America, farrier, brazing, goldsmith, machinist,* or *sheet metal mechanic*.
5. After completing the first four requirements, complete at least ONE of the options listed below.
   a. **Option 1--Sheet Metal Mechanic/Tinsmith**
      1. Name and describe the use of the basic sheet metalworking tools.
      2. Create a reasonably accurate sketch of two tasteful objects to make from sheet metal. Include each component's dimensions on your sketch.
      3. Using patterns provided either by your counselor or made by you, make at least two tasteful objects out of 24- or 26-gauge sheet metal. Use a metal that is appropriate to the object's ultimate purpose.
         a. Both objects must be constructed using cutting, bending, edging, and either soldering or brazing.
         b. One object also must include at least one riveted component.
         c. If you do not make your objects from zinc-plated sheet steel or tin-plated sheet steel, preserve your work from oxidation.
   b. **Option 2--Silversmith**
      1. Name and describe the use of the basic tools used by a silversmith.

2. Create a reasonably accurate hand-drawn sketch of two tasteful objects to make from sheet silver. Include each component's dimensions on your sketch.
3. Using patterns either provided by your counselor or made by you, make at least two tasteful objects using 18- or 20-gauge sheet copper. If you already have prior silversmithing experience, you may substitute sterling silver, nickel silver, or lead-free pewter.
    a. At least one object must include a sawed component you have made yourself.
    b. At least one object must include a sunken part you have made yourself.
    c. Both objects must include a soldered joint.
    d. Clean and polish your objects.

c. **Option 3--Founder**
1. Name and describe the use of the basic parts of a two-piece mold. Name at least three different types of molds.
2. Create a reasonably accurate sketch of two tasteful objects to cast in metal. Include the height, width and length on the sketch.
3. Do the following:
    a. Using a pattern provided by your counselor and another one you have made yourself, make two molds. Position the pouring gate and vents yourself. *Do not use copyrighted materials as patterns.*
    b. Make a casting using a mold provided by your counselor *and* make a casting using the mold that you have made. Use lead-free pewter when casting each mold.
    c. Remove all evidence of gates, vents, and parting-line flash from your castings.

d. **Option 4--Blacksmith**
1. Name and tell the use of the basic tools used by a blacksmith.
2. Make a reasonably accurate sketch of two tasteful objects to hot-forge. Include each component's dimensions on your sketch.
3. Using low-carbon steel at least ¼-inch thick, perform the following exercises:
    a. Draw out by forging a taper.
    b. Use the horn of the anvil by forging a U-shaped bend.
    c. Twist steel by placing a decorative twist in a piece of square steel.
    d. Use the edge of the anvil to bend metal by forging an L-shaped bend.
4. Using low-carbon steel at least ¼-inch thick, make at least two tasteful objects that require hot-forging.
    a. Include a decorative twist on one object.
    b. Include a hammer-riveted joint in one object.
5. Preserve your work from oxidation.

MODEL DESIGN AND BUILDING

1. Study and understand the requirements for personal safety when using such model maker hand tools such as: knives, handsaws, vices, files, hammers, screwdrivers, hand drills and drill bits, pliers, and portable power tools, and when to use protective equipment such as goggles when grinding or drilling. Know what precautions to take when using flammable or hazardous products such as: glue, epoxy, paint, thinners. Discuss these with your counselor before you begin your model-making project and tell why they are important.
2. Explain the uses for each of the following types of models: architectural, structural, process, mechanical, and industrial. Do research into the different types of materials that could be used in making these models.

3. With your counselor's advice, select a subject from requirement 4 for your model project (no kits). Prepare the necessary plans to the proper scale, a list of materials to be used, and a list of the required tools. This model should be your own original work. Tell why you selected this subject.
4. Do ONE of the following:
    a. Make an architectural model. Build a model of a house to a scale of 1/4"=1'0" (50:1 metric). Discuss with your counselor the materials you intend to use, the amount of detail required, outside treatment (finish, shrubbery, walks, etc.) and color selections. After completing the model, present it to your counselor for approval.
    b. Build a structural model. Construct a model showing corner construction of a wood frame building to a scale of 1 1/2"=1'0" (8:1 Metric). All structures shown must be to scale. Cardboard or flat sheet wood stock may be used for sheeting or flooring on the model. Review with your counselor the problems you encountered in gathering the materials and supporting the structure. Be able to name the parts of the floor and wall frames, such as intermediate girder, joist, bridging, sub floor, sill, sole plate, stud and rafter.
    c. Make a process model. Build a model showing the plumbing system in your house. Show hot and cold water supply, all waste returns, and venting to a scale of 3/4"=1'0" (15:1 Metric). Talk to your counselor about how to begin this model, and present the scale and the materials you will use. After completion, present the model to your counselor and be prepared to discuss any problems you had building this model.
    d. Complete a mechanical model. Build a model of a mechanical device that uses at least two of the six simple machines. After completing the model, present it to your counselor. Be prepared to discuss materials used, the machine's function, and any particular difficulty you may have encountered.
    e. Make an industrial model. Build a model of an actual passenger-carrying vehicle to a scale of 1"=1'0" or ½" = 1'0" (10:1 or 25:1 Metric). Take the dimensions of the vehicle, and record the important dimensions. Draw the top, front, rear, and sides of the vehicle to scale. From your plans, build a model of the vehicle to scale. From your plans, build a model of the vehicle and finish in a craftsman like manner. Discuss with your counselor the most difficult part of completing the model.
5. Build a special-effects model of a fantasy spacecraft that might appear in a Hollywood science-fiction movie. Determine an appropriate scale for your design - one that makes practical sense. Include a cockpit or control area, living space, storage unit, engineering spaces, and propulsion systems. As you plan and build your model, do the following
    a. Study aircraft, submarines, and naval ships for design ideas.
    b. Arrange and assemble the parts.
    c. Sketch your completed model.
    d. Write a short essay in which you discuss your design, scale, and materials choices. Describe how you engineered your model and discuss any difficulties you encountered and what you learned.
6. List at least six occupations in which model making is used and discuss with your counselor some career opportunities in this field.

PAINTING

1. Explain the proper safety procedures to follow when preparing surfaces and applying coatings.
2. Do the following:
    a. Explain three ways that coatings can improve a surface.
    b. Explain the differences between oil-based paints and water-based paints.
    c. Explain where you would apply enamel paint, flat paint, wood stain, and varnish, and explain the importance of sheen.
    d. Tell why each is best for these uses.

3. Prepare and paint two different surfaces using patching material, caulking, and proper primers and topcoats. Suggested projects include an interior or exterior wall, a door, a piece of furniture, a concrete wall or floor , a porch rail, or a fence. Your counselor must preapprove the projects.
4. Prepare and paint an item using harmonizing colors that you have created by tinting white base paint. (Use the color wheel in the center of this book.)
5. Show the right way to use, clean, maintain, and store painting equipment.
6. Explain the importance of ladder safety, environmental responsibility, and personal hygiene when painting.
7. Explain some of the environmental and health issues concerning removing paint, applying paint, and discarding old paint.
8. Discuss with your counselor the various career opportunities associated with the painting trade.

PLUMBING

1. Do the following:
    a. Describe how a properly working plumbing system protects our family's health and safety.
    b. List five important local health regulations related to plumbing and tell how they protect health and safety.
    c. Describe the safety precautions you must take when making home plumbing repairs.
2. Do the following:
    a. Make a drawing and explain the way the hot- and cold- water supply system in your home or that of a neighbor works. Tell how you would make it safe from freezing.
    b. Make a drawing and explain the drainage system of the plumbing in a house. Show and explain the use of drains and vents.
3. Show how to use five important plumber's tools.
4. Identify and describe the use of each of the following: washer, retaining nut, plunger (rubber force cup), solder, flux, elbow, tee, nipple, coupling, plug, union, trap, drainpipe, and water meter.
5. Name the kinds of pipe that are used most often in a plumbing system. Explain why these pipes are used.
6. Cut, thread, and connect two pieces of steel pipe.
7. Under the supervision of a knowledgeable adult, solder three copper tube connections using a gas torch. Include one tee, two straight pieces, and one coupling.
8. Do the following:
    a. Replace a washer in a faucet.
    b. Clean out a sink or lavatory trap.

SAFETY

1. Prepare a notebook to include:
    a. Newspaper and other stories showing common kinds and causes of accidents in the home
    b. Newspaper and other stories showing common kinds of crimes against families like yours
    c. Facts you have obtained concerning the frequency of accidents and of crimes involving families in your locality
    d. A paragraph or more, written by you, explaining how your family life could be changed by a serious fire, accident, or crime

   e. A list of safe practices and safety devices currently used in your family's home and automobile
2. Do the following:
   a. Using a safety checklist approved by your counselor, make an inspection of your home. Explain the hazards found and how they can be corrected.
   b. Review or develop your family's plan of escape in case of fire in your home.
3. Do the following:
   a. Discuss with your counselor how you contribute to the safety of yourself, your family, and your community.
   b. Show your family members how to protect themselves and your home from accidents, fire, theft, robbery, and assault.
4. Show your family exits you would use from different public buildings (such as a church, theater, municipal building, library, supermarket, or shopping center) in the event of an emergency. Teach your family what do in the event of a panic.
5. Make a plan for accident prevention programs for five family activities outside the home (at church, at a theater, on a picnic, at the beach, and while traveling). Each plan should include an analysis of possible hazards, proposed action to correct hazards, and reasons for the correction you propose.
6. Plan and complete a safety project approved by your counselor in your home, school, church, or community.

SURVEYING

1. Show that you know first aid for the types of injuries that could occur while surveying, including cuts, scratches, snakebite, insect stings, tick bites, heat and cold reactions, and dehydration. Explain to your counselor why a surveyor should be able to identify the poisonous plants and poisonous animals that are found in your area.
2. Find and mark the corners of a five-sided lot that has been laid out by your counselor to fit the land available. Set an instrument over each of the corners and record the angle turned between each line and the distance measured between each corner, as directed by your counselor. With the assistance of the counselor, compute the error of closure from the recorded notes. The error of closure must not be more than 5 feet. From the corners, take compass readings or turn angles to trees, shrubs, and rocks and measure to them. All measurements should be made using instruments, methods, and accuracies consistent with current technology.
3. From the field notes gathered for requirement 2, draw to scale a map of your survey. Submit a neatly drawn copy.
4. Write a metes and bounds description for the five-sided lot in requirement 2.
5. Use one of the corner markers from requirement 2 as a benchmark with an assumed elevation of 100 feet. Using a level and rod, determine the elevation of the other four corner markers.
6. Get a copy of the deed to your property, or a piece of property assigned by your counselor, from the local courthouse or title agency.
7. Tell what GPS is; discuss with your counselor the importance of GPS and how it is changing the field of surveying.
8. Discuss the importance of surveying with a licensed surveyor. Also discuss the various types of surveying and mapping, and applications of surveying technology to other fields. Discuss career opportunities in surveying and related fields. Discuss qualifications and preparation for such a career.

WOODWORK

1. Do the following:
    a. Show that you know first aid for injuries that could occur while woodworking, including splinters, scratches, cuts, severe bleeding, and shock. Tell what precautions must be taken to help prevent loss of eyesight or hearing, and explain why and when it is necessary to use a dust mask.
    b. Earn the Totin' Chip recognition.
    c. Tell your counselor what precautions you take to safely use your tools.
2. Do the following:
    a. Describe how timber is grown, harvested, and milled. Tell how lumber is cured, seasoned, graded, and sized.
    b. Collect and label blocks of six kinds of wood useful in woodworking. Describe the chief qualities of each. Give the best uses of each.
3. Do the following:
    a. Show proper care, use, and storage of all working tools and equipment that you own or use at home or school.
    b. Sharpen correctly the cutting edges of two different tools.
4. Use a saw, plane, plane, hammer, brace, and bit, make something useful of wood. Cut parts from lumber that you have squared and measured from working drawings.
5. Create your own carpentry project. List the materials you will need to complete your project, and then build your project. Keep track of the time you spend and the cost of the materials.
6. Do any TWO of the following:
    a. Make working drawings of a project needing - (1) Beveled or rounded edges OR curved or incised cuttings, OR (2) Miter, dowel, or mortise and tenon joints. Build this project.
    b. Make something for which you have to turn duplicate parts on a lathe.
    c. Make a cabinet, box or something else with a door or lid fastened with inset hinges.
    d. Help make and repair wooden toys for underprivileged children; OR help carry out a carpentry service project approved by your counselor for a charitable organization.
7. Talk with a cabinetmaker or carpenter. Find out about the training, apprenticeship, Career opportunities, work conditions, pay rates, and union organization for woodworking experts in your area.

Appendix 4 – George Meany Award

The George Meany Award

THE SIGNIFICANCE OF THE GEORGE MEANY AWARD

It is estimated that one out of every four top unit leaders of Cub Scout packs, Boy Scout troops, Varsity Scout teams, and Venturing crews in the United States is a union member. That's a lot of union Scout leaders. Thousands of other union members serve youth through the Boy Scouts of America in local districts and councils, and on the regional and national levels.

In recognition of their contributions to America's future, the AFL-CIO Executive Council established the George Meany Award. It recognizes union members—men and women—who have made a significant contribution to the youth of their communities by volunteering in the programs of the BSA. The award is named for the AFL-CIO's first president, who gave strong support to Scouting over the years.

Since the George Meany Award was introduced in 1974, more than 2,100 have been presented by AFL-CIO central labor councils and state federations throughout the U.S. The award, a recognition approved by the national AFL-CIO Executive Council, gives organized labor an opportunity to recognize members for their service to youth, and also makes the public aware of the important role union members play in the community.

THE APPLICATION AND SELECTION FOR THE GEORGE MEANY AWARD

George Meany Awards may be presented annually by each AFL-CIO central labor council and by each AFL-CIO state federation. The central labor council will select its own recipients.*

Applications may be downloaded (below)or obtained from your AFL-CIO central labor council, state federation, or your area's AFL-CIO Community Services liaison, or from your BSA local council or Labor Relationships, S226, Boy Scouts of America, 1325 West Walnut Hill Lane, P.O. Box 152079, Irving, TX 75015-2079.

The recommended procedure for selecting a recipient of the George Meany Award is as follows:

The central labor council invites all local unions to submit their candidates for the award. Any person, group, affiliated council, or local union may nominate a Scouter/member for the George Meany Award. The nominees may be submitted through their local unions or directly to the labor council. In any event they must have the local union's recommendation as well as BSA council certification.

The central labor council makes the final selection of its recipients from the candidates submitted. The selections and approvals are normally the responsibility of the Community Services Committee of the central labor council in conjunction with the Executive Board.

The central labor council forwards the recipient's completed application, containing all of the appropriate signatures and the processing fee, to the Labor Relationships, S226, Boy Scouts of America, 1325 West Walnut Hill Lane, P.O. Box 152079, Irving, TX 75015-2079.

Labor Relationships will mail the medal, certificate, patch, and all appropriate materials.

QUALIFICATION GUIDELINES

The central labor council or state federation may develop its own standards for judging, but will consider such factors as the nominee's record in (see the front page of the George Meany Award application):

- Promoting and expanding the use of the American Labor merit badge.
- Recruiting youth to earn the American Labor merit badge.
- Forming Scouting units, especially those to be operated by local unions or other labor groups.
- Recruiting union members to become Scout leaders, especially to become American Labor merit badge counselors and to be involved in units operated by union organizations.
- Contributing to Scouting in the field of labor relationships, and bringing the Scouting and labor movements together to serve the community.
- Taking Scouter training and setting a good example f or youth.
- Promoting Scouting for all youth, regardless of race, creed, or disabling condition.

Although a nominee's length of service in Scouting may be considered, no specific number of years should be required. A person's record of accomplishment and dedication should weigh more heavily than longevity.

PRESENTATION OF THE GEORGE MEANY AWARD

The presentation should be made at one or more appropriate functions of the AFL-CIO central labor council, such as the following:

- Labor Day celebration
- Union counselor graduation dinner or awards banquet
- State convention
- Membership meeting

In addition, a presentation may be made at a BSA local council or district function, such as an awards dinner or an annual meeting.

The principal officer or the designated labor official representing the AFL-CIO labor council giving the award should make the presentation in all cases.

*The state federation may also have a George Meany Award program; their application process is the same, but their program and selection is separate from that of the central labor council.

APPLICATION FORM

Download an application form for the George Meany Award.

APPENDIX 5 – Girl Scout Badges

Brownie Girl Scouts

- Careers
- Computer Smarts
- Math Fun
- Numbers and Shapes
- Safety Sense
- Science in Action
- Science Wonders

Junior Girl Scouts

- Architecture
- Careers
- Communication
- Computer Fun
- CyberGirl Scout
- Discovering Technology
- Do-It-Yourself*
- First Aid
- Math Whiz
- Ms. Fix-It
- Safety First
- Science Discovery
- Science in Action
- Science in Everyday Life
- Science Sleuth

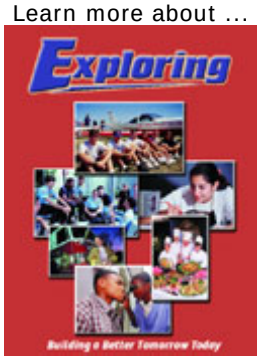
Girl Scouts 11-17

- Architecture and Environmental Design
- Computers in Everyday Life
- Conflict Resolution
- Cookies and Dough
- Desktop Publishing
- Graphic Communications
- Home Improvement

APPENDIX 6 – Exploring

What is Exploring?

Learn more about …



Exploring

Exploring is Learning for Life's career education program for young men and women who are 14 (and have completed the eighth grade) or 15 through 20 years old. Adults are selected by the participating organization for involvement in the program. Color, race, religion, gender, sexual orientation, ethnic background, economic status, and citizenship are not criteria for participation.

Exploring's purpose is to provide experiences to help young people mature and to prepare them to become responsible and caring adults. Explorers are ready to investigate the meaning of interdependence in their personal relationships and communities.

Exploring is based on a unique and dynamic relationship between youth and the organizations in their communities. Local community organizations initiate an Explorer post by matching their people and program resources to the interests of young people in the community. The result is a program of activities that helps youth pursue their special interests, grow, and develop.

Explorer posts can specialize in a variety of career skills. Exploring programs are based on five areas of emphasis: career opportunities, life skills, citizenship, character education, and leadership experience.

Career Opportunities

- Develop potential contacts that may broaden employment options
- Boost self-confidence and experience success at school and work

Life Skills

- Build physical and mental fitness
- Experience positive social interaction

Citizenship

- Encourage the skill and desire to help others
- Gain a keen respect for the basic rights of others

Character Education

- Help make ethical choices
- Fulfill one's responsibility to society as a whole

Leadership Experience

- Acquire leadership skills to fulfill one's responsibilities in society

Goals

Young adults involved in Exploring will

- Gain practical knowledge of and experience in a career

- Engage in a program of activities centered on career opportunities, life skills, service learning, character education, and leadership experience to encourage the development of the whole person
- Experience positive leadership from adult and youth leaders and be given opportunities to take on leadership roles
- Have a chance to learn and grow in a supportive, caring, and enjoyable environment

Methods

The methods of Exploring have been carefully chosen to meet the needs of young adults.

- **Voluntary association between youth and adults.** Because Exploring is voluntary, youth are receptive to new ideas, experiences, and relationships. For the Explorer, these relationships provide a connection to new ways of thinking and acting as well as a new identity as a responsible young adult.
- **Ethical decision making.** Exploring asks young people to be responsible for themselves, for a program of activities and experiences, and for other people, thereby providing numerous opportunities for youth to make effective and ethical decisions. These opportunities are enhanced by the influence of capable adults and structured activities.
- **Group activities.** Exploring activities are interdependent group experiences. Success depends on the cooperation of all.
- **Recognition of achievement.** Recognition might come through formal awards, but it also is achieved through the acknowledgment by peers and adults of a young person's competence and abilities.
- **Democratic process.** Explorer posts provide exposure to democratic ideals and skills that are needed throughout life.
- **Curiosity, exploration, and adventure.** Curiosity is encouraged and a sense of exploration and adventure is developed through new experiences that provide opportunities for youth to acquire new skills and participate in action-oriented activities.

Post Specialties

Every Explorer post specializes in a specific career program area. More than 100 different specialties have been organized, ranging from accounting to zoology. Some specialty programs, such as the following, have grown to include a national committee, activities, and staff support.

Arts and Humanities
The Arts and Humanities specialty area includes posts that are organized around interests in arts and hobbies, acting, commercial art, drama/theater, fashion design/modeling/buying, interior design/decoration, jewelry/watch-making, and movie directing/producing.

Aviation
The Aviation specialty encompasses a range of programs, including maintenance, operations, construction, flight attendants, airport management, and aerospace. The Federal Aviation Administration supports this growth, along with aviation organizations, unions, and industries.

Business
Through the Business specialty area, young adults become prepared for many types of careers, from accounting to financial planning. Many posts organize their program around knowledge of business planning and practices in addition to career preparation.

Communications
This specialty is endorsed by the Broadcast Education Association, International Association of Business Communicators, National Association of Broadcasters, National Press Photographers Association Inc., Public Relations Society of America, and Women in Communications. The Exploring program can serve as an effective outreach program that exposes high school students to careers in communications and public relations.

Engineering
Many national engineering societies endorse this specialty area of Exploring. Its goal is to promote post programs that open and expand Explorers' understanding of the many opportunities in engineering and technology.

Fire/Emergency Services.

This specialty is endorsed by International Association of Fire Chiefs, National Volunteer Fire Council, U.S. Fire Administration National Fire Academy, and local fire authorities. Posts are organized around interests in fire/emergency services, civil defense, first aid/ambulance corps, fire fighting, rescue service, paramedic, EMT, and volunteer fire fighting. The national Fire/Emergency Services Exploring committee conducts every odd number year the national Fire/Emergency Services Exploring conference, which is open to all fire/emergency services Explorers and post Advisors.

Law and Government

The American Bar Association and other organizations support the high interest of many youth in law or government participation through Exploring. Law Day activities, mock trials, and other law-related activities provide firsthand experience in America's legal and court system.

Law Enforcement

This specialty is endorsed by the International Association of Chiefs of Police and the National Sheriffs' Association and is helped by other national law enforcement organizations and industries. Departments and Explorers gain firsthand knowledge of each other. Explorers can support many community-based programs of the department. The post program is supported by national law enforcement competitions and academies.

Medical and Health Careers

The American Medical Association and other national health organizations support the establishment of posts in hospitals, clinics, medical centers, schools, and other health-care organizations. These posts render valuable community service and give members an insight into a variety of career opportunities.

Science

The Science specialty area includes posts that are organized around interests in general science, anthropology, archaeology, a career as an astronaut, astronomy, biochemistry, biology, chemistry, computers/programming, conservation/ecology, environmental science, wildlife/fish management, and zoology/zoo direction.

Skilled Trades

The Skilled Trades specialty area includes posts that are organized around interests in auto repair, cosmetology, electrical, carpentry, and construction, to name a few.

Social Services

The Social Services area includes posts that are organized around interests in social service, adult care, child care, drug/alcohol counseling, exercise attending, funeral direction, home economy, librarian work, museum curation, school counseling, social work, teaching, volunteer work, youth organization volunteerism, and disabled career profession.

Others

In addition to the above, other popular Explorer post specialties include conservation, computers, music, rescue, radio-TV, architecture, photography, and journalism.

Character Education

An important goal of Exploring is to help young adults be responsible and caring people, both now and in the future. Exploring uses "character education activities" to help young adults develop the ability to make responsible choices that reflect their concern for what is at risk and for the people involved. Because a character education activity is a problem-solving situation, leaders expect young adults to use empathy, invention, and selection when they think through their position and work toward a solution.

Post Activities

What an Explorer post does is limited only by the imagination and involvement of its leaders — build a glider, make an electric car, produce a play, conduct a mock trial, or teach disabled people to swim. Posts across the country today are experiencing all these adventures and many more. All that is needed are concerned adults who are willing to share a little bit of themselves with today's youth —tomorrow's citizens.

Getting Your Post Up and Running

Organizing an Explorer post (group) in your organization is easy! Just follow the Five-Step Plan for Post Program Development:

1. Organization's Commitment: Secure a commitment from the chief executive officer of the participating organization.
2. Career Opportunities Development Meeting: A training and program development meeting for post adult leaders conducted by an Exploring program representative.
3. Post First-nighter Meeting: A special and exciting hands-on meeting held annually by each post to recruit new youth participants.
4. Post Activities Development Meeting: A program planning meeting with Explorers' input to reach agreement on post monthly activities.
5. Explorer Post Officers' Seminar: Training meeting for elected post officers.

What Youth Want

Exploring research has revealed these major points:

- High school students are interested in careers/vocations.
- Teenagers want a broader experience that supplements career information with practical, "hands-on" experience and is tailored to their cultural backgrounds.
- Teenagers want to belong to a group that provides a supportive place from which they can address the issues that affect them as they grow and develop. These issues include becoming more independent, developing social relationships, undergoing psychological changes, reaching sexual maturity, and re-evaluating values.

Program Support

Learning for Life provides Explorer posts with the following support:

- Professional and volunteer staff to help the post succeed
- Recruiting, training, and guiding of a volunteer district/division support staff organization
- An annual Explorer program planning conference
- An annual career interest survey of all high schools in the community
- Activity planning and the use of Learning for Life facilities, such as camp

Learning for Life Web Site—www.learningforlife.org
Visit the Learning for Life Web site for ideas on how your business can connect with today's Explorers.

Liability Insurance for Participating Organizations
General liability insurance covers the participating organization on a primary basis for any responsibility they may have on Exploring-related matters without asking the participating organization or its own insurance to be involved.

Adult and Youth Leader Training
Learning for Life provides basic and advanced adult leader training sessions along with an annual post leader workshop, quarterly Advisor meetings, and an annual Learning for Life program planning conference.

National Studies

In 1969, a study was made of the special-interest posts being organized by William H. Spurgeon III, a businessman from California, and the newly completed research project for Exploring by Daniel Yankelovich.

The study indicated that 83 percent of youth surveyed wanted more information on careers than they were getting at home or in school, and 94 percent wanted adult associations. Coed participation, sports, and adult-like recognition were found necessary to attract young adults to Exploring.

As a result of this study, special-interest Explorer posts were organized by businesses and professional and trade organizations. The career interest survey of high school students was developed to identify and recruit members.

In 1971, the upper age limit in Exploring was changed to age 20 for young men and women.

In 1981, the rapid growth of Exploring led to the development of national specialty programs in arts and humanities, aviation, business, communications, engineering, fire/emergency services, health careers, law and government, law enforcement, science, skilled trades, and social services.

In 1998, Louis Harris & Associates of New York was commissioned to undertake the challenge of identifying and uncovering the aspects of the Exploring program that serve as indicators of positive outcomes. They found the program contributes to the healthy development of today's young adults by providing them with the environment, resources, and relationships they need to learn and grow.

Today, Exploring is Learning for Life's career education program and exists to accomplish a major goal: to provide the structure and resources needed for the youth of America to learn about career opportunities, make ethical choices, and achieve their full potentials as individuals.

National Awards, Activities, and Scholarships

Awards

- Career Achievement Award Program—certificate for career proficiency achievement giving students distinguished credentials for their resume in the following Exploring career clusters: arts and humanities, aviation, business, communications, engineering, fire and emergency services, health, law and government, law enforcement, science, skilled trades, and social services
- Council Young American Award—plaque for youth between the ages of 15 and 25
- Congressional Awards—bronze/silver/gold medal for youth between the ages of 14-23
- Law Enforcement Exploring Proficiency Awards—ribbon awards in 13 proficiency component programs
- Learning for Life Leadership Award—for youth and adults
- National Exploring Excellence Award—for posts
- William H. Spurgeon III Award—for individuals and organizations in Exploring

Activities

- Aviation Explorer Base Camp at EAA AirVenture, Oshkosh, Wisconsin
- Character Education Activities—26 components
- Character Education in Exploring—four components
- Challenge Initiative Games—nine components
- Cooperative Initiative Games—21 components
- Engineering Explorer Academy at Georgia Tech University, Atlanta, Ga.
- Engineering Explorer Academy at Georgia Tech, Savannah, Ga.
- Engineering Explorer Academy at Marshall University, Huntington, W.Va.
- Engineering Explorer Camp at The University of Alabama, Huntsville, Ala.
- Health Careers Exploring Exposition at the National Institutes of Health and the Uniformed Service University, Bethesda, Md.
- Law Explorer National Mock Trial Competition
- Law Enforcement Explorer National Law Enforcement Conference

- Law Enforcement Exploring, FBI Academy
- Law Enforcement Exploring, DEA Academy
- Law Enforcement Exploring, U.S. Marshals Academy
- Law Enforcement Exploring, U.S. Army Military Police Academy
- Leadership Workshop Series—16 components

Scholarships

- AFL-CIO Skilled Trades Explorer Scholarship, 2/$1,000
- ATFRA Special Agents' Law Enforcement Explorer Scholarship, 2/$1,000
- Capt. James T. Regan Memorial Law Enforcement Explorer Scholarship, 2/$500
- DEA Drug Abuse Prevention Service Award, $1,000
- Federal Criminal Investigators Law Enforcement Explorer Service Award, $500
- Floyd Boring Law Enforcement Explorer Scholarship, 2/$2,000
- International Association of Fire Chiefs Foundation Fire Service Explorer Scholarship, $500
- National Young American Award, 5/$5,000
- Sheryl A. Horak Memorial Law Enforcement Explorer Scholarship, $1,000
- Spartan School of Aeronautics Scholarship, 4/$2,000
- Sporty's Pilot Shop Aviation Explorer Scholarship, 2/$1,000

For More Information

Exploring Program, Learning for Life National Office, P.O. Box 152079, Irving, TX 75015-2079. Phone: 972-580-2433. Fax: 972-580-2137.

Please mail a postcard with your name, address, and telephone number. Indicate your interest in

____ Youth—Scholarship Information ____ Youth—How to Join Exploring
____ Company—How to Organize a Post ____ Adult—Helping Mentor
____ Other—_____

Skilled Trades Exploring

Like tools? Enjoy creating and building? Then discover a future career through Skilled Trades Exploring! High school-age youth learn from experts in the field. Each post is organized around one occupational specialty that could lead to a challenging career!

There are opportunities for awards and scholarships, fun and friendship, and leadership and service while trying a potential career!

Skilled Trades Exploring is a resource as well as a "how to" guide for youth and adult leaders of Skilled Trades Explorer posts. Local community organizations, churches, and civic groups match the interests of young adults with the resources of participating organizations to develop a program.

Posts can be organized for high school-age youth around one of many in-demand vocational and technical areas. Posts can specialize in the following careers:

- Auto repair and mechanics
- Farming/ranching
- Drafting
- Hairstyling
- Heavy-Equipment Operation
- Railroad operations
- Carpentry and woodworking
- Forestry
- Culinary arts
- Building contracting and construction
- Landscape Architecture
- Plumbing, Heating, and Air Conditioning
- Electricity
- Printing and Lithography

What Is Exploring?

Exploring is Learning for Life's career education program for young men and women who are 14 (and have completed the eighth grade) or 15 to 20 years old. Adults are selected by the participating organization for involvement in the program. Color, race, religion, gender, sexual orientation, ethnic background, economic status, or citizenship is not criteria for participation.

Exploring's purpose is to provide experiences to help young people mature and to prepare them to become responsible and caring adults. Explorers are ready to investigate the meaning of interdependence in their personal relationships and communities.

Exploring is based on a unique and dynamic relationship between youth and the organizations in their communities. Local community organizations initiate an Explorer post by matching their people and program resources to the interests of young people in the community. The result is a program of activities that helps youth pursue their special interests, grow, and develop.

Everyone Wins With Exploring

Exploring will be one of the best opportunities you offer your company, your employees, and the youth of your community.

Company Benefits

"The partnership with Learning for Life is the perfect way to teach students the soft skills they need to work in corporate America."
—Mark Rutledge, senior projects manager, special projects, TDIndustries

"Young women and men can learn about the construction industry by joining an Explorer post."
—DeDe Hughes, executive vice president
National Association of Women in Construction (NAWIC)

- Impact on the education process of youth
- Team-building attitude within the company
- Opportunity to interpret adult occupational roles for youth
- Preparing young adults for transition from school to work
- Offering a secure place for the healthy development of adolescents
- Developing future responsible and caring adults
- Ensuring that young people see how your business relates to the free-enterprise system
- Helping young adults gain insight into the ethics and ideals of business
- Visible commitment to the welfare of your community

Employee Benefits

- Greater job awareness
- Developing leadership and problem-solving skills
- Re-evaluating ethical and moral values
- Opportunity for greater community involvement
- Respect from youth and community
- Identification as appropriate adult role models
- Enhancing communication, planning, and program development skills
- Greater commitment to service
- Developing interpersonal skills used in the workplace and elsewhere

Youth Benefits

- Stimulated interest in continual education
- Career information; insight into future vocation
- Positive alternative to negative youth activities, such as drug abuse and involvement with gangs
- Sense of acceptance and belonging to the "right" group
- Safe environment for adult like activities
- Opportunities to participate in practical, real, and meaningful hands-on experiences
- New career and personal skills
- Opportunities to try leadership roles and develop skills
- Cooperative relationship between adults and youth
- Service to others

Exploring's Five Areas of Emphasis

Career Opportunities

- Developing potential contacts that may broaden employment options
- Boosting self-confidence and experiencing success at school and work

Citizenship

- Encouraging the skill and desire to help others
- Gaining a keen respect for the basic rights of others

Leadership Experience

- Developing leadership skills to fulfill our responsibilities in society
- Providing exposure to different leadership traits

Life Skills

- Developing physical and mental fitness
- Experiencing positive social interaction

Character Education

- Helping make ethical choices
- Fulfilling one's responsibility to society as a whole

Resources

- Skilled Trades Exploring News
- Suggested Program Ideas for Skilled Trades Explorer posts
- Career Achievement Award for Skilled Trades Explorers
- Safety First Learning for Life Guidelines
- Exploring Adult Leader Guide [PDF]
- Exploring Youth Leader Guide [PDF]

AFL-CIO Skill Trades Scholarship (Skill Trades, $1,000)

The AFL-CIO presents two $1,000 scholarships annually to Explorers to help them support their education toward a career in skilled trades.

APPENDIX 7 – If I Had a Hammer

OUR MISSION

Give every child

the

opportunity

and

tools

to

build a successful life

PROGRAMS

COSTS

and

FUNDING SOURCES

SUMMARY

If I Had A Hammer
6055 Primacy Parkway, Suite 436
Memphis, Tennessee 38119
901-465-0668
www.ifihadahammer.com

PROGRAM and PRODUCT OVERVIEW

If I Had A Hammer, created by Perry Wilson, is an innovative program featuring field trips, workbooks, and tutoring to help children apply classroom concepts in math, science, social studies, and language arts in a real-life context.

Hammer Field Trips

The centerpiece of ***If I Had A Hammer*** is the **Hammer House**, an 8 x 11 foot free-standing pre-fabricated house complete with windows, door, and a front porch. Hammer Houses are specifically designed to be built and rebuilt. Currently, most Hammer Houses are located at local community colleges and museums.

Schools schedule Field Trips to the Hammer House location in their community. Then, working as a group, under the supervision of a Hammer-certified "Boss", students construct the Hammer House. During the Hammer House construction, the students engage in teamwork, communication, and the real-life application of math, science, social studies, and language arts concepts.

The licensing fee for a Hammer House may be funded through industry sponsorships or through Title I, Part A. For more information on this funding method, please refer to pages 4 and 5, respectively.

Hammer Student Workbook

This 100-page workbook includes exercises that allow the student to
Hammer is also developing a companion Instructor's Guide.

Hammer Tutoring Program

If I Had A Hammer's innovative 21-day / 42-instructional-hour math tutoring program tutors mathematics by guiding students through a fun, hands-on project to formulate construction plans, create a quarter-inch scale model of a 3,000 square foot house, and ultimately hire on with "The Boss" to build the 8' x 11' Hammer House.

The curriculum is designed for third through ninth graders. Hammer's focus is computational skills, but the real-life, three-dimensional context of a Hammer house goes beyond the abstracts of math to connect it with work and everyday life.

The Hammer Tutoring Program has helped some Memphis City Schools maintain an overall class average of a 24.5% increase in math test scores.

COST

Hammer House Licensing Fee

- $15,000 per year
- Includes:
  - One 8x11 foot Hammer House

    - Instruction and certification of an individual to set-up Hammer House and conduct Hammer Field Trips
- Potential Funding Source
    - Industry Sponsorship *(see page 4)*
    - Title I. Part A *(see page 5)*

Hammer Field Trip

- $400.00 per Hammer Field Trip *(does not include food, transportation, or fuel costs)*
- Maximum of 25 students per Hammer Field Trip
- Approximate cost of $16 per student
- Potential Funding Source
    - Title I, Part A *(see page 5)*

Hammer Student Workbook

- Information coming soon

Hammer Tutoring

- Comprehensive 42-instructional-hour tutoring program
- $777.00 per student ($18.50 per hour)
- Potential Funding Source
    - Title I, Part A

INDUSTRY SPONSORSHIP
OF LICENSING FEE

Sponsorship of the **Hammer House** licensing fee is an opportunity for an organization to make a significant impact on the quality of education within their community. By sponsoring a Hammer House, an organization literally opens the door for young people to experience math and life skills in an exciting, innovative, and effective way.

To acknowledge the sponsor's contribution, Hammer will place their corporate logo on the door of the sponsored Hammer House. With each field trip, students, teachers, parents, and college personnel will recognize the sponsor's generous contribution.

Additionally, Hammer will work with industry sponsors to develop a public relations campaign specifically aimed at recognizing organizations that are helping the neediest children. And, all Hammer sponsors may use the tagline "Proud Sponsor of *If I Had A Hammer*" and the Hammer logo on their correspondence, business collateral, and advertising.

Hammer Sponsorship Benefits:

- Sponsor's company logo and/or name are placed on the Hammer House.
- A Hammer Sponsorship becomes a sustained form of community outreach.
- Hammer Sponsors may use the tagline "Proud Sponsor of *If I Had A Hammer*" and the Hammer logo on all corporation's correspondence and advertising.
- A Hammer Sponsorship is fully tax-deductible

The ultimate beneficiaries of a Hammer Sponsorship are
the children in the greatest need.

FIELD TRIP / WORKBOOK / TUTORING
FUNDING SOURCES

TITLE I

If I Had A Hammer programs may be funded through the following Title I categories:

- **Title I, Part A**

This is the primary funding source of all Title I monies. It concerns raising the academic achievement of underprivileged students. Hammer fits into several subcategories of this particular source, generally as part of a school's overall School-wide Program.

- **Professional Development**

A school must devote 10% of its Title I monies to the Professional Development of its teachers. Professional Development may apply to several goals, from giving teachers the skills needed to help students increase academic achievement on state tests to helping teachers to work more effectively with parents.

Professional Development is a continuing education component and is required of all Title I schools. Hammer teaches math instructors a new and innovative approach to teaching curriculum standards. And as Hammer will be offering continuing education units (CEUs) for teachers to deliver our workbook component, we can qualify as a Professional Development source.

- **Parent Involvement Policies**

By inviting parents to participate, a Hammer Field Trip fulfills one of the provisions of the overall Title I law regarding Parent Involvement Policies. As part of its school wide program, each school must have written policies that will engage parents in all aspects of the school's policies and practices. A Hammer Field Trip can be one such practice in which parents can participate.

- **Safe and Drug-Free Schools and Communities**

As part of the Field Trip experience, we emphasize the importance of making good choices in life, including saying **no** to drugs and gang activity. With this particular component we can also qualify under the source for Safe and Drug-Free Schools and Communities. There are state grant monies through Title I for this category.

- **21st Century Community Learning Centers**

Hammer qualifies for grant monies for 21st Century Community Learning Centers as we have an innovative, highly effective research-based program.

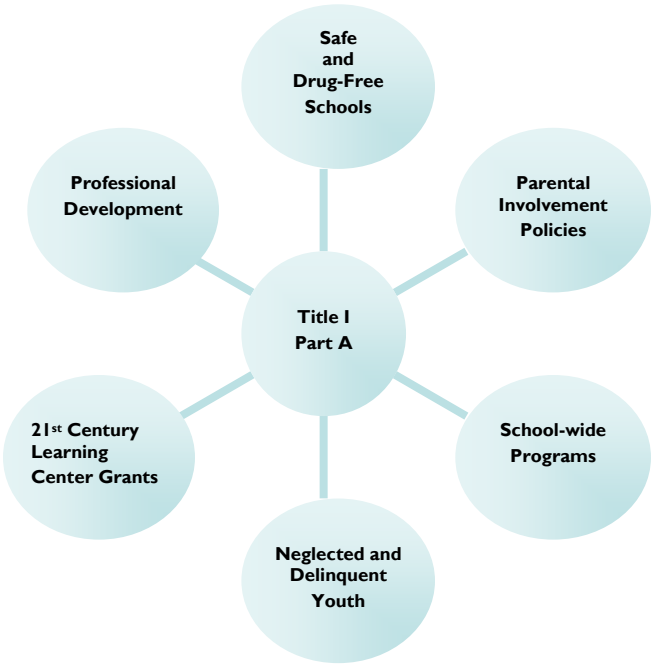
- **Neglected/Delinquent Institutions**

Hammer qualifies for grant monies under the Neglected/Delinquent Institutions category as youth in correctional institutions have the legal right to academic programs aimed at increasing academic achievement.

TITLE I SUMMARY

Funding Source Categories

- Overall System / LEA Title I, Part A
  - Field Trip
  - Workbook
- School Wide programs
  - Field Trip
  - Workbook
- Professional Development
  - Workbook
  - CEUs
- Parental Involvement
  - Field Trip
- Safe and Drug-Free Schools and Communities
  - Field Trip
- Delinquent and Neglected Youth
  - Field Trip
  - Workbook
- 21st Century Learning Centers Grants
  - Field Trip
  - Workbook



TECH PREP and CAREER PATHWAYS

Hammer programs are a natural fit for helping Tech Prep Consortia fulfill its mission to connect education with occupational opportunities.

Hammer can help prepare 8th grade students for seven of the 18 overall components of the **Career Pathways Evaluation Instrument**:

- 3. Meets academic standards and grade level requirements
- 6. Provides academic and technical foundation knowledge and skills in a chosen Career Pathway
- 10. Provides industry-recognized knowledge and skills.
- 12. Ensures that students are learning current, in-demand skills.
- 14. Supports student recruitment and provides ongoing support for the Career Pathway program.
- 17. Providing targeted professional development for faculty, administrators, and counselors to improve teaching/learning and integration of technical and academic instruction.
- 18. Maintaining ongoing dialogue among secondary, postsecondary, and business partners.

If I Had a Hammer is a prime example of ***Education with a Purpose***!

By bringing potential students onto community college campuses for the Hammer Field Trip, Hammer is an excellent recruitment tool, while also exposing those students to the Career Pathways framework.

If I Had a Hammer is a natural instrument for connecting the various components of the Tech Prep/Career Pathways philosophy, as it combines applied mathematics with an emphasis on the necessity of higher education and real-world job skills.

TECH PREP/CAREER PATHWAYS SUMMARY

- *If I Had a Hammer* is a prime example of "Education with a Purpose".
- *Hammer* fits into the framework of the Career Pathways approach to education.
- *Hammer* is a natural bridge for the partnerships between Tech Prep, School Systems, and Community Colleges (Consortia).

If I Had A Hammer
6055 Primacy Parkway, Suite 436
Memphis, Tennessee 38119
901-465-0668
www.ifihadahammer.com

APPENDIX 8 – From Crayons to CAD

Building & Construction Trades Department

Secretary-Treasurer's Corner

From Crayons to CAD
The Middle School Design Build Competition

On a crisp autumn day last fall, two Middle School students started a program that seems destined to chart their future life. They appeared much alike the other little girls and boys in their 6th grade class. They had better than average grades, they were personable, they showed enthusiasm for their studies... yet there was a difference. On March 1, 2005 they won the coveted Grand Prize for the Regional From Crayons to CAD Middle School Design Build Competition, beating over 2,000 other competitors in the Midwest regional's. I was honored to be there!

What Made the Difference?
Have you ever pondered, what sparks the kind of difference that helps students at an early age develop study habits and attitudes toward learning which will benefit them as long as they live—while providing society with a potential labor force qualified to handle demanding projects in a highly technological industry?

The difference lies not always in one's genes, energy, or ambition. It isn't always that one pushes harder and the other doesn't.

The difference is what each young student learns and how he or she comes to apply that knowledge.

But one must be a leader in education to offer such a chance to our nation's youth.

The Building and Construction Trades Department AFL-CIO is a Leader in Education
The 15 General Presidents of the BCTD AFL-CIO endorsed the From Crayons to CAD Middle School Design Build Competition on January 16, 2005. The BCTD and NICE will work together to provide the educational leadership to a nation of students wondering when they are going to apply the knowledge taught in their schools. The goals of this partnership are to increase high stakes, state test scores (meeting the requirements of the NCLB) while increasing the awareness of students in construction related careers.

It is a program of workforce development and educational reform.

A Program Unlike Any Other
NICE's founding principle is that industry cannot be competitive, productive, or profitable, without having the strongest base of qualified men and women, minorities and majorities, well trained in math, science, English, and technology education. This construction education program is intended to increase the awareness of students to career fields in construction from engineers and architects, to managers and marketers,
to organized trades people. It also teaches students about all types of construction from residential, commercial, heavy highway, and industrial applications.

Knowledge is Power
The traditional pathway to teach students about the construction industry was typically in the industrial arts classroom. Industrial arts programs in the U.S. are diminishing. Out of 250 possible careers, high school students are placing construction at 248. Another method of teaching students about construction had to be developed. The From Crayons to CAD Middle School Design Build Competition was developed as a program of construction education taught in the main stream 6th,7th,8th and 9th grade classroom.

Looking over the actual curriculum, you'll be amazed at what these students are working on! Working in teams of 2 or 3 in their mainstream classroom, they are using math to determine the amount of soil

excavated, how much and how long it will take to rent heavy equipment. In Science, they are studying soils, concrete, and steel. In social studies they are studying safety and child labor in the United States. In English, they are studying the different types of contractor's contracts and awarding the bid based on quality, safety, and time. They are writing reports about careers and studying about historical bridges in their neighborhoods. Yes, this year was heavy highway. Next year, the students will be studying industrial construction and power plant construction.

What Features and Benefits?
Where other nation wide programs may offer competitions in automotives, photography, or cosmetology—From Crayons to CAD is entirely based in construction. For less than $25.00 per student, NICE is able to train the teachers and pay for teacher's materials and transportation costs. All competition costs are paid for by regional industry advisory boards. The Institute also conducts post competition research, which allows industry to track the program's success.

This program reaches a great number of students. In seven years of operation, this program has impacted approximately 35,000 students.

This program strives to reach all middle school students. This program is for every student who wishes to participate. Half of the participants are girls-half are boys.

Why Aren't Other Organizations Doing This Work?
In truth other organizations have tried to address this problem. However, they don't include the unions or universities in their programs. Through extensive research it was determined that partnering the school districts and industry personnel through a university connection could attain success by giving the teacher what they need in the form of curriculum, materials, and college credit. School administrators also need programs that help students increase their state test scores. The Institute provides all of this to the teacher.

The Unions have the best training facilities in the nation. The institute is partnering with the unions to provide the best mainstream construction education to the nation's youth. Professional construction organizations are not K-12 educators. Some professional organizations depend on their industry members going into the classroom to teach about construction.

There is little follow up with the teachers and with so many projects crossing the teacher's desk, teachers are confused on how to integrate these products into their classroom. In addition, professional organizations have not addressed the root cause of why teachers are reluctant to teach construction in their classrooms in the first place—they were too late to have benefited from Title IX training. The Institute can address these issues. The Institute trains the teachers about the construction industry and how they can teach their competencies in a program of construction education.

How Does This Program Work?
This program is introduced into the school districts through the state's teachers. The Institute provides as much support to teachers as possible with programs that include:

- Competitions
- Pre-service training
- In-service training
- Workshops
- Summer camps

The From Crayons to CAD Middle School Design Build Competition provides the opportunity for Middle School students, their parents, and teachers to interact with each other one and members of industry and organized labor one day each year. The students, working in teams, spend weeks preparing academically for the competition. Upon arrival, the students have the opportunity to view interactive construction displays that reinforce the lessons they have just learned in the classroom. Industry personnel act as judges to the student's project—not teachers. This reinforces the workforce development component of the project. Teachers have the opportunity to network with other teachers and ask questions of industry personnel.

Pre-Service teacher training involves teaching the “soon to be” teacher while they are still in their undergraduate teacher programs. In-Service teacher training is for the experienced teacher looking for new ways to excite their students about learning. The Institute provides all the teachers supplies, introduces them to industry members, and provide graduate level credit for those wishing to increase their professional standing and pay.

Summer Camps give students the opportunity to take the theory out of the classroom and put hammer to nail. It also introduces students to additional subjects such as labor negotiations, safety, and materials science. Minorities, special needs children, girls and boys work together to build small structures while applying their math, science, English, and technology competencies. Workshops for teachers provide teachers with the opportunity to build a project and take the classroom theory into a real-world application.

The BCTD Takes A Leadership Position In The Industry

It takes leadership during tough economic times to commit to the idea that the time to educate students about highly technical career fields such as construction— long before high school. Although the middle school program has been in place for the past seven years, plans are in place now to begin an elementary and high school program.

All students who competed in the 7th Annual Middle School Design Build Competition were inspiring examples of how knowledge, properly applied, could lead to potential jobs in the construction industry—or any technological field. Not all students will want to go into construction—but all students will interact with the built environment. This program gives students an insight into one of the largest industries and organized labor in the United States.

Fraternally,

Joseph Maloney
Secretary-Treasurer


National Institute for
Construction Excellence
(NICE)
MIDDLE SCHOOL
Crayons
TO CAD
DESIGN BUILD COMPETITION
Competition Date
March 7, 2006
8th Annual
Middle School
Design-Build Competition
An interdisciplinary education program that…
Works

Construction Industry

NICE

Read this!

Members of the Construction Industry should support Crayons to CAD because:

- It was designed to increase the number of qualified individuals selecting careers in **construction**, thereby avoiding the *predicted* construction industry labor shortage.
- It was designed to increase participation rates of minorities and women in the construction industry.
- It was designed to be an educationally rigorous program taught in the regular classroom by state certified teachers.
- It was designed to increase student's high stakes, state test scores.
- It was designed to impact large numbers of teachers and students with a low cost to industry!

Other benefits include:

Partnerships: Owners, Professionals, Contractors, Union Trades, Universities, and School Districts.

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From Crayons TO CAD

Construction Industry

NICE

From Crayons to CAD

Introduction

On a crisp autumn day last fall, two middle school students started a program that seemed destined to chart their future life. They appeared much alike the other little girls and boys in their 6th grade class. They had better than average grades, they were personable, they showed enthusiasm ....yet there was a difference. On March 1, 2005 they won the coveted Grand Prize for the regional **Middle School Design Build *Crayons to CAD*** competition! This was no small feat. There were over 2,000 other competitors in the Midwest regional competition.

What Makes the Difference?

Have you ever pondered, what sparks the kind of difference that helps students at an early age develop study habits and attitudes toward learning which will benefit them as long as they live—while providing society with a potential labor force qualified to handle demanding projects in a highly technological industry?

The difference lies not always in one's genes, energy, or ambition. It isn't always that one pushes harder and the other doesn't.

The difference often lies in the opportunities afforded to students. The **Middle School Design Build *Crayons to CAD*** competition is a terrific opportunity to teach students, teachers, and parents about the skills needed in the construction industry while helping students learn their national and state education standards. It also illustrates to students where knowledge learned in the classroom is used in the world of work.

From Crayons TO CAD

Page 3

Construction Industry

NICE

Economic Development/Workforce Development!

Leader in Education

Knowledge is Power

The traditional pathway to construction careers has been the industrial arts/vocational education classroom. Unfortunately, many schools are no longer offering these programs. Recently, students were asked to rank their career choices. Out of 250 possible careers, construction ranked #248 for high school students. In order for the U.S. to maintain a high level of economic/workforce development another method of teaching students about construction careers had to be developed. **The Middle School Design Build *Crayons to CAD*** competition was developed to teach students about construction in their core academic subject classroom—not the vocational education classroom. The curriculum is designed for grades 6th, 7th, 8th, and 9th.

Looking over the actual interdisciplinary curriculum individuals are amazed at what these students learn! Working in teams of 2 or 3, students learn to apply math to estimate costs, logic to schedule a project, spreadsheets to perform charting. In science they learn about the different types of energy. In communication arts they write reports and research construction careers. In technology education they build models to scale and draw blueprints. They also learn about building safety and organized labor in the United States.

What Features and Benefits?

While other education programs may offer competitions in automotives, photography, and cosmetology—the **Middle School Design Build *Crayons to CAD*** competition is entirely construction industry based. For approximately $25.00 per student, NICE can pay for student competition costs—including transportation to the event. There is very little to no cost to the schools.

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From Crayons TO CAD

Construction Industry NICE

Middle School is the time to teach students about careers in construction!

Leader in Education

NICE partners teachers, universities, industry members and union trades. Why **teachers**? Because they are the classroom professionals and know what materials their students need. Why **universities**? Because the teachers need graduate level college credit. **Why industry members?** Because students need role models. Why **union trades**? Because there is a shortage of organized trades people. In truth, there is a shortage of qualified, talented, individuals entering the construction industry along the entire continuum of construction skills—from theoretical to applied. From engineers to trades persons. This program addresses all of these skill sets.

NICE also conducts research to determine the effectiveness of the program to industry, school districts, and teachers.

Finally, NICE is currently in its eighth year of operation and has impacted the lives of hundreds of teachers and thousands of students. In 2006, this program will be taught in Missouri, Iowa, Nebraska, Kansas, and Illinois.

Who Else is doing this work?

In truth other organizations are trying to encourage students to enter the construction industry. There are dozens of uncoordinated programs—all hoping to encourage students to enter a career in construction. Still, with all this work, there has been little effect on the industry.

Most programs focus on high school students. But it is too late to encourage high school students to enter careers in construction. To be effective industry must introduce students to construction at a time when they can plan and prepare for a highly technical career. Research indicates that time is in middle school.

Construction Teachers

NICE

How Does This Program Work?

This program works through a partnership between construction industry members, universities, and school districts. It is a program designed to assist the nation's teachers. Industry members support the teacher's efforts by providing the resources needed to develop industry based curriculum and competition venues. State certified teachers implement this program in their regular classrooms.

NICE provides teachers and industry members with educational programs and materials that include:

- Teacher training
- Student competitions
- Industry contacts
- Networking/Mentors/Leadership

The **Middle School Design Build** ***Crayons to CAD*** competition provides opportunities for middle school students, their parents and teachers to interact with members of the construction industry one day each year. The students, working in teams, spend weeks preparing academically for the competition. During the competition, the students have the opportunity to view interactive construction industry booths that reinforce the lessons they have just learned in the classroom. Industry personnel judge student's projects—not teachers. This reinforces the workforce development component of the project.

No teacher left behind. Teachers have the opportunity to network with other teachers and industry personnel. New teachers are assigned mentors for their first year of participation. Participating teachers are able to contact experienced teachers with any question they may have about the program's materials.

From Crayons TO CAD

Construction Teachers

NICE

Leadership opportunities exist for those teachers who wish to further develop **Middle School Design Build *Crayons to CAD*** competition by chairing committees and running for office on the National Teacher Advisory Board.

Final thoughts...

For industry members, it takes vision and leadership during tough economic times to commit to the idea that the time to educate students about highly technical career fields, such as construction, is long before high school. Although the **Middle School Design Build *Crayons to CAD*** competition has been in operation for the past eight years, future plans include development of an elementary, high school, and college level program.

For teachers, **Middle School Design Build *Crayons to CAD*** provides students with opportunities to be creative and critical thinkers, problem solvers, and effective group members. Most importantly, Crayons to CAD excites students about learning. All educational activities are cross-referenced to state tests and Grade Level Expectations.

All teachers and students who compete in the annual **Middle School Design Build *Crayons to CAD*** competition are inspiring examples of how knowledge, properly applied, can lead to potential jobs in the construction industry—or any technological field. Not all students will want to go into construction—but all students will interact with the built environment. This program gives students insight into one of the largest industries in the United States—the construction industry.

NICE invites you to join us at our next competition! If you have a teacher who would like to participate or you want additional information please call Dr. Janet Paulson-Smith at 816/732-5817.

Construction Partnership

NICE

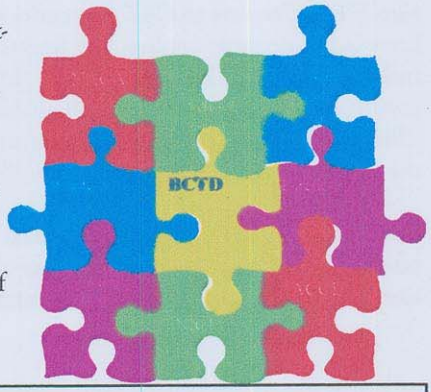
The Purpose

- To increase the number of qualified individuals entering a *career* in construction. To increase the number of women and minorities entering a career in construction.
- To meet the educational requirements surrounding—No Child Left Behind.
- To conduct university level research to identify program successes to the both the academic and construction community.

The Partnerships

From Crayons to CAD creates partnerships between construction industry professionals, local universities and school districts. Each region must participate in this partnership and is responsible for conducting regional competitions.

NICE assists in the development of the regional partnerships.



From Crayons TO CAD

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Construction Teachers NICE

N O Child Left Behind

NICE understands the difficulty in bringing a construction education program into the classroom—unless it meets the strict requirements of the No Child Left Behind Legislation!

Nice is built on the same four common-sense pillars as No Child Left Behind:

- Accountability for results
- Emphasis on doing what ***works*** based on scientific research
- Expanded parental options
- Expanded local control and flexibility

All curriculum and instructional materials are written to meet state frameworks, standards, and grade level expectations. All curriculum adheres to scientific research strategies.

NICE conducts yearly research with the teachers to determine the effectiveness of the program as it relates to:

- Increased test scores
- Increased career awareness

From Crayons TO CAD

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Construction

Partnership

NICE

Curriculum Development

Industry

2005 curriculum development workshop at Black and Veatch!

BCTD

NACA

OSHA

Labor/Management

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From Crayons TO CAD

Construction Partnership

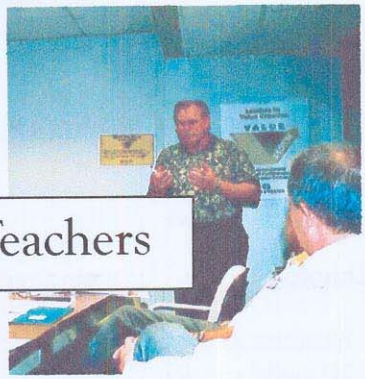
NICE

Curriculum Development

Teachers

The instructional materials and curriculum are written by practicing middle school teachers (working with industry professionals and university professors).

University Professors



Middle School Teachers

From Crayons TO CAD

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Construction Students

2006 Program

Student Preparation

Student teams complete the following activities *weeks* prior to the competition!

Math

- Estimating
- Scheduling
- Charting

Science

Power Generation
- Wind
- Water
- Coal
- Nuclear

English

- Write a business letter
- Reports on Construction Careers
- Create a brochure

Technology

- Blueprint Reading
- 3D model creation

Social Studies/Safety

- Construction Safety
- Lock out/Tag out
- Rigging Safety

History

- The History of Child Labor in U.S.

Curriculum taught in the core academic math, science, communication arts, technology education, social studies, history classroom!

Students then bring their project notebooks and models to the competition To be judged by industry members.

2006 Models

6th Grade	Wind
7th Grade	Water
8th Grade	Coal
9th Grade	Nuclear

From Crayons TO CAD

Construction Students

NICE

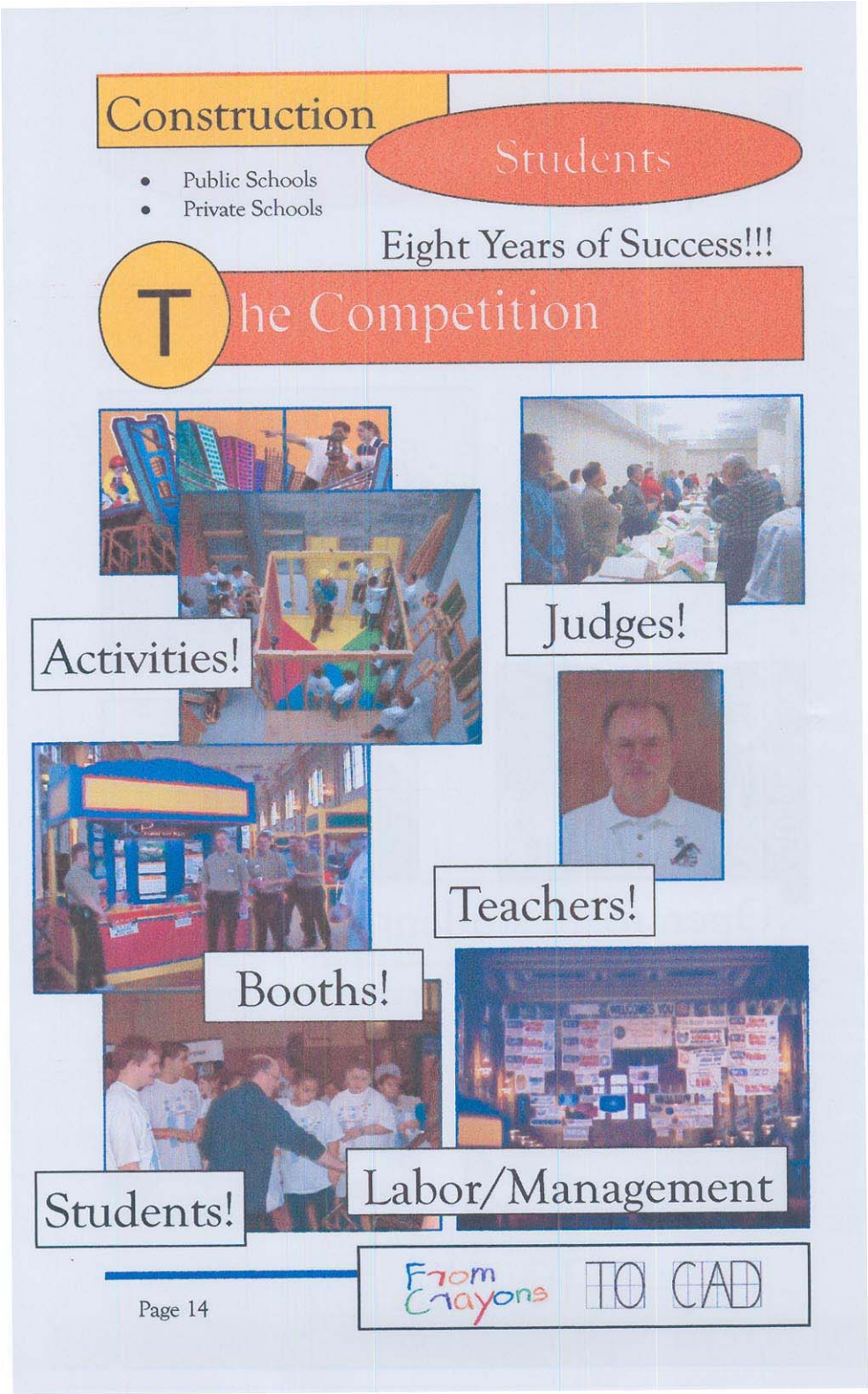
Student Preparation

Students work hard to win awards in the following categories:

- Best Project
- Best Project Notebook
- Best Overall
- Best in School

Open to all students!

From Crayons TO CAD


Construction
Students
Public Schools
Private Schools
Eight Years of Success!!!
The Competition
Activities!
Judges!
Teachers!
Booths!
Students!
Labor/Management
From Crayons TO CAD
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Construction Students NICE

We've Grown!

Each year students study another sector of the construction industry. This keeps the curriculum fresh and exciting for our teachers. Because of this each year the program has experienced tremendous growth!

Hundreds of teachers and thousands of students have participated in this program. In the first year NICE had 2 schools and 64 students in the program. This year 5 states, hundreds of teachers, and thousands of students will participate in a program designed to educate students about energy sources and power plant construction.

Historically, 50% of participants have been girls...40% of participants have been represented by ethnic minorities.

From Crayons TO CAD

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Construction Organization NICE Registration Information

National Education Director
Janet Paulson-Smith, Ph.D.
777 NW 131 Highway
Holden, MO 64040
816.738.3540

National Executive Director
Craig Wright
PO Box 27004
Overland Park, KS 66225-7004

NICE is a not for profit 501 C 3, self-supporting, program which receives no federal funding. This program is offered cost free to participating teachers.

Your $1,300 Tax Deductible Contribution includes 1 Booth Table, Electric Hook-Up, Snacks, Wi-Fi/Internet, & Dinner Table for 8 plus 2 Guests (From among Teachers, Elected Officials, VIPs, and Other Dignitaries).

☐ YES! I want to inspire bright, talented kids. Enclosed is my tax-deductible check of $1,300 for a **Booth at the Middle School Design Build Competition and Dinner Table for the National Award's Dinner.**

☐ I do not wish to display a Booth this year, but I'm pleased to send you my $1,300 tax-deductible contribution now.

Name:_____
Company/Organization:_____
Street _____
State____Zip___Telephone ( )_____
Email:_____

Please make your $1,300 tax-deductible check payable to NICE and mail to: **GKCB-CTC/400 Main/Independence, MO 64050.**

APPENDIX 9 – Build Up

Build Up! Laying the Foundation for Construction's Future

Build Up! A Tool Kit for Learning takes fifth-grade students on explorations in construction "from their classroom to the wider world" through the poster and 12 reproducible pages, the video *Bridges*, the book, *Up Goes the Skyscraper*, and the materials provided in the Tool Kit.

Build Up! was developed by the Associated General Contractors and Scholastic, Inc. as the first phase of its *Construction Futures* campaign, an initiative designed to enhance the image of the construction industry through coordinated educational and community service activities. While phase one was specifically developed for use with fifth graders, over time *Construction Futures* will be expanded to include educational initiatives and community based programs for other grades.

APPENDIX 10 – Summer Career Camp

Summer Career Camp

The New Castle County Vocational Technical School District sponsors a Summer Career Camp for 6th and 7th grade students who are interested in exploring careers through fun, hands-on learning activities.

The 4-day sessions run from 8:30 a.m. to 11:30 a.m.
Bus transportation is provided for all campers.

All camp programs are led by qualified vo-tech instructors.

Camps are for students living in New Castle County. Daily school bus transportation is included in the camp fee. Customized routes throughout New Castle County neighborhoods are designed to pick-up and drop-off campers as close to their homes as possible. Bus pick-ups begin approximately one hour before camp opens, and returns are approximately within one hour of camp closing. Routes are designed after all campers have registered.

How to Obtain an Application

Vo-Tech Summer Camp Applications are mailed each February to all 6th and 7th grade public school students who live in New Castle County. Applications are also available at parochial middle schools in New Castle County, or by calling the NCC Vo-Tech School District at 302-995-8035. Applications are processed on a first-come, first served basis, and programs fill quickly.

On the application, campers are asked to choose career program areas in order of preference. Every attempt is made to give applicants their first choice.

2005 Camp Choices for 7th Graders

7-a Building America! – Campers will create products using skills they learn in carpentry framing and woodworking, piping, and electrical trades. Campers rotate through a new trade area each day, making items such as wooden chests.

7-b Computer "Fun"damentals – Campers will learn about the insides of a computer. What makes computers work, computer parts and construction, setting up network systems, using software applications and digital photo enhancers, and creating personalized calendars are all a part of this camp's activities.

7-c Sparks & Flames – Campers will learn the techniques of basic HVAC (heating, ventilation and air conditioning) and sheet metal fabrication. Campers will work with light

gauge metal, piping, and electrical projects, making such items as nameplates and metal toolboxes.

7-d The Apprentice – Campers take the first step towards starting their own business based on their talents and interests. Campers will create their own company, choose a product to sell, and design an internet advertising campaign.

2005 Camp Choices for 6th Graders

6-a Building America! – Campers will create products using skills they learn in carpentry framing and woodworking, piping, and electrical trades. Campers rotate through a new trade area each day, making items such as wooden message board.

6-b Delcastle.com – Working at computer workstations, campers will animate web pages, use interactive web sites, and learn presentation software.

6-c Heavy Metal – Campers will create products using skills they learn in plumbing, HVAC (heating, ventilation and air conditioning), sheet metal, and welding. Campers will learn plasma cutting techniques. Projects include metal traps, name plates, cowbells.

6-d Industrial Design – Campers will learn basic fundamentals of Computer Aided Design (CAD), how power is generated, and how electricity is utilized. Projects include making electronic light boards and alarm kits and designing bridge superstructures using software.

Who to Contact

If you have questions or need additional information, contact Summer Camp Coordinator Debra Dolde at 302-995-8035 or email ddolde@nccvt.k12.de.us

CalACES – NCCT

Northern California Construction & Training
8100 Demetre Avenue
Sacramento, CA 95828

Phone: 916-387-1564
Fax: 916-387-1581

APPENDIX 11 – Charter School

CalACES – NCCT

The State-of-the-Art School to Career Charter School Enterprise

GRC & Associates

April 21, 2004

Table of Contents

CalACES – NCCT

The State-of-the-Art School to Career Charter School Enterprise

CalACES – NCCT Concept

Applied Career Education Systems (ACES) is a blend of new and old training and education methodologies that will provide students with options and opportunities for successful careers outside of the normal traditional liberal arts college degree track.

Problem Statement
Business, industry, labor, parents and students are dissatisfied with the options and opportunities in school to career transitional programs currently available to students of high schools throughout America. The challenge for this project is to develop, implement and manage a small enterprise-based charter school that will meet the requirements of a standards-based education and high school graduation, while also preparing the students for the world of work, additional post secondary education and training, or articulation to a more discipline-specific, four-year college program.

Background
The parents and students of America's high schools are faced with a major challenge in today's society regarding the need for a good education that prepares them for a rewarding career, and that provides for a comfortable lifestyle. They come to believe that the only successful individuals in tomorrow's world will have college degrees. They are prescribed an academic program limited to preparing students for university entry standards regardless of their individual interests or abilities.

If the high school student isn't significantly successful in this academic world of college prep, there are few alternatives available within the public school system. In fact, the alternatives that the normal high school student can access are either low-wage entry skill programs designed to get the student work experience, or are remedial programs designed to bring the basic skills of the student to an acceptable level. More importantly, all public education programs referred to as "alternative" also label the student as something less than the normal, when in fact they are the majority of students.

Even though most students are convinced early in their educational careers that they are going to go to college and be a successful college student, it becomes quite apparent to them that they are not destined to go to a four-year college, for the sake of going to college, around the beginning of the tenth grade. Parents and students are then looking for options to a program that is seemingly focused only on one measure of success; college immediately after graduation. In high schools today there are very few options for the students to access.

Another major concern of the customers of the education product being manufactured by the public school system is the lack of standards and accountability throughout the system. Students are given tests to measure their ability to retain academic information with little or no application of the skills, while applied programs are relegated to the role of trying to provide remediation for students below their grade level expectations. Students are measured and ranked by their ability to know something, not do something. Graduates are expected to enter the workforce with no marketable skills whatsoever. However, it is not hard to understand why the staff of the public education system are defensive of the job they are doing. After all, their main goal is to deliver the student to the college system prepared to do well going to school and take tests.

Although today's high schools are quite skilled at providing four-year college information and assistance, it is almost impossible to find quality information on skilled trades and professions. Staffing for the high school "career centers" is focused on providing guidance for students interested in college, not the trades. The concept of work can only be accessed by the student through a work experience program or some entry level vocational training program that is more effective babysitting the student that is not programming well in the college prep courses than to learn employability skills.

The bottom line is that the public education system is not effectively preparing students for the workforce. They will continue to prepare students to go to school and take tests, not go to work. Students that have interests other than immediately pursuing a liberal arts degree right out of high school must pursue their careers outside of a system that is financially supported by the taxpayer; the working men and women of our community. The reality is that about 70% of our children will never go to a four-year college.
On top of all that has been mentioned above, the recent events that have occurred on the comprehensive high school campus of America indicate a need to explore whether a campus of 1500-2000 high school students is still the best and safest way to educate our children.

Question: "If about 70% of our graduating high school students will never go to a four year college, and the high school program is entirely dedicated to preparing students to go to college, then why is it hard to understand that some children left behind in the race to go to college may 'rebel' against society and revert to unacceptable behavior." We continue to look for ways to make the large school campus safe. Maybe we need to assess the value of the large school campus, with an academic program primarily directed at a minority of the total population. Maybe the reform of our education system virtually begins with the foundation of the school building. Maybe the days of the large high schools, with academic programs focused primarily on preparing students to continue to go to school and take tests, is over.

Concept Description
ACE Systems is a unique application of the laws and regulations required of the charter school model. ACE Systems will not only comply with the laws and regulations of charter schools in general, but will comply with the requirements of the partner school district or other Local Education Agency (LEA). ACE Systems is unique in that all the requirements of high school graduation and testing will be met within a model that is enterprise-based and mirrors the workplace.

ACE Systems will take applications, assess candidates and interview for "employment" at the charter school. All aspects of the system will provide a worksite application, hierarchies of employment, and paid production positions for skilled practitioners. Graduating seniors of ACE Systems will be certified and prepared to enter an indentured apprenticeship, continue with technical post secondary training, or articulate with a four-year college.

Any students from grades 9-12 with an interest in pursuing a discipline-specific career can apply for "employment" at ACE Systems. New applicants will be assessed and interviewed prior to employment. All new employees will begin their career at ACE Systems as a pre-apprentice. The student will then progress to apprentice within the first two years with the company. At the end of the second year each employee should be at the journeyperson level. The final level at ACE Systems is lead person. At the completion of the program, each employee will enter their chosen careers, continue their career preparation, or articulate to a post secondary institution with a high school diploma and certification of work readiness in a specific career area.

The first two years of employment with ACE will be the Foundation Program and will consist of pre-apprentices and apprentices. No pre-apprentice positions will be in a paid status. Some apprentices may demonstrate skills that can qualify them for ACE positions of paid status. The last two years of employment with ACE will be the Practitioner Program and will consist of journeypersons and lead persons. All journeypersons and lead persons can apply and hold pay status positions with ACE Systems.

All ACE Systems employees will be represented by an internal labor organization with a Business Manager, Union Steward, etc. Funding for the organization will be provided by an assessment on the

employer of each employee's hourly wage. The employer and the labor organization will establish an Employer/Employee Council and Joint Apprenticeship Committee to address working conditions, training standards and other labor-relations issues.

ACE Systems will not only prepare employees for successful careers, but will provide direct placement services and employee assistance programs. The goal of the company is to provide a solid opportunity for employees to learn the academic, career and vocational skills necessary for a successful lifestyle. Training and experience provided by ACE will cover all aspects of business, from college degree positions to high-wage technical and trade certifications.

Concept Overview

Initial Assumptions and Vision Elements

1. Charter school structure for student career and vocational development goals.
2. Options for use of low enrollment secondary school facilities or industrial-based facilities.
3. Real world perspective for "work-based" type of schools.
4. Enterprise system that includes students as employees that:
    - Prepares students for high school diploma and equivalent industry-based applied academics.
    - Pre apprenticeship training activities
    - Work experience, internships and apprenticeships
    - Up grades and strengthens ROP.
    - Organize student's tacks and projects for pay.
    - Includes individual student career planning and preparation.
    - Leadership training for future parents, workers, and citizens.
5. Teaching personnel that include contract specialists for enterprise components.
6. Coordination with community colleges and post-secondary offerings.
7. Direct placement into existing and new work development programs and projects.

Mission Statement

The Applied Career Education (ACE) Systems charter school will provide students with a world-class education focused on career preparation in a small, safe, and personalized learning environment that is structured around the development of SCANS competencies, workplace norms, emotional intelligence, technical/occupational skills, school-based enterprises and positive, constructive character traits. Using an integrated curriculum, students will be prepared to perform well on the high school exit exam, meet graduation requirements, and be successful in their chosen career path.

Target Population

The ACE Systems charter school will serve students in grades nine through twelve and qualifying adults. All students residing within a targeted attendance boundary will receive first priority for service; students outside the district boundaries will be served on a space-available basis.

Vision

The vision of the ACE Systems charter school is to establish a small school personalized setting, service a full range of students, explicitly designed to foster the transition of students to the world of work. Charter school students will meet requirements for graduation with a high school diploma and requirements for an entry-level job in their chosen career path. The ACE Systems charter school will provide students with:

- A high degree of personalization, adult mentoring, on the job training, and a career path emphasis in a standards-driven core curriculum taught through authentic instruction and assessment;
- A partnership between students, parents, the community, and local employers to provide students with entry-level skills appropriate to their career path;
- The opportunity to participate in business internships related to their career path;
- An instructional program which integrates and bridges school-based learning with work-based learning;
- A vibrant and flexible learning environment that provides equal access to a core curriculum for all students by adjusting instructional methodologies to address student learning styles, SCANS competencies, and career paths;
- The ability to participate in a variety of work-based experiences;
- Provide students with the skills necessary to receive a Work Ready Certificate; and
- Graduation with a high school diploma and employment or preparation for the next level of training.

Educational Program Goals

Students will work together in career path teams to achieve mastery of key leaning expectation in each course that are aligned with the California Content Standards and industrial standards. In accordance with the competencies defined in the SCANS report, students will achieve the following goals:

- Translate and apply the skills and concepts of the core academic subjects through a project-based curriculum aligned with their career path.
- Employ a “learner-centered” approach by actively engaging in skill development and in the discovery and construction of their own knowledge.
- Develop the ability to think critically, reason logically, and solve unique problems related to their chosen career.
- Develop and demonstrate strong reading, writing, listening and speaking, and communication skills.
- Demonstrate the ability to use technology efficiently in a variety of workplace settings.
- Demonstrate character traits consistently found in successful people.
- Learn to make sound decisions and solve problems in response to real-life situations.
- Develop effective, independent, and collaborative work habits.
- Apply the “Habits of the Mind” as self-motivated learners.

- Leave high school with a diploma, a Work Ready Certificate, and the skills to transition directly from school to a career.

Program/Curriculum Narrative
The ACE Systems curriculum and program frameworks is based around a standards-based approach for Building Trades and Construction Programs, as developed and described by the State Center Consortium, the California Department of Education and the Carl D. Perkins Vocational and Applied Technology Education Act. The emphasis of this concept is centered around the courses and programs being delivered in public secondary schools across California and other states. It looks at and prescribes course sequences and how students can take building trades and construction courses while fulfilling the necessary academic requirements for admission to the University of California, California State University and California Community Colleges.

The concept shows how industry sector skill standards and academic standards compliment and strengthen one another. In the major portion of this initiative, it aligns industry sector standards with activities that incorporate math, language arts, and other core standards with building trades and construction industry standards and competency test requirements, focusing on core standards that are tested on the California High School Exit Exam (CAHSEE). The ACE Systems concept has adopted the basic premise and principles of *"Strengthening Academic and Career Skills", A Standards-Based Approach for Building Trades and Construction Programs"* as our curriculum standard and model. In the following sections CalACES has included portions of the curriculum guide as descriptors of the foundation beliefs of the program.

Benefits and Research

Career and Technical Education (CTE) delivers instruction that reflects students' differing interest and learning styles in ways that students value, preparing them for the increasingly technological future in which all of us will live-whether we like it or not. Noting that high school completion rates in the United States have not improved in the past 30 years-and that we now rank seventeenth in the world in that statistic-Kati Haycock and Sandra Huang of the Education Trust state: "Our youth need to compete in a world that values knowledge and high-level skills as never before. We need a new approach to high school that will ensure that every young person is prepared to succeed in that world" (Haycock and Huang 2001, 17).

According to the U.S. Department of Labor, individuals with an associate degree will see the most rapid growth in job prospects over the next 10 years. Except for those with highly desired computer-related skills, individuals without postsecondary education face diminishing job prospects (Castellano, Springfield and Stone 2001, 2).

Supporting his assertion that standards-based reforms can improve our public education system, Murnane stated:

> While the skills of today's high school graduates are not lower, on average, than those of high school graduates twenty years ago, they are not high enough to meet the needs of high-wage employers today. Since a high school diploma does not guarantee that a graduate has mastered any particular set of skills, employers offering good jobs typically bypass high school graduates in favor of college graduates. One consequence is that students not planning on college have little incentive to do the hard work required to master certain skills (Murnane 2000, 58).

Delivering education with a career focus helps students see how the academic skills they are learning relate to their future beyond high school. Speaking at the National Skills Summit in April 2000, Larry Perlman, chairman of the Twenty-First Century Workforce Commission stated:

A significant number of students see no relevance between their high school curriculum and their future career and educational decisions. One proven solution is to engage more students in work-based learning experiences, career awareness programs, and contextual learning opportunities.

Most students learn best when they take an active part in the process. For many students frustrated by the traditional lecture-test format, career and technical education means the difference between staying in school and dropping out. One successful graduate working in the media field stated: "If I hadn't found a high school program that tied technical training with academics, I don't know where I would be today."
In addition to benefits for the school population - students and their parents, teachers and counselors - career and technical education has wider benefits for society. While most students and their parents and teachers aim for a college education, most jobs now available require more that a high school diploma but less than a baccalaureate degree. We have a surplus of college graduates unprepared for today's technical jobs and a serious shortage of qualified applicants for those jobs. Career and technical education that incorporates core academic standards prepares graduates for the full spectrum of career and postsecondary education choices.

Benefits for Students

- Performance on standardized tests improves.
- Students reinforce learning of core academic standards as they are acquiring career and technical competencies.
- Interest in and commitment to education increases as the connection and application of academic concepts to actual careers becomes apparent to students through applied and integrated instruction.
- Students acquire technical and job skills related to careers in industry sectors that offer career opportunities for the foreseeable future.
- Students realize the importance of further education and learn about postsecondary alternatives to the University of California and California State University systems, which are stretched beyond capacity.
- Student who move directly into the workforce have the opportunity to earn money for further education.
- The program provides opportunities for students to study labor market information and explore viable careers.
- Students develop and use the kind of problem-solving and teamwork skills demanded by 21st–century employers.
- Students participate in experiences and activities that help them develop a work ethic.
- Learning takes place through real-life projects and experiences, leading to the development of the kind of well-rounded students desired by colleges and universities.
- Student experience both academic and tangible success.
- Through their participation in work-based learning experiences, students establish connections that can lead to employment.
- Participation by student of all ability and interest levels and learning styles is encouraged.
- Students design a viable plan of action for future education and work.
- Career and technical education courses may be articulated to community college and offer college credit.

- Career and technical education courses prepare students to enter youth apprenticeship programs that lead to higher-paying jobs.

Benefits for Parents

- Career and technical education motivates students to attend classes and participate actively as they see the connection between their efforts and career success.
- The program includes academically rigorous courses where students can learn and demonstrate specific competencies.
- Coursework provides opportunities for students to reinforce the core academic skills needed to pass the California High School Exit Exam.
- Career and technical education courses in building trades and construction prepare students for further education in the kind of jobs that are essential to the smooth operation of our economy and cannot be exported.
- Career and technical education courses prepare student to enter youth apprenticeship programs that lead to higher-paying jobs.
- Career and technical education in building trades and construction offers articulated courses leading to further education and career opportunities.
- The program has the flexibility to address different learning styles, interests, and ability levels.
- Career guidance enables student to make the most of their education.
- Participants acquire technical, job and life skills to smooth the way to further education and careers.
- Participants prepare for job opportunities that will allow them to finance further education and independent living.

Benefits to Teachers

- Student motivation to learn increases as students see the application of theory in problem-solving activities.
- The question, “Why do I need to learn this?” is answered as students discover how subject matter competencies, including core academic skills, are necessary for careers and additional education.
- CTE classes reinforce mastery of math and language arts skills tested on the California High School Exit Exam, assisting core academic teachers and contributing to improve graduation rates.
- Participation by students of all ability and interest levels and learning styles is encouraged.
- Students learn the kind of behavior and work ethic expected in the workplace, which improves their school attendance and attitude.
- CTE activities are designed to build on students’ needs and interests. Integrated project-based learning engages students; job shadowing, mentoring, and other work-based learning experiences provide real-world experiences that make core academic skills relevant.
- Skills required for team activities, student-to-student learning, and cooperative activities carry over into other classes and school activities.

- CTE provides a vehicle for connecting teachers to the private sector. It provides avenues for developing business and industry support for the program that can include such things as work-based learning opportunities and mentorship experiences for both teachers and students.

Benefits for Counselors

- High-quality CTE programs result in higher graduation rates.
- The organized sequence of CTE courses assists counselors in more accurately placing students in career paths or their choice.
- When students discover the relevance of basic academic skills, they are motivated to learn and more likely to be successful. Higher test scores, graduation rates, and postsecondary attendance can be expected.
- Students learn about multiple career paths and postsecondary education opportunities at various levels.
- Learning takes place through real-life projects and experiences, leading to the development of the kind of well-rounded students desired by colleges and universities.
- CTE teachers often serve as student's mentors, supporting counselors in the students advising process.
- Connections established with business, community, and postsecondary education representatives augment career counseling.

Benefits for Employers

- Program graduates are technologically literate and adaptable.
- Program graduates understand the requirements of holding a job, including punctuality and working with others.
- Graduates have already learned job skills and a work ethic, and they understand the importance of lifelong learning.
- Graduates have had work-based learning experiences including problem-solving, team-building, work organization, and decision-making.
- Many graduates have a professional portfolio illustrating their experiences and skills.
- Program graduates will understand product documentation and oral presentation.
- Graduates know the importance of adding value to their employer's enterprise.

Students With Special Needs

In purchasing clothing, most of us have learned to beware of the claim "one size fits all." It's the same way with education. The beginning teacher soon learns that lessons must be modified to fit a variety of learning styles, attention spans, and disabilities. Discussing the necessity of including students with disabilities in standards-based reform, Sue Bechard states:

The challenge that standards-based education poses is one of balance-how to maintain high expectations for all students and at the same time provide necessary learning opportunities for all students (Bechard 2000). All of the benefits listed above apply equally to students with special needs, whether these be English-language learners, students with learning disabilities, developmental delays, mobility or sensory disabilities, or students at risk of dropping our or already in special continuation programs.

ACE Systems recommends that all students be encouraged to take a course of study in high school that prepares them for further academic and career technical education. Research in the value of such an approach for students at risk of dropping our of high school has not been extensive, but a recent study by Stephen Plank of Johns Hopkins University suggested that "some of the goals of efforts to integrate CTE and academic offerings-such as allowing individual to have multiple attractive options available after high school-are being met at a most basic level" (Plank 2001, viii). Discussing his findings, Plank states:

Dual and academic concentrators did not differ substantively on standardized tests of mathematics, science, reading, or history. These analyses suggest that a middle-range integration of CTE and academic scheduling has a significant potential to reduce the likelihood of dropping out. Specifically, a ratio of approximately three CTE credits to every four academic credits was associated with the lowest likelihood of dropping out. This finding is especially salient for individuals who are otherwise at risk of dropping out due to low prior grades, or low prior test scores, or other risk factors (Plank 2001, 35).

Students in career programs at Fresno County's Sanger High School, many of whom are considered at risk of failure, have shown remarkable achievement in core academic subjects when compared with their peers in the traditional program. Students at Fresno's Duncan Polytechnical High School recently achieved the Central Valley's highest pass percentage on the California High School Exit Exam, with 83 percent of Duncan students in the class of 2004 meeting that presumed graduation requirement (Ellis 2003, 12).

Standards

The ACE System is initially focused on academic, building trades and construction sector standards and explores how career-technical educators can incorporate them into their courses. In *Aiming High: High Schools for the 21st Century,* the California Department of Education stresses that "the shift from a topic-driven to a standards-driven educational system is essential to ensure that all students master the knowledge and skills necessary in the twenty-first century". What does this mean for the teachers charged with actually delivering the education?

Speaking at a California Professional Development Consortia conference in 2000, Kati Haycock, executive director of the Washington-based Education Trust, emphasized the impact of well-qualified teachers on student success. In her extensive research across the nation, Haycock found that high-quality teaching makes an astonishing difference. In Boston, for example, researchers examining student growth in math and reading in one year "found that the top one-third of Boston's teachers were routinely producing six times the learning gains of teachers in the bottom one-third" (Haycock 2000,5). She summed up: "What matter most for student success in meeting standards are teacher qualifications, teacher learning, and high-quality teacher performance in our classrooms."

Designing Lessons Based on Standards
Suppose the teacher of a course in Fundamentals of Carpentry wants students to understand and practice correct measuring for a project such as building storage shed for a client. Lessons teaching these skills would involve two construction technology standards:

> **Standard 304: Construction Mathematics.** Students will understand mathematical processes (measuring, computing, applying trigonometry, and so forth) and know how to apply them in carpentry. They will demonstrate ability to apply mathematical skill in solving problems in carpentry.
>
> **Standard 305: Communication Skills.** Student will understand communication processes (reading, writing, talking, listening, and so forth) and know how to apply them in carpentry. They will demonstrate ability to apply communication skills by reading, presenting oral and written information, and listening to and following directions for carpentry projects.

In addition, the construction teacher will incorporate a number of core mathematics and language arts standards assessed on the California High School Exit Exam, including:

> **Grade 9 and 10, Measurement and Geometry, 2.1.** Use formulas routinely for finding the perimeter and area of basic two-dimensional figures and the surface area and volume of basic three-dimensional figures.
>
> **Grade 9 and 10, Mathematical Reasoning, 1.1.** Analyze problems by identifying relationships, distinguishing relevant from irrelevant information, identifying missing information, sequencing and prioritizing information, and observing patterns.
>
> **Grade 9 and 10, Written and Oral English Language Conventions, 1.1.** Identify and correctly use clauses, phrases, and mechanics of punctuation.
>
> **Grade 9 and 10, Written and Oral English Language Conventions, 1.2.** Understand sentence construction and proper English usage.
>
> **Grades 9 and 10, Written and Oral English Language Conventions, 1.3.** Demonstrate an understanding of proper English usage and control of grammar, paragraph and sentence structure, diction, and syntax.

Designing lessons based on standards rather than topics involves a fundamental change in perspective. *Aiming High* describes the process:

In traditional instruction the teacher chooses a topic, plans and delivers lessons, designs an assessment, assigns grades, and move to the next topic. By comparison standards-based instructions seem backwards-beginning with a standard and assessment design and moving through the lesson planning and delivery to the analysis of student performance. Indeed, standards-based instruction is sometimes called backwards mapping because it does turn the process around to focus on what the student must know and be able to do. This factor, the standard, then drives the instruction.

Discussing how to create lessons based on standards, Linda Darling-Hammond stated:

> If we are really paying attention to standards and outcomes, we don't teach something just because we've taught it for twenty years or we'd like to teach it or it's in the textbook. We ask, 'How is this going to help us get to our goals?' Standards should help us to be more careful about what we include and what we don't (Darling-Hammond 1999, 5).

Characteristics of Effective Instruction

ACE Systems has adopted well-researched characteristics of effective instruction as a principle component of our program and teacher expectations. Robert Marzano, reporting on findings of a four-year study made by the Mid-continent Research Education Laboratory of some 4,000 research studies in education, proposes these nine qualities of effective instruction:

1. Teachers have students create comparisons, metaphors, and analogies for new information.
2. Teachers have students summarize and take notes on what they have done.
3. Teacher reinforces students' efforts and gives legitimate feedback.
4. Teacher assigns and gives feedback on homework and practice activities.
5. Teachers ask students to systematically represent new knowledge in a non-linguistic fashion-a graphic organizer, a symbol, etc.
6. Teacher use cooperative learning.

7. Teachers set explicit goals and then monitor how well students are doing relative to those goals.

8. Teachers have students generate and test hypotheses about new information they are receiving.

9. Teachers use questioning techniques to help students retrieve prior knowledge and, also, to give students hints about what is to come (Marzano 1999, 5-6)

Industry Sectors

Industry sectors are broad industry groups with common products, services, and working environments. Working with industry sectors, also called career pathways or career clusters, is the basis for an approach to learning that links academic subjects to the world of work, helping students understand the applicability of classroom learning to future careers. The California Department of Education has identified 15 prominent industry sectors reflected in the state's economy.

Through an approach based on industry sectors, students have opportunities to learn skills and explore careers that reflect labor market demand for the near future in California. Completing courses in the Building Trades and Construction sector can provide students with the information and abilities they need to pursue additional education at college, technical school, or apprenticeship level for a satisfying career in an industry critical to the continuing economic growth of our state.

Career Potential for the Building Trades and Construction Sector
According to figures from the U.S. Department of Labor, construction was one of the nation's largest industries in 2000, with 6.7 million wage and salary positions and 1.6 million self-employed and unpaid family nongovernmental jobs. The construction industry is divided into three major segments: general building contractors, heavy construction contractors, and special trade contractors. Nationwide, overall growth in the construction and extraction occupations category between 2000 and 2010 is expected to be 13.7 percent. In the heating, ventilation and air conditioning industry, nationwide opportunities are expected to increase by more than 25 percent.

In California, the Employment Development Department projects an increase in jobs for carpenters in residential building construction from 37,600 in 1998 to 44,000 in 2008. For construction managers with a bachelor's degree, jobs will increase from 5,100 in 1998 to 6,300 in 2008. Increased demand for carpenters for nonresidential building construction will mean 2000 more jobs in 2008 than in 1998; managers will see 1,100 more jobs. Overall job openings for carpenters in California are projected to increase by 27.6 percent from 2000 to 2010, with 55,700 total job openings (new and replacement). Nationwide, earnings in the construction industry are significantly higher than the average for all industries, according to the Department of Labor. The average hourly wage in 2000 for nonsupervisory workers in all private industry nationwide combined was $13.74. The construction industry overall paid an average hourly wage to nonsupervisory workers of $17.86 in 2000, with the lowest being $15.73 per hour for roofing, siding and sheet metal work.

Job growth for heating, ventilation, and air-conditioning (HVAC) industry is projected to be greater than average through the year 2010. According to the 2002-2003 *Occupational Outlook Handbook*:

> Job prospects for high skilled heating, air-conditioning, and refrigeration mechanics and installers are expected to be very good, particularly for those with technical school or formal apprenticeship training to install, remodel, and service new and existing systems. Opportunities for HVAC mechanics and installers in California are expected to increase by 2,000 from 1998 to 2008.

Preparing Students for College and Careers

One of the significant challenges facing high school educators, counselors, and administrators is how to find enough hours in the school year to meet all local and state graduation requirements and ensure that

student have taken the entire course necessary to matriculate to the University of California or California State University-not to mention passing the California High School Exit Exam. Finding time for career and technical education course takes creativity and a commitment to student success that recognizes the benefits of career-focused education.

As illustrated in the introductory materials, many if not most students learn best through the kind of hands-on approach provided by career and technical courses in which mathematics and language arts skills are practiced and reinforced in realistic settings. As the standards matrixes that make up the major part of ACE Systems demonstrate, students have the opportunity to reinforce many core skills in acquiring building trades and construction sector skills that will help them in their progress to postsecondary education and careers.

If our goal as educators, counselors, and administrators is to provide the best possible education for all our students, we will do everything in our power to offer a variety of career-focused course sequences to meet the needs of our diverse student populations. Schools accomplish this in several different ways. The ACE Systems academy model provides a comprehensive high school program with a career focus. In other cases, career pathways provide a number of options within the traditional high school setting. In many California school districts, Regional Occupational Programs supply the higher level course in these programs. The ACE Systems incorporates all aspects of career preparation into a work-based, project oriented programming, designed around identified skill standards.

The Challenge of Scheduling

The traditional six- or seven-period day is the most common format for delivering a high school education, although perhaps not the most effective one. In her article “Using Standards to Support Student Success,” Linda Darling-Hammond puts it bluntly: “You cannot learn what is needed to master the kind of standards and frameworks that are being enacted in California in thirty-nine minute periods.” In addition to recommending fewer class periods per school day, Darling-Hammond urges teachers to stay with students for at least two years, citing research that shows an improvement in student achievement tied to teacher continuity (Darling-Hammond 1998).

The ACE Systems Academy (Northern California Poly Technical Academy) will use a block schedule that groups three courses together each day to facilitate the integrated project-based curriculum. In addition to classroom instruction, students will participate in job shadowing, workplace mentorship, and paid and unpaid internships during the school year and summers.

The recommended four-year schedule for the ACE Systems Academy model (NC POLY TECH) comprises:

Periods **Grade 9**	**Fall Semester**	**Spring Semester**
1-3	English Math Pre-engineering	English Physics Computer Applications in Business
4	PE	Additional English or Spanish
Grade 10		
1-3	Physics Math Architecture and Design	Construction Tech English Spanish
4	PE	World History
Grade 11		
1-3	Math Construction Tech Spanish	Science Construction Tech Computer Applications in Business
4	English	US History
Grade 12		
1-4	English Science Construction Tech	Math Economics & Finance Computer-Aided Design

Construction Sector Courses

Construction Technology courses offered at ACE Systems Academy like that described above, along with work-based project assignments include many common elements and provide multiple opportunities for students to meet and demonstrate both career-technical and academic standards and competencies. During the freshman year at NC POLY TECH, students are introduced to the construction field through a variety of units involving English, math, physics, and pre-engineering in addition to construction. The first project of the semester is Linear Measurement. It requires four class days which comprise five hours each of construction, physics, and algebra, and four hours of English. A later project, Water Flow, takes 18 days and includes a field trip. A unit on Sound Dampening and Insulation requires students to research insulation standards on the Internet, construct a heat flow apparatus and calculate the efficiency of several insulating materials, and write a letter to a fictitious owner of a model home presenting insulation options and annual energy costs. This activity takes 12 school days to complete.
NC POLY TECH is an academy with a full sequence of construction sector classes, and project-based instruction. Two year-long courses in Exterior Construction and Interior Construction prepare students to take the examination for apprenticeship programs or transition to higher-level courses at the postsecondary level.

State and National Proficiency Exams

The National Occupational Competency Testing Institute, NOCTI, has been providing occupation-specific tests since 1968. The NOCTI assessment for entry-level carpentry, for example, includes a three-hour written exam covering hand tools, power tools, blueprints and specifications, building materials and fasteners, building layout, foundations, forms and concrete, rough framing, exterior finish, interior finish, basic mathematics, employee safe work habits, interior systems installation, and measuring skills and lay

operations. In addition, a two hour and twenty minute performance assessment allows small groups of students to demonstrate their skills in blueprints and specifications, building site, rough framing, roof framing, stair construction, interior finish, and the use of tools and materials.

The Joint Apprenticeship and Training Committee (JATC) of the United Brotherhood of Carpenters and Joiners of America offer a rigorous program to achieve Journeylevel status that includes 4,800 hours of work experience and 48 months of apprenticeship. Candidates must complete a test of their mathematical skills that covers basic math skills as well as fractions, decimals, conversion, square and square root, English linear and angular measure, direct linear measurement, and basic plane and solid geometry. Students able to pass this qualifying exam would have no trouble passing the math portion of the California High School Exit Exam.

The Associated General Contractors of America have an accreditation program with standards designed to improve construction craft programs by providing guidelines for the development of new construction craft programs, improving established programs, and providing curriculum guidelines that accurately reflect industry training requirements. The following program aspects are evaluated: goals and objectives, educational setting, industry advisory committee, administrative support, instructional materials, instructional staff, facilities and equipment, safety, and learning resources.

Incorporating Core Academic Standards in Career and Technology Courses

Curriculum integration has been widely implemented in the nation's high schools in various ways at least since the passage of the Carl D. Perkins Vocational and Applied Technology Education Act of 1990 (Perkins II) recognized and funded Technological Preparation of Tech Prep, which called for students to develop proficiency in core academic subjects as well as technology. Perkins III legislation passed in 1998 specifically calls for the development of programs that meet academic standards set by individual states, and for proficiency in math, science, reading, writing, communications, and technologies.

Methods of integrating academic and career-technical curricula vary from school to school. In a stand-alone or in-school academy or charter school, such as NC POLY TECH, staff can utilize cross-curricular integration that brings together a team of instructors from several disciplines to plan and deliver courses in the context of a central theme. This is the kind of instruction used in the new NC POLY TECH charter academy, where teachers will work together to provide a comprehensive education intended to prepare graduates for the full range of postsecondary education and careers, from the University of California to industry apprenticeships.

The most basic level of curriculum integration, requiring no special scheduling or teacher cooperation, is the infusion method. In today's climate where high-stakes academic tests appear to be dictating most of what happens in California's public schools, curriculum integrations by infusion offers the opportunity for all career and technical educators, regardless of their school's schedule, to assist students in mastering academic skills while gaining valuable career exposure and skills.

The California Department of Education, in *Aiming High: High Schools for the 21st Century,* indicates strong support for the integration of academic and career-technical standards as means of preparing student to meet the challenges of a future in which even entry-level jobs demand a higher level of basic academic skills than ever before. The writers acknowledge that not all academic standards can be taught outside the primary disciplines, but they point out that "most of CAHSEE reading and writing standards and almost all the mathematics standards can be taught both in the primary discipline courses and as applications in various other courses. They state:

> Offerings such as career-technical education courses . . . can increase both attendance and graduation rates as well as help prepare students for careers. The blending of content/career standards and academic standards has been found to increase student-learning gains for the Iowa Test of Basic Skills, a national norm-referenced assessment . . . Students need time to master academic standards. Integrating academic standards into performance-based, contextually rich classes in the arts and career areas enables students to have multiple opportunities to learn and

> apply the standards. Students not only gain more time to master difficult standards but also can transfer their learning across several disciplines.

The new requirement that students must pass the California High School Exit Exam in order to graduate may prevent some students from taking the kind of rigorous career and technical education classes that could reinforce their core academic skills and help them to make sense of abstract mathematical concepts in practical applications. When students who fail one or both sections of the exit exam elect to take remedial classes rather than career classes, they may not be helping themselves if those classes present the material in the traditional manner. After all, when a student is drowning in a pool of math, it does not make sense to pour in more math! What is needed is presenting math, or language arts, or any other academic subject, in a context where the concepts are used in applications that make sense to the learner.

The Importance of Articulation

Articulation agreements have been used in career and technical education programs for many years, even before Perkins II and III required articulation agreements between participants in a Tech Prep consortium. While many high school programs do not receive Perkins funding and are not required to have such agreements, they are an essential component of successful career and technical education programs of all kinds. In a 1992 paper, researcher Debra Bragg stated:

> Secondary-to-postsecondary articulation is essential to create smooth transitions and reduce drop-out, failure, and costly inefficiencies for students. Articulation to the postsecondary level opens doors to a wide array of career fields and enhances upward mobility for students beyond what they could expect with only a high school diploma (2).

Program articulation has two purposes: (1) avoiding duplication of courses, and (2) facilitating student transfer between programs or institutions. It helps students make the most of their secondary and postsecondary education time and money by taking courses in the appropriate sequence for both academic preparation and institutional credit. In an ideal world, California's industry sectors would be taught in a pathway continuum beginning with exposure units in elementary school and continuing with career introduction and exploration course in middle school, then expanding to beginning skills acquisition course in high school and career-specific course in ROP and community college.

In her 2001 report *Promising Outcomes for Tech Prep Participants in Eight Local Consortia: A summary of Initial Results,* Bragg notes a number of challenges in implementing articulation agreements but reaffirms the importance of the process:

> Through articulation processes educators from the secondary and postsecondary levels have communicated about content and standards for curriculum. As a result, they have created new sequences of career-technical (CT) and academic courses, providing a logical curricular progression from the secondary to postsecondary level. Also, the articulation process has facilitated a more continuous review of courses an the adaptation of existing content to new academic and occupational standards . . . (16)

Course and program articulation are most successful when all parties recognize the clear benefits to their students and are committed to making the process work. In most cases, articulation is a win-win situation for both secondary and postsecondary institutions, giving high school students the preparation for higher-level education in their chosen careers and ensuring the student demand needed to ensure the continued existence of postsecondary programs. In a climate of budget cutting, carefully structured and monitored articulation is an effective means of reducing costs to both students and educational institutions.

Working with Industry

Across the nation, high schools are teaming with the construction industry and labor unions to meet the dual needs of preparing students for stable careers and meeting the needs of industry and labor for new employees. Commenting on the importance of linking industry and education so that students receive accurate information about career possibilities and training requirements, Rosenbaum states:

> Students' motivation and work-entry problems arise because the labor market fails to give many of them clear information about incentives, about the actions they can take, and about signals of their productive values that employers will trust and value. Informal linkages can provide this kind of information (Rosenbaum 2001, 23).

Mathematicians Forman and Steen, who advocate a program of authentic mathematics to prepare all students for career success, emphasize the importance of establishing ties between industry and education, stating: "Without a continuing commitment to cooperation, it is very difficult for teachers, curricula, and textbooks to keep pace with the rapid changes and increasing rigor of the contemporary high-performance workplace" (Forman and Steen 2000, 2).

In Cranston, Rhode Island, encouraged by a successful St. Louis venture, the New England Laborers' Union and the Cranston Public Schools opened a charter school in the fall of 2002 to provide construction-specific education integrating career and core academic standards. Graduates will be prepared to enter college or move into an apprenticeship in the construction industry.

In San Diego, the Construction Tech Academy opened at Kearny High School in the fall of 2002, the fruit of a suggestion from the Carpenters Union Training Trust in 1999. The academy's advisory committee includes representatives of the San Diego/Imperial Counties Labor Council, San Diego State University, Associated General Contractors, San Diego Carpenters Training Center, Business Roundtable for Education, San Diego Building Trades, San Diego Education Association, United Association of Plumbers and Steamfitters, San Diego Electrical Training Trust, and a host of private businesses.

The Sheet Metal Workers' Training Center in Sacramento hosts students from the area each year for a full-day worksite tour and apprenticeship visits. In San Diego and San Mateo counties, union representatives make classroom presentations in which they give information on education and skill requirements for building trades and qualifications necessary for students to apply to union apprenticeship programs. In Ventura, the Building and Trades Council works with local high schools to offer students construction experience building houses for Habitat for Humanity.

The Building Industry Association has established a variety of partnerships with high schools across California. The Baldy View Chapter worked with the Snowline School District in San Bernardino to start the Home Builders School, a charter school open to any person without a high school diploma. The Orange County Chapter partnered with the Anaheim Union High School District to establish the Building Industry Technology Academy at Katella High School in Anaheim. The four-year program has a waiting list, and may add a certification program soon. According to a recent article in the *Los Angeles Times,* "the building association is committed to getting students apprenticeships and exposing them to industry specialties through field trips" (Luna 2003). The article quotes one of the academy's industry partners, Fred Hovenier: "Helping them pass test doesn't mean anything if all they're qualified to do is flip hamburgers. I think we've failed them miserable if that's all we've prepared them for."

The California Coalition for Construction in the Classroom was established in 1998 to address the needs of both education and industry. Noting that increasing construction activity and the retirement of large numbers of high skilled workers mean the industry will need as many as 100,000 new workers each year through 2008, the CCCC, a nonprofit federations of more than 60 construction organizations, is dedicated to attracting highly qualified workers through a program focusing on career awareness and exploration. Their efforts include assisting in the establishment of construction education programs in high schools across the state. Contacting the coalition via its Web site (www.constructcareers.org) is an excellent

place for educators to begin their efforts to establish the industry partnerships so important to providing the kind of rigorous construction sector education programs our students need and deserve.

Resource Planning

Resource planning and development for this academy will be multifaceted and complex. Because of the nature of the program and the focus on all stakeholders and partners, it is necessary to identify all the possible and probable sources for support and funding for this project. Some of the key sources to be developed are the planning/implementation grant, dissemination grant, partnership grants, equipment and material donations, district revenues, ADA generation projections and production revenue generation.

Planning / Implementation Grant

The federal planning grant is available through the state education agency and is a grant awarded through a competitive application process to an eligible applicant for the purposes of developing a charter petition for approval by a local educational agency. The federal implementation grant is awarded through a competitive application process to an approved charter school for the purposes of executing the educational and organizational goals of an approved charter proposal. The Planning/Implementation Grant can be approved for up to $450,000 for the period of the grant, depending upon the scope and impact of the new charter school.

Note: Planning and implementation phases cannot exceed a total of 36 months.

Dissemination Grant

The federal dissemination grant, that is available through the state education agency, amount to a maximum amount of $250,000 for up to a two-year period. The dissemination grant is a grant awarded through a competitive application process to a charter school that has been in operation for at least three consecutive years and that has demonstrated overall success for the purpose of developing and facilitating the dissemination of information about successful practices of the charter school.

Partnership Grants

One of the key support resources for ACE Systems will be in the business, industry and labor partnerships that will be developed around the program. Local and regional business and industry interests will be approached to partner with this new program model. The program will allow business and industry to train and groom local applicants for their entry into their employment. They will be able to help individualize programs for ACE employees and ensure they are prepared to fit into their business on the first day. Labor has embraced the ACE Systems model because of the basic components of the program and the focus on labor-related careers and employment. Whether support can be developed around one labor area or several areas, the AFL/CIO wants to become a supporter of this model.

Equipment and Material Grants and Donations

Again an important aspect of equipment and material grants will be the support of our partners and related agencies. The importance of developing state-of-the-art equipment inventories and materials is paramount to being able to deliver an enterprise-based educational program. Facility limitations and infrastructures will be important to the success of technology driven enterprises and production. Using worksite-learning modalities, such as used by the California ROP, can help defray the requirements of facilities and updating of equipment on a scheduled basis. Worksite agreements with employer partners in the community will be a mainstay of the program.

ADA Generation Projections

The basic funding source for the continuation of ACE Systems will be dependent upon the Average Daily Attendance (ADA) funding formula prescribed for charter schools. Because ACE Systems is designed for grades 9-12, the base per-ADA funding revenue limit will be $5338. An additional $294 is included for categorical support. That makes the overall revenue limit for charter schools in California for the year 2004-2005 the amount of $5632 per-ADA. The ADA is determined using the same criteria as is required of the traditional program. NCPTA will develop a program for a beginning enrollment of 150 ADA, at full strength. The ADA revenue expectation for 150 ADA will be $997,000. It should be noted that ADA revenue generation is totally dependent upon enrollment and attendance of students. It is also apportioned periodically during the year of the delivery of the program. Therefore, ADA generation will not be a factor for the budget until the program is started.

Production Revenue Generation

Production revenue generation will be an internal source of funding specifically for the operations of the various enterprises operated by the program. Through partnerships with business and industry, as well as public agencies and labor, contracts for specific projects will be established to provide funds for the ACE staffing and material costs for the Operations Department of the organization.

Budget Narrative

The preliminary budget indicates the projections for the annual income and revenue for the first five years of operation. The budget items will be based on projected staffing and costs of the program starting with the first day of the program forward. Therefore, the budget will cover the school years of 2004-2005 through 2009-2010. The budget spreadsheet is attached to the NC POLY TECH Charter Petition package.

Summary

All aspects of ACE Systems of America are not unique to the workforce development efforts of years passed. Much like the old “Tech High Schools” of the past, this program prepares the student for the world of work without denying the student with access to post secondary education and degrees. ACE Systems is not only for the student that feels they are never going to attend college, but also for the student that plans to attend college but wants some specific work-based opportunities and experiences.

APPENDIX 12 – Sexual Harassment Training Example

STOPPING SEXUAL HARASSMENT

A Training Module for the SMWIA

8:30 a.m. - 9:00 a.m. breakfast

9:00 – 9:30 Sexual Harassment -- A Union Issue

Sexual harassment is a type of illegal sex discrimination, yet it affects over two-thirds of working women and a significant number of men. Despite much public education through the media and through training programs from unions, employers and advocacy groups, the number of sexual harassment complaints filed rises every year.

Increasingly, union contracts are including specific language to deal with sexual harassment. More and more employers are adopting and enforcing anti-sexual harassment policies. Sexual harassment victims have been winning in court, some in high-profile cases. Yet sexual harassment remains a serious workplace problem, extracting from its victims high economic and emotional costs.

There are many successful strategies the union can use to deal with sexual harassment and to create a climate in the workplace in which sexual harassment is not tolerated. The union must play a key role in preventing sexual harassment and many of our councils and locals are in the forefront of this struggle.

9:30 – 9:45 Case Studies. Discuss with your small group why these case studies are examples of sexual harassment, or, if you don't believe them to be, why not?

 # 1.

Sonia

I am so fed up with my foreman and some of the guys. Every time I come in with something slightly different like a new haircut or a somewhat tight tee shirt or anything like that it seems someone has to make some comment on my appearance. Sometimes what is says sounds like a compliment, but it feels to me like all these guys notice is how I look, not my work. I want to tell them to quit it, but they'll have some excuse or just get offended. I don't know. One of these days I'm just going to lose my temper and then it's kiss my job goodbye.

Bill

Excuse me? She's offended because someone says she looks nice? Man, I was raised by my mother to be a gentleman and complimenting women on their appearance is part of being a gentleman. Show me the rules where it says you can't compliment a woman on her appearance. She'd probably be more furious if I never noticed. My wife sure is.

 # 2.

Julia

I want to make a complaint against Mr. Todd, my foreman. He's driving me nuts. Every single day he makes a point to stand where I can see him and he fondles his genitals. He looks right at me when he's doing it, too. You can't mistake what he means. It's embarrassing and distracting. I don't want to talk to him about it; I don't want to talk to him at all. He's creepy. I'm not the only person he does this to; you can talk to Alice Summerby or Wilma Reece. He does it to them, too. Is this harassment? I know I'm going to have to quit if this behavior doesn't stop.

Alice

Yeah, Mr. Todd is a creep. He touches himself and looks straight at me when he's doing it, and I'm trying to work. I don't know what he thinks he's doing. I think he's crazy. I try not to let it bother me, because I have to keep this job. I have small kids and I really need the work. I don't want to make a fuss, because I don't want to get involved. So I just try not to notice.

Jerry

I don't know what these women are talking about. I don't "fondle my genitals" in public. They are just complainers who don't get their work done on time and they're trying to make up some excuse. These women are lazy and incompetent and they don't belong here anyway. Why don't they just go back home where they belong?

Harold

I was designated to investigate the claims these women made against Jerry. I never saw him rubbing himself. I decided the women were just trying to get him in trouble. He probably wasn't doing anything but adjusting his pants. He's a big man and wears his pants kind of tight. I told those women to ignore him or tell him to quit it. There wasn't anything to it. If we let those women get away with this kind of stupid complaint, a guy won't be able to work for worrying where to put his hands or what he can say or where he can look.

 # 3.

Jen Certa is constantly subject to “girly” pictures on the job site. Everywhere she goes, it seems, she sees posted pages from Playboy and other such magazines. Worst, perhaps, are the writings and sayings scribbled all over the walls of the bathroom, and the little slips of paper with suggestive and lewd remarks on them, left in her tool belt and other personal property of hers.

9:45-10:15 What is Sexual Harassment?

According to the federal Equal Employment Opportunity Commission (EEOC) Guidelines, sexual harassment is defined as "unwelcome sexual advances, requests for sexual favors and other verbal or physical conduct of a sexual nature when:

(1) submission to such conduct is made either explicitly or implicitly a term or condition of employment;

(2) submission to or rejection of such conduct by an individual is used as the basis for employment decisions affecting such individual; or

(3) such conduct has the purpose or effect of unreasonably interfering with an individual's work performance or creating an intimidating, hostile or offensive working environment."

Specifically, sexual harassment can include:

- verbal abuse (propositions, lewd comments, sexual insults);
- visual abuse (leering or display of pornographic material designed to embarrass or intimidate an employee);
- physical abuse (touching, pinching, cornering); or
- rape.

There is no clear definition of a "hostile work environment." It can occur where jokes, suggestive remarks, physical interference with movement (such as blocking one's path), pictures, cartoons, or sexually derogatory comments alter the circumstances of the workplace. Generally, repeated conduct is required to prove a hostile work environment, and a "stray comment" has been held not to alter the working conditions sufficiently to create a cause of action. However, some comments or conduct can be so severe that a single incident can create liability.

It does not matter whether the alleged harasser intended the conduct to be harassing or complimentary. Rather, the conduct is evaluated from the perspective of the victim. Thus, in *Ellison v. Brady* (924 F.2d 872 (9th Cir. 1991)), the trial court found that there was no harassment, characterizing the defendant employer as an inept Don Juan rather than a wrongdoer. The Ninth Circuit rejected the "reasonable person" standard utilized by the trial court since it "tends to be male biased and systematically ignores the experiences of women." Rather, the circuit court found that if a "reasonable woman" would find the conduct severe and pervasive enough to alter the terms and conditions of employment such that an offensive environment was created, then sexual harassment can be found.

The practical advice for employers evaluating potentially harassing conduct is to be as conservative as possible. If conduct might be construed as harassing, it has no place in the workplace. If an employee (and especially a manager or a supervisor) is not sure whether or not conduct will be unwelcome, the best advice is to avoid such conduct.

Some Myths and Facts

MYTH: So-called sexual harassment is just natural, normal behavior. People should feel complimented that they are considered desirable and attractive.

FACT: Sexual harassment is a power play using sexually directed behavior as a weapon. It is an inappropriate way to control another person through degradation and humiliation. It is not "sexy" and is not part of healthy human relationships based on mutual caring and respect.

MYTH: Women are responsible for being sexually harassed by the way they dress and by provocative speech and behavior.

FACT: The most common motivation for sexual harassment is power and aggression, not sexual desire. Victims who believe this myth have tried unsuccessfully to stop the harassment by making their physical appearance as unattractive as possible and otherwise behaving to discourage the harassment. Nor are sexual harassment victims limited to young or physically attractive people.

MYTH: If an employee asks another employee for a date, this could be grounds for sexual harassment charges.

FACT: There should be no sexual harassment problem in asking a co-worker for a date so long as there is no coercion. The potential for sexual harassment problems arise when the person asked says "no." Rejection is no cause to retaliate through sexual harassment. When a person makes it clear that the advances are unwelcome, his or her wishes must be respected.

MYTH: Women who enter a predominately male field should expect to put up with rough language, dirty jokes and hazing. The women are not being treated any differently than the men treat each other.

FACT: This is a myth because many times the new woman in a previously all-male environment is not just treated as "one of the boys." It is not business as usual, but rather the men escalate the foul language or sexual conduct to test her or make it difficult for her to succeed. Intensified, ongoing, sexually directed conduct has therefore been held to be sexual harassment.

MYTH: The victim must be of the opposite sex of the harasser in order for there to be sexual harassment.

FACT: The victim, as well as the harasser, may be a man or woman. The victim and the harasser do not have to be of the opposite sex.

10:15 – 10:30 Break

10:30 – 11:00 Sexual Harassment Is Against The Law

Title VII of the 1964 Civil Rights Act.
A long line of lower federal court decisions had upheld the EEOC sexual harassment guidelines ruling that sexual harassment is sex discrimination and violates Title VII of the Civil Rights Act before the issue reached the U.S. Supreme Court in 1986. In **Meritor Savings Bank vs. Vinson,** 106 S.Ct. 2399 (1986), a unanimous court in an opinion by Justice William Rehnquist held that not only can a Title VII violation be established by proving that employment decisions affecting the employee were based on whether the employee granted sexual favors or tolerated the harassment, but that a violation could also be established by showing that the harassment created a hostile or abusive work environment. Accordingly, if a hostile environment can be shown it is not necessary for the victim to prove that concrete employment benefits were denied or granted based on the harassment.

The court in **Vinson** also held that the appropriate question in a sexual harassment case is not whether the victim tolerated the harassment "voluntarily" in that the employee was not forced to participate against his or her will. Rather the question is whether the sexual behavior was "unwelcome." The court stated that the "totality of circumstances" should be taken into account in determining whether the sexual behavior was unwelcome.

The Supreme Court did not issue a definitive rule concerning the liability of employers for sexual harassment. While agreeing that employers were not automatically liable for the sexual harassment perpetrated by supervisors, the court also refused to establish a rule whereby employers could insulate themselves from liability by providing a grievance procedure or by issuing a policy statement.

The **Vinson** decision leaves no doubt that sexual harassment constitutes sex discrimination under federal law. This does not mean that every sexual harassment lawsuit will be successful. Based on **Vinson** as well as case law from lower federal courts, employees claiming sexual harassment are more likely to be successful where:

- the harassment can be linked to an adverse employment decision, for example, if the employee rejected the harassers advance and was fired, was given a poor performance evaluation or was denied a raise or promotion;
- the employer knew or should have known about the harassment and did nothing to stop it;
- the employer had no policies or procedures for dealing with sexual harassment or those that exist were ineffective. For example, if the harasser is a high management official, the employee may have no one to whom to complain. Similarly, if the grievance procedure requires the employee to complain to the supervisor, such a procedure may be ineffective if the supervisor is the harasser.
- where the harassment was serious, frequent, and continued over some significant period of time. This is especially important in proving that a hostile environment existed when no tangible employment benefit was withheld. About the only generalizations that can be made are that occasional, insensitive remarks are insufficient to establish a violation of Title VII. On the other end of the spectrum, courts generally view sexual assaults as serious enough to create a hostile environment.

11:00 – 11:30 What To Do If You Are Sexually Harassed

Don't blame yourself. Don't assume that you are doing something to provoke the harassment. Remember that sexual harassment has more to do with power than with sex.

- Object! Make it clear to the harasser that his or her behavior is unwelcome. While you may prefer to object verbally in the beginning, if the harassment continues, object in writing and keep a copy of the letter. Be specific about what behavior you find objectionable.
- Keep a log or diary of incidents-date, time, place, behavior, what was said, witnesses. Keep the log in a safe place at home, not at work.
- Don't suffer in silence! The harasser is counting on you to keep it a secret. Talk to friends and family. Let people who care about you give you their support.
- Talk to co-workers, Since harassers tend to be repeaters, you may learn of other victims of the same harasser. Also, your co-workers may provide support and some protection and, if alerted, may be able to corroborate incidents of harassment.
- Take formal action through the union or employer grievance procedure. Your union representative should be able to assist you. It is important to help establish employer liability to make sure the employer knows about the harassment and is given an opportunity to stop it.
- Insist that the proposed "solution" does not adversely affect you. For example, the employer may propose transferring you away from the harasser. If the new job is in an inconvenient location or would adversely affect your seniority rights or promotional opportunities, you are within your rights to insist that the harasser-not you-be inconvenienced.

11:30 – 11:45 What the Union MUST Do

There are a number of measures that local unions can take to combat sexual harassment. The goal is to make union members sensitive to the problem and to create a climate to discourage sexual harassment and, if it occurs, a climate where victims will feel comfortable turning to the union for assistance.

- Establish an anti-sexual harassment policy through local or council resolutions.
- Educate the membership about the issue. This can include speakers, workshops and distribution of literature.
- Include training on handling sexual harassment grievances as part of your foremen training program. If the employers provide training for supervisors, get union stewards and officers included.
- Determine the extent of the problem in the workplace. A survey of the membership may be useful.

- Negotiate anti-sexual harassment language in your collective bargaining agreement and a procedure to deal with violations.
- When sexual harassment does occur, act effectively to protect the members. Offer support, investigate and file appropriate grievances or complaints.
- Be sure that the employer has an anti-sexual harassment policy that is prominently posted or otherwise effectively communicated to all employees. If the employer has no formal policy, bring up the issue in labor/management meetings and help them develop one. Make sure that policies include a "bypass" procedure which allows initial complaints to be filed with someone other than an immediate supervisor, who may be the harasser.

11:45 – Noon Creating a Harassment-Free Workplace

An employer's obligations with regard to sexual harassment arise before any act of sexual harassment occurs. The EEOC requires that employers take reasonable steps to prevent harassment before it occurs. Most states have discrimination prohibition enforcement agencies, which generally impose similar requirements. Many states require an employer to post a sexual harassment prevention notice advising employees of their right to a harassment-free workplace; this is different from, and over and above, an employer's obligation under Title VII to post a general discrimination prevention poster.

Among the elements of a proper sexual harassment policy are the following:

- *A statement of policy*. An appropriately high decision maker, such as a company president or human resources department vice president, should set forth a firm policy banning sexual harassment, and identifying himself or herself as the person ultimately responsible for preventing harassment at the company.
- *Definition of sexual harassmen*t. A broad definition should be set forth that includes illegal sexual discrimination; unwelcome advances; requests for sexual favors; and any other verbal, visual, or physical conduct of a sexual nature. It should make clear that submission to any of that conduct cannot be made, explicitly or implicitly, a term or condition of employment, or used as a basis for any employment decisions. It must ban all behavior that has the purpose or effect of unreasonably interfering with an individual's work performance, or creating an intimidating, hostile, or offensive work environment. It should include examples of sexual harassment, while making very clear that the list of examples is not intended to be all-inclusive.
- *Non-retaliation policy*. It is critical that the policy, and company practice, protect complainants and witnesses from any retaliation from any source as a result of initiating or supporting a sexual harassment allegation.
- *Specific procedures for prevention*. The policy should make sexual harassment a disciplinary offense, and reserve the right to terminate an employee who is found to take part in that conduct. For employers who can do so, it should establish training programs in sexual harassment prevention, and urge employees to raise and resolve their concerns at an early stage. Where an employer has a history of sexual harassment that has been the subject of prior litigation, or that is widely known within the company, a training program is a critically important policy to consider. However, neither a commitment to training, nor any other written promise, should be put in a sexual harassment policy document unless it will be accomplished. It is better to have no procedure at all than to establish a procedure and then fail to comply with it. Therefore, while even the smallest of employers should have a written policy, small employers should probably delete this training component in most cases.
- Establish and enforce a clear and thorough investigation and remediation procedure. Your policy must actively encourage victims of sexual harassment to report the behavior, and expressly identify several appropriate individuals authorized to receive the harassment complaint. This will prevent the situation in which the alleged harasser is the person to whom the complaint would logically be addressed. Your application of the policy must be uniformly neutral and consistent.
- *Establish a reporting procedure*. The policy should be broadly disseminated to every employee, putting them on notice of the company's reporting procedure. In fact, because remedying

harassment is so important to the company, the policy should put an affirmative duty on the employee to report any harassment that they have either suffered or observed.

- *Timely reporting requirements*. In most jurisdictions, there is a time limitation on a formal administrative charge ranging from six months to a year; an employer will not be able to impose a shorter time period as a legal prerequisite to filing a harassment complaint. However, the failure to meet a shorter complaint period (for example, 60 to 90 days) so that a "rapid response" and remediation may occur, and to help to ensure a harassment-free environment, could be raised as a defense to a claim of a series of harassing events that the company had no opportunity to remedy because of the late report.

Supervisors should be told to take seriously, and to report, any report of potential harassment, no matter how "offhand" or informal. In addition, especially when dealing with some relatively more serious acts of harassment, a company may need to take action whether or not the employee reporting the harassment wants to. For example, an employee reports that her supervisor propositioned her on an out-of-town business trip, but concludes "I can take care of the situation myself, and I don't need anybody getting involved on my behalf. I'd rather let the matter drop." The next employee who might be propositioned by that same supervisor on an out-of-town trip might not be able to handle the situation herself, and the employer would almost certainly be liable to that second employee if she proved that the company knew about the supervisor's conduct and did nothing to stop it.

APPENDIX 13 – Suggested Agreement Language

The Association, on behalf of its Employer members, and the Union, are committed to maintaining an environment that is free from unlawful discrimination. To fulfill that commitment, it is essential that effective written policies be established, and enforced, which prohibit all forms of unlawful harassment in the workplace, including harassment based upon sex.

The parties to this Agreement agree to work cooperatively to attain the following objectives:

1. To establish written policies prohibiting unlawful harassment in the workplace, if such policies do not presently exist.

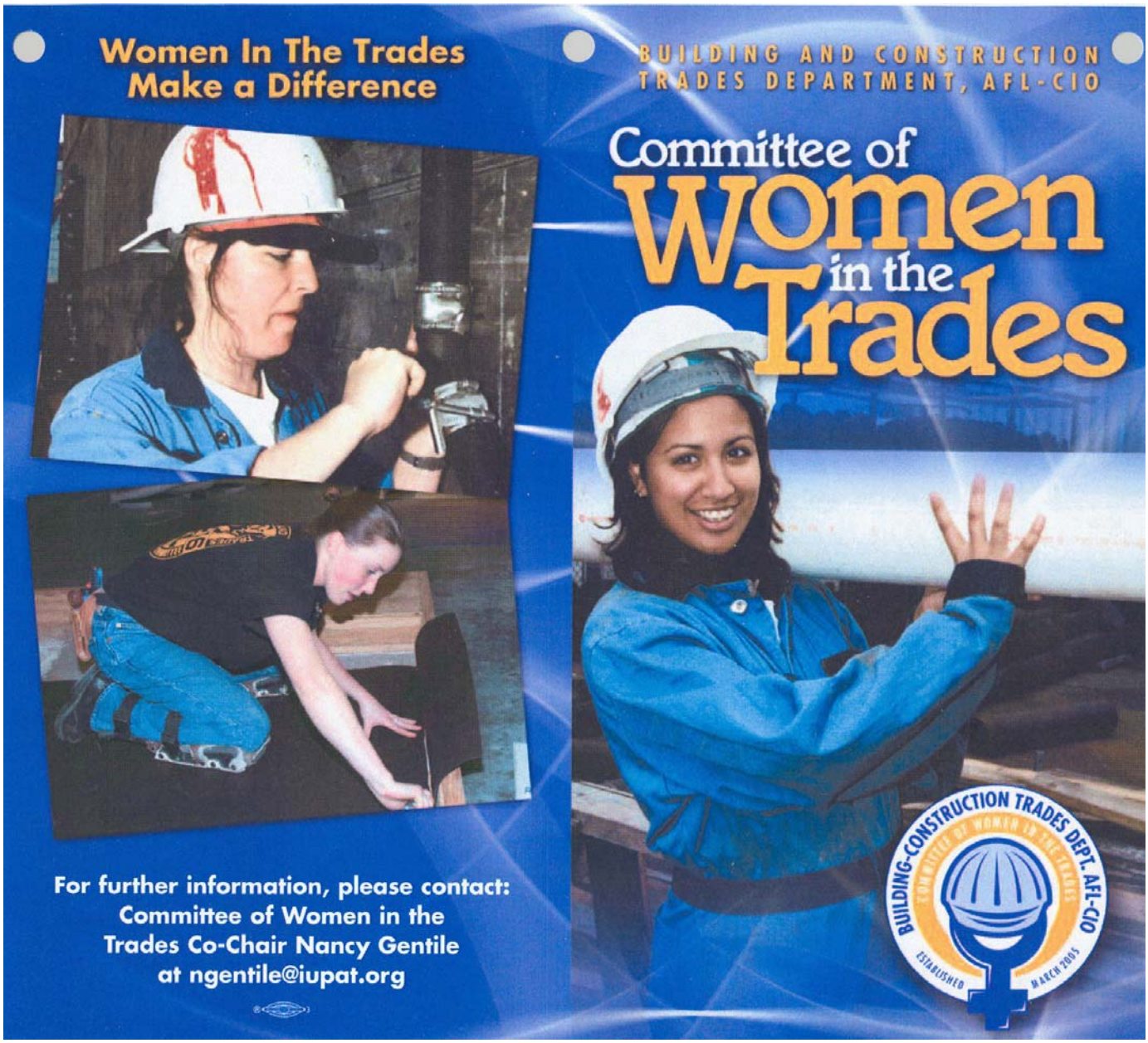
2. To ensure that such written policies are effectively communicated to all employees at reasonable intervals.

3. To ensure that employees with complaints of unlawful harassment are provided with an effective means of voicing their complaints, without being subjected to unlawful retaliation.

4. To ensure that such complaints are appropriately, thoroughly, and fairly investigated in a timely manner.

5. To see that individuals violating such policies are dealt with appropriately, which may include the imposition of disciplinary action.

APPENDIX 14 - COMMITTEE OF WOMEN IN THE TRADES



Building Trades Department Launches Committee of Women in the Trades

On February 16, 2005, the Building and Construction Trades Department, AFL-CIO formed the Committee of Women in the Trades. Two years in development, this committee will become only the sixth standing committee of the Building and Construction Trades Department.

President Edward Sullivan, who will formally announce the formation of this standing committee at the Department's 2005 Legislative Conference in Washington, DC, April 18 said, **"We are very pleased that our planning discussions with this group of dynamic trades women has resulted in a standing committee within our Department. There is no doubt that their energy, expertise and innovative ideas will serve to strengthen women's opportunities and employment in union trades. We look forward to collaborating with them to achieve progress on many critical issues now and in the future."**

Representatives from all of the building trades have been asked to serve on the committee. The committee is co-chaired by Joseph Maloney, Secretary-Treasurer of the Building Trades Department and Nancy Gentile of the International Union of Painters and Allied Trades.

The first activities of the committee include the development of an informational brochure and other promotional materials.

This committee was formed because...

- **Women are the greatest untapped resource to address the critical shortage of skilled union construction workers**
- **Women represent less than 3% of all trades workers throughout the country**
- **Women face unique challenges, which jeopardize their retention in the trades**
- **Women have been in the trades for more than a quarter of a century, yet few women are represented in leadership positions**

COMMITTEE OF WOMEN IN THE TRADES MISSION STATEMENT

The Building and Construction Trades Department Committee of Women in the Trades is committed to increasing the number of women in skilled trades careers by promoting strategies for recruitment, retention and leadership advancement. The committee will give voice and visibility to these issues within the Building Trades Department, its affiliates and industry partners.

APPENDIX 15 – IBEW'S WOMEN CONFERENCE

IBEW WOMEN'S CONFERENCE

The IBEW will hold the International Women's Conference September 17-19, 2004, at the Omni Shoreham Hotel, in Washington D.C.

The three-day conference will bring together IBEW members interested in building and strengthening the IBEW and the communities in which they live. Delegates will participate in plenary sessions, branch caucuses, round table discussions, and worker-friendly workshops to help equip them to take on the challenges facing working families in a proactive, strategic and practical manner.

The interactive sessions will provide educational tools and motivate members to become workers rights advocates, union, political and community activists and leaders. Activities are designed to produce action programs in the workplace, union and communities and create opportunities to help end the myriad of assaults on working families. Congressional, labor and industry leaders have been invited to address issues important to women and their families.

Pre-conference activities on September 16 include a Call Center Forum, lobbying day and interpersonal workshops for members.

2004 IBEW INTERNATIONAL WOMEN'S CONFERENCE
Tentative Agenda

Thursday, September 16, 2004
Pre-Conference Activities

8:30 am Registration
10:00 am - 3:00 pm Call Center Forum
10:00 am - 4:00 pm Congressional Lobby Day
5:00 pm - 6:30 pm Interpersonal Workshops
6:30 pm - 8:30 pm Networking
6:30 pm - 9:30 pm Film Fest

Friday, September 17, 2004

7:00 am Registration
8:30 am Opening Plenary Session

IBEW Women Leading the Way
International Officers' Address
Congressional Speaker
Interactive Panel Discussion
Workshops

12:00 Noon — Lunch Break

1:30 pm Afternoon Plenary Session

IBEW Women Leading the Way
Congressional Speaker
Round Table Discussions

3:00 pm - 4:30 pm Workshops
6:30 pm - 9:30 pm Garden dinner party (casual attire)

Saturday, September 18, 2004

7:00 am Registration
8:00 am General Plenary Session

IBEW Women Leading the Way
Speakers
Round Table Discussions
Workshops

12:00 Noon — Lunch Break

1:00 pm - 4:00 pm Workshops (repeated)
2:45 pm CAUCUSES

Canadian
Construction
Utility
Telecommunications/Broadcasting
Manufacturing/Government

Sunday, September 19, 2004

8:30 am Closing Plenary Session

IBEW Women Leading the Way
Voice@Work Plenary Workshop
Reports
Closing Remarks

12:00 Noon Adjournment

Women's Conference Motivates, Inspires

September 22, 2004

Delegates from the United States and Canada participated in a high-energy Women's Conference in Washington, D.C. with a heavy emphasis on politics six weeks ahead of the presidential election. Nearly 300 delegates came for four days of lobbying, conference activities and solidarity.

President Edwin D. Hill takes the podium for his remarks on Friday, September 17. Conference organizer Royetta Sanford, IBEW Human Resources Department director sits at left, next to Executive Assistant to the International President Liz Shuler.

"Today belongs to the sisters," said International President Edwin D. Hill to a standing-room-only crowd at the conference kick-off on Friday, September 17. He encouraged delegates to channel their considerable energy into political activism to help the IBEW-endorsed Democratic presidential candidates. "The spirited enthusiasm of labor union women will help put the Kerry-Edwards ticket over the top."

President Hill also touched on three themes that have been running through conferences and meetings all year: political action, organizing and professionalism. He discussed the special August construction conference called to counter a troubling strain of lack of commitment to excellence. "I see people here who are part of the solution," President Hill said. "Every month of every year you are a greater share of the lifeblood of this union."

In his remarks, International Secretary Treasurer Jerry O'Connor focused on politics, mocking the "bizarre" year that an actor impersonates a governor in California and a "former cheerleader at an elite private school in the Northeast who never worked a day in his life impersonates a president."

"I can't imagine why people are buying this," O'Connor said. "While Republican boys play macho games, overtime rules were changed to cheat millions of workers out of pay and corporate leaders get fat tax breaks. Enough is bloody enough. It's time to get Bush and Cheney the hell out of Washington. There's no better group in the world to accomplish this than America's working women."

Sanford, right, greets speaker Gloria Johnson, former president of the Coalition of Labor Union Women.

Also revving up the crowd on Friday morning was women's labor movement pioneer Gloria Johnson, the recently retired president of the Coalition of Labor Union Women (CLUW). She discussed the importance of women in the upcoming election and implored them to work through November to spread the word of the conference to others. "The challenge is clear -- don't let what you learn here stay here," Johnson said. "You've got to take it with you and share what you've learned with other women."

The 2004 IBEW International Women's Conference's was the first union-wide gathering of IBEW women since the Women's Caucus held before the 2001 convention in San Francisco. This year, the theme was "IBEW Women United: Are you Ready?" Packed into the conference schedule were panels on leadership, the impact of globalization, economics and workers' rights, discussions of IBEW principles and practices and women's support networks. Also key to the

gathering were conference standbys on such vital union subjects as political action and lobbying as well as branch caucuses.

A group of delegates confer during a conference workshop.

Local 359 members Sue Fredericks and Theresa Johnson, employees of Florida Light and Power, said they hoped to return to Miami and energize the other women in their local to get involved, both in union and political activities. Fredericks said she recently reviewed the local's voter registration rolls. "When I saw the list of people who weren't registered, it shocked me," she said.

Right: IBEW Journal Managing Editor Carol Cipolari (left) meets Local 359 delegates Theresa Johnson and Sue Fredericks (center) from Miami.

Susan Flashman, an inside wireman from Local 26 in Washington, said she appreciated the opportunity to meet other women and see how they establish themselves in their locals. After 20 years of membership, she said she was elected this year to the local's examining board.

APPENDIX 16 – ELECTRICAL WORKERS MINORITY CAUCUS

FOREVER LIFTING UP, FOREVER REACHING UP

What is the Electrical Workers Minority Caucus?

The EWMC has a long history. In 1974, African American and Hispanic delegates met during the 30th IBEW International Convention in Kansas City, Missouri and formed the EWMC to address the lack of minority representation and other inequalities within the IBEW.

Since that time the EWMC has prospered and grown under the direction of President Robbie Sparks, an IBEW Business Manager from Atlanta, Georgia. The success of the EWMC is essentially due to its strong vision and belief in the abilities of people of color.

The EWMC is a strong advocate for equal rights, opportunities, and greater minority representation in the IBEW. The EWMC is well respected by the IBEW and the labor movement because of its strong commitment and vigorous pursuit of social and economic justice for minority workers.

The Caucus serves as a support and networking system, and provides education and training for its members. The membership reflects a broad-based coalition of dedicated IBEW men and women who work within the IBEW structure to forge changes that will benefit minorities and the entire IBEW membership.

The EWMC Executive Committee is comprised of eleven elected officers: President, Vice-President, Secretary/Treasurer, and eight (8) At-Large members. The rules governing the EWMC are contained in the organization's national operating bylaws.

Electrical Workers Minority Caucus' Mission

- To promote equal opportunity and employment for minorities at all levels of the IBEW structure;
- To foster leadership development and empower minorities to become active participants and leaders in the IBEW;
- To assist IBEW minority members who have discrimination complaints;
- To promote, support and assist the organizing of minority workers in the IBEW;
- To encourage minority workers to be greater activists in community and political affairs; and

- To be actively involved in AFL-CIO Constituency Groups, human, civil, and women's rights organizations to advance the cause of minority workers.

There was indeed much to celebrate at the 1991 IBEW 34th International Convention, which commemorated 100 years of service. IBEW delegates from the US and Canada adopted a resolution originally sponsored by the EWMC that called for the creation of a civil rights or minority affairs department. The purpose of the resolution was to create a department to develop programs within the IBEW to address and better serve the needs of minorities, women and other protected classes.

Helping Members Help Themselves

EWMC membership is a step toward leadership skills. At its national membership meeting each year, the EWMC conducts education and training programs vital to individual growth and development. Members participate in workshops on union leadership, building organizing skills, public speaking, coalition building, and political action. EWMC members meet, network with others, share achievements and problems, and plan for the future in the IBEW.

Join EWMC - Make a Difference

Membership in the EWMC is open to all IBEW members (including those on honorary withdrawals and pensioners) who are in good standing with their local union and who have satisfied the dues requirements of the EWMC. Membership dues are $40. Members are encouraged to pay their dues in January of each year.

The EWMC needs your help to carry out its objectives and reach its stated goals. We are constantly striving to expand our membership and welcome the support of all interested IBEW members. If you would like to become a member, please print the Membership Form and return it to the address listed below:

Electrical Workers Minority Caucus
PO Box 642
El Cerrito, California 94530-0642
(510) 848-6714
www.ibew-ewmc.com

Minority Caucus Maps Strategy for Growth, Diversity

October/November 2001 *IBEW Journal*

The IBEW must adapt to the changing demographics of North America in order to continue the work of inclusion and empowering workers, participants in the Electrical Workers Minority Caucus (EWMC) were told.

EWMC President Robbie Sparks retraced how the group has evolved steadily throughout its history. "We had only one person of color as an International Representative in 1974 and we were the Black Caucus when we were founded," she said, "but that obviously has changed."

Sparks, business manager of Local 2127, Atlanta, noted EWMC participants had proudly introduced themselves as members of virtually all of labor's support groups—the A. Philip Randolph Institute, the Coalition of Black Trade Unionists, Pride at Work, the Labor Council for Latin American Advancement, Coalition of Labor Union Women and the Asian Pacific-American Labor Alliance.

"It is a new world out there and we must appeal to a whole new generation of diverse workers," IBEW International President Ed Hill told the caucus. "I insist that members of the Minority Caucus should be used to the fullest as ambassadors of the IBEW because all of your brothers and sisters in the IBEW need you."

Hill said the IBEW must organize minority members and "recruit them into our training programs and give them the same bridge to opportunity that has been available to past generations.

"We know that our union has at times failed to live up to its own high standards and has not been the source of brotherhood for all members at all times," Hill said. "Any vestiges of such attitudes have no place in the IBEW of the 21st Century."

The caucus met on Saturday, September 8, and celebrated its first session in conjunction with an IBEW International Convention. The EWMC meetings are normally held in January to coincide with the Atlanta celebration of the Martin Luther King Jr. Birthday.

The EWMC also announced its new web site at www.ibew-ewmc.com, which is linked to ibew.org. Use of the Web was hailed as a major vehicle of future expansion of the caucus and its work in strategic planning, increasing local union participation, mentoring and coalition building.

IBEW International Secretary-Treasurer Jerry O'Connor asked delegates to "add another assignment to your portfolio as ambassadors of the IBEW—political education and mobilization." His denunciation of last year's discrimination against minorities voting in Florida drew a rousing response.

Attendees made plenty of use of the floor microphones in a lively discussion that offered ideas and new dimensions in the EWMC work. Mentoring should not be limited to apprentices, it was said, and EWMC outreach should include recruiting in high schools and vocational schools.

Participants were also alerted to the attempt to pass right-to-work in a September 25 special election in Oklahoma. Attention was also called to the Charleston 5, the five members of the Longshoremen in South Carolina who are still being held under house arrest 20 months after 600 police officers charged their picket line.

The success of non-union contractors in the Latino community is spurred by the hiring of bilingual foremen, said Jose Cavazos of Local 716, Houston, Texas, and IBEW locals were cautioned not to cling to old attitudes about immigration.

Any hint that IBEW locals are treating everyone so well that the work of the EWMC work is finished was squashed by Gus Miller of Local 48, Portland, Oregon, who started work in 1938.

A 55-year veteran of IBEW, Miller traced what it was like in the country and the union in the 1940s. His message was seconded by EWMC President Sparks, who said her treatment by IBEW was indeed excellent, "but we live in America, where minorities do not have a level playing field. We need the EWMC to keep our International in prime time."

APPENDIX 17 – Female and Minority Labor-Affiliated Organizations

The Asian Pacific American Labor Alliance (APALA) is an organization of union members and supporters of the labor movement. It was established APALA in 1992 around the goals of organizing Asian and Pacific Islander American workers into unions, promoting their participation and leadership within unions, and strengthening International Solidarity. APALA chapters are located in several cities and states in the U.S. APALA serves as a bridge between the community and the Labor Movement, educating about unions, mobilizing community support for labor, and advocating for civil rights, worker rights, and economic justice.

Asian Pacific American Labor Alliance
815 16th St. NW
Washington, DC 20006
(202) 974-8051
apala@apalanet.org

Coalition of Labor Union Women

WELCOME...

Thanks for visiting the Coalition of Labor Union Women. CLUW is America's only national organization for union women. Our members are on the frontline, empowering working women to become leaders in their unions and encouraging them to make a difference on the job and, most importantly, in their own lives. Our values are simple: Solidarity, involvement, dignity and justice.

More Members, More Power, More Progress

Amplify the voice of women in the workforce by strengthening CLUW, the only national organization for union women. Both nationally and through our chapters, CLUW has been busy lobbying the government, educating the public and rallying our sisters and brothers in the workforce over such issues as equal pay, Social Security protection and the Employee Free Choice Act. We have built partnerships with other constituency and community groups through town hall meetings held throughout the country. We have participated in GOTV activities. We have rallied for a peaceful solution in Iraq. We have worked to protect women's health through CLUW's HIV/AIDS and Cervical Cancer Protection Projects and have educated our union brothers and sisters about the need for contraceptive equity.

We will continue to fight for the original goals we established back in 1974: promoting affirmative action in the workplace, strengthening the role of women in unions, organizing unorganized women and increasing the involvement of women in the political and legislative process. We will continue to fight for the original goals we established back in 1974: promoting affirmative action in the workplace, strengthening the role of women in unions, organizing unorganized women and increasing the involvement of women in the political and legislative process.

National CLUW Office:

Coalition of Labor Union Women
Carol Rosenblatt, EXECUTIVE DIRECTOR
202-508-6951 (direct); Phone: 202-508-6969
e-mail csrosenblatt@cluw.org
815 16th St. NW, 2nd Floor South
Washington, DC 20006

Coalition of Black Trade Unionists

Organizing to Empower Working People

CBTU Chapters

Akron & Vicinity
Albany - New York Capital District
Atlanta
Austin
Baltimore
Boston
Buffalo
Central Alabama
Central/Northern New Jersey
Chicago
Cincinnati
Cleveland
Columbus, OH
Des Moines
Detroit
District of Columbia
Ft. Lauderdale- Broward County, Florida
Flint, MI
Forth Worth
Gary, IN
Greater Kansas City, MO
Harrisburg, PA
Hartford, CT
Indianapolis
Jackson, MS
Jacksonville, Florida
Joliet
Kankakee
Las Vegas
Little Rock Arkansas
Lorain
Louisville
Memphis
Miami - Southern Florida
Milwaukee
Minneapolis
Nashville, TN
New Orleans
New York
Northern California
Ontario, Canada
Orlando
Panhandle, Florida
Philadelphia
Pittsburgh
Pontiac, MI
Richmond, VA
Savannah, GA
Seattle, WA – Puget Sound
Shreveport
Southern California
Southern New Jersey
Springfield, IL
St. Louis
Syracuse
Toledo
Western Michigan
Wilmington, DE
Youngstown

LCLAA
Labor Council for Latin American Advancement
"Un Pueblo Unido: Be Powerful! Be Heard!"

The Labor Council for Latin American Advancement (LCLAA) is the official Latino constituency group of the AFL-CIO. LCLAA is the first national organization to represent the views of not only Latino trade unionists but all Latino workers seeking justice at the workplace.

LCLAA was founded in 1972 by local Latino trade union committees to promote participation by Hispanic trade unionists in a more responsive labor movement. LCLAA builds political empowerment of the Latino family, supports economic and social justice for all workers, and promotes greater cultural diversity at the workplace.

The challenge for LCLAA is to bring union members together in solidarity, regardless of race or ethnicity. With 65 Chapters throughout out the country and Puerto Rico, LCLAA members engage in different creative programs that promote political empowerment, cultural pride, and economic development of Latino workers and their families.

LCLAA provides a voice for Latino working families nationally. In this effort LCLAA works in coalition with other leading Hispanic organizations to maximize support for economic and social policies that are essential to advancing the interests of Hispanics. LCLAA also works with these organizations to combat legislation that poses a threat to the Latino community.

LCLAA is a nonprofit, nonpartisan organization based in Washington, DC. For more information of how to start a LCLAA Chapter in your area contact National LCLAA at 202-347-4223.

Origins of the movement

The 1950's brought many Latino activists to the forefront of the civil rights movement. These activists struggled to begin opening the doors of opportunity for the community by building solidarity and promoting economic justice for all working people. In 1972, Latino trade unionists from all across the United States and Puerto Rico joined together to make a commitment to the Latino community and pledged to fight for the rights of working people.

These trade unionists fundamentally believed that through the union movement & the electoral process, Latinos would be able to strive for social dignity, economic equality, access to the political process, and a higher quality of life for every Latino working family. These ideals became part of the "American Dream" for Latino working families. With this dream in mind, these Latino trade unionists made a commitment to the Latino community and formed the Labor Council for Latin American Advancement (LCLAA), an organization dedicated to achieving this American dream for all Latino workers through the promotion of the union movement.

LCLAA works with Latino union members to advocate for the rights of all Latino workers and their families at all levels of the American trade union movement and the political process. LCLAA strives to achieve social and economic equality for each and every Latino worker by developing programs that reach out and educate Latino workers about the importance of participating in the political process in order to ensure a strong voice for Latino working families.

Building Communities

—LCLAA builds coalitions between Unions and the Latino community in order to promote an inclusive working family agenda.

—LCLAA promotes civic participation by holding voter education campaigns and svoterregistration.html registering Latinos to vote.

—LCLAA works with Unions and the community to organize Latino workers so that they may have the freedom to join the union movement.

—LCLAA works with national organizations to advance the social, economic, political, human and civil rights of all Latinos.

National LCLAA Headquarters
888 16th St NW, Suite 640
Washington, DC 20006
(202) 347-4223
headquarters@lclaa.org

APPENDIX 18 – Potential Women and Minority Outreach Programs

Our Movement

Established in 1910, The Urban League is the nation's oldest and largest community- based movement devoted to empowering African Americans to enter the economic and social mainstream. Today, the National Urban League, headquartered in New York City, spearheads the non-partisan efforts of its local affiliates. There are over 100 local affiliates of the National Urban League located in 35 states and the District of Columbia providing direct services to more than 2 million people nationwide through programs, advocacy and research.

Our Mission

The mission of the Urban League movement is to enable African Americans to secure economic self-reliance, parity, power and civil rights.

Our Strategy

The Urban League employs a five point strategy, tailored to local needs, in order to implement the mission of our movement.

- **Education and Youth Empowerment:** Ensuring that all of our children are well educated and prepared for economic self-reliance in the 21st century through college scholarships, early childhood literacy, Head Start and after care programs.
- **Economic Empowerment:** Empowering all people in attaining economic self-sufficiency through job training, good jobs, homeownership, entrepreneurship and wealth accumulation.
- **Health and Quality of Life Empowerment:** Working to build healthy and safe communities to eliminate health disparities through prevention, healthy eating, fitness, as well as ensuring access and complete access to affordable healthcare for all people.
- **Civic Engagement and Leadership Empowerment:** Empowering all people to take an active role in determining the direction, quality of life, public policy and leadership in their communities by full participation as citizens and voters, as well as through active community service and leadership development.
- **Civil Rights and Racial Justice Empowerment:** Promoting and ensuring our civil rights by actively working to eradicate all barriers to equal participation in the all aspects of American society, whether political, economic, social, educational or cultural.

The National Urban League is located at:
120 Wall Street, 8th Floor
New York, NY 10005
(212) 558-5300
www.nul.org

Urban League Affiliates

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Birmingham, Alabama
Elaine S. Jackson
President
Birmingham Urban League
12229 3rd Avenue, North
Birmingham, AL 35203
(205) 326-0162 (P)
(205) 521-6951 (F)

Arizona

Phoenix, Arizona
George Dean
President
Phoenix Urban League
Phoenix, AZ 85007
(602) 254-5611 (P)
(602) 253-7359 (F)
www.greaterphoenixurbanleage.org

Tucson, Arizona
Raymond Clarke
President
Tucson Urban League
2305 South Park Avenue
Tucson, AZ 85713
(520) 791-9522 (P)
(520) 623-9364 (F)
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Los Angeles, CA 90008
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(323) 299-0618 (F)
www.laul.org

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(916) 286-8650 (F)
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(619) 263-3660 (F)
www.sdul.org

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125 North Parkside Drive
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Colorado Springs, CO 80909-1979
(719) 634-1525 (P)
(719) 634-3357 (F)
www.colospgs.org

Denver, Colorado
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(303) 321-1245 (F)

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(860) 249-1563 (F)
www.ulgh.org

Stamford, Connecticut
Charles D. Shepard
President
Urban League of Southwestern Connecticut
46 Atlantic Street
Stamford, CT 06901
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(203) 356-7784 (F)
www.ulswc.org

Delaware

Wilmington, Delaware

Lisa Blunt Bradley
Interim President
Metropolitan Wilmington Urban League
100 West 10th Street- Suite 710
Wilmington, DE 19801
(302) 622-4300 (P)
(302) 622-4303 (F)
www.mwul.org

District of Columbia

Washington, D.C.

Maudine R. Cooper
President
Greater Washington Urban League
2901 14th Street, N.W.
Washington, DC 20009
(202) 265-8200 (P)
(202) 265-9878 (F)
www.gwul.org

Florida

Fort Lauderdale, Florida

Donald E. Bowen
President
Urban League of Broward County
11 N.W. 36th Ave
Fort Lauderdale, FL 33311
(954) 584-0777 (P)
(954) 584-4413 (F)
www.campaignforchange.org

Jacksonville, Florida

Richard D. Danford
President
Jacksonville Urban League
903 West Union Street
Jacksonville, FL 32204
(904) 356-8336 (P)
(904) 356-8369 (F)
www.jaxul.org

Miami, Florida

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8500 N.W. 25th Avenue
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tfair@msn.com

Orlando, Florida

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Orlando, FL 32808-3557
(407) 841-7654 Ext 333 (P)
(407) 849-0440 (F)
www.metrorlandoul.org

Saint Petersburg, Florida

Herman L. Lessard, Jr.
President
Pinellas County Urban League
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St. Petersburg, FL 33713
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(727) 321-8349 (F)
www.pcul.org

Tampa, Florida

Darryl Daniels
Interim President
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(813) 221-3947 (F)

Tallahassee, Florida

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President
Tallahassee Urban League
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Vacant
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www.fwurbanleague.org

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(219) 887-9621 (P)
(219) 887-0020 (F)

Indianapolis, Indiana
Joseph Slash
President
Indianapolis Urban League
777 Indiana Avenue
Indianapolis, IN 46202
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(317) 693-7613 (F)
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South Bend, Indiana
Michael Patton
COO
Urban League of South Bend & St. Joseph County
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(574) 287-6073 (F)

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Wichita, Kansas
Brian Black
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Kentucky

Lexington, Kentucky
Porter G Peeples
President
Urban League of Lexington-Fayette County
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Lexington, KY 40507
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(859) 233-7260 (F)

Louisville, Kentucky
Benjamin K. Richmond
President
Louisville Urban League
1535 West Broadway
Louisville, KY 40203
(502) 585-4622 (P)
(502) 525-2335 (F)
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Louisiana

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NATIONAL COUNCIL OF LA RAZA
Making a difference for Hispanic Americans

About NCLR

The National Council of La Raza (NCLR) – the largest national Hispanic civil rights and advocacy organization in the United States – works to improve opportunities for Hispanic Americans. Through its network of nearly 300 affiliated community-based organizations (CBOs), NCLR reaches millions of Hispanics each year in 41 states, Puerto Rico, and the District of Columbia. To achieve its mission, NCLR conducts applied research, policy analysis, and advocacy, providing a Latino perspective in five key areas – assets/investments, civil rights/immigration, education, employment and economic status, and health. In addition, it provides capacity-building assistance to its Affiliates who work at the state and local level to advance opportunities for individuals and families.

Founded in 1968, NCLR is a private, nonprofit, nonpartisan, tax-exempt organization headquartered in Washington, DC. NCLR serves all Hispanic subgroups in all regions of the country and has operations in Atlanta, Chicago, Los Angeles, New York, Phoenix, Sacramento, San Antonio, and San Juan, Puerto Rico.

Contact

President Janet Murguia

National Council of La Raza
Raul Yzaguirre Building
1126 16th Street, N.W.
Washington, DC 20036

For a list of local affiliates, please go to http://www.nclr.org/section/network/

Wider Opportunities for Women

Executive Director, Joan A. Kuriansky, Esq
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Wider Opportunities for Women (WOW) works nationally and in its home community of Washington, D.C. to build pathways to economic independence for America's families, women, and girls.

WOW has a distinctive history in changing the landscape of women and work.

For more than 40 years, WOW has helped women learn to earn, with programs emphasizing literacy, technical and nontraditional skills, the welfare-to-work transition and career development. Since 1964, WOW has trained more than 10,000 women for well paid work in the DC area.

WOW leads the National Women's Workforce Network which is comprised of organizations committed to increasing women and girl’s access to well-paid work and the Family Economic Self-Sufficiency Project (FESS).

WOW is recognized nationally for its skills training models, technical assistance, and advocacy for women workers.

Mission and Vision Statement

Mission Statement
Legal Momentum advances the rights of women and girls by using the power of the law and creating innovative public policy.

Vision Statement
Legal Momentum aspires to grow in its role as the leading national legal advocate for expanding the rights and opportunities of women and girls. We identify, analyze and shape solutions for emerging challenges and areas of greatest need by applying our expertise and the highest professionalism in law and communications. Our work focuses on three broad initiatives: economic justice, freedom from gender-based violence and equality under the law. We strive to integrate diverse perspectives in our work by expanding our engagement across communities and generations.

- We work to gain economic justice through litigation and policy reform that will substantially increase opportunities for women to move out of poverty; increase the numbers of higher-paying jobs available to women in the trades and uniformed municipal services; and dramatically expand public investment in care for children – child care, preschool and after school – ensuring that it is available to all families who want it.
- In our work to end gender-based violence, we will again lead the effort to reauthorize and expand the Violence Against Women Act; pursue litigation and legislative reform to eliminate discrimination in employment and housing faced by victims of gender-based violence; and promote welfare and immigration policy that supports the needs of domestic violence victims.
- In our quest for equality under the law, we seek to protect and advance the constitutional and statutory rights of women under domestic law, and to expand those rights by incorporating principles embodied in international human rights laws; to educate judges, prosecutors and other justice personnel in order to end gender bias in the courts; to support qualified, unbiased judicial nominees and oppose those who fail to meet these fundamental criteria; and to improve access to justice and economic opportunity for immigrant women.

For general questions, please call or write our New York headquarters:
Legal Momentum
395 Hudson Street
New York, NY 10014
T: (212) 925-6635
F: (212) 226-1066

Welcome to Women Build!

How Women Build helps build more homes
Women Build is a Habitat for Humanity International program that encourages women and girls to have fun and make a difference building homes and communities. Nearly 800 Habitat houses have been built by women crews around the world. Each year 150 or more homes are added as affiliates, donors and sponsors discover the impact of women volunteers and their resources.

Habitat for Humanity's Women Build department celebrates Mother's Day in partnership with Lowe's and other sponsors. Martha Marshall, a manager for Texas Instruments, is shown working with a reciprocating saw.

How to get involved with Women Build
Women Build has a variety of ways for you to be involved, from training to travel--all of it hands-on and designed to help you learn and work.

Where is the nearest affiliate to me?
Find a Habitat affiliate near you.

What if the affiliate near me is not participating in Women Build?
Locate the closest Women Build Project or a project you'd like to visit. Find out how to get help with starting a Women Build project.

Is it a problem if I don't have any construction skills?
Don't worry! Many women come to Women Build sites with no construction skills at all and still make a great impact. Training will be provided.

How do I help support the cost of Women Build?
Donate to Women Build.

Do you have programs for girls?
Girls Build intervenes in the lives of girls by helping them to expand their dreams.

How do I get more information?
Contact Women Build

Women Build's National Underwriter and Major Sponsor
Lowe's is the national underwriter of the Women Build program. In 2006 and 2007, Lowe's will sponsor First Spouses Build, which will challenge women governors, state first ladies and women leaders from all levels of government to make a highly visible commitment to the eradication of poverty housing in their home communities.

Home Interiors and Gifts, Inc., North America's largest direct seller of home décor products, has donated more than $1,000,000 to the Women Build program. Home Interiors Decorating Consultants continue to raise funds for Women Build by selling special products such as candles and CDs.

Girls Build

The Women Build department is in the final stages of developing Girls Build, an exciting new program that empowers girls to dream big and prepares them make educated life choices so they can achieve those dreams.

Girls Build gives women in the community the opportunity to impact girls' life choices and influence their futures for the better. Girls Build helps break the cycle of poverty by showing girls how they can make decisions today that will enable them to realize the dream of homeownership when they are adults. The program also shows them how they can help make that dream a reality for others.

Girls Build is presented in a classroom setting to girl's ages 10 through 12 who are involved with local youth organizations. The program consists of five modules: **Homes and Neighborhoods, Building Homes, Home Buying Basics, Habitat for Humanity** and **Giving Back.**

Each module comprises four sessions designed to make learning fun using interactive projects, drama and special guest speakers. Each session includes a skit featuring the same three characters: Benita, Jennifer and Sonia. Program participants bring the lessons to life by acting out scenes related to the day's topic.

Girls Build will be available in early 2006. Stay tuned!

Please contact Nancy Schwartz at (229) 924-6935, Ext. 2767 for more information.

Tradeswomen and Related Organizations

Alaska Works Partnership
Women in Construction Trades
PO Box 74313
Fairbanks, AK 99707
Work 907-457-2597
Fax 907-1157-2591
alaskaworks.org

Nellie Andrews
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Apprenticeship & Non-Traditional Employment for Women (ANEW)
Gary Kiesling
PO Box 2490
Renton, WA 98056
Work 425-235-2212
Fax: 425-235-7864
wawomenintrades.com

Asian Neighborhood Design
1182 Market St, Suite 300
San Francisco, CA 94102
Work 415-593-0423
Fax 415-593-0424
andnet.org

Sharon Turner

Atlanta Tradeswomen's Network
(see Tradeswomen Now and Tomorrow) Atlanta, GA

Bay Area Construction Sector Intervention Collaboration
Oakland, CA
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BTN Boston Tradeswomen's Network
12 Southern Ave
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Felicia Battley

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330 Ellis St
San Francisco, CA 94102
Work 415-674-6176
Bapd.org

California Women's Ventures Project
Watsonville, CA
Work 831-724-0206

Carpenter's Pre-Apprenticeship
Chicago & Northeast III District Council of Carpenters
Chicago, IL
Katie Shaffer
drill_bit@juno.com

Center for Employment Training
Nat'l HQ: CE Center
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Oakland, CA 95110
Work: 408-287-7924
cetweb.org
maxim@cet2000.org

Charity Cultural Services Center
827 Stockton St
San Francisco, CA 94108
Work 415-989-8224
charitycultural.org

Chicago Women in Trades (CWIT)
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Fax 312-942-0802
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The Kuo Building
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caasf.org

City of Gilroy Mujeres Pueden (Women Can)
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Fax 408-846-0500
ci.gilroy.ca.us/bles/jujeres_pueden.html

College of Alameda Diesel & Truck Mechanic
555 Atlantic Ave
Alameda, CA 94501
Work 510-748-2357
peralta.cc.ca.us/coa/dmech/dmech

Construction Training City College
San Francisco, CA
Work 916-691-7465

Cosumnes River College Pre-Apprenticeship
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cga.state.ct.us/pcsw/

Doreen Fredette

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Fresh Start of Wausau
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Wausau, WI 54403
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Fax 715-842-9202
dwd.state.wi.us/accessres/226a_152

Yang Vi

Gearing Up Project - Women's Opportunities & Resource
Women's Opportunity & Resource Dev. Inc.
127 N Higgins, Ste 307
Missoula, MT 59802
Work 406-453-3555
wordinc.org/gear

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APPENDIX 19 – PREAPPRENTICESHIP PROGRAM GUIDELINES

DESIGNING A PRE-APPRENTICESHIP MODEL FOR WOMEN ENTERING AND SUCCEEDING IN THE CONSTRUCTION TRADES:

A Report to YouthBuild Providence

Elizabeth Skidmore and Susan Moir, Consultants

September 2004

YOUTHBUILD

PROVIDENCE. RI

"Building Futures"

CONTENTS

THE PROBLEM:

It has been over a quarter century since the Carter administration set a goal of increasing the number of women working in the construction industry to 6.9% of the workforce. It is often overlooked that the stated intent of this policy initiative was for women to make up 25% of construction workers by the year 2000 (Eisenberg, 1999). While some isolated projects have met or exceeded the 6.9% target, the number of women working in the construction trades nationally increased in the first few years after 1979, but leveled off at under 3% in the early 1980's and has stayed at that level for over two decades (Bureau of Labor Statistics, 2003). In fact, recent reports show that while the number of women moving into management and ownership positions in the construction industry has gone up sharply in the past few years, the number of tradeswomen has gone down.

YouthBuild Providence recognized this problem and sought to identify and better understand the impacts of social barriers, gender prejudices and sexism on women entering their training programs and succeeding in careers in the construction trades. In Rhode Island, women who successfully enter and build careers in the trades can expect to make 74% more than the statewide median per capita income. Women working in construction experience many other individual benefits, such as improved job security and self-esteem, financial independence and pride of craft. For those working in the union sector, there are excellent health and retirement benefits. There are also great community and social benefits from increasing the number of women in construction and other higher paid non-traditional work. Putting more income in the hands of women and redressing the disproportionate poverty rates among women and children (NOW) contributes to more stable communities, healthier children, a broader tax base and a brighter future for all.

Changes in the demographics and nature of construction work may make this an opportune time to implement models for increasing the percentage of women working in construction. Despite recent short-term downturns in construction jobs, the long-term projection is for a severe labor shortage in the industry (Horschel). The projected shortage is due to several factors, including the aging workforce, changes in vocational education and deskilling of the work (Chini, Brisbane H. Brown, & Drummond, 1999). Among the historic primary pool for recruiting future construction workers, high school age vocational/technical students, construction is no longer a favored career choice. A frequently cited Wall Street Journal Almanac Poll found that high school aged voc-tech students ranked construction 248th out of 250 possible occupation choices (Chini et al., 1999) (Shelar). The traditional resistance of the union sector to greater recruitment of women is also changing. As some in the non-union sector are taking aggressive steps to recruit women, some union leaders have recognized that low numbers of women among skilled construction workers will threaten market share in the long term.

YouthBuild Providence has a commitment to successfully bringing women through their construction pre-apprenticeship program and moving them into long-term employment in the skilled construction trades. Yet the Board, the staff and the women trainees find themselves up against political and macro-economic barriers that keep women from entering and staying in the construction industry. YouthBuild commissioned this study to identify policy and programmatic efforts that they can make to improve their success rates.

The purpose of this report is to

- Identify barriers to women entering and remaining in the construction trades,
- Outline a plan for a pre-apprenticeship program model for women seeking to enter the construction trades,
- Identify key resources needed and barriers to BE addressed for the preapprenticeship model to be successful.

STUDY METHODS

In order to better understand why efforts to increase the number of women in construction have stalled and what women need in order to successfully complete their training and enter the trades, data were gathered using two methods.

Review of existing programs: Over 50 related organizations around the country that are involved in the recruitment and retention of women in the construction industry were identified (Appendix A). These groups provide networking, training, lobbying and support for tradeswomen. Many of the organizations are involved in the national coalition Tradeswomen Now and Tomorrow (TNT). A representative sample of the existing organizations was identified through the consultants' professional contacts and the TNT network. Data from websites, printed materials and interviews were used to review the history, work and current programs of these organizations with the objective of identifying and better understanding the barriers that keep women from entering the trades and critical elements of successful programs.

Survey of individuals in the industry: A survey was designed to gather information from a sample of participants in the construction industry who have had experience with pre-apprenticeship and efforts to bring more women into the trades (Appendix B). The survey was loaded onto an internet platform and the link was distributed by email to a core group of respondents who were, in turn, encouraged to distribute the link to their circle of contacts. Ninety–two responses were received within the 3-week period that the survey was available. The profile of the respondents follows:

- Ninety-three percent were female.
- The average years of experience in the construction trades among those who responded to the question was almost 20 years.
- The largest single category was union trades people and staff (71%). Twenty-six percent of respondents were educators or advocates and the balance of those answering the question regarding their organization or union were utility workers, contractors and other non-traditional trades people.
- In response to the question, "In what capacity have you had personal experience with women entering or working in the construction trades?," results were as follows:

Construction worker	**72.8%**
Teacher in a training program	**34.8%**
Administrator or manager of a training program	**27.2%**
Working in a pre-apprenticeship program	**25%**
Union official	**25%**
Contractor	**8.7%**
Current trainee	**1.1** %

* Total is greater than 100% due to multiple responses.

- In response to the question, "How much would you say that things have changed for women entering the trades in the past 10 years?" 65% of respondents said "somewhat" and "very much"; 35% said "not much.

RESULTS

Review of existing programs

No single program or organization has solved the problem of increasing the numbers of women entering and succeeding in the construction trades, but many successes have occurred at the local level or on specific projects. We reviewed these for keys to success and lessons learned.

Washington Women in the Trades is an association that publicizes and promotes all the pre-apprenticeships in the state. They focus on networking and educating women and girls to the possibilities and ins and outs of entering the trades They report that "apprenticeship...has the highest economic outcomes of all workforce training programs, as evidenced by the 1998 Workforce Training and Education Coordinating Board's evaluation of the nine largest training programs" in their state. They attribute this to "the partnership apprenticeship creates with business, labor and education." Apprenticeship provides "a well-defined career pathway for a specific occupation." The critical elements of apprenticeship are:*

- Paid on-the-job training, under the guidance of a journeylevel worker in that trade
- Related supplemental instruction, classroom theory and hands-on practical training
- Progressive, increasing wages as the apprentice's skill level increases
- Journey level certificate upon successful completion, with nationwide recognition

Wider Opportunities for Women (WOW) works to get women into higher paid nontraditional work as part of a national strategy to achieve economic independence and equality of opportunity for women and girls. Their report, "Coming up short: A comparison of wages and work supports in 10 American communities," focuses on the supports needed for single mothers to move from public assistance to full-time work. They have identified

three stages of support for women's successful entry into the permanent workforce:

1. A **package of financial supports** to help women leaving welfare transition from public assistance toward full-time work. This includes child-care assistance, transitional Medicaid, and Food Stamps.
2. A **post-transition package,** which typically includes child-care assistance, state-subsidized or employer-paid health insurance benefits and food stamps.
3. The **full work-supports package,** which includes a combination of child care, health insurance, food stamps and housing subsidies. *(Coming up short: A comparison of wages and work supports in 10 American communities).*

WOW's program includes multiple strategies. One that is most relevant to training programs is their advocacy of educational methods specifically designed for adult learners and populations that may have low-literacy. The specific method that WOW recommends is Functional Context Education.

Seattle Port JOBS is a non-profit organization working to increase access to living wage jobs for all residents of the Greater Seattle area. Their Apprenticeship Opportunities Project assists individuals seeking entrance into the building and construction trades. To better understand issues of the recruitment and retention of women and people of color in the JATC system, they looked at data over a 6-year period in the 1990's. *(Entry and Retention of Women and Minorities in Six King County Apprenticeship Programs, 1992-1998,* 2000) The study found that "most programs were meeting their internal goals for indenturing minorities, but most fall well short of their goals for women." They found a wide range of dropout rates from apprenticeship programs (9% - 91%), but they also note that the rates in the programs they reviewed were about the same for women and people of color as for the overall population. In this data, "almost half of all apprentices who dropped out of their programs did so within the first six months." The cost of attrition was calculated by costing out the years of training provided to those who dropped out. During the years studied, just one trade, the Carpenters, had spent $665,500 to train apprentices who never completed their training. The study concluded, "Getting better information about why apprentices leave their programs is the key to developing strategies to reduce attrition."

One innovative component of the Port JOBS approach is their car ownership program, "Working Wheels." (www.working-wheels.org). After identifying transportation as a major obstacle to good steady employment, Port JOBS looked at best practices among programs for affordable car ownership around the country *(Working Wheels Update: Car ownership program practices nationwide,* 2001). They then established their own nonprofit that provides assistance to eligible applicants in purchasing low mileage used cars and other services such as access to affordable and secured financing, credit repair, subsidies for insurance and training in basic auto maintenance.

Change the Face of Construction is a project in the United Kingdom to increase diversity and the number of women, black, minority and the disabled in the construction workforce (www.change-construction.org/). It is managed by three consultants, all women, who provide consultation on diversity to construction contractors and owners, a clearinghouse and networking for individuals seeking entry into the construction trades and auditing

services. They work with a training partner called Building Work for Women that reports high rates of placement of women in construction jobs. The program develops collaborative relationships with contractors, municipal authorities, housing associations and other employers to provide OTJ training and placement in the construction crafts and trades.

Women in the program are provided with:

- a training allowance or wage
- childcare and travel costs
- tool kits and protective clothing
- career development
- supervisory support

Partnering employers are provided with:

- supervisory support
- training for staff in mentoring and equal opportunities
- opportunities to acquire site assessor qualifications
- project promotion

The Portland (ME) Bridge Project was a $157 million bridge replacement project *(Administration of Civil Rights Obligations for Portland/South Portland Bridge Replacement Project).* Over the 4 years of the project between 1994 and 1998, the Maine Department of Transportation's Office of Equal Opportunity/Employee Relations contracted with a private compliance consultant to provide oversight and monitoring of the DOT's civil rights goals. Among its goals, the DOT sought to increase the number of women on the project through making it "women friendly." They accomplished this through a number of actions that spanned the length of the project:

- During the planning and construction phases of the DOT funded several programs to increase women's awareness and knowledge of bridge and the potential for construction jobs.
- The training programs available included a 14-week hands-on skills training incorporating physical conditioning, job readiness skills, and a tradeswomen's "job bank."
- The DOT funded an introduction to the trades for all women accessing Job Partnership and Training Act (JPTA) services.
- During the construction phase the Maine DOT designed and funded near-site childcare and on-site compliance by a women-owned firm. In addition to daily monitoring of EEO goals, the compliance consultant worked directly with and provided support for the women and minority trainees; compliance, coordinated activities with community organizations and women and minority owned businesses; and assisted contractors with recruitment and retention issues.

The Boston Tradeswomen's Network (BTN) conducted a mentoring program with ISTEA funds administered by

the Massachusetts Department of Labor's Apprenticeship Bureau. The program had two components:

- Women apprentices were mentored by experienced women in their specific trades.
- Mentees were required to attend skills classes with their mentors. The classes addressed issues such as physical fitness for construction; finances and budgeting, including dealing with debt and budgeting for seasonal work; sexual harassment; leadership development; what goes on in union meetings, including Parliamentary Procedure; and power tool safety.

This two-year program improved the retention rate in Massachusetts for women from 64% (women without mentors) to 96% (women in the mentoring program).

Survey of individual construction industry participants

Ninety-two respondents to an internet survey answered six questions regarding their experience with women entering and succeeding in the construction trades. Their responses are summarized below.

1. Responses to the question, *"What are 2-3 things that you think women most need in order to enter and stay in the trades?"* broken down into external and internal factors.

- External factors: One third of the respondents mentioned "support:" support from family and friends; support networks, women's groups in unions, financial support, and support from unions and employers. Twenty percent specifically called for mentoring. Childcare and stronger union support were each mentioned by over 10%. Twenty-five percent said good quality training. Among the types of training described were pre-apprenticeship, hands on, on-the-job, safety, and training in body mechanics. Other responses included job placement and steady work, aggressive anti-harassment policies at work and in the unions, fair treatment and opportunities for advancement.
- Internal factors: Almost 60% of respondents mentioned at least one personal characteristic that is needed for success. These included thick skin, strong work ethic, sense of humor, stamina and endurance, stubbornness, determination, confidence, self-esteem, good physical conditioning and mental strength, and a good attitude. One respondent pointed out that it takes commitment and desire to be a trailblazer.

The bridge between the internal and external factors was represented in responses such as having realistic and accurate information on the trades and working conditions and a strong desire to do the work. These factors are not inherent, but can be taught in a curriculum that is designed to give participants accurate information on the career that they are entering.

2. In contrast to question one, when respondents were asked, *"What are 2-3 things that keep women out of the trades or cause them to leave?"* very few responses were related to personal characteristics (a half dozen answers touched on low self-esteem or unrealistic expectations). Eighty of the 92 respondents (87%) mentioned some aspect of the work itself. These included: work is seasonal and not always available; it is hard and dirty and working conditions are poor; women are isolated and subject to harassment from co-workers and others;

childcare is difficult to arrange. Among the problems mentioned were, "work is dirty dangerous and HARD;" "rude foremen not willing to work with females;" "Child care is hard to find for the hours we work in the trade;" "absence of DFR [Duty of Fair Representation] from ambivalent union officials;" "awful patriarchal discrimination (working with animals that don't respect them or protect them like other men)." There are very strong feelings and some bitterness.

3. This bitterness manifested as cynicism and fatalism among some respondents when they were asked, *"What is one thing that would influence men in the industry to be more accepting of women entering the trades?"* Four respondents did not answer; several suggested lobotomies or medication for the men; two said "a 2 x 4;" one answered, "I have no idea;" and another said, "Good Question - who knows? Why did the doors open so dramatically with women entering legal & medical professions but the trades were the last bastion?"

Of those respondents who offered a suggestion to the question, over one-third said, in one way or another, the solution is to have more women in the trades. One acknowledged the "Catch 22" nature of this suggestion. Among the specific answers were that the men needed to know and work with more women, that female relatives of male worker's should enter the trades, and that unions need to provide more leadership in supporting women.

4. Respondents wrote over 5300 words (15 pages of text) in response to the question, *"If you could design a pre-apprenticeship program for women entering the trades, AND MONEY WAS NO OBJECT, what would you say are the most important parts of the program?* Some had designed training programs or aspects of programs. All had valuable experience. Their suggestions are summarized by stages of a program:

Outreach and recruitment - Many respondents referred to the importance of recruiting and training women who have the aptitude and desire to make it doing a very difficult job in an often hostile environment. Suggestions included screening for women who understand what they are getting into and are prepared to work really hard to get it and recruiting in workplaces where women are already doing heavy manual labor, such as airports and warehouses. Respondents said that the good wages should not be the single motivating factor; it must be balanced with a strong a desire to be a tradeswoman. An appropriate screening process should include a written protocol and training for staff that are conducting recruitment to ensure that personal biases and discrimination do not taint the process. A woman may have many lifestyle barriers to becoming a tradeswomen, but may be an excellent candidate if she is realistic about what she is taking on and has the will and desire to make it.

Physical conditioning - It is important for women to experience doing physical labor for 8 hours a day and to get enough sleep and practice good nutrition. However, as one respondent pointed out, many male construction workers are not athletes. Women need to condition specific muscle groups used in their trades and know how to use their bodies in the ways that they will not be injured or unnecessarily fatigued. Several respondents spoke of the need for training in ergonomics and body mechanics. Gym memberships would help women to get in shape.

Job skills training - The major emphasis here was on the importance of hands-on training and exposure to tools and their proper use. It was suggested that trainees receive the tools of their trade early, so that they can get comfortable using them and that free tools and a good pair of boots would ensure that women did not go out to work with "dinky tool aprons and toy tools" because they could not afford better. They should get exposure to the various trades through jobsite and apprenticeship school visits and presentation from experienced journey people. Many trainees need remedial math construction math. Classes should include hands-on use of rulers, measuring tapes, squares, etc. Blueprint reading is essential. Many respondents said that women need the experience of completing a construction project in order to experience the pride of craft that balances out all the difficult aspects of construction work.

Safety - Trainees need to get "what they need to know to go home in' one piece every evening," All should receive the OSHA 10-hour training, OSHA Standards for the Construction Industry (OSHA 510). This training is now required by law for all workers on state-funded construction projects in Rhode Island. OSHA 10-hour certification would also be an asset to women trying to enter a union apprenticeship or find employment by a contractor. Safety training should also be provided in scaffold use, first aid and CPR. Future apprentices should know their rights to safe work and how problems are addressed on a construction site.

Life skills - A paid training program simulates real working conditions and takes pressure off the trainees to be able to afford the time to attend the training. One program secured funding to offer childcare and rent subsidies making it easier for women to commit. Transportation issues need to be addressed early. Legal assistance regarding discrimination, housing, immigration or other issues makes the program accessible to a more diverse audience.

Job search and placement - Trainees need interview skills and assistance with job application and resume writing. They need to learn the importance of being on time every day, with their tools and ready to work. They also need training in the particulars of job hunting within construction (show up at 6 am, tools in hand; go to the same site multiple times over the course of a project because different contractors work different portions of jobs, etc). Programs need to have active retention/advancement components and develop strong partnerships with employers to ensure good placements for graduates. Programs that merely provide training with no placement or long-term follow-through are inadequate. There needs to be active partnerships with area JATC's and involvement by union leaders. The facts of sexual harassment and the potential for hostile co-workers need to be addressed and trainees need to learn how to tell the difference between harassment and the job culture of the lowly apprentice. Role playing, guest speakers and facilitated discussions should be part of the curriculum. Women need to understand the culture that they are getting into and how to handle it in a way that they protect themselves and keep the job - a tricky balance.

Follow up: Continuing mentorships established during training can provide women with support they need during the rough times. Mentors should be compensated for their time. Women need to learn how their union works and

what they have to do in order to get jobs and keep them. Support groups for graduates will keep women connected, reduce isolation and create networks of women to help with outreach, serve as teachers, guest speakers and future mentors.

A process for tracking students for *at least* one year, and providing both job-finding and life skills assistance is key to helping women adjust to the seasonal and insecure nature of construction jobs. In addition a pre-apprenticeship program should be designed to address the fact that respondents felt that women graduates needed the confidence and self-esteem to believe that they can do the job and the skills to prove to others that they can do it.

5. The survey asked respondents, *"For those who have had experience with preapprenticeship training, what are the 2 or 3 most successful elements of the program with which you are involved?* The most frequently mentioned program element was hands-on training in tool and equipment use. The second most frequent response was the importance of providing role models for the female trainees. This was done through guest speakers, field trips to visit women on construction sites, providing tradeswomen mentors and having tradeswomen teach in the program. Other issues that were frequently raised were the importance of a physical fitness component to the program and the need for union buy-in to get women into apprenticeship programs and out to work. Raised strongly, but less frequently, were the importance of construction math, screening of applicants and follow up with program graduates. Several respondents stressed the importance of trainees completing a project to develop pride in craft, which is key to longevity in the trades. One suggested that programs lacking facilities partner with Habitat for Humanity to provide trainees with on-site experience and the satisfaction and self-confidence that come with seeing a finished job.

6. Finally, the survey asked. "If you are involved in training or pre-apprenticeship program for women, what is one mistake that was made in your program that others could learn from?" There was a wide range of responses:

On screening and recruitment: "Didn't recruit enough likely candidates;" "Be prepared to deal with physical and emotional abuse with the participants;" "Not providing adequate screening to be sure an individual was sufficiently motivated for the tough work needed to succeed." "Didn't have buy-in from enough unions." "Too much emphasis on the dollars." "Construction work will not cure target client population poverty - it is an appropriate fit only for some people." "Construction is a very demanding occupation for anyone working in the trade. If you are emotional, lack good work ethics and good sense of humor, it probably would not work for you. Prior work experience would be very helpful."

The lifestyle and soft skills curricula took too much time from job skills: "The primary focus should be on learning to be a good tradesperson and union member, getting as much time on tools and beginning to establish the relationships necessary to network in this business."

Not enough individual support and lifestyles teaching: "Take a serious diversity course before attempting to understand others people's cultures- not just one hour." "Include some amount of drug and alcohol counseling;" "The need for more individualized case management and support greatly affected the ability of participants to problem-solve with each other and become competent members of a group." "Not having an exit interview in place to learn from the women who leave and don't complete the program." "Lack of an extensive counseling staff," "Programs cannot be too structured where there is not time for some freedom and time to have fun."

Not setting realistic expectations about the work: "Not teaching enough of the humble part of being new to construction work. Not teaching enough about what to expect in terms of attitudes. Know when it's personal and when it's just about you being new or just about you being the one who everyone loves to tease." "[Mot preparing them of the hostile environment. or harassment." "It is important for women to know how to deal with sexual harassment and to know the laws that apply. Some people say that this sets women up with a bad or defensive attitude when they go on the job. You should safeguard against setting women up this way. They need to know how to handle themselves but they also need to know that not every man is an enemy. On the other hand they need to know that they shouldn't get into the trades to find a husband. The worse thing they can do is get a reputation for being easy. I know it isn't fair but construction is still a man's world and women must learn how to work in that environment."

Too much discouragement: "Entering into the ironworkers apprenticeship, the coordinator felt he should warn the women coming in about what assholes the men could be (which is true) but he neglected to mention how supportive the men and women of the trade could be as well;" "Women were discouraged from aspects of the trade they were interested in because of their size or current strengths. These are things that can be worked on and learn to handle if not with brute force then with skills and experience;" "One of the trainers was fairly negative. Instead of being honest about the pros and cons for us out there, she would always tell women how absolutely horrible the guys are and how difficult it is to work in the field. Apparently she had had some difficult times out there. You need to be honest but you need to be positive."

Follow up and retention: "Not enough work on retention of women in trades; not enough data on retention; not enough work with industry employers and unions to promote retention;" "We felt we could do anything once we finished the course. I felt they didn't deal with the retention issues that tradeswomen face. That to me was the big mistake. So I say to you have something in place for after they get through your program and use them to help your cause. The majority will want to give back if they feel appreciated. Many women want to make it easier for the sisters behind her if given the opportunity." "I am no longer involved in such a program but when I was I would say again - no one is accountable for tracking or following the women. The women were more like bonus items for the program without anyone caring if they made it a week, a month, a year in the trades." "Working graduates need to be pulled together for quarterly or semi annual meetings to keep in touch class by class and once a year ALL graduates and families for an event that involves eating together."

Women-only programs are a mistake: "I think it is better to have men and women together in a pre-apprenticeship program. It helps both to understand one another and may even resolve issues in the workplace.;" "...men from the industry were not included enough." "An all-women class! That's not the real world. It makes more sense to have men in the group too so that it is more like the jobsite."

Having men in the program is a mistake: "The men felt they had to prove they knew more than the women even though neither had any prior training. It didn't leave the women room to prove to themselves or others that they could develop the new skills. The men where constantly putting the women down to make themselves feel bigger and better. Women need their own space to feel comfortable in trying something new that can also be very frightening."

Lack of marketing: "You can't get them in to test train or take an exam if they don't know about it. This takes time, expertise and funding."

Under-funding: "Get your funding together BEFORE you open so as not to disappoint the students;" "I wasn't involved in pre-apprenticeship training for women because it was unpaid and I couldn't live for six weeks with no income."
One respondent summed up programmatic mistakes as "Don't hire women; don't give them leadership positions; no peer women; no role models; no support for women in trades." Failure will follow.

DISCUSSION AND RECOMMENDATIONS

This study surveyed factors affecting women's entry into the construction trades and influences on their decisions to stay in the industry or to leave. Data was gathered from over 50 organizations and ninety-two individuals. In one sense, there were few surprises. The challenges to women entering the physically rigorous and male-dominated world of construction work are well known. There is value, however, and great power in seeing those challenges condensed into a few pages. Those who responded to the survey, and especially the over 80 respondents who are themselves tradeswomen, gave powerful testimony to the hard work they have undertaken and the daily obstacles they face to succeed in this world. The programs that were reviewed have devised many innovative ways to address the problem and most of them reported modest but steady progress. For the people behind these programs, getting more women into the construction trades is not just a goal. It is a lifelong passionate crusade. They are to be admired for continuing to do the right thing for decades against immense odds.

It was one of the surprises of the study that these champions have been pushing uphill in the face of little progress over the past 25 years. What caused the progress made in the first few years after 1979 to stall? Why did the percentage of women in construction leveled off at under 3%? What will it take to make progress towards the goal of significant numbers of women having access to the high paid skilled work in the construction industry?

Solutions to these mega-policy questions are beyond the scope of this small study but, before entering into the

nitty-gritty of the components to greater success at the individual and program level, the elephant in the room calls out (trumpets out?) to be named.

The unions have not done enough

The unions have not done what they need to do for significant change to happen. Labor unions are the organized voice of workers in society. If the union leadership made a concerted commitment to increasing the numbers of women in construction, it would happen. Some unions have made efforts, but they have not pushed hard enough for their brethren to do more. As one of the survey respondents said, the best way to get more women into the trades is to have more women in the trades. The goals of 1979 will be met when unions accept significant numbers of women. For the champions who will lead this change, there are a number of specific actions that will break down the barriers:

- Unions need to partner with pre-apprenticeship programs, help to improve the programs and guarantee their support for qualified female graduates.
- Find jobs for women who successfully complete the best preapprenticeship and admit them to the JATC programs.
- On the worksite, the employer is ultimately responsible for working conditions, but on construction worksites, above all other sectors, the union leadership sets the tone. Stewards and foremen need to know that their unions support women entering in the trades, and they need training in how to support the women and be leaders in the changing workplace.
- Bring childcare to the bargaining table. This is not only a women's issue. It is also important to more male members as the structure of working families has evolved.
- Those women who have made it through, who are paying their dues both literally and figuratively, are heroes. Honor them, promote them, and recruit them to leadership positions. They are among the best of the labor movement today.
- Support the establishment of Women's Committees at the local and national level. Get over the antiquated argument of "dual unionism." The union is strengthened, not weakened, when members want to come to the hall after work to discuss and take action on union issues.

These are the right things to do, but they need not be done out of altruism. Workers who want to work in the field are needed to address the impending labor shortage. The non-union sector sees the value added in bringing women into the industry. When the non-union sector takes the lead for change, it gains market share. The leadership of the building trades unions can ill-afford to give ground in our era of declining power of the organized workforce.

Recommendations for programmatic improvements

Beyond the larger issues surrounding the relationship between women and the building trades unions, the data in this study pointed to a number of programmatic components that, if implemented, should improve the skill levels and preparedness of women coming out of pre-apprenticeships and attempting to enter the trades. Important components of a successful program are broken out as "Staffing" and "Program Elements" and they are presented on page 25 in FIGURE 1: *Staffing needs and program elements for model pre-apprenticeship for women entering the construction trades.*

The data also lead to the following recommendations:

- Recruitment should be broad and reach a diverse population. The women who have what it takes to make it in the world of construction are not concentrated in any one population of poor women or athletes or young women. They do not live in certain neighborhoods. As one respondent noted, a strategy for outreach would be to go to the women who are already doing heavy manual labor for 8 hours a day for low pay and no benefits.
- Women considering construction work need to know the real deal. Yes, the money is good, but the work is hard and uncertain. The relatively high hourly wage cannot be the only, or even the primary, motivator. Women have to want to do this work. Tell them what it is like and what they are taking on.
- The advocates of "women-only programs" say that women need space to learn without pressure or competition form men. On the other side are those who say that mixed gender programs more accurately reflect the real world of construction and it is important for women to experience that. Whatever the student composition of a pre-apprenticeship program, those who have gone before say that women need training in self-assertiveness; they need to gain the skills to understand the culture they are entering and navigate the thin line between harassment and the pecking order of the hierarchy. Women need to be able to "take it" while protecting themselves.
- Some believe that there is too much emphasis on lifestyle and soft skills in the curricula of pre-apprenticeship and some think that there is not enough. There is strong sentiment from both camps on the importance of hands-on training, good time with the full range of tools that are used in construction and that women should have their own tools and be comfortable with using them before they go on site or into apprenticeship.
- Mentoring works and should be provided by experienced tradeswomen. When women have relationships with other women who have gone into the field, it reduces their isolation, gives them access to a friend in the field, and increases their chances of making it.
- Women role models should be integrated into all facets of a program, including teaching, guest speakers, job shadowing, site visits, and an active alumnae presence.

Integrating all of the recommended components into one program will be costly. Funding should be sought from the

widest possible sources, including government support, foundation grants, union, contractor and individual contributions. This is a good investment. One tradeswomen pointed out in her response to the survey that our society too often treats "blue-collar workers as lesser people than white collar and treats the trades as the place where the stupid failures go." She said, "Believe me you do NOT want stupid people building your houses, your bridges, your water systems." Successful preapprenticeship programs are the first step to turning out the skilled and motivated tradeswomen and men who will build our future.

FIGURE 1: Staffing needs and program elements for model pre-apprenticeship for women entering the construction trades

STAFFING

ADMINISTRATIVE DIRECTOR
Program management, funding, budget, public relations, personnel

TECHNICAL DIRECTOR
Set up trainings & other activities, evaluate trainees, on-site training supervisor

CASE MANAGER
Support and advocate for trainees, identify needed social services, provide individual counseling, facilitate group cohesion among trainees

JOB DEVELOPER
Liaison to industry & JATCs, make employer contacts, set up hiring/job shadowing opportunities.

PROGRAM ELEMENTS

Market broadly to a diverse population; include new recruitment methods

Secure union and employer support

Screen candidates for motivation and determination

Secure adequate funding from diverse sources

CASE MANAGEMENT: Childcare, transportation, referrals for health care, food stamps, rental subsidies; ongoing support for life changes needed to succeed.

JOB SKILLS TRAINING: Hands-on, comprehensive tool use, job jargon, health and safety, math

JOB PREPARATION: Readiness (on time ready to work), realistic expectations of job culture and potential harassment, how the unions work, job search skills

Provide mentoring by experienced trades women

Follow up and tracking graduate

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The authors' biographies

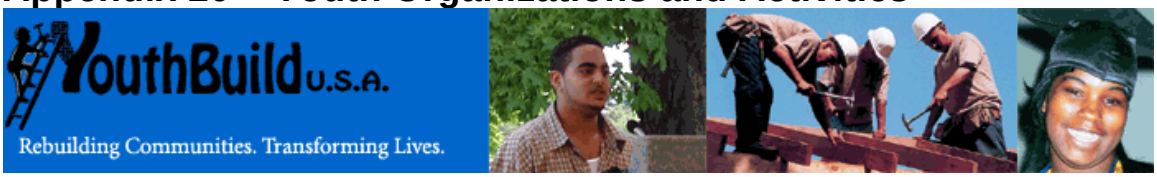
Elizabeth Skidmore

Elizabeth Skidmore is an Organizer with the New England Regional Council of Carpenters, and is a member of Carpenters Local 218. She worked in the field as a carpenter between 1989 and 1999, and has been on staff with the union for five years. In 1989 she was a founding member of Boston Tradeswomen's Network (BTN), a nonprofit committed to increasing the numbers and diversity of women in the trades. She has led a monthly women's group in her local for the last 15 years, and five years ago was appointed Chair of the New England-wide Carpenter's Women's Committee. In 2002 and 2004, she was appointed to an International Steering Committee of the United Brotherhood of Carpenters to design and organize the first two International Carpenters Women's Conferences. She teaches Labor History, Workers PhD in Economics, Preventing Harassment, and Ergonomics for Construction to union members and stewards. BTN's accomplishments include passing a Massachusetts state law expanding affirmative action to include tradeswomen on state funded projects, establishing a multi-trade mentoring program which significantly increased retention of female apprentices, negotiating with City of Boston officials to improve compliance with city and federal hiring goals for women, designing and teaching a leadership development course for tradeswomen, and publishing a rank-and-file tradeswomen's newsletter. Elizabeth has led workshops at numerous conferences including "Starting Women's Committees" at the UBC International Women's Conference, "Addressing Racism for Tradeswomen" at the National Tradeswomen's Conference and "Women in Construction" at the United Nations Conference on the Status of Women in Beijing, China in 1995.

Susan Moir, ScD

Susan Moir, ScD, has recently been appointed Director of the Labor Resource Center at the University of Massachusetts Boston. She spent 12 years with the Construction Occupational Health Program (COHP) at the University of Massachusetts Lowell. She was a co-founder of the COHP and served as Director for the first nine years of the program. Her research has centered on the social and political barriers to improving health and safety conditions in the construction work environment and the role of worker participation in identifying problems and implementing strategies for change. Health and safety conditions for tradeswomen have been a key focus of Dr. Moir's research. For two years, she facilitated a Research Circle of 17 tradeswomen who explored the current conditions for women in the construction industry, developed a vision of what conditions need to be for women to enter and stay in the trades, and proposed strategies for change, including specific recommendations to construction owners and contractors, OSHA and the building trades unions. The results of this research are included in her dissertation, "Worker participation in occupational health and safety change in the construction workplace."

Appendix 20 – Youth Organizations and Activities



www.youthbuild.org

Founded in 1990, YouthBuild USA is a national nonprofit organization that works to unleash the positive energy of low-income young people to rebuild their communities and their lives. It supports an expanding nationwide network of more than 200 local YouthBuild programs. In this role, YouthBuild USA orchestrates advocacy for public funding; guidance and quality assurance in program implementation; leadership opportunities for youth and staff; research to understand best practices; and grants and loans to YouthBuild affiliates. YouthBuild USA leads the national YouthBuild movement and contributes to the broader youth and community development fields in order to diminish poverty in the United States and internationally.

In YouthBuild programs, unemployed and undereducated young people ages 16-24 work toward their GED or high school diploma while learning job skills by building affordable housing for homeless and low-income people. Strong emphasis is placed on leadership development, community service, and the creation of a positive mini-community of adults and youth committed to success.

About YouthBuild USA

Since its founding in 1990, YouthBuild USA has guided the development of the national YouthBuild network of more than 200 local programs that act in collaboration to improve their outcomes and impact. The reach of YouthBuild USA is not limited to YouthBuild programs; it extends to the broader youth development field to diminish poverty in the United States and internationally.

Supporting the YouthBuild network

YouthBuild USA provides local YouthBuild sites:

- **Guidance in implementation** for YouthBuild programs through staff training, technical assistance, publications, curriculum, and Web-based resources;
- **Quality assurance** through the management of the YouthBuild USA Affiliated Network, which sets program design and performance standards, collects and analyzes data on YouthBuild program outcomes, and accredits outstanding programs;
- **Grants and loans** amounting to $5 million per year in public and private funds.

Advocating for YouthBuild programs

YouthBuild USA has represented and advocated for YouthBuild programs by:

- **Bringing more than $500 million** into low income communities for more than 200 YouthBuild programs;
- **Coordinating the 900-member national YouthBuild Coalition** to build majority bipartisan support in both houses of Congress;
- **Supporting the development of 17 state-level YouthBuild coalitions** that design policies that positively affect poor young people in their communities;
- **Working with YouthBuild programs** to bring public attention to the YouthBuild network and issues facing youth in transition.

Contributing to the youth development field

YouthBuild USA's role in improving opportunities for low-income youth extends beyond the YouthBuild network and involves:

- **Partnering** with the National Youth Employment Coalition, the National Association of Service and Conservation Corps, and other national organizations to establish the national Campaign for Youth and to expand the resources for all effective programs reconnecting disengaged youth with education, employment, and service;
- **Sharing the philosophy, principles, and best practices that make YouthBuild work** with other youth development practitioners, through the YouthBuild Academy for Transformation and Youth on Board;
- **Working with international organizations** interested in establishing YouthBuild-like programs.

Developing future leaders

YouthBuild USA and the network of local programs offer students and graduates opportunities for:

- **Personal growth, career development, and academic advancement** through counseling and support from YouthBuild staff and community leaders;
- **Leadership roles** in the YouthBuild National Alumni Association and national Young Leaders Council, youth conferences, and other organizations that support young people;
- **Civic engagement and community service** through rebuilding affordable housing and advocating for their communities both locally and nationally;
- **Asset building** through the YouthBuild National Individual Development Account Program and the YouthBuild Asset Trust for Graduates to provide funds, financial education, and mentorship to help YouthBuild graduates advance their careers, go to college, purchase their first homes, build their credit, and become community leaders.

Our Partners

YouthBuild USA and each of the 180 independent, community-based YouthBuild programs across the country receive financial support from diverse sources both public and private.

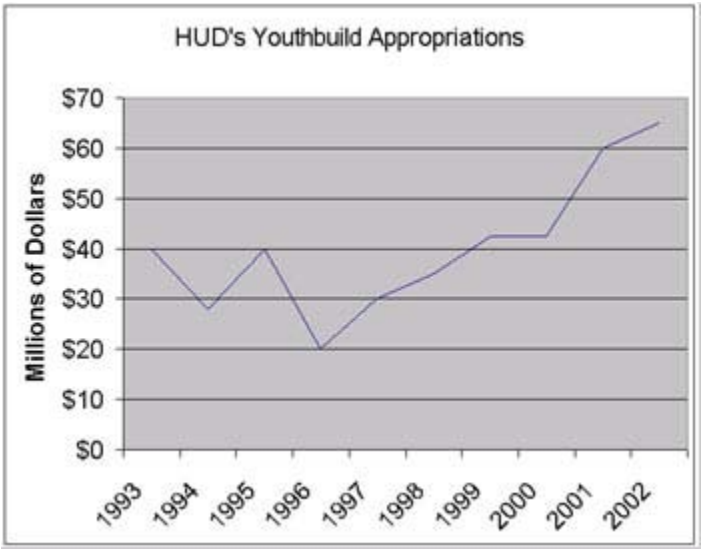
Each YouthBuild program is responsible for securing its own funding. Generally, each program receives a mix of government funding--federal, state and local--and private support from foundations and corporations in their geographic area.

Under the Housing and Community Development Act of 1992, "Hope for Youth: Youthbuild," the U.S. Department of Housing and Urban Development has awarded grants and contracts to YouthBuild programs totaling $403 million for fiscal years 1993 to 2002. In addition, in 27 YouthBuild AmeriCorps programs, participants earn part-time AmeriCorps educational grants to help cover tuition to college and technical school.

HUD Funding of Youthbuild Programs

The Youthbuild Act (H.R. 501) was introduced in the U.S. House of Representatives by Congressman Major Owens of Brooklyn in 1990. Senator John Kerry of Massachusetts introduced it in the Senate as S. 1100 in 1991. These two elected officials have effectively championed YouthBuild ever since.

After two years of energetic advocacy by the YouthBuild Coalition, in concert with Sen. Kerry and Rep. Owens, the bill was passed into law as "Subtitle D--Hope for Youth: Youthbuild" in the Housing and Community Development Act of 1992. Continued advocacy, coupled with the inspiring success of local YouthBuild programs, resulted in annual appropriations administered by the U.S. Department of Housing and Urban Development (HUD) through a competitive process.



AmeriCorps Funding of YouthBuild Programs

The YouthBuild program philosophy is consistent with the national service initiative. YouthBuild programs have contributed to the grassroots service movement from the beginning. President Clinton's National Service Trust Act of 1993 cited YouthBuild as an eligible activity. Consequently, local programs have obtained funding through State Commissions on National and Community Service, and the Corporation for National and Community Service selected YouthBuild USA as a "national-direct" grantee to develop YouthBuild AmeriCorps programs in 12 communities across the nation and to provide education awards to YouthBuild graduates at 15 additional sites.

YouthBuild USA Funding

YouthBuild USA has received major ongoing financial support over a 10 year period from the Ford Foundation, the Dewitt Wallace-Reader's Digest Fund, and the Charles Stewart Mott Foundation. Without the initial and sustaining support of these foundations, there would be no YouthBuild program or movement.

Substantial funding has also been received from the W.K. Kellogg Foundation, John D. and Catherine T. MacArthur Foundation, The Annie E. Casey Foundation, The James Irvine Foundation, Lilly Endowment, Inc., The Commonwealth Fund, the Rockefeller Foundation, the Surdna Foundation, Inc., Atlantic Philanthropic Services Co., The Prudential Foundation, Metropolitan Life Foundation, Stoneman Family Foundation, The Arthur M. Blank Family Foundation, Fannie Mae Foundation, and The William Randolph Hearst Foundation. Rotary clubs also support several local YouthBuild programs.

Youth Build Local Programs

Mobile Housing Board (251)470-0556
Clinton Johnson Center for Economic Development
1655 Eagle Drive
Mobile, AL 366052133

YWCA Central Alabama- Hammer Program (205)252-3343
YWCA of Central Alabama
309 North 23rd Street
Birmingham, AL 35203

Southeast Alaska Guidance Association (907)789-6172
PO Box 33037
9397 La Perouse Ave
Juneau, AK 99803

Portable Practical Education Preparation, Inc. (928)627-7665
201 E. Bingham Avenue
Somerton, AZ 85350

YouthBuild Guadalupe (480)756-9230
9050 S. Avenida del Yacqui
9241 S. Avenida del Yaqui
Guadalupe, AZ 852832507

YouthBuild Phoenix (602)468-9484
3107 North 24th St.
Phoenix, AZ 850167313

Yuma Private Industry Council, Inc. (928)329-0990
3834 West 16th Street
Yuma, AZ 85364

PTC YouthBuild (501)537-3910
P. O. Box 2266
1 Shadowood Court
North Little Rock, AR 72114

BCA YouthBuild (619)264-2848
6125 Imperial Avenue
San Diego, CA 921144213

CCEO YouthBuild (310)225-3060
17216 S. Figueroa St
Gardena, CA 902483023

CPDC YouthBuild (213)280-0298
3774 Budlong Avenue, Suite A
Los Angeles, CA 90007

Glide YouthBuild (415)674-6185
330 Ellis Street
San Francisco, CA 94102

Greenfield City (831)674-5591
45 El Camino Real
Greenfield, CA 93927

Housing Authority of the County of Merced (209)722-3501
405 "U" Street
Merced, CA 95340

LA CAUSA YouthBuild (323)887-2500
1117 Goodrich Blvd, 2nd Floor
Los Angeles, CA 90022

Los Angeles Conservation Corps (213)747-1872
P.O. Box 15868
Los Angeles, CA 90015

MAAC Project YouthBuild (619)476-0749
1385 Third Avenue
Chula Vista, CA 91911

Mojave Basin Youth Corps (760)246-8997
17996 Pearmain Street
Adelanto, CA 92301

Moreno Valley YouthBuild (951)488-9550
P.O. Box 8138
12130 Graham Street
Moreno Valley, CA 92552-8138

North Richmond YouthBuild (510)237-2000
1452 Filbert Avenue
Richmond, CA 94801

Oakland YouthBuild (510)533-3447
Youth Employment Partnership, Inc.
2300 International Blvd.
Oakland, CA 946011019

Orange County Conservation Corps (714)956-6222
1853 North Raymond Ave.
Anaheim, CA 92801

PACE/SIPA YouthBuild (213)353-1700
1501 Wilshire Blvd., Suite 100
Los Angeles, CA 90017

San Gabriel Valley Conservation Corps YouthBuild (626)444-5337
3017 North Tyler
El Monte, CA 91731

Venice YouthBuild (310)399-4100
720 Rose Avenue
Venice, CA 902912710

Watsonville Redevelopment Agency (831)768-3299
231 Union Street
P.O. Box 50000
Watsonville, CA 950775000

Watts LCAC (323)563-4708
10950 South Central Avenue
Los Angeles, CA 90059

YouthBuild Fresno (559)264-1048
Fresno County EOC/Local Conservation Corps.
1371 Stanislaus Street
Fresno, CA 937062016

YouthBuild of San Diego (760)630-4035
C/O New Haven Youth & Family Services
216 W Los Angeles Drive
Vista, CA 92083

YouthBuild San Jose (408)918-1007
2650 Senter Road
San Jose, CA 951111121

YouthBuild Santa Rosa (707)578-2034
651 Sebastopol Road
Santa Rosa, CA 95407-6825

YouthBuild Visalia (559)732-4194
Community Services & Employment Training, Inc.
312 N. W. Third Ave.
Visalia, CA 93279-1350

Yuba County Office of Education (530)741-6025
1104 E. Street
Marysville, CA 95901

Year One YouthBuild (303)433-1206
1801 Federal Blvd
Denver, CO 80204

YouthBuild Hartford (860)236-3617
20-28 Sargeant Street
Hartford, CT 06105

YouthBuild New Britain (860)225-1309
88 Prospect Street
New Britain, CT 06051

ARCH Training Center, YouthBuild (202)889-5000
1227 Goodhope Road SE
Washington, DC 200206907

LAYC YouthBuild (202)518-0601
Latin American Youth Center
3014 14th Street, NW
Washington, DC 20009

NAFFCCA YouthBuild (202)291-1603
5505 Fifth Street, NW
Suite 500
Washington, DC 20011

Sasha Bruce YouthBuild (202)675-9355
Administrative Office
2804 Martin Luther King Avenue, SE
Washington, DC 20032

Greenville Hills Academy (850)488-6700
Rte. 4, Box 283
Greenville, FL 32331

Greenville Hills Academy YouthBuild (850)488-6700
Rte., 4, Box 283
Greenville, FL 32331

Jacksonville YouthBuild (904)630-2757
City Hall
117 W Duval St.Suite 210
Jacksonville, FL 322023700

JaxBuild (904)296-1055
4203 Southpoint Blvd.
Jacksonville, FL 32216

Space Coast YouthBuild (321)403-1691
Brevard Community College
1519 Clearlake Road, Bldg 14, Room 196
Cocoa, FL 32922

YouthBuild Pensacola (850)433-9712
17 West Maxwell Street
Pensacola, FL 32503

YouthBuild St. Petersburg (727)322-8047
901 34th Street South
PTEC - Rm. 20-C
St Petersburg, FL 33711

Cobb County YouthBuild (770)429-4400
268 Lawrence Street, Suite A
Marietta, GA 30060

Empowerment Pathways YouthBuild (229)268-7592
1150 Industrial Dr., Suite 2001
Vienna, GA 31092

Flint Area Consolidated Housing Authority (478)472-8209
542 Richardson St.
P.O. Box 67
Montezuma, GA 31063

Fulton-Atlanta YouthBuild (404)320-0166
1690 Chantilly Drive
Atlanta, GA 30324

Green Pastures/ OIC YouthBuild (770)987-8121
5455 Flat Shoals Parkway
Decatur, GA 30034

New Choices for Youth YouthBuild (404)486-8516
2201 Glenwood Avenue, SE
Atlanta, GA 30316

YouthBuild Savannah (912)351-6379
5618 White Bluff Road
Savannah, GA 31405

YouthBuild Honolulu (808)832-7960
715 South King Street Suite 311
Department of Human Resources
Honolulu, HI 968133021

Emerson Park Development Corp. (618)874-1671
PO Box 6126
1405 State Street
East St. Louis, IL 62202-6126

Futures Unlimited, Inc. (815)842-1122
210 E. Torrance Ave.
Pontiac, IL 61764

Genesis YouthBuild Chicago (773)285-1685
607 East Oakwood Blvd.
Chicago, IL 60653

OAI, Inc. (312)528-3509
180 North Wabash, Ste. 400
Chicago, IL 60601

Rock Island Economic Growth Corp. (309)788-6311
1512 4th Avenue
Rock Island, IL 61201

Westside YouthBuild (773)935-9925
640 W. Irving Park Road
Chicago, IL 60612

YCC YouthBuild Waukegan (847)623-0900
Youth Conservation Corps., Inc.
221 North Genesee Street
Waukegan, IL 60085

YouthBuild Aurora (630)851-2203
808 East Galena Blvd.
Aurora, IL 60505

YouthBuild Lake County (847)473-3483
3001 N Green Bay Road
Bldg 1, 3rd floor
North Chicago, IL 60064

YouthBuild McLean County (309)827-7507
1111 W. Market Street
Bloomington, IL 61701

YouthBuild Rockford (815)963-6236
Comprehensive Community Solutions, Inc.
917 S. Main St.
Rockford, IL 61101

YouthBuild Evansville (812)428-8500
500 Court St.
Evansville, IN 47708

YouthBuild Gary (219)886-7475
Tree Of Life CDC
561 Broadway
Gary, IN 464021910

Construction Prep Alliance (515)244-4534
Des Moines Area Community College
1111 9th St., Ste. 290
Des Moines, IA 50314

YouthBuild Des Moines (515)244-7798
601 Forest Avenue
Des Moines, IA 50314

Kansas City Kansas YouthBuild (913)371-3770
1821 North 3rd Street
Kansas City, KS 66101

Morehead / Rowan County YouthBuild (606)783-9469
150 University Blvd.
Box 809
Morehead, KY 40351

Northern Kentucky Comm. Action Commission (859)581-6607
20 West Pike Street, Suite 200
P.O. Box 931
Covington, KY 41012-0931

YouthBuild Hazard (606)693-9393
1154 Main Street
Jackson, KY 41339

YouthBuild Louisville (502)213-4257
Young Adult Development in Action, Inc.
800 West Chestnut, Room 119
Louisville, KY 40203

Mirabeau Family Learning Center (504)282-5559
Community Builders Program
4908 Haik Dr
New Orleans, LA 701223302

Terrebonne Parish Consolidated Government (985)873-6891
P.O. Box 6097
809 Barrow St.
Houma, LA 70361

YouthBuild Bogalusa (985)732-6878
1242 Austin Street
Bogalusa, LA 70427

YouthBuild Delta (318)574-4120
c/o Louisiana Technical College
PO Box 1740
Tallulah, LA 71284

YouthBuild Lewiston (207)795-6820
PO Box 7965
190 Bates Street
Lewiston, ME 04243-7965

Youthbuilding Alternatives (207)775-0105
Portland West, Inc.
181 Brackett St
Portland, ME 041023857

Civic Works YouthBuild (410)366-8533
The Clifton Mansions
2701 Saint Lo Dr.
Baltimore, MD 212131154

YouthBuild ReEntry Partnership Initiative (301)648-7213
8829 Glenarden Parkway
Glenarden, MD 20706

CTI YouthBuild of Greater Lowell (978)446-9803
391 Pawtucket Street
Lowell, MA 01854

LUK/YouthBuild (978)345-0686
545 Westminster Street
Fitchburg, MA 01420

Old Colony Y YouthBuild Fall River (508)951-0802
72 Bank Street
Fall River, MA 02720

Worcester YouthBuild Partnership (508)753-2991
332 Main St., Suite 601
Worcester, MA 01608

YouthBuild Boston, Inc. (617)445-8887
504 Dudley St, 2nd Floor
Roxbury, MA 021192767

YouthBuild Brockton (508)894-2816
Old Colony YMCA
311 Battles Street
Brockton, MA 02301

YouthBuild Holyoke/Nueva Esperanza (413)433-9442
401 Main St
Holyoke, MA 01040-5609

YouthBuild Just A Start (617)492-1460
1175 Cambridge Street
Cambridge, MA 02139

YouthBuild Lawrence (978)681-0548
355 Haverhill Street
Lawrence, MA 01840-1127

YouthBuild New Bedford (508)984-3558
58 Crapo Street
New Bedford, MA 027404731

YouthBuild Quincy (617)773-1470
1458 Hancock Street
2nd Floor
Quincy, MA 02169

YWCA YouthBuild Springfield (413)733-9172
7 Orleans Street
Springfield, MA 01109

CAI YouthBuild (810)233-5974
711 N Saginaw St
Flint, MI 485031703

JOSHUA YouthBuild (734)480-7280
102 North Hamilton St.
Ypsilanti, MI 48198

Neighborhood Info. & Sharing Exchange (269)925-3948
200 Paw Paw Ave
Benton Harbor, MI 490223400

Ozone House YouthBuild (734)-48-2222
102 North Hamilton
c/o 30 North Huron
Ypsilanti, MI 48197

YouthBuild Battle Creek (269)441-1337
175 Main Street
P.O. Box 1026
Battle Creek, MI 49016

YouthBuild Detroit (313)256-7291
Young Detroit Builders
1432 Leverette Street
Detroit, MI 48216

Arrowhead YouthBuild (218)749-2912
Arrowhead Economic Opportunity Agency, Inc.
702 Third Avenue South
Virginia, MN 557922797

Bi-Cap YouthBuild (218)751-4631
2529 15th St NW
PO Box 579
Bemidji, MN 566017800

Carver-Scott Educational Cooperative (952)368-8800
Youthbuild Project
309 Lake Hazeltine Drive
Chaska, MN 553182081

Central MN Jobs and Training Services (763)271-3706
106 Pine Street, Ste 2
Monticello, MN 55362

City Academy (612)298-4624
958 Jesse St
Saint Paul, MN 551014058

Guadalupe Alternative Programs – St. Paul (651)222-0757
381 E. Robie St.
St. Paul, MN 55107

MN Workforce Center – St. Cloud (320)654-5320
Stearns-Benton Employment & Training Council
3333 W. Division St., Ste 212
St. Cloud, MN 56303

Project HOME (651)296-6064
Minnesota Dept. of Employment & Economic Dev.
332 Minnesota Street, Suite E200
St. Paul, MN 55101

Rural Minnesota CEP, Inc. (218)846-7377
803 Roosevelt Ave.
PO Box 1108
Detroit Lakes, MN 565013703

The City, Inc. (612)724-3689
1545 E Lake Street
Minneapolis, MN 554071738

Workforce Development, Inc. (651)385-6480
1606 W. 3rd Street
Redwing, MN 55066

Jackson Youthbuild (601)352-6993
West Jackson CDC
1060 John R. Lynch Street
Jackson, MS 39203

Mississippi Delta YouthBuild (662)827-0568
P.O. Box 97
1310 East Avenue North
Hollandale, MS 38748

Columbia Builds Youth (573)449-3431
400 N. Wilkes Blvd
Columbia, MO 65201

Hi-Tech Charities YouthBuild (314)-38-5737
1371 Hamilton Avenue
St Louis, MO 63112

Operation Excel YouthBuild (314)679-3381
26B North Oaks Plaza
Saint Louis, MO 63121

YouthBuild SCB (816)921-4327
3027 Cherry Street
Kansas City, MO 64108

YouthBuild St. Louis (314)436-1400
Youth, Education & Health in Soulard
1901 South 11th St
St Louis, MO 63104

Chadron YouthBuild (308)432-4346
130 East 2nd St.
Chadron, NE 69337

YouthBuild (402)471-4515
Lincoln Action Program, Inc.
210 O Street
Lincoln, NE 68508

YouthBuild Omaha (402)457-7840
3223 North 45th Street
Omaha, NE 68104

ECC YouthBuild (973)877-3395
WISE Women's Center
303 University Avenue
Newark, NJ 07102-1798

First Occupational Center of New Jersey (973)672-5800
391 Lakeside Ave.
Orange, NJ 07050

Great Falls YouthBuild (973)225-0112
NJ Community Development Corp.
P.O. Box 6976
Paterson, NJ 07509

Housing Authority of the City of Camden (856)968-2664
1300 Admiral Wilson Blvd.
Camden, NJ 08102

Housing Authority Of The City of Elizabeth (908)965-2400
688 Maple Ave
Elizabeth, NJ 07202-2690

Isles YouthBuild (609)341-4712
33 Tucker Street
Trenton, NJ 08618

Moe Shea YouthBuild (609)324-9911
Three 3rd Street
Suite 202
Bordentown, NJ 08505

YouthBuild Newark (973)624-4720
31 Central Avenue
Newark, NJ 07102

Buffalo & Erie Co. Workforce Dev. Consortium (716)856-5627
77 Goodell Street
Second Floor
Buffalo, NY 14203

CEO City of Troy YouthBuild (518)235-7055
CEO City of Troy/Youth Opportunity Ctr
282 Fifth Avenue
Troy, NY 12182

Flushing YouthBuild (718)961-6880
138-46 Northern Blvd
Flushing, NY 113543498

Jamestown YouthBuild (716)487-5118
Chautauqua Home Rehabilitation & Improvement Corp
2 Academy Street
Mayville, NY 14757

Jubilee Homes of Syracuse, Inc. (315)428-0070
901 Tallman Street
Syracuse, NY 13204

Municipal Housing Authority of the City of Utica (315)735-2755
1736 Armory Drive
Utica, NY 13051

New Directions YouthBuild (845)452-8574
248 Main Street
Poughkeepsie, NY 12601

St. John's YouthBuild (718)771-7720
1630 St. John's Place
Brooklyn, NY 11233

Ulster YouthBuild Partnership (845)331-2381
BRC Room 201
1 Development Court
Kingston, NY 12401

Urban League of Rochester, NY (585)546-7870
304 Andrews Street
Rochester, NY 14604

West Seneca YouthBuild (716)674-5600
2001 Union Road
West Seneca, NY 14224

Youth Action Program and Homes (212)860-8170
Youth Action Programs & Homes, Inc.
1325 5th Avenue (111th St. betw 5th and Madison)
New York, NY 10029

YouthBuild Albany (518)434-5723
City of Albany Dept. of Youth & Recreation
175 Central Ave.
Albany, NY 12206

YouthBuild SOBRO (718)292-7619
South Bronx Overall Economic Development
555 Bergen Ave.
Bronx, NY 10455

Far West YouthBuild (828)837-4430
4577 Martins Creek Road
Murphy, NC 28906

Housing Authority of Wilmington, NC (910)341-3217
1108 Princess Street
Wilmington, NC 28401

Our Next Generation, Inc. (828)252-9200
19 Reynolds Place
Asheville, NC 28804

River City YouthBuild (252)331-2925
501 East Main St
Elizabeth City, NC 27909

SHARE of North Carolina, Inc. (336)275-7077
2100 East Wendover Avenue
Greensboro, NC 27405

University of North Carolina at Greensboro (336)334-4423
Center for Youth, Families, and Communities
P.O. Box 26170
Greensboro, NC 274026170

Akron Summit YouthBuild (330)761-0562
230 West Center St.
Akron, OH 44308

Greater Toledo Urban League YouthBuild (419)255-3756
131 17th Street
Toledo, OH 43624

ISUS Trade and Prep., Cincinnati (937)223-2323
425 Ezzard Charles Dr.
Cincinnati, OH 45203

ISUS YouthBuild (937)223-2323
140 N. Keowee St
Dayton, OH 45402

Project REBUILD (330)588-3205
406 Shorb Ave NW
Canton, OH 44703

Sojourners Care Network (740)596-1117
Vinton County Sojourner's YouthBuild
318 West Main Street, P.O. Box 312
McArthur, OH 45651

West Columbus YouthBuild (614)223-1552
4041 North High Street
Suite 402
Columbus, OH 43214

YouthBuild Columbus (614)291-0838
1183 Essex Avenue
Columbus, OH 43201

YouthBuild Mahoning (330)744-2161
131 W. Boardman St.
Youngstown, OH 44503

YouthBuild PICCA (740)477-1655
469 E. Ohio Street
PO Box 67
Circleville, OH 431130067

YouthBuild Trumbull County (330)395-1400
Trumbull Metropolitan Housing Authority
1977 Niles Road, SE
Warren, OH 444845197

Eagle Ridge Institute (405)840-1359
601 N. E. 63rd Street
Oklahoma City, OK 73105

CSC YouthBuild (541)451-1071
Community Services Consortium
380 Market Street
Lebanon, OR 97355

Portland YouthBuilders (503)286-9350
4816 SE 92nd Ave.
Portland, OR 97266

Rogue Valley YouthBuild (541)776-5100
673 Market Street
Medford, OR 97504

5 C's YouthBuild (412)661-7507
615 North Lang Avenue
Pittsburgh, PA 15208-1870

Chester YouthBuild (610)490-0205
1 E 9th St
PO Box 572
Chester, PA 190160572

Crispus Attucks YouthBuild (717)848-3610
605 South Duke Street
York, PA 174033130

YouthBuild East Hills Pittsburgh (412)281-2102
7249 Frankstown Avenue
Pittsburgh, PA 15208

YouthBuild Philadelphia Charter School (215)627-8671
1231 North Broad Street, 3rd Floor
Philadelphia, PA 19122

Urban League of Rhode Island (401)351-5000
246 Prairie Avenue
Providence, RI 02905

YouthBuild Providence (401)273-7528
114 Delaine Street
Providence, RI 02909

Allendale County ALIVE, Inc. (803)584-3600
P.O. Box 252
Allendale, SC 29810

Lancaster YouthBuild (803)285-2311
304-D North. White St.
Lancaster, SC 29720

MACEDONIA CDC (803)435-2500
623 Headstart Road
Manning, SC 29102

Sumter County YouthBuild (803)436-2276
337 Manning Ave.
Sumter, SC 29150

Telamon YouthBuild (843)354-5708
500 N. Academy St
500 North Academy
Kingstree, SC 29556

The North Charleston Housing Authourity (843)747-1793
3346 Rivers Ave.
Suite C
North Charleston, SC 29405

YouthBuild Charleston (843)552-1474
7555 N. Spartan Blvd.
North Charleston, SC 29420

YouthBuild Sea Islands (843)557-1611
3483 Maybank Highway
John's Island, SC 29455

Sisseton Wahpeton Oyate (605)698-4400
P.O. Box 659
Agency Village, SD 57262

Chattannooga YouthBuild (423)752-4876
505 West ML King Blvd
Chattannooga, TN 37401

Shelby County Dept. of Housing (901)379-7100
1075 Mullins Station Rd.
Memphis, TN 38134

YouthBuild Chattanooga (423)757-9069
535 Chestnut St Ste 208
Chattanooga, TN 374024942

Alamo City YouthBuild (210)223-3131
1215 W. Poplar Street
P.O. Box 7844
San Antonio, TX 78207-0844

Austin/Travis County Health & Human Services Dep. (512)972-5038
601 Airport Road
Bldg. A39
Austin, TX 78702

CACST YouthBuild (956)487-2585
P.O. Box 98
510 Eisenhower St
Rio Grande City, TX 78582

Casa Verde YouthBuild (512)744-1941
1901 E. Ben White Bv
Austin, TX 78741

Crystal City Youthbuild Program (830)374-2414
400 W. Nueces
Crystal City, TX 78839

Harris County (713)755-4766
Community & Juvenile Justice Ed
1310 Prairie St., Ste 371
Houston, TX 770022020

New Waverly YouthBuild (936)344-6677
143 Forest Service Rd. #233
New Waverly, TX 773580515

Proyecto Azteca's Youthbuild (956)783-9960
P.O. Box 27
Corner of Cesar Chavez & Bus. 83
San Juan, TX 78589

YouthBuild Brownsville (956)548-2302
901 E. Levee St.
Brownsville, TX 78521

YouthBuild Dallas (214)372-4620
2721 Lyola St
Dallas, TX 75241

YouthBuild Houston (713)718-5209
c/o Houston Community College - Northeast
555 Community College Drive
Houston, TX 77013

YouthBuild San Antonio (210)804-1786
George Gervin Youth Center, Inc
6903 S. Sunbelt Dr
San Antonio, TX 782183336

Salt Lake County (801)468-3604
2001 South State, S2100
Salt Lake City, UT 84190

ReCycle North YouthBuild (802)658-4143
266 Pine Street
Burlington, VT 05401-3400

Bristol Redevelopment & Housing Authority (276)466-5587
Virginia Workforce Center
500 Randall Street Expressway
Bristol, VA 24201

Danville Redevelopment and Housing Authority (434)792-5544
135 Jones Crossing
Danville, VA 24541

Employment Resources Inc. (ERI) (804)493-1200
112 Peach Grove Lane
Montross, VA 22520

Norfolk State University (757)823-2396
Community and Outreach Services
700 Park Ave.
Norfolk, VA 23504

Petersburg Urban Ministries, Inc. (804)862-1104
P.O. Box 708
Petersburg, VA 238040708

TAP YouthBuild (540)767-6222
PO Box 2868
Roanoke, VA 24011

Tidewater Builders Trades Academy (757)420-2434
2117 Smith Avenue
Chesapeake, VA 23320

Waynesboro Redevelopment & Housing Authority (540)946-9230
1700 New Hope Rd
PO Box 1138
Waynesboro, VA 229800821

Seattle YouthSource YouthBuilders (206)296-5220
King County Work Training Program
919 Southwest Grady Way
Renton, WA 981041519

YouthBuild Spokane (509)456-7660
1025 West Indiana Avenue
Spokane, WA 99205-4561

Coalfield Housing / SALS (304)779-2772
P.O. Box 127
Kincaid, WV 251190127

HRDE-Mon YouthBuild (304)366-1119
200 Jefferson St.
E View Unity Apartments, Box 109
Fairmont, WV 26554

Huntington Housing Authority (304)522-0576
300 W 7th Avenue
Huntington, WV 25701

YouthBuild North Central West Virginia (304)637-9008
1404 N. Randolph Ave
PO Box 1579
Elkins, WV 26241

CAP Services (920)787-2735
123 Pickle Row
Wautoma, WI 54982

Indianhead (715)532-5594
P.O. Box 50
209 E. 3rd Street
Ladysmith, WI 54848

Milwaukee Christian Center (414)643-7704
1223 S. 23rd St.
Milwaukee, WI 53204

Operation Fresh Start YouthBuild (608)244-4721
1925 Winnebago St
Madison, WI 537045314

Renewal Unlimited (608)742-5329
2900 Red Fox Run
Portage, WI 53901

Western Dairyland Freshstart (715)985-2391
23122 Whitehall Rd
PO Box 45
Independence, WI 547470045

YouthBuild Racine (262)636-3818
1020 Washington Avenue
Racine, WI 534031762

Rosie's Girls®

Building Strong Girls

Northern New England Tradeswomen
51 Park St
Essex Jct, VT 05452

OVERVIEW

Rosie's Girls® Program is a unique summer program for 11-13 year old girls designed to build self-esteem, physical confidence, interpersonal cooperation and leadership skills through learning and applying basic skills in carpentry and other technical trades. Created as a collaboration between Northern New England Tradeswomen and Strong Foundations, Inc., Rosie's Girls ran for the first time as a summer camp program in Summer 2000. In subsequent years, Rosie's Girls® has continued to offer summer programming in Vermont as well as in Santa Monica, California, nine different communities in South Carolina, and Cleveland, Ohio, and has expanded to include after-school programs and one-week school vacation camps.

The program gets its name from the fictional character **"Rosie the Riveter"** who symbolized the emerging strength and power of women who went to work in the defense plants while men were fighting World War II. Rosie has inspired generations of women to take the path less traveled and to do it with courage and conviction.

WHO CAN BE A ROSIE'S GIRL?

Participants are entering 6th-8th grades and range in age from 11-13 years.

WHAT HAPPENS AT ROSIE'S GIRLS?

Carpentry: The girls begin by learning basic skills such as hammering and sawing. The skills are applied in both take-home projects and in projects designed to meet an identified community need. For example, participants make and keep their own toolboxes and build a project as a group to donate to a local community service organization.

Other Trades: Rosie's Girls® programs expose participants to a variety of other technical trades fields which might include:

- welding
- basic bike repair
- basic auto repair
- electrical wiring
- interior painting
- fire fighting

Arts: The arts program includes activities designed to promote the girls' individual self-expression through a variety of media, including: poetry, stand-up comedy, yoga, mask making, and collage making.

Physically challenging activities: Rosie's Girls® programs include several activities designed to physically challenge girls to push beyond (both physically and mentally) their preconceived

notions of what they can accomplish and to build group cohesion, trust and interdependence. These activities have included:

- rock climbing at a local climbing facility
- ropes course (both high and low elements)
- self-defense

A Girl's World: These are activities designed to help girls understand – and respond to – the messages girls and women receive about how they should act, what they should look like and what they can become. Some examples include:

- Media Collage: An activity designed to help girls look critically at the portrayal of women in the media.
- Woman of the Day**:** Each girl prepares a short presentation about a famous, successful woman of interest to her.
- Mentor Presentations**:** Women who have chosen nontraditional occupations speak about their careers and the challenges and opportunities they have faced.

OUTCOMES

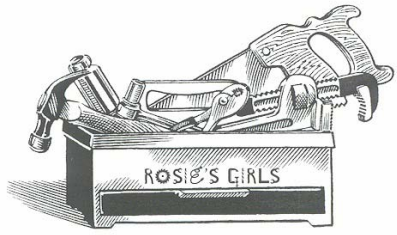
- **I've learned I can do anything I want to if I set my mind to it.** (Natasha, Age 12)
- **It made me feel better about myself and what I can do. Any girl who was or will be lucky enough to come to this camp will be amazed at how much better you feel about your abilities and it will help higher your self-esteem.** (Libby, Age 13)
- **I learned I can make friends more easily here than at school.** (Chelsea, Age 12)

NOW AND TOMORROW

In the summer of 2003, five states sent teams to the Rosie's Girls® Training Institute in Vermont to learn how to run Rosie's Girls® programs in their communities. 2005 saw the Rosie's Girls® Summer Program run in Vermont, California, Ohio and nine sites in South Carolina. Rosie's Girls® programs in Vermont have expanded to include an advanced trades workshop for returning campers, an after-school program and April vacation camps. Communities in Alaska, New Jersey and Washington have received training and are developing their own Rosie's Girls® programs sites.

CONTACT US!

If you would like more information about how to bring Rosie's Girls® programs to your community, please contact us and we will be glad to furnish you with more detailed information.



rosie's girls®

Building Strong Girls

BRINGING ROSIE'S GIRLS® PROGRAMS TO YOUR COMMUNITY

Rosie's Girls® programs are currently operating in Vermont, California, South Carolina and Ohio. Communities in Alaska, New Jersey and Washington have received training and are developing their own Rosie's Girls® sites. If you'd like to see Rosie's Girls® programs in *your* community, we can help you make it happen!

Rosie's Girls® programs and curricula are trademarked and owned by Northern New England Tradeswomen, Inc. The programs can be licensed to sites that will operate programs in their own communities. Along with licensing come the training and all curricular and administrative materials needed to run an effective program.

WHAT'S INCLUDED WITH A ROSIE'S GIRLS® PROGRAMS LICENSE?

Every site purchasing a license to operate Rosie's Girls® programs will receive comprehensive, personalized training in all aspects of planning and running a Rosie's Girls® program. Training will cover the key ingredients to success, including:

- ✓ the program's underlying philosophy
- ✓ staffing – how to find and train effective counselors and trades and arts instructors
- ✓ recruiting – finding girls to fill up the program
- ✓ marketing - getting the word out to promote the program in your community
- ✓ fundraising – putting together a funding base that will sustain the program
- ✓ action planning – participants will come out of the training with the beginning of a concrete action plan for implementing the Rosie's Girls® program

Ongoing technical assistance, beyond the initial training, is also provided as a site plans its program. This can be via email, phone, or personal visits.

A license also includes:

- ✓ Rosie's Girls® program curriculum – a detailed, comprehensive set of materials that covers all program components
- ✓ Administrator's toolbox – a wealth of nuts-and-bolts materials used in program administration
- ✓ Evaluation results – every site receives a report analyzing the evaluation data they collect about their program, as well as that received from other Rosie's Girls® programs sites
- ✓ Curriculum revisions – the curricula for the Rosie's Girls® programs are frequently revised and updated, and a licensed site will receive all of these revisions as long as they hold their license

COST OF A LICENSE

A license cost $1500 plus the cost of the initial, which will vary depending upon location and who is receiving the training.

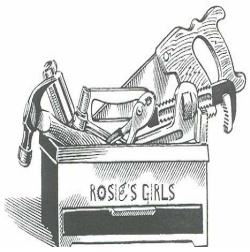
HOW DO I GET A LICENSE?

If you'd like to find out more about bringing Rosie's Girls® programs to your community, call us or email us today, and we will work with you to begin the process.

Contact:

Northern New England Tradeswomen
51 Park St
Essex Junction VT 05452
802-878-0004 x106
email Cary Brown at cbrown@nnetw.org

Rosie's Girls® Programs are a collaborative project of Northern New England Tradeswomen, Inc, and Strong Foundations, Inc.



Toolbox

July 11 - 29, 2005

Hosted by

Hard Hatted Women
3043 Superior Ave.
Cleveland, OH 44114
216-861-6500
www. hardhattedwomen. org

In cooperation with the Youth Employment & Opportunity Program of the Cleveland Municipal School District

Rosie's Girls™ summer camp is an exciting three-week experience for girls entering 6th, 7th and 8th grades. Girls will use real tools and equipment to strengthen their math and science skills, gain skills useful throughout their lifetime and learn about well-paying careers. Rosie's Girls activities will challenge girls while supporting them in their exploration.

Why Rosie?

Rosie's Girls™ takes its name from the fictional World War II icon that represented the women who went to work in shipyards and factories to fill shortages while men fought overseas. Their pioneering contributions did much to expand notions about women's capabilities and helped pave the way for women to enter trades and technical careers.

Why Trades?

Whether in a shop or applied to "real world" projects, trades activities offer an unusual and especially powerful vehicle for girls to develop a broader sense of themselves and their capabilities, learn self-reliance, and expand the range of careers they might envision for themselves.

Rosie's Girls™ activities provide rich, meaningful opportunities for girls to challenge themselves physically and emotionally and to discover, develop, and enjoy their own capabilities and voices in a supportive and caring environment. Over three weeks, girls take part in:

Carpentry Instruction: Hands-on instruction in building and construction. Girls put these skills to use in shop-based projects and "real world" community service projects.

Bicycle Maintenance and Repair: Earn your own bike, helmet and lock at the end of this unit.

Other Trades Experiences: Instruction in basic skills and applications in trades areas such as welding and auto repair.

Creative Exploration: Activities designed to explore a variety of forms of self expression such as dance, art, and yoga.

Physical Activities: Daily games and initiatives and additional activities designed to challenge girls to push beyond preconceived limits.

Dates and Times: July 11 - July 29, 2005
Monday—Friday
8:45 am —4:15 pm
Before and after camp supervision will be available

Location: Hard Hatted Women 3043 Superior Avenue Cleveland, Ohio 44114

Cost: Sliding scale, based on income. Full or partial scholarships available.

- Knowledge of occupations
- Knowledge of processes and tools
- Knowledge of how to work with the tools

http://www.tradeswomen.net/pdfs/Best_Practice_Work.pdf

BE&K Girl Power

Girl Power is a BE&K initiative designed to give high-school age girls the "tools" they need to succeed. Not just hammers and nails, but also role models and interactive experiences, capable of inspiring the confidence all young girls need to explore new and different career options in construction and engineering

Who? Girls Only.

Open to girls entering 10th, 11th and 12th grades.

What? A Unique Experience.

BE&K, Alabama's leading industrial construction company, hosts six events per year designed to introduce girls to the world of construction and engineering. At the Girls Construction Camp held each summer, BE&K provides introductory training in welding, carpentry, and electrical crafts. The other five events are designed to further explore training and educational opportunities available to girls through BE&K's programs and partnerships.

When? Events Six Times a Year.

June ... Girls Construction Camp
July ... Making the Leap to Vocational Training
October ... BE&K Craft Olympics
December ... Industry Guest Speaker
February ... Personal Development Day
April ... Girls' Construction Camp Planning Meeting

Where? BE&K.

BE&K, Inc.
2000 International Park Drive
Birmingham, AL 35243

For more information about Girl Power, or to obtain a DVD, contact Susan Wasley at (205) 972-6688 or Mittie Cannon at (205) 972-6151.

Why? Education, Experience and Fun!

Although women comprise 50% of the workforce, only 7% are involved in the construction industry. BE&K Girls Power is designed by BE&K to introduce young women to great-paying careers in construction and to address the serious shortage of skilled workers in the industry.

A Construction Camp for Girls Breaks Down Stereotypes
(9/16/2003)
By Rachel Maisler

High school students learn about construction at BE&K summer camp. Tanesha Prince went to camp this summer as an ordinary 13-year-old. After one week at BE&K's Construction Camp for girls, she had become a bona fide "handy girl." Now, her mother Dorlinda says, "we're prepared; we have an electrician in the house."

The construction camp was envisioned by Robin Paulding, director of communications at BE&K Inc., a large industrial and power contractor based in Birmingham, Ala. "I created this camp in response to construction groups wanting more women in the field," Paulding says. The camp was first held near Birmingham three years ago on the campus of a nearly technical high school. Since then, the number of attendees has grown from 9 girls to 52 this past summer. The camp also held a session this summer in Georgia, which was also quite popular. There is even a waiting list for next summer.

Paulding brings in women from the field to introduce the youngsters to their areas of expertise. The specialists teach the girls basics in carpentry, welding, and electrical work. The goal of the camp is to "break down stereotypes," she says. "When the girls come out of here, they should be ready for the job," says Mary Hodge, a BE&K electrical foreman, who has been in the industry for 30 years. "I wish I would have had this opportunity when I started out."

As an instructor for the program, Hodge teaches at both the Alabama and Georgia centers. Her task this summer was to teach the girls how to make lamps. "It's easier than I thought it would be," Andrenette Poole, 15, says, about the electrical portion of her lamp project. "I got to wire it, decorate it, and make it light up. "However, the camp isn't always full of fun and games. "I burnt my shoe when I was welding," Poole says.

Fortunately, the camp is prepared with rigorous safety standards, including a strict dress code. Participants had to wear closed-toe shoes at all times. Violating any regulations would result in dismissal from the program. Camp directors also distributed hard hats to each girl. Luckily, Poole's mishap "just left a little mark," she says.

Even with these safety risks in mind, Dorlinda Prince didn't have any qualms about sending her daughter to work with the tools formerly reserved for the men. "[I had] no fears," Prince says. "I want my children to venture out and see all things." She also felt the company was well equipped for safety, and had prepared the children well for their experiences.

The projects also helped the campers overcome the intimidation associated with industry tasks. "[Welding] was scary," Tanesha Prince says. "The welding was with fire," her mother added. [Students] "didn't realize they had the proper protection."

Not only did campers walk away with industry knowledge, but they also received toolboxes and "Rosie the Riveter" T-shirts. The girls learned to use about a third of the tools in the camp toolbox. "We're just as good as men," Hodge says. "We're the future of the trade."

Inspiring all girls to be

Strong, Smart, and Bold

Girls Incorporated
120 Wall Street
New York, NY 10005-3902
1-800-374-4475
1-212-509-2000
www.girlsinc.org

Girls Incorporated is a national nonprofit youth organization dedicated to inspiring all girls to be strong, smart, and bold. With roots dating to 1864, Girls Inc has provided vital educational programs to millions of American girls, particularly those in high-risk, underserved areas. Today, innovative programs help girls confront subtle societal messages about their value and potential, and prepare them to lead successful, independent, and fulfilling lives.

Our History The Girls Inc movement started in New England during the Industrial Revolution as a response to the needs of a new working class: young women who had migrated from rural communities in search of newly available job opportunities in textile mills and factories.

Programs Girls Inc develops research-based informal education programs that encourage girls to take risks and master physical, intellectual and emotional challenges. Major programs address math and science education, pregnancy and drug abuse prevention, media literacy, economic literacy, adolescent health, violence prevention, and sports participation.

National Board and CEO Our national leadership focuses on developing innovative ways to leverage our most valuable asset-acknowledged expertise as the nation's premiere program provider and advocate for girls to expand our reach to more than a million girls by the year 2002. Our leaders include Frank Burnes, National Board Chair; and Donna Brace Ogilvie, National Board Honorary Chair.

Funding Girls Inc. is a nonprofit organization that receives 77 percent of its revenue from public support—corporations, foundations, government grants, and individuals. The remainder comes from affiliate dues, fees, interest and dividends. More than three-quarters of the organization's functional expenses go directly to support program services for girls.

Membership Girls Inc. programming can be offered anywhere girls are found, including Girls Inc. centers, schools, churches, community centers and housing projects. The majority of Girls Inc. centers are located in low–income areas and provide a weekly average of 30 hours of after-school, weekend and summer activities.

Research The National Resource Center (NRC) is the organization's research, information services and training site. Research and evaluation conducted by the NRC provide the foundation for Girls Inc. programs. The NRC also responds to requests for information on girls' issues and distributes Girls Inc. publications
.

Advocacy Girls Inc informs policymakers about girls' needs locally and nationally. The organization educates the media about critical issues facing girls. In addition, the organization teaches girls how to advocate for themselves and their communities, using their voices to promote positive change.

National Scholars The Girls Inc Scholars Program was created in 1992 when Lucile Miller Wright, a longtime supporter of Girls Incorporated, bequeathed $6.4 million from her estate to the organization to fund scholarships expressly for young women members. This endowed fund secures the base of a commitment to scholarships at Girls Incorporated that began in 1945 with the Reader¹s Digest Career Key program.

Girls Inc. Service Population

Girls Inc. reaches 685,000 girls through direct service, our website, and Girls Inc. products and publications. Of those we serve, a majority are girls of color who come from single-parent households with incomes under $20,000.

Racial/Ethnic Groups of Girls Served	
African American	50%
Caucasian	24%
Latina	18%
Multiracial	4%
Asian American/Pacific Islander	3%
Native American	1%

Family Income of Girls Served	
< $10,000	19%
$10,000 - $14,999	18%
$15,000 - $19,999	20%
$20,000 - $24,999	20%
> $25,000	23%

Family Configuration of Girls Served	
One parent	54%
Two parents	37%
One parent at a time	3%
Neither parent	6%

Project Dollhouse

A Unique Event for Girls to Learn to Empower Themselves

Project Dollhouse is a community outreach partnership between The Home Depot and Girls Inc. The objective is to engage girls ages 5-18 in a friendly competition of constructing and decorating dollhouses. A total of 175 teams of girls built and decorated dollhouses in September 2005 and submitted these dollhouses for a panel of judges to review. The judges will select the finalists who will be invited to an awards ceremony in Atlanta in February 2006.

Approximately 700 girls from 18 states will participate in this inaugural event where girls will learn key messages of empowerment and the benefits of giving back to their communities.

Dollhouses will be auctioned online to the highest bidder and all proceeds will benefit Girls Inc. A number of dollhouses will be donated to shelters, children's hospitals and other non-profit organizations.

Girls Inc. – A Brief Overview

Girls Incorporated® is a nonprofit organization that inspires all girls to be STRONG, SMART AND BOLD(SM). With local roots dating to 1864 and national status since 1945, Girls Inc. has responded to the changing needs of girls through research-based programs and public education efforts that empower girls to understand, value, and assert their rights. In 2003, Girls Inc. reached 840,000 girls through

direct service, the Web site, and Girls Inc. products and publications. In 2003, Girls Inc. programs were offered through a network of 1,500 program sites. Over 1,000 of these were in schools.

To learn more about Girls Incorporated and its many worthwhile programs and initiatives, please visit www.girlsinc.org.

How Does It Work?

- Each team is comprised of 4 girls and 175 teams are participating.
- Teams will attend a How-To-Clinic in September, staffed by The Home Depot and Girls Inc. volunteers, where the girls will learn how to build their dollhouses.
- Girls will also learn home decorating and building skills as well as gain valuable teamwork and leadership experience.

When is the Event?

- On September 17, all the teams of girls assembled at their local The Home Depot stores and constructed their dollhouses.
- Once the dollhouses were built, the teams had three weeks to decorate the houses. Judging criteria for the competition are segmented into four primary categories: story/essay, theme, overall design and construction.
- Judging is being conducted in October and November 2005.

Live Auction

To recognize the efforts of the participating girls and help build a sense of value and potential, the teams that are judged to have the best design will be hosted in Atlanta by The Home Depot and Girls Inc. for the Project Dollhouse National Awards Celebration. In February 2006, during a live auction, the dollhouses will be auctioned to the highest bidders!

Building Schedule

- September 6, 8, 13 and 15: Interactive How-To-Clinics conducted at Girls Inc. affiliate locations.
- September 17: Dollhouse Building at select The Home Depot stores.
- October 14: Dollhouse decorations to be finalized by the teams at their local Girls Inc. affiliate locations.
- October 17: Judging of dollhouses begins.
- November and December: Auction of Dollhouses online.
- February 2006: National Awards Celebration and Live Dollhouse Auction.

Lending a Hand

Financial and in-kind sponsorships are available. For more information regarding Project Dollhouse, contact the program director at (800) 654-0688 ext. 12593.

The Home Depot and Girls Inc. would like to thank our official Project Dollhouse 2005 Sponsors:

- **Platinum Toolbox:** Delta Airlines, Feather River Door, Houseworks, Masonite
- **Golden Hammer:** Ritz Camera, Jeld-Wen, Inc., Steves and Sons
- **Silver Ladder:** Silverline, Andersen Windows, Inc.
- **Bronze Key:** Cendant Group, Avis Rental Cars, Sure-Wood Forest Products, Bluelinx, American Minority Business Forms
- **Benefactor:** Clopay, Valuwear, Ikon, Kim and Michael Sentovich

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Pittsburgh, PA 15208
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YWCA of the Midlands
1735 Devonshire Drive
Columbia, SC 29204-2404
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SOUTH DAKOTA
Rapid City
Girls Incorporated of Rapid City
120 East Adams
Rapid City SD 57701

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Rapid City, SD 57709
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Chattanooga
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Email: girlschatt@aol.com
Email: Maxfb1@msn.com

Johnson City
Girls Incorporated of Johnson City/
Washington County
227 Library Lane
Johnson City, TN 37601
Mailing Address
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Johnson City, TN 37605
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Fax: (423) 928-3011
Email: girlsinc@preferred.com
Website: www.girlsinc-jcwc.org

Kingsport
Girls Incorporated of Kingsport
1100 Girls Place
Kingsport, TN 37660
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Kingsport, TN 37662
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Fax: (423) 247-9817
Email: bwwright@chartertn.net
Website: www.chartertn.net/girlsinc

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Email: tbradley@girlsincmemphis.org
Website: www.girlsincmemphis.org

Morristown
Girls Incorporated of Hamblen County
301 Sulphur Springs Road
Morristown, TN 37813-2032
Mailing Address
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Morristown, TN 37815-3058
Bus: (423) 581-4430
Fax: (423) 586-6211
Email: girlsinc@girlsincofhamblen.org
Website: www.girlsincofhamblen.org

Oak Ridge
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Oak Ridge, TN 37830
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Oak Ridge, TN 37831
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Fax: (865) 482-4409
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TEXAS
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Email: GirlsIncDallas@girls-inc.org
Website: www.girlsincdallas.org
Website: www.CulturedKids.org

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Fax: (713) 802-2907
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Fax: (903) 813-0345
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Girls Incorporated of San Antonio at the Children's Shelter
2939 West Woodlawn Avenue
San Antonio, TX 78228
Mailing Address:
1209 South St.
San Antonio, TX 78210
Tel: (210) 212-2500
Fax: (210) 785-9268
VP of Adolescent Services: Annette Rodriquez
Email: girlsincsanantonio@chshel.org
Website: www.childrensshelter.org/girlsinc.htm

VIRGINIA
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Bus: (276) 669-2129
Email: girls1@planetc.com

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Leesburg, VA 20177
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Fax: (703) 771-5383
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Portsmouth
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5905 Portsmouth Boulevard
Portsmouth, VA 23701-1445
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Fax: (757) 465-4071
Email: nanjo525@aol.com
Website: www.centerforyouthswhr.com

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YWCA of Greater Milwaukee
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Website: www.ywcamilw.org

APPENDIX 21 – PROPOSED OCCUPATIONAL FITNESS PROGRAM FOR WOMEN

OCCUPATIONAL FITNESS

Weeks I-3

I. Overall Physical Conditioning Exercises lasting the full 1 1/2 hours. These are designed to produce strength, flexibility, correct body alignment, and general body awareness for proper exercise and movement habits.

A. Cardio-vascular Exercise for Preliminary Body Warm-up and Stamina
1. Jogging

B. Exercise for Spine Flexibility and Back Strength
1. Neck rolls - spine rolls; toe touch
2. Torso stretch upward; flat back; toe touch
3. Side stretch; flat back; head to knee
4. Torso twists

C. Exercises for Leg/Hip Flexibility and Abdominal Strength
1. 16 series of stretches on floor
2. Sit-ups
3. The bridge
4. Feet over head
5. Shoulder stand
6. Cobra
7. Upper back arch
8. Leg lifts lying on back
9. Partnering leg stretch
10. 4th position circle on floor
11. Lion pose leg lifts to side and back

D. Exercises for Leg Strength
1. Knee bends pressing up to toes
2. Jumps
3. Hops
4. Running in place
5. Side lunge
6. Back lunge

E. Exercises for Arm Strength and Shoulder Flexibility
1. Shoulder rolls
2. Arm rolls
3. Push-ups

II. Relaxation Exercises - designed to relax body of muscular tensions developed after strenuous workout.

A. Body awareness exercises on floor
B. Massage circle

Weeks 5-6

I. Overall Physical Conditioning Exercises Routine lasting 1 hour and 10 minutes. These exercises are designed to increase overall physical fitness. This routine will contain more difficult variations on previous week's exercises.

II. Instruction and practice in proper ways to (a) push and pull; (b) reach and stoop; (c) carry heavy objects.
This will take place during the last 20 minutes of class:

A. Week 4 pushing and pulling
B. Week 5 reaching and stooping
C. Week 6 carrying heavy objects

III. Short Relaxation Exercise - 5 minutes.

Weeks 6 - 12

I. Condensed Overall Physical Conditioning Routines containing essential exercises to maintain achieved level of physical fitness. This will last 45 minutes.
A. Exercises for Spine Flexibility and Back Strength
1. Neck rolls - spine rolls
2. Torso stretch upward; flat back; toe touch
3. Side stretch; flat back; knee to head
4. Arch back
5. Torso twists
B. Exercises for Leg/Hip Flexibility, Abdominal Strength
1. 16 series with flat back
2. Sit-ups
3. Advanced bridge
4. Feet over head
5. Upper back arch, roll down
6. Lion pose leg lifts
C. Exercises for Leg Strength
1. Knee bends pressing up to toes
2. Jumps
3. Hops
4. Side and back lunges
D. Exercises for Shoulder and Arm Strength
1. Shoulder rolls
2. Arm rolls
3. Push-ups
E. Cardio-vascular Exercise
1. Running in place

II. Relaxation Exercise - 5 minutes

III. Review on Methods of Pushing-Pulling, Stooping, and Carrying - 10 minutes

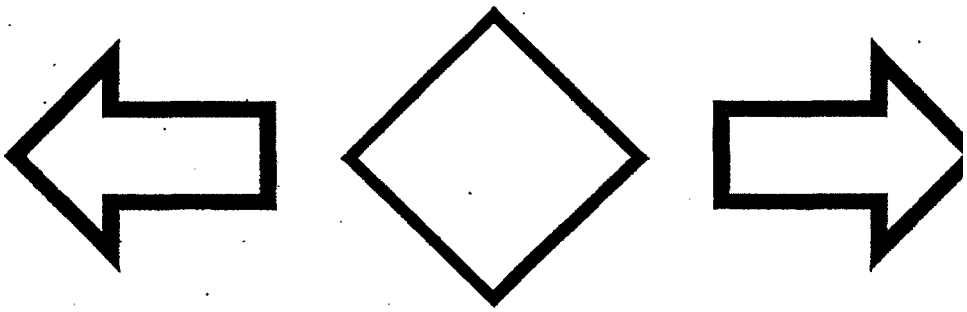
Appendix VI – pp. 55-57
Women's Bureau, U.S. Department of Labor, Women in Nontraditional Jobs: A Program Model, Boston: Nontraditional Occupations Program for Women: Washington, D.C.: U.S. Superintendent of Documents. (1978)

APPENDIX 22 – MANUAL FOR SURVIVAL

MAN UAL

FOR SURVIVAL

For Women in Nontraditional Employment



Written by NOW Legal Defense and Education Fund
and Association for Union Democracy, Women's Project

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INTRODUCTION

Using the Manual for Survival

This manual is primarily written for women just thinking about *or* starting out in a skilled trade. However, even if you have been tradeswoman for years, this manual can provide some useful information on working for change in your trade and defending your legs rights. This is a nuts and bolts "how to" guide that walks you through the steps of applying for an apprenticeship, searching for work, becoming active in your union, and challenging discrimination and harassment. We place an emphasis on dealing with problems through organizing and working within your union, but also explain your legal rights and how to lodge for mal complaints.

We have tried to be as detailed and comprehensive as possible, touching on almost every aspect of your life as a tradeswoman an+ union member. Although written with the skilled construction trades in mind, the manual can provide help for any woman considering nor traditional employment. Some of you may fin it informative reading from cover to cover, others of you may simply refer to it about specific problems or issues as they arise in your working life.

The manual was written for women across the country. Because each union is different state and local laws vary, and local customs different, our general advice may not coincide with your experience. We've tried to at leas point you in the right direction. If and when you encounter a specific problem, you may need any want to get advice or assistance from an outside organization such as the Association for Union Democracy's (AUD) Women's Project, the NOW Legal Defense and Education Fund, or your local tradeswomen's group or chapter of the Coalition of Labor Union Women (CLUW).

Women in Nontraditional Trades

More than a decade after women first began to be admitted to traditionally male-dominated trades, tradeswomen are still pioneers. In the skilled construction trades, women make up no more than 1-2% of the workforce nationwide, far below the federal affirmative action goals of 6.9% put in place in 1978.

Although women entering traditionally male fields face challenges, there are many reasons why women continue to fight for acceptance in these jobs. A prime motivator is economic independence. Construction jobs pay, on average, about twice as much as traditionally female jobs, such as retail sales. In 1991, construction workers earned, on average, $13.99) hour and retail workers earned $6.45/hour. The difference in weekly earnings was even greater, with construction workers earning on average $533/week and retail workers earning $199) week. (U.S. Dept. of Labor, Monthly Labor Review, Sept 1992 at 69-70.)

Other reasons women enter trades include the joy of physical labor and working outdoors, escaping the confinement of an office, the desire to do union work and the satisfaction and pride of producing something. Women who stick with their trade can also take pride in knowing that they are opening doors for other women and providing role models for young girls.

NOW, LDEF, and AUD are advocates in the fight for wider economic opportunities for women. We believe that women's entry into lucrative nontraditional jobs can provide economic independence and job satisfaction not available in the low-paying service sector. With time, it can help close the wage gap and reverse stereotypes about what is appropriate "women's work."

The Role of Unions

This manual has a pro-union orientation. We recognize that, especially in the construction trades, unions have sometimes opposed equal treatment of women workers. We believe that the best way to challenge discrimination by unions is for women workers to actively participate in those unions and organize for change.

Unions are responsible for the (relatively) high wages that skilled trade workers and industrial workers earn. Overall, unionized workers in the United States earn 30% more than nonunion workers. As a member of a union you work under a contract that fixes wages and benefits, protects your job, guarantees the conditions under which you work, and provides a mechanism for challenging employers' actions that you believe are in violation of the contract or are unfair. But unions don't just protect their own members; they have a long history of fighting for laws that benefit all workers, such as social security, unemployment and workers' compensation, and safety and health standards.

American women have actively participated in the labor movement since colonial times. Women have organized their own trade unions, and also strived to gain full rights and responsibilities in traditionally male unions. Although there is still long way to go in combating sexism in trade unions, women's participation in the labor movement has provided unique benefits and opportunities for advancement.

Mother Mary Harris Jones, 1830-1930

Born to "Irish agitator" Richard Harris in 1830, Mary Harris emigrated with her family to America in 1838, where she got an elementary education and learned dressmaking. After working in Chicago *as a seamstress,* she moved to Memphis, Tennessee, and married George Jones, an Iron Moulders' Union member and the Knights of Labor organizer. Tragedy struck the Jones family in 1867 when George Jones and her children died of yellow fever. Although she lost her family, "Mother Jones" became a fearless fighter absolutely committed to the struggles of the worker. She participated in may coal strikes in Pennsylvania, West Virginia and Colorado. She had an infamous speaking style; her speeches were described by National Guard Commander Chase as "couched in coarse, vulgar, and profane language, that address themselves to the lowest passion of mankind." She also had a unique sense of drama; her "march of the mill children" started in Philadelphia's Independence Park, wound through New York City, and ended at the home of President Theodore Roosevelt. Once criticized by a United States senator for being "unladylike," Mother Jones continued to "talk vigorously — and profanely — to visitors" during her hundredth and last year of life.

Women began to work for wages immediately after the Revolutionary War, as factories actively recruited women in an effort to establish American industry. Life was hard in the factories, and was marked by 13 hour work days and arbitrary wage reductions. Women workers repeatedly asserted their right to a reasonable work day and a living wage. The first organized protest by female factory workers took place in Pawtucket, Rhode Island, in 1824. This event was followed in 1828, with similar strikes by textile workers in Paterson, New Jersey; cotton spinners in Philadelphia; mill workers in Dover, New Hampshire; and seamstresses in New York and Baltimore. These pioneer women unionists were part of a labor movement that finally won the establishment of a national 8 hour federal work day in 1868.

Not only did women's participation in the labor movement lead to improved working conditions, but it also provided a forum for the cultural and educational enrichment of the women workers. For example, the textile workers in Lowell, Massachusetts, regularly attended lectures and published their own articles and poems in The Lowell Offering. Many women workers were also deeply committed to social causes such as feminism and the abolition of slavery. For example, shortly after the first feminist convention in Seneca Falls, New York, in 1848, the female suffragists Elizabeth Cady Stanton and Lucretia Mott supported a cooperative sewing shop established by a union of Philadelphia seamstresses.

In addition to cultivating female work associations, women workers also actively entered the ranks of male-dominated unions. In 1866, the National Labor Union pledged its support of women workers; the Knights of Labor opened its membership to women and blacks in-1869 and established a Women's Department in 1886 to combat "the abuses to which [women 'are] subjected by unscrupulous employers." Women workers struggled alongside male union members for the rights of all workers throughout periods of extreme antagonism toward unions in the early part of this century.

In 1903, blue-collar and middle class women united to form the National Women's Trade Union League. This organization played an important role during the 1909 "Uprising of 20,000" immigrant seamstresses in New York City, with 75 of its members forming the "mink brigade" which picketed in support of the Ladies Waist Makers Union against the Triangle' Shirtwaist Company. In 1905, some of the most colorful figures in the labor movement, including "Mother" Mary Harris Jones, one-eyed Bill Haywood, and Elizabeth Gurley Flynn, joined together to establish the Industrial Workers of the World (IWW). The IWW, also known as the Wobblies, was an organization embracing all workers. It often took controversial stands such as endorsing birth control and espousing pacifism.

Diana Kilmury, 1948-

Diana Kilmury, the first woman construction driver in British Columbia, Canada, joined the Teamsters at the age of 26. Kilmury soon became active in the union as a steward at job sites and a member of several committees. Committed to reform of the Teamsters; Kilmury joined Teamsters for a Democratic Union, and later became a member of its International Steering Committee and co-chair of TDU. She earned a reputation as a strong leader in Local 213, the largest local in Canada. In 1981, Local 213 elected Kilmury *as a* delegate to the Convention of the International Brotherhood of Teamsters, where she proposed the creation of an Ethical Practices Committee to eliminate corruption in the union. Kilmury was booed during her presentation, but ten years, later the union adopted her idea. In 1986, she was elected convention delegate again and also elected to the Executive Board of her local. In 1991, as part of a reformist slate, she was elected Vice President of the International Brotherhood of Teamsters, the first woman ever to serve on 1BT's General Executive Board. Kilmury intends to use her position of power to focus on issues of concern to women, such as child care, pay equity, and sexual harassment.

The stock market crash on October 29, 1929 dealt a serious blow to the American worker, and by 1932, one-third of the American work force was unemployed. But the labor movement also made important gains during this period. President Hoover signed the Norris-La Guardia Act in 1932, guaranteeing full freedom of association and self-organization for workers. President Franklin D. Roosevelt affirmed the workers' right to organize and bargain collectively through the National Labor Relations Act, passed in 1935, and appointed Frances Perkins, the first female cabinet officer, as his Secretary of Labor. First Lady Eleanor Roosevelt was also deeply concerned with labor, and was an active member of the Women's Trade Union League.

Women entered the work force in large numbers during World War ll, and continued to make gains outside of the home during peace time. The Equal Pay Act of 1963, the first statutory prohibition of sex discrimination, was followed by the Civil Rights Act of 1964, which established the Equal Employment Opportunity Commission. By 1968, women made up 37% of the work force, and had begun to make strides in new occupations. Although they had long been active as organizers in the United Mine Workers of America, women entered mines for the first time as union members in 1973. A national organization of women coal miners created in 1977, the Coal Employment Project, was instrumental in advocating for the Family and Medical Leave Act, passed in 1993.

The civil rights struggle provided a training ground for many women labor leaders. In 1969, Mary Moultrie led a successful union representation campaign of black female hospital workers in Charleston, South Carolina. Women leaders also effectively organized groups thought to be beyond the reach of workers' organizations. Dolores Huerta, a mother of ten, organized migrant workers in 1964, and was elected vice president of the United Farm Workers in 1973.

Women trade unionists have continued to establish new organizations. In 1971, the Union Women's Affiance to Gain Equality (Union W.A.G.E.) was founded, and was followed in 1974 by the Coalition of Labor Union Women (CLUW). CLUW, with 70 local chapters around the country, promotes affirmative action and women's participation in unions, lobbies for legislation on women's issues and publishes a newsletter for union women. As more women continue to enter the work force, increasingly in traditionally male fields, they carry on the strong tradition of women's involvement with unions. For example, in 1991 Diana Kilmury, a construction truck driver, was elected as the first female vice-president of the Teamsters union.

Mary Moultrie, 1943-

Mary Moultrie, the Charleston, South Carolina rand and file leader for Local 1199 B (the Drug and Hospital Employees Union), led a major strike of 500 predominantly African-American women hospital workers against Charleston's two public hospitals. When the hospitals, backed by the state, refused to negotiate, the strikers called in the Southern Christian Leadership Conference.

The strike was unique in that it represented the first times that labor unions and the civil rights movement united on an issue. As Coretta Scott King describes, it was a strike for both union and human rights. As a result of Mary Moultrie's efforts, the strikers won the right to return to their jobs and to union representation for grievances, and received improved wages and working conditions. Mary Moultrie was the first African-American woman to address a national convention of the AFL-CIO.

Once considered “unorganizable," women workers were perceived as not being committed to long-term employment, inexperienced in the ways of unions, and incapable of working in blue-collar jobs. But studies show that women are more likely to vote for and join a union in their workplace than men. Women have a greater demand for union services and job protection due to issues of child and elder care, discrimination, harassment and family responsibilities.

According to a report by the International Labor Organization, unions won 69% of elections in which women were a majority of the bargaining unit and only 33% of the elections in which women were less than a majority. (Susan C. Eaton, International Labor Organization, Women Workers, Unions and Industrial Sectors in North America (1992).) Today, with unions facing increased resistance from employers, economic pressures and capital flight, reduced organizing efforts, and fewer union resources, unions cannot afford to close the door on women's unrealized contributions to the labor movement.

WORKING IN THE TRADES

CHAPTER 1: Getting Into a Union

To get work in the skilled trades — whether as a carpenter, sheet metal worker or electrician — you need to be trained. In most trades, the most common way to get training is through a union-run apprenticeship program. Becoming an apprentice is not the only way to get skills you need, nor is it necessarily the easiest. Alternate routes include government sponsored training programs and non-union, on-the-job experience. But apprenticeship is virtually the only way for women to get into a union and work union jobs.

As an apprentice, you will learn your trade on the job and through classes, which are usually held al night or on weekends and teach you about 'the technical and theoretical aspects of your trade. Most apprenticeship programs last 3 to 5 years. If you successfully complete the course, you will become a "journeylevel" craftsperson, or "journeyman," as most union contracts call it. This means that you are certified by the union to be a fully skilled worker in your trade, and that you are a full-fledged member of the union, with ail the rights and responsibilities that go along with it.

Choosing a Trade

You may not know what trade to choose unless you have friends or relatives in a trade or have some related experience. If there is a tradeswomen's organization in your area (see Appendix, Resources), it can provide helpful information, such as which trades do the most hiring in your area, what it is like to work in various trades, the qualifications for each trade and which trades are most open about hiring women.

As you identify a few trades that you might be interested in, ask more detailed questions. Does the job involve heavy lifting or climbing heights? Is the work outdoors? Is the work seasonal? Does it require a high level of technical aptitude? You should also ask about training for that trade. What are the necessary qualifications? How long is the apprenticeship? What tools and study supplies will you need? Are classes held during the day or night? You should also find out if the apprenticeship program is registered with the federal government or a federally approved state agency.

Registered programs must meet minimum standards, including the following:

(1) The starting age not less than 16;
(2) Full and fair opportunity to apply;
(3) Selection on qualifications alone;
(4) A schedule of work processes for on the job training and experience;
(5) Organized instruction designed to give knowledge in technical subjects related to the trade (a minimum of 144 hours per year);
(6) An increasing schedule of wages;
(7) Proper supervision of on-the-job training with adequate training facilities;
(8) Periodic evaluation of progress in job performance and related instruction;
(9) Proper records maintenance;
(10) Employee-employer cooperation;
(11) Recognition for successful completions;
(12) Nondiscrimination in all phases.

Once you have more information, you can think about the type of work you would like. Be honest with yourself about whether you like to work as part of a team, whether you want to do physically strenuous work, and what types of tasks you would enjoy doing. You are most likely to stick with a trade if you find one that matches your personal needs and preferences. (See Appendix, List of Trades and Unions.)

The Challenges of the Process

Getting into an apprenticeship program will require preparation and determination. Due to the high interest in many apprenticeship programs, there can be heavy competition to get accepted. Women entering traditionally male programs face additional challenges. They may face resistance from their family members or from men running the programs who disapprove of women doing "men's work."

Women who are considering working in the trades need to understand that women comprise only about 2% of all unionized construction workers. As in any other field of employment, interactions with co-workers are an important element in determining whether the job is enjoyable. While some tradesmen are resistant to working alongside women, others are potential allies and supporters. Women who succeed In the trades have learned to keep an open mind and to be tolerant of different opinions. A hostile and defensive attitude will generate a similar response. Even men who were initially resentful of the presence of women on their job sites can learn to accept workers as equals regardless of gender.

A certain amount of "hazing" occurs with all new construction workers, both male and female, and the atmosphere is not as refined as an office setting. A sense of humor, a layer of thick skin, and a confident attitude can usually prevent petty annoyances from growing into serious problems. As women demonstrate their commitment to learning the trade, most men will assist in training and some may even become good friends. If treatment by co-workers goes ' beyond good-natured joking to harassment that interferes with your job performance or hazing that is excessive, you should consult with members of tradeswomen groups about how to respond (See Appendix, Resources). Some problems can be addressed informally but others may require legal action (See Chapter 6).

Learning how to deal with an all male workforce can be stressful and sometimes frightening — especially when it is our first experience. Can you remember when you were the new kid in school or on the block? What about your first day in a new job? Those feelings will exist along with an added dimension — they're all men and you are usually the only woman.

Responses to challenges that will come up at work vary. One women teased about her weight by being "mooned" at by a male co-worker brought a cow bell and hung it around his neck while the other workers laughed. When given wrong directions on an important delivery assignment one woman brought a map for the misleading co-worker and proceeded to show him the error of his ways while offering her assistance in the future. You will need to develop your own strategies and tactics for similar situations. Evaluate for yourself how familiar you will get with you co-workers. Sometimes when you make your personal life an open book you may regret it later. However, avoid isolation. Whenever possible, include yourself in work- related situations, breaks and lunchtime. This does not mean you should compromise yourself; when a co-worker over steps his bounds, let him know it. Decide what your boundaries are.

Requirements

The requirements for each trade will be different, but generally fall within four categories: age, education, aptitude and physical condition.

Age: The minimum age allowed by law for apprenticeship programs is 16, but most programs set the minimum age at 18. Some programs have maximum age limits, but these may not be legal under federal and state age discrimination laws.

Education: Most programs require all applicants to have a high school diploma or an equivalency certificate. Some programs also require a certain level of skill in math and other technical fields.

Aptitude: Some programs require applicants to take an aptitude test that rates them in areas such as reading, math and mechanical ability, Tests that are not related to the skills required for the job may be illegal under civil rights laws.

Physical condition: Most programs require a physical exam to prove that you are in good health. Some trades have specific physical requirements, such as being able to lift a certain weight. However, strength, endurance or size requirements that are not job-related violate anti-discrimination laws.

Physical Conditioning

Trades work often means vigorous, heavy, and repetitive physical work throughout the eight hour day. Success for women in this type, work is greatly enhanced by being in good physical condition. If you are seeking employment or are already employed in a nontraditional setting you will do yourself a great favor by developing a program of weight training, general exercise, and stretching. This type of program will strengthen your muscles, build your physical endurance, and keep your muscles and ligaments flexible. The goal of this program is to be in good physical condition so you are able to comfortably perform your work and prevent injuries.

Getting Help

Don't be discouraged if you don't meet all he requirements for the apprenticeship program in which you're interested. Some tradeswomen organizations (See Appendix, Resources) and other community-based and educational organizations offer help to women interested in the trades. They can provide information about various trades, job counseling and instruction to help applicants meet the entry requirements. Classes cover subjects such as math and physics and offer advice for taking aptitude tests and preparing for interviews. Classes that are targeted to women also help prepare women for working in a predominantly male environment

How and When to Apply

You can obtain information about when and how to apply for apprenticeship programs from organizations that offer pre-apprenticeship classes, local tradeswomen organizations, the Federal Office of Apprenticeship and Training (See Appendix, Resources) or your state apprenticeship council. Some apprenticeship programs only take in new applicants once or twice a year. Because construction work is seasonal, some construction trade apprenticeship programs recruit only in the warmer months.

Interviewing

The final step before being accepted into an apprenticeship program is an interview. Usually a few people will conduct the interview. Questions will cover topics such as your qualifications and your interest in the trade. Women might face questions about whether they know the work is hard, whether they are willing to work in dirty conditions and why they want to work in a male-dominated field. Don't let yourself get upset by any questions or comments in the interview. Interviewers evaluate not only your qualifications, but also your commitment to the work and your personality.

After the interview, the committee or administrators who run the program give you a numerical rating based on your qualifications and the interview. Your rating determines your place on the waiting list for openings in the program. The amount of time you spend on the waiting list can run from months to years, depending on the number of openings in the program and your place on the list.

Registered apprenticeship programs are required to keep records of interviews, including a summary of the factors considered by the interviewers. If you are rejected on the basis of the interview you are entitled to a written statement, including the reasons for the rejection and the available appeal rights.

Apprenticeship Agreement

When you are accepted in an apprenticeship program you will enter into an "indenture" or apprenticeship agreement that will be signed by you and the sponsor of the program. The agreement defines the terms of your apprenticeship. Agreements for registered programs must contain:

(1) the date of birth of the apprentice;
(2) the name and address of the program sponsor and agency with which the program is registered;
(3) the trade in which the apprentice will be trained;
(4) the beginning date and length of the apprenticeship;
(5) the number of hours the apprentice will work and the number of hours the apprentice will spend in related classes;

(6) the trade skills the apprentice will learn and the approximate time to be spent on each;
(7) a schedule of wages, increasing over the course of the apprenticeship;
(8) the length of the probationary period during which the apprentice or the sponsor may cancel the agreement;
(9) a statement that after the probationary period the agreement can be canceled by the apprentice, or be canceled by the sponsor for good cause, with notice to the apprentice, an opportunity for the apprentice to correct the problem, and final written notice to the apprentice and the agency;
(10) a reference to the standards of the program;
(11) a statement of equal opportunity; and
(12) the name and address of the party, if any, that will receive and resolve complaints.

Apprenticeship

Your rights and responsibilities as an apprentice are set forth in your apprenticeship agreement and your union's constitution and bylaws. See Chapter 3 for information on how to get a copy of the union constitution or by-laws. As an apprentice in a union-run or joint labor management apprenticeship program, you usually have to submit an application and initiation fee and wail for approval from a union body before becoming a union member. The procedure and time limits should be spelled out in the constitution or by-laws. To avoid any problems, you should follow up to make sure that your application is processed and that you are officially accepted as a union member in the time stated in the union constitution.

As a union member, you will be required to pay union dues. The dues for apprentices are usually less than the amount paid by journeypersons. It is very important that you pay dues on time each month, even if you have not been given work or are off the job due to injury. Failure to do so could lead to expulsion from the union and apprenticeship program. (See Chapter 3, Financial Obligations.)

During your apprenticeship some of your rights are the same as those of journeypersons. For example, you have the same right to union representation if you have problems on the job and the same right to due process before being disciplined or expelled by the union. The union can, however, limit some of your rights during your apprenticeship, including the right to nominate candidates, vote in elections, attend membership meetings, participate in discussions or vote during meetings.

Your rights on the job and in your union are governed by two federal laws. First, the National Labor Relations Act (NLRA) gives most workers in private industry the right to join unions and engage in union activity, and requires employers to negotiate contracts with certified union representatives. It also requires unions to fairly represent all employees covered by the union contract. It is enforced by the National Labor Relations Board (NLRB), which has regional offices throughout the country.

Second, your internal union rights are protected by the Labor-Management Reporting and Disclosure Act (LMRDA), also known as the Landrum-Griffin Act. It establishes a "Bill of Rights" for union members which guarantees your right to free speech, fair elections and equal treatment within your union. Some provisions of the LMRDA are enforced by the U.S. Department of Labor (DOL), while others can only be enforced by private lawsuits.

CHAPTER 2: FINDING A JOB

In the construction industry, searching for a job is known in some areas as "shaping." There are two main places to shape: the union hiring hall and the job site. Unless your union prohibits finding your own job, there is nothing wrong with doing both, and improving your chance of getting a job.

Union Hiring Halls

Most construction unions refer trained workers to jobs, either through a hiring hall or another job referral system. In general, a hiring hall works like this: applicants who are looking for work are placed on an out-of-work list based on factors such as experience in the trade, time out of work, seniority, or place of residence. Contractors who are hiring then notify the hall, which refers workers to those jobs based on their position on the out-of-work list. In some unions a dispatcher handles all referrals while in others the business agents or delegates may make referrals.

There are many different hiring hall arrangements: some are run exclusively by the union, while others are operated by a joint labor-management committee (similar to many apprenticeship programs). Under some agreements, contractors are required to hire exclusively through the hiring hall, while in others they can hire "off the street."

Hiring halls operate in different ways. Some require daily "shaping" (physically appearing at the hall when available for work); some allow workers to make their availability known by phone; and some require workers to appear at the hall and sign an "out-of-work" list from which referrals are made. The best time to go to the hall is early in the morning when daily assignments are made. If you are not required to be at the hall daily, it's a good idea to stop in or call on a regular basis to find out if referrals have been made and where you stand on the list. If you suspect you are being discriminated against in the phone referral system, you may want to send a confirming letter recording the date you called, the type of work you are requesting, and your qualifications. You might also want to have an answering machine on your phone or a beeper to be sure you get any calls from your dispatcher.

Use of union hiring halls is not restricted to members of the union which runs the hall; it is a violation of the NLRA for the union to refuse to register or refer nonmembers. It is also illegal for an employer to require that a worker already be a member of the union in order to be hired.

However, unions may require that you have a minimum level of training or experience in order to use the hall. They may also charge nonmembers a fee for use of the hall, commonly known as "permit" fees or "Dobie dues." Unions can legally refuse to make referrals to those who haven't paid the fees in full. And it is legal, and indeed quite common, for the union and employer to negotiate a "union security clause" which requires a worker to join the union within seven days of starting work on a unionized job.

A union is free to determine the criteria it will use to prioritize out of work applicants, so long as the factors are fair, objective, and related to legitimate employer concerns. The union is permitted to rank applicants based on how much training or experience they have in the trade; how long they have worked for a particular employer; where they live (that is, whether they are local or from outside the union's jurisdiction); whether they are certified or have a license; and their "good conduct" on past jobs. Whatever criteria it uses, the union should be able to tell you quickly and easily where you stand on the list.

To illustrate, a union might establish four applicant groups: 1) local residents with five years of experience in the trade; 2) nonresidents with five years of experience; 3) all other joumeypersons; and 4) apprentices and all other non-journey level workers. The union will first refer all applicants in Group 1 in chronological order based on date of registration, then will move on to each other list in order. In certain cases, referrals may be made outside of the established priorities. For example, the hall may refer workers who are requested by name by an employer, or the union's choice for steward at a job site, ahead of other workers on the list.

Dress and Personal Needs

The way you dress and take care of your personal needs on a job site will have a significant impact on how comfortable you will be during your work day. Wear loose fitting, comfortable, heavy duty jeans, overalls, coveralls, or work pants. Keep an extra set of clothing in your car for unexpected falls or spills. Cotton socks and underwear are best for comfort and health. In cold weather, use lightweight insulated layers that can be removed if you warm up. In hot weather, cotton, loose fitting clothing will be most

comfortable. Keep in mind that your only bathroom may be a portable John: clothes should be easy to remove. Properly fitting gloves, boots, and rain gear are essential.

Two mail order catalogs with work clothes for women can be ordered from:

Workable for Women	Womanswork
Oak Valley	PO Box 2547
Clinton, PA 15026-0214	Kennebunkport, ME 01016

Your jobsite may not be near a restaurant or. even a convenience store so you will usually need to bring food and something to drink with you. A small cooler will keep your lunch cool and fresh and can be used to carry other necessary items:

- a wet wash cloth wrapped in plastic for washing up before eating;
- a small first aid kit with band-aids, insect repellant and sun block;
- sunglasses or safety glasses, and solution and a carrying case if you wear contacts;
- a sanitary pad or tampon;
- keys should be left in .your lunch box or attached to your clothes.

Job Sites

In some trades, workers are hired for the day or longer "off the street" at job sites. You can find job sites by asking the union or other workers for information about job openings, or in large cities you can keep your eyes open for construction projects which are beginning. Since some employers are more open-minded than others, ask women in the trade or a local woman's trade group about which contractors are most likely to hire women and where those contractors are working. Government-funded projects, such as roads or government office buildings, are a good bet because federal regulations (and some state regulations) require a certain percentage of women workers on such projects.

Go to a job site prepared for work; wear work clothes and boots, bring your tools and lunch. Go to the job early. Normal starting time is often 7 a.m., so you should get to the job site by 6:30 a.m. It's also a good idea to have a business card, or even a slip of paper with your name, trade and phone number to leave behind for future consideration. Bring a notebook and pen to record any information you get or notes you want to make.

Your first obstacle will be locating the person who does the hiring for your trade. Construction jobs are supervised by a general contractor who coordinates the overall project. Different subcontractors (also called "subs") are hired by the general contractor to perform specific parts of the job which are usually divided by the trades (carpenters, plumbers, electricians, etc.). If you are looking for work as an electrician, for example, you need to talk to the superintendent or foreman for the electrical subcontractor. Before you go to the job site, you should be familiar with the names of the main subcontractors in your trade. Usually, each subcontractor will have a trailer which serves as an office for the superintendent or foreman. On a small job, there may be only one trailer for the general contractor which is used by all the subs.

When you find the right person, announce that you are looking for work in your trade and briefly describe your qualifications or experience. "I'm looking for work as a carpenter apprentice. I completed the women's pre-apprentice training program and I have been accepted in the Local 123 apprentice program." Be friendly and confident, acting as though you belong on the job. Express your eagerness to work and answer any questions about your ability or willingness to perform any assigned tasks. if the foreman tells you there is no work available, you should ask if the situation will change in the future or if he knows of other projects where they may be hiring. Leave your name and phone number and ask that he call you if work becomes available.

Keep visiting job sites for about two hours after the starting time; employers may need replacements for absent workers. Keep a record of the job sites you visited, whom you spoke to, and the response given.

Include the names of any workers, stewards and employer representatives you spoke to; you can use their names when you approach another contractor to show your familiarity with the industry. Don't be afraid to return to a job site after being turned down — persistence pays.

CHAPTER 3: UNION MEMBERSHIP

Getting Key Documents

Your rights and responsibilities as a worker and union member are determined by your union contract, constitution and by-laws, and by federal and state law.

Employer Contracts

The most important document in your working life is your union contract, also called a collective bargaining agreement. The contract determines your wages, benefits and working conditions, establishes job classifications and work rules, grievance and complaint procedures, and sets forth your rights and responsibilities with respect to your employer. Your, union should give you a copy of the collective bargaining agreement when you first come on the job, and after each new contract is negotiated. If not, you can request a copy of any contract related to your work from your local union recording secretary (or equivalent officer), who, under federal law, is required to give it to you. In addition, your union is required to keep copies of the contract in the main union office and to make those copies available for inspection by the membership.

Union Constitutions & By-Laws

Your rights within your union are determined by your union's constitution and by-laws. Every union is required by federal law to adopt a constitution and by-laws. These documents establish the basic structure of your union, the power of officers, terms of office, election procedures, and procedures for challenging improper conduct of union officers or members. If you did not receive these documents when you joined the union, you should be able to obtain copies of these documents from your union upon request. Copies of unions' constitution and by-laws must be filed with the U.S. Department of Labor (DOL) and may be obtained at regional offices of the DOL.

Financial Obligations

As a union member you must pay union dues, as well as any initiation fees and assessments. Most construction unions require payment of a substantial initiation fee, at least part of which must be paid when you submit your application for admission. In addition, member must pay monthly dues and sometimes a work tax (which is calculated using hours worked, in order to put the greatest financial burden on those who actually have work). The dues amount and method of payment should be set forth in your by-laws. The amount will vary depending on whether you are an apprentice or joumeyperson.

Usually the work taxes, and sometimes the monthly dues, are deducted directly from your paycheck. Often, you have to pay your dues every month at the union hall even if the work tax was deducted from your paycheck. It is your responsibility to remember to make payments, and to make them on time. In most cases, you are required to keep paying dues even if you are not working, whether you were laid off, are between jobs, or on disability. If you have any questions, be sure to contact your union office and consult your by-laws. Many unions allow members to request a withdrawal card which permits suspension of dues payments if you know that you will not be working for an extended period of time.

There may be severe consequences for your failure to pay dues on time. You can be legally expelled from the union and fired from your job with a union contractor. The union is not obligated to give you notice of delinquency or an opportunity to pay amounts due before terminating you. As long as the union notified you at the outset of your obligation to pay dues, you will have no defense. You do not have the right to a hearing before being expelled for nonpayment of dues. You might not even be notified by the union at

the time you are expelled. If you discover that you have been dropped, there are steps you can take to get back into the union. Some unions have special you should contact your business agent or union provisions for reinstatement. If not, treasurer and request to be reinstated; you should be prepared to pay the full amount owed at that time. You may be rewired to appeal to your union's Executive Board. Under federal law, dues cannot be increased without the approval of a majority of the general membership in a secret ballot vote. In some instances an international union has the right to determine local dues amounts, in which case sues, may be increased by vote of the delegate's of the International Convention.

Benefits

Most construction unions operate benefit funds that provide workers with pension, medial, vacation, annuity and other benefits. Entitlement to these benefits is based not on membership in the union but on the number of hours worked, with a minimum required each year to qualify for benefits. The collective bargaining agreement requires employers to contribute a specified amount to each fund for each hour worked. In some unions, workers receive stamps from the employer showing the number of hours worked; those stamps must then be submitted to the benefit fund which collects the contributions from the employers. In other anions, the employer makes the contributions directly to the funds. If you suspect an employer has not made proper contributions for your benefits, you should notify the union.

Private benefit funds are regulated by the Employee Retirement Income Security Act (ERISA) which gives workers rights to information and protection from improper actions by hose responsible for managing the funds. The union and each fund is a separate legal entity and assets cannot be intermingled. Fund decisions are made by the board of trustees which; composed of an equal number of union and management representatives. If you think you have been improperly denied benefits, you can appeal to the board of trustees. For more information about pensions, contact the Pension Rights Center or the American Association of Retired Persons (See Appendix, Resources).

Problems on the Job

Labor laws make the union the "exclusive bargaining agent" for its members. This means the union is the only representative when dealing with the boss, for not only its members, but for all employees in the bargaining unit. It is the union's job to negotiate and enforce your contract with the employer, and to protect your rights on the job. Because individual workers are prohibited from negotiating with the employer on their own over wages, working conditions, or discipline, the law requires the union to represent all workers in a fair and non-discriminatory manner. This is called the union's "duty of fair representation."

Grievances

Conflicts with employers, particularly in the building trades, are a common occurrence. Your supervisor may order you to lift an excessive amount of weight or carry out a task which is clearly unsafe. You may be improperly denied overtime or not be properly credited for seniority. You may be sexually harassed or unjustly terminated from your job. The method established by the contract for resolving such disputes with the boss is the grievance and arbitration procedure. Through this procedure, the union should represent you in your dispute with management (See Chapter 5 for the procedure for filing a grievance through your union).

Union Representation

The union's "duty of fair representation" is not written in any law, but is a concept developed by judges to protect workers from the union abusing its status as the only recognized representative of the workers. The union must make decisions in the best interests of the workers individually and as a whole. Therefore, it is not obligated to grieve every complaint or to pursue every grievance to arbitration. To fulfill its duty, it must not act "arbitrarily, discriminatorily, capriciously, perfunctorily, or with bad faith, hostility, or dishonesty." If the union violates these standards, then it "breaches" the duty of fair representation and the member can file a charge with the NLRB or sue the union in court. The time limit for filing an NLRB charge or a lawsuit is 6 months. However, the level of proof needed to win a duty of fair representation case is very high. If the union

can show that its decision to drop a grievance was based on the merits, the union will win the case (See Chapter 5, Enforcing Your Rights).

Safety and Health Issues

Working in the trades can involve dangerous activities: lifting heavy objects; working outdoors in poor weather conditions; digging trenches and tunnels; climbing heights; operating powerful equipment; handling hazardous materials. Some employers and unions are conscientious about protecting worker safety, but others are more concerned with saving money then saving lives. You need to evaluate your own situation and decide whether reporting unsafe conditions will be welcomed or discouraged.

The Occupational Safety and Health Administration (OSHA) of the U.S. Department of Labor (see Resources) is responsible for enforcing federal safety and health standards. You can make an anonymous complaint to OSHA and representatives will then be sent to inspect the worksite. OSHA can order correction of unsafe conditions and can impose fines for noncompliance.

Under both the Occupational Safety and Health Act (also known as OSHA) and the NLRA, you have the right to refuse to perform work which presents an immediate and serious danger to your safety. You may also have protections in your contract. If you are ordered to perform dangerous work, you should inform your supervisor of the specific hazard and assert that you are willing to continue working if the problem is corrected. If you are disciplined for refusing to perform dangerous work, you should contact the union and can also file a complaint with OSHA and with the NLRB.

If you are injured on the job, you should report it to your supervisor. Every state has a workers' compensation law which pays both medical costs and a portion of your wages for time lost due to work-related injury. Benefits may also be available for recurring injuries, for aggravation of a previous injury, for job-related stress conditions, and for rehabilitation. You should talk to a workers' compensation attorney in your state to take advantage of all the benefits available to you.

Contract Negotiations

One of the most important activities of the union is to negotiate a contract with the employer. In construction, contracts are seldom negotiated on a job-by-job basis. Instead, a contract is negotiated with a particular contractor or association of contractors, and the terms and conditions apply to all jobs maintained by that contractor or association for the life of the contract (usually 3 years). Contracts are usually negotiated by your local's officers or a special bargaining committee, generally appointed by the officers.

The union must represent all members of the bargaining unit fairly during contract negotiations. While trade-offs can be made, the interests of one group of workers cannot be favored over another group arbitrarily or discriminatorily. Beyond that, the extent to which members are informed about or involved in contract negotiations depends on the individual union.

In addition, the law does not require that members be given the right to vote on the final contract before it is adopted; whether you have the right to ratify is determined exclusively by your union constitution or by-laws. The voting method (usually secret ballot vote at membership meeting or by mail) and the percentage of votes required to reject a contract are specified in the union constitution or by-laws and must be strictly followed.

HOW YOUR UNION WORKS

Structure

The structure of your union should be set forth in your constitution and by-laws. You will belong to a local chapter of your union Which is usually organized geographically or by trade. Most locals are affiliated with a national or international union, which in turn is affiliated with the AFL-CIO. Many unions

have a middle level called a district council, which is a group of locals in a geographic area. Your dues money goes to support all levels of the organization. Your local is governed by the constitution and by-laws of the parent organization, which often set forth rules governing election procedures and internal union discipline. The international may have the right to put your local into trusteeship if officers have been guilty of misconduct or if the local is financially unstable. Trusteeship may not be imposed to punish locals for political reasons.

Union officers usually consist of a President, Vice President, Secretary, Treasurer, and have the duties, responsibilities and powers contained in the international or local constitution. Federal law (LMRDA) requires that local union officers be elected by the membership (by secret ballot vote) at least every three years. The Executive Board (consisting of the officers and perhaps others) is generally the local's policy-making body; it authorizes or approves expenditures, sets the bargaining agenda, and so on. Special committees may be set up to address particular issues such as by-laws or health and safety.

The day to day work of the union is carried out by the officers and staff (referred to as business agents or delegates). Stewards, who may be appointed or elected, represent workers on the job site, and are responsible for processing grievances (See Chapter 4, Becoming a Steward). Many unions provide that the membership is the highest governing body in the union and may overturn a decision by the officers. Some specific powers that remain with the membership often include ratification of dues increases and contracts (if allowed), election of union officers (as mandated by federal law), and amendments to the constitution and by-laws.

Meetings

The union has the right to determine whether and, if to hold meetings of the membership. However, the constitution and by-laws usually make some provision for meetings, and the union must abide by its own rules. Federal law (LMRDA, Title I) guarantees all members the right "to attend membership meetings and to participate in the deliberations and voting upon the business of such meeting" and to "express my views, arguments, or opinions" at membership meetings, subject to reasonable rules in the union's constitution and by-laws. Meetings of the Executive Board are generally held more frequently than general membership meetings and the Board makes recommendations to the membership. Members may have the right to attend such meetings, especially if action on a grievance or appeal is being taken.

Elections

The LMRDA requires the election of local union officers at least every three years by secret ballot vote of the members in good standing, which may be done in person or by mail ballot. Every member in good standing (paid in dues) has the right to nominate candidates and vote in general elections. You must be notified of the election by a mailing to your last flown home address at least 15 days before le election will be held. The Secretary of the Department of Labor has enforcement responsibility for election procedures (See Chapters and 5).

Rights to Participate and Dissent

You have the right to engage in free speech activities and to meet freely with other union members without being punished by union officials. That means you have the right to criticize union officials, express your views at meetings, distribute literature outside the union hall or inside if members cannot reasonably be reached from the outside, and hold caucus meetings without the interference of union officials.

Internal Union Discipline

Because unions are private membership associations, they have the right to discipline or expel their members according to rules spelled out in their constitutions or by-laws. Members and officials can bring charges against each other for various offenses.

Federal law limits why and how unions can discipline members. A union can legally discipline members for nonpayment of dues, crossing the picket line during a strike, participating in a wildcat strike (a strike not called by the union leadership), assaulting another member, or calling for decertification of the union. Members may NOT be disciplined in retaliation for political activity such as criticizing the leadership, organizing a caucus, or for the exercise of any other right protected by the law.

Except for nonpayment of dues, the union cannot discipline a member without giving her a fair hearing. Specifically, LMRDA, Title I, says that she MUST be 1) served with written charges that clearly tell her what she is accused of; 2) given reasonable time to prepare a defense; and 3) given a full and fair hearing, including the right to present evidence and cross-examine witnesses. The charges are heard by a trial board, which may be elected or appointed. If she is found guilty, she may be fined, disqualified from participating in union affairs, suspended, or expelled. Penalties that affect her job or references are absolutely not permitted unless she is disciplined for nonpayment of dues.

WORKING FOR CHANGE

CHAPTER 4: GETTING ACTIVE IN YOUR UNION

Why Should You Get Involved in Your Union?

The union is your voice in the workplace. The union can be instrumental in protecting your rights as a woman and a worker, but the only way to ensure that your leaders will represent you is by participating in the life of your union, speaking out and organizing with other members. It is by joining together and acting collectively that workers become empowered and can challenge unfair or discriminatory work practices.

It is no secret that some building trade unions have a long history of disregarding women members and operating in a generally undemocratic fashion. But unions are political organizations and union leaders respond to political pressure. By getting together with other women arid men who share your workplace goals, you can influence your union. You must make it your business to change your union so that all members will be treated fairly; you cannot expect this to happen by itself.

Since women are still a minority in any construction union, it is necessary to develop allies among the men in order to advance women's issues in the union. Just as women fight the stereotypes applied to us, we should be aware that not all of our co-workers will fit the stereotype of the sexist male construction worker. Men who express hostility to women workers should be confronted, but others who are willing to support fair treatment of all workers should be encouraged.

There are many ways to be an active member of your union. To begin, you can exercise your rights to vote in officer elections, contract ratifications, and referenda; to attend meetings; and to enforce the contract through the grievance procedure. You may seek appointment to certain committees, such as negotiation or legislation, or you might want to join or form a women's committee or caucus. Eventually, you might even become a steward or run for union office, a difficult but not impossible undertaking. No matter what you do to become involved, your participation will help to make the union stronger and more responsive to the needs of women members.

ABC'S OF UNION PARTICIPATION

Getting To Know Your Union

To be an effective union activist, you must be educated. If you haven't already, get a copy of your union constitution and by-laws and study them. Knowing how your union should operate and what your rights are as a member could make all the difference when you encounter a problem. Along with learning the written rules, get to know how your union actually operates.

- Who holds the power in your local?
- How and by whom are decisions made?
- Are there particular committees or individuals, such as the business manager or hiring hall dispatcher, who are most influential?
- Who represents the union on the job site?
- Is there a steward?
- Whom do you have access to if you have a question about union business?
- Whom do you deal with when you go to the union office?
- Whom can you trust?
- Are there any caucuses or other union member groups?
- What is your union's history?

- When did they start admitting women?
- How many women are there in the union?

How can you get that information? Talk to the other women in your union or in your local tradeswomen's support group. Ask questions of co-workers who are active or knowledgeable about union activities. Get to know your steward and business agent. Keep your eyes and ears open in your union and on the job. Start picking up names of union members and officials; keep track of what they do, what they speak up about, and who might be open to issues that are important to you. Find out how on-the-job problems have been resolved in the past and which union representatives have been the most helpful.

Another source of information about your union is the annual financial report, called an LM-2 report, which is filed with the DOL and made available to the public for the cost of copying. The report lists union income and expenses, including the amount of money paid to each union officer and employee. It also lists the date of the next scheduled election of officers, the amount of dues and initiation fees, and whether the constitution or by-laws have been changed in the past year.

Attending Union Meetings

You should try your best to attend union membership meetings. In a democratic union, meetings are where the business of the union is conducted. The membership meeting is usually the highest decision-making body and can overrule the Executive Board. Changes in by-laws, grievances, finances, appointments to unelected positions or committees and many other matters may be discussed. Even in less democratic unions, attendance at meetings may be valuable. You can learn who really holds the power in your union. You might pick up valuable information about your industry, such as what new jobs are starting. You will become known to union leaders and fellow members. It will put you in the best position to ask or insist that the union represent or defend you in a job dispute. It will also be to your advantage if you ever want to become a steward, to win support for a women's committee, or even to run for union office.

If you feel nervous about going to a union meeting, find someone to go with – a co-worker from your job site, or another woman in your union. Don't be put off if you feel like an outsider at first. If you stick with it and let them know that you are there to stay, you will be accepted in time by many union members.

Organizing for Women’s Issues

It is not easy to be one of a few women doing work that has traditionally been reserved for men. You may experience isolation and hostility, not just on the job, but even from some of the men within your union who should be a source of support. The old boys network may be very much alive in your union. Women of color and lesbians may experience added discrimination and harassment. By getting together with other women in the union, you can gain the support you need to survive the stresses of life on the job. As part of a women's committee or caucus, you can overcome your individual powerlessness and fight effectively for equal treatment and responsive leadership in your union.

Working with Your Sister Unionists

Finding and getting to know the other women in your union who are spread out at many different job sites may not be easy, but it is well worth the effort. You will meet some women in apprenticeship classes, at union meetings, and on the job. If there is an advocacy or support group for tradeswomen in your area, you can find out about sister union members by attending their meetings. Supportive male co-workers may be able to tell you about women they have met on previous jobs. Some women have even been able to obtain information about other women from the union's office staff (who often are women). Whenever possible, be sure to take down the phone numbers and addresses of the women you meet so you will be able to contact them again.

Despite the solidarity women may feel with each other, you may have to overcome external or internal resistance to getting to know one another. If there is more than one woman on a job, men (bosses or co-workers) may try to prevent you from talking to each other by "dyke-baiting". Understandably, some of their tactics may intimidate many women, who fear becoming further alienated from the men they must

work with alone on a daily basis. It will help in your organizing to be aware of how these fears inhibit you and your union sisters, especially when you encounter women who seem reluctant or uninterested in joining with other women. Try to fight these bafflers and reach out to other women on the job. The camaraderie and support you will enjoy with other tradeswomen will help you all deal with any harassment directed at you.

Dealing With Sexual harassment

Both men and women may be confused about proper behavior among co-workers on a construction site. A degree of foul language or horseplay is common in an informal work setting and is one of the things some people like about working in such settings. However, some men may, intentionally or not, cross the line from friendly talk to sexual harassment. Unwelcome, extreme or repeated sexual conduct should be challenged when it occurs, but pick your battles. A single dirty joke is not as offensive as repeated comments about your body; referring to women as "girls" or "chicks" may not be politically correct, but it is very different from calling you "bitch" or a similar term; asking you out on a date is not a crime, but touching a sexual part of your body part is.

There may be pornographic pictures on your job site. Display of sexually explicit materials that create a hostile environment for women may constitute sexual harassment. Weigh factors such as how many pictures there are, how explicit the pictures are, if names are written on pictures or if they are left in a tradeswoman's workplace. Then decide how to respond. Male co-workers may support a campaign to rid the site of pornography because of religious or political beliefs.

Some women have addressed the problem with humor, saying, for example, "Is that your wife or your daughter?", covering the nude bodies with cut-outs of clothes, or bringing in pictures showing male nudity. A word of caution about humor. It can backfire, so make sure your tone is "joking" and that the target of your humor can "take a joke." If your audience is not laughing, they may be offended. In the same vein, if you are offended, don't laugh.

Campaigns by tradeswomen against he posting of explicit sexual material at work have included monitoring job sites and sending letters to the employer stressing liability for sexual harassment, demanding sexual harassment training for employer and union representatives, and using a media campaign to expose an employer's refusal to correct the situation.

Once you have found each other, you can try to start meeting on a regular basis. You might want to begin by getting together informally, after work or around union meetings. At first, you may just be interested in exchanging experiences, sharing your knowledge and giving each other the support you need to survive. For example, you may talk about how to deal with degrading sexist remarks or harassment, how to resist being used as a "go-fer", or being given the most difficult, dangerous jobs, or how to get the training you need.

Forming a Women's Committee or Caucus

Depending on the level of your energy, interest and commitment, you might consider organizing a more formal women's committee or caucus to undertake education and political action for women in the union. A women's committee or caucus in your union can serve the needs of women members in many ways. It can help women take the first step toward union activity by explaining how the union works and providing a supportive environment in which to get involved. This will help increase the overall participation of women in the union. It can:

- educate women members as to their legal rights on the job and as union members;
- organize to defend and support women in combating discrimination and harassment on the job and in the union;
- mobilize women to advance their concerns (such as affirmative action, pregnancy or parental leave, pay equity) in contract negotiations;
- improve representation on the job through use of the grievance machinery; and
- encourage women to become stewards or to run for office through leadership training and support.

However you proceed, discuss with the group the question of including male co-workers. You do not want to isolate yourselves and give the impression that this is an exclusive group which bars men from participating (although you may want to maintain a female majority). Form allies with male co-workers to show your caucus or committee can enhance working conditions for all workers. Point out the issues that you can work on that are "gender neutral" and solicit their encouragement and support. In any event, decisions should be made by the group, not a few individuals.

You will have to decide whether you want to become an officially recognized committee or to remain an independent caucus or pressure group. There are benefits and drawbacks to both. As an official union committee, you may receive financial and organizational support which will make it easier to reach out to and interest more women in your activities. You may be able to obtain the names and addresses of all female union members, meet in the union hall, make reports at union meetings, post announcements on union bulletin boards, and publish articles in the union newspaper. On the other hand, local officials may try to restrict or control your activities, thus limiting your effectiveness.

Alternatively, if the union refuses to recognize your committee or you simply wish to remain independent, you have the legal right (under the LMRDA) to form a caucus without the backing or support of the union. As a caucus, you will have greater freedom to set your own agenda and organize aggressively. Depending upon the membership's relationship with the union, the caucus' lack of ties to the officials may give you greater credibility with the members. However, the lack of financial and organizational support from the union could handicap your organizing efforts, making it more difficult to get the word out and build your group. It also may subject you to the open hostility of the incumbent union leadership. A women's caucus may be more viable in a union which already has existing union member or dissident groups with which you could ally yourselves.

If you wish to establish a formally recognized committee, you first need to examine your constitution and by-laws to determine the procedure. You will probably need to secure the approval of the Executive Board. To lay the groundwork, members of your group should make themselves known as good trade unionists by regularly attending union meetings and, if possible, volunteering for tasks. This will prove your seriousness and commitment to the union.

When you feel you are ready (even two or three committed activists may be enough), your group should draw up a proposal stating your reasons for forming a committee and your anticipated activities. Your arguments should stress the benefits to the leadership of granting your request. These may include satisfying their legal obligation to undertake affirmative action, or helping to strengthen the union. Then approach the President or a member, of the Executive Board to ask for their cooperation in putting your proposal on the agenda of an Executive Board meeting. You may also present such a proposal at a membership meeting. If possible, you may want to make copies of your proposal available to members of the Board ahead of time.

One of your members with speaking rights (apprentices may not have the right to speak from the floor) should prepare a brief presentation and think through questions that might be asked. If you are acting without the support of the union leadership, be sure to have as many supporters as possible present at the meeting. If the proposal is turned down, you should consult outside groups to help you appeal or apply political pressure to your union officials (see Appendix, Resources).

Maintaining Your Committee or Caucus

Once you are established, you can get down business. Announce your formation. Reach out and try to involve as many women as possible. Try to hold regular meetings at a time and place convenient for as many women as possible. If your members are in different locations or working odd hours, you could try to alternate the location and time of your meetings. Depending on your size, you will have to think about developing a leadership core or dividing up responsibilities. You should figure out what sources are available to you (who has a computer, a typewriter, etc.).

There are many different activities you can undertake, depending on your priorities and the needs of women in your union. In addition to the ongoing exchange of experiences and emotional support you will provide one another, you will almost certainly be called upon to defend women who are experiencing problems in the apprenticeship program (not getting properly trained, or threatened with termination), with the hiring hall (not being referred to jobs), or on the job (being sexually harassed). In such cases, you can submit letters of protest to the appropriate union officials; secure similar letters from, or enlist the support of, outside advocacy groups; circulate petitions; or help the member file internal charges or prepare a defense to charges filed against her.

You may develop campaigns to pressure the union to adopt a sexual harassment policy; conduct training for the members on sexual harassment; present demands for an antidiscrimination clause or parental leave provision in contract negotiations; or combat pornography. You can organize orientations for new members and apprentices and sponsor ongoing education and training workshops (with support of outside groups).

You should attend union meetings and to speak out about women's concerns in the union. At some point you may want to raise a problem, such as inadequate changing facilities for female workers. This requires careful advance planning. It's a good idea to have a specific, realistic proposal for correcting the problem; maybe you will focus on one job site and ask for one enclosed area to be set aside for women. Try to locate other members who share your concerns and would be willing to work with you to improve the situation. Meet with your supporters ahead of time and brainstorm about solutions. Write out resolutions and statements. Assign speakers to address the meeting. Rally all the support you can for your proposal ahead of time and make sure that people who support you turn up at the meeting.

Proposing a change in the by-laws to the membership requires even more careful preparation. By-laws must not be in conflict with the international constitution, and usually amendments are subject to the approval of the national or international. Some unions only allow by-law amendments to be submitted once a year. Generally, an amendment proposal must be submitted at one meeting, read at the next meeting, and then voted on at a third meeting so that members have time to consider, debate and mobilize their forces for the vote. Check the language of the proposed amendment very carefully to make sure it says exactly what you want it to say, and nothing else. Check other unions for similar provisions and see how they are written.

No matter what your issue, given your small numbers you can increase your impact by working with male allies. You undoubtedly have heard some members complain about lack of contract enforcement. If you work with male co-workers on those issues that affect all workers, such as unsafe jobs, they will be more likely to help fight for the needs of women workers.

It will take a lot of work, patience and perseverance to maintain a dynamic, effective women's committee or caucus. Some tips:

- Set up a structure and share responsibilities.
- Teach and encourage all members to become leaders so the success or survival of the group is not dependent on a few charismatic people.
- Be democratic in all your decisions.
- Try to work through differences arid deal with personality conflicts head on, so they will not become destructive.
- Don't expect results too quickly.
- Recognize and celebrate your successes.

Dealing With Issues That May Divide

Tradeswomen, like all workers, come from different walks of life. Your group will include women of different backgrounds, races, national origins, religions, sexual orientation, ages, and political beliefs. While it is important to unite around the issues you have in common, it is also important to recognize and deal with differences. Women of color should be supported in fighting discrimination based on their race as well as on their gender. A campaign against racial discrimination can strengthen your group and broaden its support by appealing to male workers who face the same problem.

Similarly, straight women who are called lesbians can find common ground with their gay co-workers. Confronting the problem head-on by talking about how "dyke-baiting" can be used to divide women will be more beneficial to the group than avoiding the issue. If members of the groups recognize the strength of different points of view and teat each other with respect, differences can unify rather than divide.

STRATEGIC PLANNING

Step 1. Small Group Discussion: Get people together either at a special meeting during lunch, or after work to discuss the problems you face. Get everyone's ideas out; get everyone to participate.

Step 2. Selecting a Problem: You can't solve everything at once. Pick one or a related group of problems to work on. Two key points:

1) Start small: pick a problem you can win.
2) Use a democratic procedure.

Step 3. Selecting a Plan of Action: Brainstorm and list each idea keeping these tips in mind:

1) Build on what people are already doing.
2) Talk it through step by step.
3) Work hard for consensus; avoid coercion.
4) Talk to others who have experience with the issue to avoid past errors.

Step 4. Carrying Out the Plan: It's important to get as many people involved as possible. Get others to share responsibility.

Step 5. Evaluation: This is may be the most important step. You can learn by doing and then discussing what worked and what didn't.

Becoming a Shop Steward

With time, you may consider becoming a steward. The steward holds one of the most important positions in the union. The steward is the union's representative on the job site. A good steward ensures that the rights of all workers on the job are protected by using the grievance mechanism and the organized unity of the workforce to enforce the contract and defend working conditions and job security. By doing your job well, you can help workers understand the importance of unionism and of union democracy, and increase members' participation in union reform. Other roles of the steward include building members' understanding of the contract and maintaining constructive relationships between union and management. By fairly representing the interests of all the workers on the job, you can win the trust and respect of men in the union, and strengthen your ability to fight for issues of particular concern to women.

Stewards are generally either elected by workers at the job site or appointed by the President or Business Manager. Appointment is most commonly used in the construction industry. As a result of the appointment process, far too many stewards obtain their positions as a reward for their political loyalty to the union leadership rather than on their merits. In other instances, there is no steward appointed to a site. Some tradeswomen have been able to take advantage of the ineffectiveness or absence of stewards on their job site to win appointment or election to the post of steward.

What does it take to be a steward? You need the kind of personality that wants to see justice done and wants some control over what happens to you and others on the job. You must be willing to be a leader who takes responsibility and follows through. You should be fair, courageous enough to stand up to the company, and have time to participate in other union affairs.

One of the primary roles of the steward is grievance handler. You may find that workers complain about a problem, but are too cynical or afraid to take action or follow up. Being an effective steward involves more effort than just filing grievances. You must investigate facts, gather evidence and develop creative tactics to increase pressure on the boss. You will have to be able to negotiate and make settlements as well. And, of course, you have to be prepared to deal with lack of support from other workers, and to handle criticism of how you are doing your job. In short, a good steward is an organizer, leader and educator.

Working for Union Democracy

You may have already discovered that, while women of all races and men of color may be particularly singled out, the construction industry, with notable exceptions, is not fair for a great many workers. There may be men in your union who recognize the inequity and are standing up to fight for democracy. It is important for women to work together with men to become part of these movements. In the process, you can educate these men about the particular problems facing women and win their support to your cause.

There are many different types of reform groups. Some are national and bring together members from locals across the country. The best example of this is Teamsters for a Democratic Union (TDU), which has been able to establish and maintain itself nationally for over 15 years. TDU has played a critical role in the fight against organized crime and corruption, helped win fair contracts, and was instrumental in electing a reform slate to the top positions in the union, including the first female vice president, Diane Kilmurry, a construction truck driver and a leader of TDU. Other caucuses exist only in one area. In some cities and regions, construction workers from many different unions have joined together to produce a publication or support democracy and reform in the industry.

Organizing A Campaign

Whether you are trying to organize women to form a women's committee or caucus, waging a campaign against sexual harassment, trying to defend a co-worker against termination, or working with a reform group to amend your union by-laws, your success will depend on your ability to mobilize your union sisters and brothers and develop winning strategies and tactics. What follows are some general guidelines for eking the lead and organizing a successful campaign.

Building Membership Support

Even a small number of members who are well organized and determined can put pressure on the boss or union with success. However, the greater the level of support for your cause, the greater your likelihood of success.

A cardinal rule of organizing is: organize one. The most effective way to build support or a campaign is to talk to people individually. Explain the problem or issue to them. Listen to their views, and try to respond directly to their reservations or fears. Take an interest in their ideas and be open to their suggestions. Don't let your pride or ego get in the way. You should be flexible enough to consider modifying your project or objective, if necessary. People like to feel that their input makes a difference (and it should). Be patient and persistent Don't get frustrated or write people off if they don't see your point of view or agree to support you right away. With time and persuasion, they may come around.

You will also need to understand why people don't get involved: lack of time and energy; apathy or cynicism; family responsibilities. In construction trades, fear may be the biggest obstacle of all. Workers may understandably be afraid to take a position or participate in a campaign that might pit them against union leaders who control access to their jobs or their job assignments. One way to combat fear is to stress the importance of unity; there is strength in numbers if you stay together. You can also emphasize that union

activity is legally protected activity. Where family responsibilities pose a problem, try to meet at the least burdensome time and place and make provisions for some form of child care.

The best way to involve people in a union campaign is to start small and build up. Begin by asking very little of the person — a signature on a petition or attendance at one meeting — then draw them in. Try to increase their involvement with time. Tap into the different levels of commitment, time, energy, and skills that members have. Identify activities or tasks that are manageable and appropriate for the member. Don't wait for members to come forward to volunteer; approach them with a specific request. Most people will get involved to some degree around issues that really matter to them.

GROUP TACTICS

(Warning: Some of these tactics are violations of your contract and/or labor law. This Manual is not advocating any particular tactic.)

Symbolic Protest: Protest without breaking rules, such as wearing arm bands or buttons.

Group Grievances: File grievances as a group rather than as individuals.

Cold Shoulder: Let supervisors know of your disapproval of policies/behavior by refusing, as a group, to talk to them for a day or two.

The Open Mouth: Blow the whistle on the company to let the public know what the company is doing by having a media event.

The Pressure Drop: Hold group meetings with supervisors at breaks/lunch periods.

Work to Rule: Do the job by the book so that it takes you longer as you refuse to take any shortcuts.

Developing a Plan of Action

The first step is to select a target for your campaign. Sometimes an issue that your co-workers will naturally rally around will simply present itself. Other times, you will have to pick the issue around which to organize. Identify what your co-workers really care about. Listen to what they talk about on the job, during lunch or breaks, or question them individually or by calling a meeting. You should also consider what will build unity, the amount of time and resources available, and the likelihood of success. Be realistic — don't bite off more than you can chew. People may get demoralized or burned out if you don't get quick results. And always use a democratic process in making decisions.

Next, you must decide on your tactics. Possible tactics include: multiple or group grievances; petitioning; leafleting; informational picketing; symbolic protests such as T-shirts or buttons; workplace rallies; job actions; media coverage; appeal to government agencies; community pressure and support. Then you will have to figure out how to carry out the work. Depending on the magnitude of the fight or the numbers involved, you may want to put together a leadership team or set up committees to take responsibility for various aspects of the work. You should establish target deadlines, even if they later have to be modified or adjusted.

Once you have a plan, you can move into action. Involve as many members as possible. Coordinate activities. Keep your supporters informed. Keep the focus on the problem. Be consistent in your follow through. Evaluate your progress and results along the way and at the end.

Running for Union Office

As your experience and confidence grows, you should consider running for union office, on your own or as part of a slate. Many women have leadership potential but never seek elected office because they lack confidence in their abilities. If this applies to you, just take a look around you at the men who are running your union and ask yourself: are they really more competent than you? Even if you don't believe you can win, waging a campaign is a good way to publicize and build support for your agenda as a woman or union reformer and to develop your leadership and organizing skills. A contested campaign may also stimulate real discussion within your union, regenerating the membership's interest in the union, strengthening internal democracy and laying a foundation for future victories.

You should start to plan an election campaign six months to a year before the election. If you are not part of an established group — a women's committee or reform caucus you will need to generate a core of support for your cause. A successful campaign will require a substantial investment of both time and money.

Election procedures are outlined in the constitution and by-laws of both your international and local unions and in regulations of the DOL. Federal law (LMRDA) protects your right to be a candidate, to campaign and to monitor the election process. Your union can impose reasonable eligibility requirements on candidates, such as having been a union member for a minimum number of years (but not more than two) and being paid up in your dues. Many unions have rules requiring candidates to have attended a minimum number or percentage of union meetings, but the courts have consistently struck down such requirements. It is also illegal for the union to require candidates to be U.S. citizens or to already hold a lower office. It is illegal for your employer or union to retaliate against you for running for office or campaigning for candidates.

Incumbents have significant advantages in electoral campaigns, and will certainly use them. Your biggest task as a candidate will be to reach the membership. You have the right to campaign in non-work areas (any break areas) during non-work time. At your request and expense, the union is obligated to mail out your campaign literature to the membership. Union resources may be used only if provided equally to all candidates. For example, if your union newspaper carries articles which can be construed as campaign propaganda for the incumbents, you have the right to demand equal space in the paper.

While you may solicit financial contributions from other members of your union, the law prohibits you from accepting financial support from your employer (that means not just your own boss but your cousin's printing business as well). Some unions, such as the international Brotherhood of Electrical Workers (I BEW), also prohibit candidates from accepting campaign contributions from anyone not a member of the union.

As a candidate, you have the right to monitor the electoral process to ensure that it is conducted honestly and fairly in accordance with your union's procedures. You can appoint observers (who are usually required to be members of your union) to be witnesses at all stages of the process, including: mailing of your campaign literature; ballot printing or a printer's certification of the number of ballots printed; mailing of ballots; voting; and ballot counting. The vote must be a secret ballot vote or it will be invalid.

YOUR LEGAL RIGHTS

The previous chapters explained how a union is supposed to run. In the real world, however, you are likely to encounter problems at various points along the way to becoming a tradeswoman. The next chapters explain what your legal rights are and how to lodge complaints with the local, state or federal government or in court when you encounter problems.

Filing a formal complaint, however, is not always the most effective way to get what you want. It also carries risks. Although it is illegal for your boss or the union to retaliate against you for exercising your legal rights, retaliation is a possibility. The best way to protect your rights is by organizing with other members to put pressure on the boss or union — through petitioning, group grievances, meetings with management or union officials, campaigns at union

meetings — or to win support of outside groups. (See Chapter 4 on how to mobilize other union members and organize winning campaigns.)

If the informal methods do not bring results, you may want to complain to government agencies or go to court, individually or as part of a group, to protest a violation of the law or the union's internal rules. You must carefully weigh your situation and decide how bad the problem is, whether you are willing to make the commitment of time, energy and money to pursue a formal complaint, and whether you are willing to risk retaliation. The next chapters set out the options, but it is up to you to determine what you are comfortable doing. Even if you do not want to file a lawsuit or complaint, knowledge about your legal rights can help you combat illegal acts without going to court.

CHAPTER 5: YOUR RIGHTS AS A UNION MEMBER

APPRENTICESHIP

Q: What rights do I have within the union during my apprenticeship?

The union may legally grant you fewer rights as a union member during your apprenticeship. The LMRDA permits unions to make "reasonable rules and regulations" with respect to the rights of members to nominate candidates or vote in elections, to attend membership meetings and participate in the deliberations and voting on the business of such meetings. Accordingly, the union may prohibit you from voting in union elections until you have successfully completed the apprenticeship program. A union may not restrict your right to due process before being disciplined by or expelled from the union during apprenticeship. Due process means an orderly proceeding where you are given notice and have a chance to be heard so you can protect your rights.

Q: What can I do if I have problems with my apprenticeship program?

Most apprenticeship and training programs are regulated by the government. The federal regulatory agency is the Bureau of Apprenticeship and Training (BAT), which is part of the United States Department of Labor (See Appendix, Resources). State apprenticeship agencies exist in 29 states. These agencies are responsible for setting standards for apprenticeship programs and monitoring their performance. Your apprenticeship director probably has to file a copy of the agreement which you sign when you come in to the program (the director should also give you a copy of that agreement) as well as annual reports recording your classroom performance, on the job hours, and promotion to the next class. Registered programs are also required to have an affirmative action plan and are prohibited from discriminating against you in any way while you are in the program.

If you encounter problems on the job, you should, and in fact might be expected or even required to, report the matter to your apprenticeship advisor or director. He should help you resolve the matter. However, you also have a right to ask the union to represent you; apprentices have the same rights to representation on the job as any other dues paying member. Explain the problem to your union steward and ask her to file a grievance if the problem can't be resolved informally. A grievance is a claim of violation of a contract, past practice, law, or public policy.

Q: What can I do if my apprenticeship program threatens to discipline me or throw me out of the program?

The apprenticeship director is responsible for the day-to-day administration of the program. If there is a problem with your performance, the director may discuss it with you. Sometimes, you will simply receive a letter asking you to appear before the apprenticeship committee to discuss an issue, such as your attendance or job performance. The letter may or may not indicate whether you are at risk of being dropped from the program.

If are called in, do not panic, but do not ignore the letter. If it is not clear why you are being called before the committee, ask your director, or, if time permits, write to the committee and ask them to identify the issues. Of course, you will need to prepare a defense. Try to gather all the objective proof which supports your case — documents, work records, pay stubs, evaluations, and evidence from co-workers. For example, if you are accused of being late and you have transportation or parking information, tickets, toll receipts which would refute this, or could obtain other information which would explain this, such as, a newspaper story or police report, make copies and bring them with you. If you are accused of being absent without permission, bring in doctor's notes, police records, pay stubs, or any other supporting evidence. If there are witnesses to an incident, have them appear in person. If they cannot, ask them to sign a sworn statement.

You should be allowed to bring another union member with you. The committee may allow you to bring a non-member advocate, but it is not required to do so. Therefore, you should be prepared to go ahead without an outside representative.

If you are disciplined, suspended or terminated unfairly, you should file any appeals available to you under the apprenticeship agreement or contract. Of course, you can also challenge the discipline by applying political pressure, such as asking an advocacy group to write or call on your behalf. You may also want to consult a lawyer and have her write a letter. Occasionally, the mere threat of legal action may cause a committee to reverse their decision.

If these steps don't work, you can complain to governmental agencies. The state or federal apprenticeship regulatory agency will investigate complaints not covered by your contract. If you were dropped or disciplined because of your race, gender, religion, nationality, age, disability or sexual orientation (in some locations), you can file a discrimination complaint with the city or state human rights agency, and/or the federal EEOC (See Chapter 6.) You can also file a charge with the NLRB if you were retaliated against because of union activity.

Getting Work

Q: Are there any rules governing the operation of hiring halls?

Exclusive hiring halls are subject to more extensive government regulation and oversight, but all job referral systems must treat applicants fairly and without discrimination. Whether a hall is exclusive is determined by the collective bargaining agreement negotiated between the union and the employer or Contractors' association (See Chapter 3 for information on how to get a copy of the collective bargaining agreement.) A hiring hall arrangement will be considered exclusive if the contractor is required to hire all workers or a fixed number or percentage of workers from the hiring hall. However, a hiring hall may still be considered exclusive if the contractor is allowed to reject any applicant, with or without reason; if the contractor is permitted to request certain classes of applicants; or if the contractor can hire on its own if the hall fails to refer workers within a specified time limit (often 24 hours).

Hiring halls are regulated to some extent by the NLRA, which is enforced by the NLRB. The NLRA requires that exclusive hiring halls develop rules to govern their operation. These rules should cover the procedures for registering or, requesting work, the priorities used in making referrals, and the penalties for turning down jobs.

Referral rules should be, although are not required to be, in writing. Exclusive hiring halls must comply with requests for information about referral rules and their application, including the names, addresses and phone numbers of all those looking for, and referred to, work (See Chapter 2.)

Q: What can I do if I believe that the hiring hall is discriminating against me?

It is best to try informal measures first, if you are not getting work referrals, gather as such information as possible on the work situation. Talk discreetly to other union members and find out if they are getting referred to work. Make yourself known to your dispatcher. Let the hiring hall officials know that you are actively seeking work and that you are aware that others are being sent to work. If you know of anyone within the union who is sympathetic, you should talk to them as well. You may also want to consider asking outside

advocates to put pressure on the union. For example, some pre-apprentice training programs for women have relationships with local union officials; a well-timed, well-placed phone call or letter might make a difference.

If informal pressure doesn't work, you can request a copy of the referral procedures used by the hall, as well as information which will show whether those procedures are being followed (See Sample Hiring Hall Information Request). You have the right to inspect the hall's sign-in sheet or referral cards to find out where you stand. You also have a right to get information job referrals for the past six months, including the names, addresses and phone numbers all workers above and below you on the list; contractors' requests for referrals; and the names, addresses and phone numbers of the workers actually sent out to those jobs. Keep in mind that the union is entitled to charge reasonable photocopying costs and a reasonable fee for staff time spent responding to requests.

Q: What can I do if the union refuses to give me the information I request?

Your union may not necessarily provide you with this information promptly. If an oral request doesn't work, you should send a letter by certified mail, return receipt requested, and keep a copy for your records. If the union still does not respond, you can file an unfair labor practice charge against the union with the NLRB. The NLRB will investigate and may order the union to give you access to the records. Don't expect immediate results — NLRB proceedings are often extremely slow. However, the mere filing of the complaint may be enough to pressure the union into compliance.

Q: How do I proceed once I have gathered the information about job referrals?

If you believe you are being discriminated against, you may protest to your hiring hall committee (if you have one). If the union does not respond and you think you can prove discrimination, there are several ways in which you can challenge it. Whether or not the hiring hall is exclusive, you can file an unfair labor practice charge with the NLRB against the union for breaching its duty of fair representation. If you have a very strong case, and you have money for a lawyer, you could go straight to court and sue the union for breaching the duty of fair representation. When internal union activity is the basis of the discrimination, you can sue the union and officers for violation of your free speech rights as a union member under the LMRDA.

Whether the hall is exclusive or not, if you have been discriminated against because of your gender, race, national origin, or sexual orientation (in some locations), you can file a complaint with your city or state human rights agency, and/or the Federal Equal Employment Opportunity Commission (See Chapter 6).

You do not have to choose one place in which to pursue your claims. You can file parallel or consecutive complaints. For instance, you can complain to both the NLRB and a human rights agency at the same time. You should use any internal appeal procedures related to the referral system before going to the NLRB, another governmental agency or to court, but you don't have to wait until you get a final decision within the union before going outside. Be careful of time limitations. You must complain to the NLRB or file a duty of fair representation lawsuit within six months of the date of the discriminatory incident. That date may, however, be extended if the hall continues to discriminate against you.

SAMPLE HIRING HALL
INFORMATION REQUEST

I am a member of _____(union) and I seek work through its job referral procedures. I have reason to believe that I have been and am being discriminated against by (the union) in job referrals.

In order to determine whether I have been or am being discriminated against, I ask you to send me:

(a) the names of persons on the (union) job referral list(s), and of the persons who have laden referred to jobs, as well as the dates of referral, dates of hire, and dates of last preceding discharge;

(b) the names, addresses and telephone numbers of all persons who, during the past six months and continuing, have asked to be referred to jobs by (union) or have asked that their names be placed on a list for job referral;

(c) the date or dates of each such request;

(d) the date or dates of each subsequent referral of such person to a job, including the name of the person referred; the name of the employer, and the jobsite to which referred;

(e) the date or dates of each hire and of any subsequent layoff/discharge, the name of the person hired and/or laid off, the name of the employer and the jobsite. I am willing to pay a reasonable cost for reproducing the information requested.

Rights of Union Members

Q: What can I do if my union won't give me a copy of its constitution or by-laws?

If your union does not comply with your request, you can secure the union's constitution or by-laws from the Office of Labor Management Standards of the United State Department of Labor, for the cost of copying (See Appendix, Resources). Every labor organization is required to file 'its constitution and by-laws with the Secretary of Labor.

Q: What laws govern my rights as a union member?

Your rights on the job and in your union are governed by federal and state labor laws. The main sources of federal law are the NLRA and LMRDA. (See Chapter 1, Apprenticeship.) Federal employees are governed by the Civil Service Reform Act, which parallels the protections of the NLRA and LMRDA. State and local employees are not protected under federal law, but many states have legislation similar to the NLRA (but generally not the LMRDA). In addition, you can go to state or federal court to enforce your union constitution and by-laws, because they are contacts between a union and its members.

Q: If my union wrongly raises my dues, do I have to pay?

You should never refuse to pay dues or fees that you believe were improperly imposed. You can be both expelled from the union and fired from your job for failing to pay dues. if your dues have been increased improperly, you can protest by filing an appeal within the union and if the appeal is denied, suing in court for money for the excess payments.

Q: I know that if I have a problem on the job I'm supposed to file a "grievance" — what does that mean?

The first step in the grievance procedure is to contact your union steward (or equivalent representative) as soon as possible, and inform her of the problem you are encountering and how you would like that matter to be resolved. In these initial steps, you should proceed promptly because there are usually strict time limits for filing grievances. After the grievance is filed, the contract usually calls for several stages of meetings with increasingly higher levels of management. Or you may have to appear before a grievance committee to request representation, and the committee will decide whether a grievance will be filed.

The steward should investigate and decide whether your complaint has merit. If so, she should go to management on your behalf, perhaps informally at first, to try to negotiate a resolution to the problem. If the issue is not resolved, the steward should file a written grievance.

If the grievance is denied through the various steps, the union can then pursue the matter to arbitration, where a neutral person called an arbitrator will make a decision that will be binding on both parties. If the union decides to take your case to arbitration (they are not required to do so), they must send a union representative or a lawyer to present your case. If you desire, you may request to have your own lawyer present to represent you, instead of the union representative. However, the union is not required to grant that request since the party to the grievance is legally the union, not you. You also should consider carefully whether it is in your best interest to have a lawyer unfamiliar with the terms of the contract, the bargaining history and the past practice representing you. The union may request a record of the hearing. If not, you can request it, but can be charged for the costs incurred.

Q: Does the procedure operate this way in every union?

In the construction industry, disputes are not always resolved through the grievance procedure outlined in the contract. In some unions, formal written grievances are not filed or aggressively pursued. When seeking help, women in some locals are told by stewards that they will not file a grievance on their behalf. If this is the situation in your union, you may need to seek alternative ways to solve your problems on the job. You may want to raise the issue with someone in the union or on the job who is sympathetic — a mentor or co-worker, foreman or supervisor. In some instances, you may consider, enlisting the support of outside advocacy groups. And always, the long term solution is to organize to elect responsive stewards and officials.

If your union refuses or simply ignores your request to file a meritorious grievance, you may be able to file a grievance on your own. Check to see whether a particular grievance form is required by contract. If not, you can simply write a letter to the employer which briefly outlines the facts and cites the section of the contract which has been violated. You should give a copy to the union. If the union refuses to process a meritorious grievance for arbitrary or bad faith reasons, you can file charges against the union with the NLRB for breaching its "duty of fair representation." A breach is the breaking of a law or duty by either acting or failing to act.

Q: How much protection does the union's "duty of fair representation" provide?

As a practical matter, the union has great leeway to decide how to best represent its members. It is very difficult to win a claim against the union for breathing the duty of fair representation before the NLRB or in court. As long is the union takes steps to investigate your complaint, and makes a reasoned decision, based on the facts and the contract language, is to whether to pursue a grievance or arbitration, it will probably be found to have satisfied the duty. It cannot give away your grievance simply because you are a woman or a union dissident, but the burden will be upon you to prove that was the reason. Therefore, relying on the legal system to protect your right to representation is not always wise. Organizing to pressure the union to do its job may be more effective.

Q: When the union is negotiating a contract with contractors, what role do members play?

You do not have a legal right to attend bargaining sessions, and the union is under no specific duty to inform members of the demands hey are putting forward or the terms to which they have agreed. The only way to ensure that he contract is fair, decent and addresses your reeds is to organize to demand the right to be included in the bargaining process.

If your union gives its members the right to accept or reject the contract before it is implemented, then you have the right to an informed vote. That means that the union must give copies of the contract proposals in advance of the vote to members who request.

This right is meaningless unless you exercise it. Members who wish to distribute their dues on the contract are entitled to communicate with the membership. They may buy ad space in the union publication or pay for a mailing to members. If union officers argue for ratification in an official union publication or mailing, those opposed to ratification are entitled to equal access to the members. Some unions hold meetings or conduct surveys before contract negotiations begin to shape the union's proposals. You should also organize women to attend and speak at union meetings to discuss contract proposals.

Dissidents should ask to observe the ballot count and after the vote should request any available breakdown of the results (by company, by local, by geography). If there are improprieties, the vote may be challenged in court.

Q: What should I do if the union brings charges against me?

Don't panic and don't ignore the charges, even if you believe they are baseless. If a hearing is scheduled, it is important that you attend even if you believe that the trial board is biased. If you ignore the hearing it will be harder for you to overturn any penalty after the fact. If the hearing is scheduled at a time and place that would cause you great inconvenience and expense, such as during working hours or in another city, you should make a written request for rescheduling:

Before the hearing, try to build support among the other members and make sure that the board is aware of your support. For example, ask supporters to tell board members that they are on your side. Prepare your case ahead of time by outlining all the facts, and gathering all documents and witnesses that support your case. If possible, consult an attorney familiar with union law. You may want to have another member with you at the hearing; usually you are not permitted to be represented by an attorney. If the union does not routinely make a record of hearings, you may hire your own court reporter or arrange to tape record the proceedings.

You may challenge charges on both procedural grounds and on the merits. Title I of the LMRDA gives members due process rights which must be followed by the union before you may be disciplined. The union must serve you with written, specific charges, give you a reasonable time to prepare a defense, and afford you a full and fair hearing, which includes allowing you to question those who brought charges against you and presenting evidence to support your case. Even if the union follows the proper procedures, you cannot be disciplined for exercising any rights protected by the LMRDA, including the right to free speech.

If you are disciplined you must file timely internal appeals unless immediate action is necessary or appeals would be futile (such as if the national president brought the charges against you). You may go to court if you have not gotten a satisfactory answer after four months of appealing. Federal courts have the authority to overturn unlawful union discipline and may award attorneys' fees if you win.

Q: Can the union retaliate if I file a claim against it?

You have the legal right to file a complaint against or sue the union without being punished. The LMRDA and NLRA protect that right, although you are generally first required to pursue your claim through the internal union appeal process for no more than four months. However, the union may retaliate despite the law. If it does, the union may eventually be ordered by the NLRB or a court to pay damages to you, but that can take years. You should consider this risk of retaliation as you decide how to proceed.

Elections

Q: How often are union elections held?

Local unions must hold elections of officers by direct membership vote at least every three years. Elections of shop stewards and business agents are regulated by the union's bylaws (not federal law), unless they sit on the local executive board. Intermediate labor organizations, such as district councils, may elect officers by delegate vote and must hold elections at least every four years. National and international unions may elect officers by the vote of delegates at a convention and must hold elections at least every five years.

Q: Who may run for union office?

Eligibility qualifications for union office are contained in your local by-laws and constitution. The most common qualification is that you must be a member in good standing. That means that you must have your dues paid up for the last year or two. The Department of Labor permits good standing requirements, but not to exceed two years. Rules that require members to have attended a certain number of meetings are invalid, because they exclude the vast majority of members from running for office. For the same reason, unions cannot require that members hold some lower position before running for a higher position. Any eligibility qualifications must be applied fairly and non-discriminatorily.

Q: Who can contribute to a campaign for union officers?

Some unions prohibit campaign contributions from persons who are not members of the union; such rules are lawful. Union resources cannot be used for campaign purposes unless they are made available equally to all candidates, such as providing space in the union newspaper for candidate statements. All employers, including those not involved with a union, are prohibited from contributing money, goods or services to union campaigns. The only exception to this rule is that law firms or organizations may donate legal or accounting services candidates. Members may always donate to campaign.

Q: Can candidates get a copy of the union membership list?

The law requires the union to allow candidates to inspect, but not copy, a membership list once within 30 days before the election. The law also requires the union to comply with reasonable requests by candidates to mail campaign literature to the members. Candidates lust pay all costs, may make as many mailings as they can afford, and may have observers resent when the mailing is done.

Q: How can candidates protect their right an honest election?

Candidates have the right to have observers at all phases of the election process, from the printing to the counting of the ballots. Observers usually must be members of the union and may be required to be identified in advance. Candidates must notify the union that they intend to exercise their right and ask when and there each step in the election process will occur.

Q: If I run for office and want to protest the election, what can I do?

You must first file charges within your own union, stating all the grounds on which you are challenging the election. Most unions have a pedal procedure for election protests that may have strict time limits that you must follow. If not, use the procedure for filing internal charges. If your appeal is ignored or denied by your union, you can file a written complaint addressed to the Secretary of the Department of Labor at the nearest field office of the Office of Labor-Management Standards.. The time limits are very strict. If you have not received a final decision on your protest, you must file with OLMS between the third and fourth month after you filed your first protest. If you receive a final decision before the third month, you must file within the next month. Complaints should be in writing addressed to the Secretary of Labor and filed with the nearest field office of the OLMS. The complaint should contain a brief statement of all facts you believe to be in violation of the LMRDA or the election provisions of the union's constitution and by-laws.

If the investigation finds violations which could have affected the outcome of the election, the Secretary can sue the union in federal court to invalidate the election results and order a new election to be supervised by the DOL. Many union reformers have been able to win elected office during re-run elections that are supervised. For more detailed information on your rights as a candidate, contact AUD or an attorney, and/or contact the Department of Labor for their publications.

Enforcing Your Rights

Q: Where should I start if I decide to make a complaint?

You will be in the best position to win your case if you have kept records. As soon as you sense there is a problem, begin making notes, on the spot or the same day. Write down what happened, when it happened, where it happened, who saw or heard it happen and why the employer, union, or members claim to have acted as they did. Keep copies of all documents which relate to your union membership and work life such as:

your apprenticeship agreement, dues payment receipts, pay stubs, and evaluations. You may even want to put important communications with the union in writing and send them certified mail.

Q: Can I file my complaint with the government?

There are two government agencies that can address union-related problems: the NLRB and the Department of Labor.

Q: What does the NLRB do?

The NLRB is the federal government body which is primarily responsible for resolving disputes among most private-sector employers, unions and employees regarding union activity. It enforces the NLRA. The NLRA prohibits employers or unions from committing "unfair labor practices," which are broadly defined as any acts which interfere with, restrain, coerce, or discriminate against workers for union activity and other protected concerted activity.

For example, it would be an unfair labor practice for your employer to fire you for trying to organize a union or for filing a grievance or passing out union literature during non-work time in a non-work area, or to blacklist you because of your union activity. A union would commit an unfair labor practice by breaching the duty of fair representation if it discriminated in the operation of the hiring hall, or refused to file a grievance for you because you are politically outspoken.

Q: How do I file a complaint with the NLRB?

If you believe your employer or your union has acted unlawfully and may have committed an unfair labor practice, you can complain to the NLRB. But you must act quickly. You have to file a complaint within six months of the date of the act or incident you are complaining about. You do NOT get any extra time because you have first filed charges or appealed within your union.

You can file a charge with the NLRB at any of its over thirty regional offices across the country. You can either call or go to the regional office in your jurisdiction to request the one-page form used for filing a charge. You can fill it out yourself (or with help of an advocate or lawyer) and mail it in, or, if you prefer, you can ask someone at the Board to help you write your charge.

It is NOT necessary to go into detail in your charge, and in fact, it is not a good idea to do so. Rather, you only need to give a very brief outline of the basis of your complaint. For example, a charge against an employer for terminating you could be stated as follows:

TIPS FOR ADVOCACY
TO THE NLRB

- It is essential that you bring witnesses to the NLRB's attention. You may compile a witness list or, better yet, prepare witness statements.
- Compile and organize any documents you can obtain.
- It is also sometimes useful to provide the Board with citations to earlier cases that support your position. A citation is a code for locating documents. You can contact an advocacy group, such as the Association for Union Democracy, for help in conducting the legal research.

The above-named employer by its officers, agents, and employees, discriminated against Rosie T. Riveter, an employee, by, among other acts, terminating her from employment in retaliation for and because of said employee's exercise of protected activity on behalf of United Workers Union, Local 123, a labor organization.

A charge against a labor organization for discriminating against you in job referrals could be stated as follows:

> The above-named labor organization by its officers, agents, and employees, discriminated against Rosie T. Riveter, a member and employee, by, among other acts, refusing to refer her to jobs in a fair and nondiscriminatory manner in retaliation for said member's exercise of protected activity.

You then submit the original and copies to the Board, and they will serve it on (deliver it to) the accused. Remember, the charge must be filed and served within six months of the problem you are complaining about, so be sure you get it to the Board on time.

Soon after you file your complaint, a Board agent should contact you to set up a meeting where they will take an affidavit, or sworn statement, from you. At that meeting, you need to be prepared to explain the basis of your complaint in detail, and bring any documents or names and telephone numbers of witnesses that will support your case. The Board will then hear from the charged party and any potential neutral witnesses, research the law, and determine whether there is reasonable cause to believe that the Act has been violated.

If it believes that your charge is meritorious, the Board will issue a complaint against the employer or the union. It should take the Board only thirty days to make a decision. You need to aggressively advocate for the Board to issue a complaint as they will not automatically do so (see "Tips for Advocacy to the NLRB" on the previous page). If the Regional Director of the Board refuses to issue a complaint in your case, you have the right to appeal by letter to the General Counsel in Washington. However, Regional Directors are given broad discretion in determining whether to issue a complaint. Consequently, the General Counsel will almost always defer to the Regional Director's refusal to issue a complaint.

Once a complaint is issued, the Board will then take the case to trial before an Administrative Law Judge (ALJ), where the Board's lawyers will represent you. An ALJ's decisions are appealable to the NLRB in Washington, D.C., and then to court.

Q: What does the United States Department of Labor do?

The U.S. Department of Labor has jurisdiction over union finances, elections, trusteeships and benefit funds. It conducts both criminal and civil investigations. Consult your local telephone directory listing under U.S. Government, Labor Department, Office of Labor Management Standards, for the address and telephone number of the nearest OLMS office.

Q: Can I sue the union in court?

The rights guaranteed you as a union member under the Bill of Rights (LMRDA) can only be enforced by private civil court action. That is, if you believe that your union officials have interfered with your right to speak at a union meeting, or have punished you for forming a women's caucus, you can get legal relief only from a federal district court.

You may also prefer to go straight to court, rather than to the NLRB, to challenge a breach of the duty of fair representation. In fact, sometimes, that is the only way to protect your rights. For example, if you are fired (for a reason other than your union activity, such as absenteeism) and believe the union breached its duty of fair representation by mishandling the grievance or arbitration, you can't get relief against the employer from the NLRB. The only way to get your job back would be to sue both the employer and the union in court for breach of the collective bargaining agreement.

In most cases, you will need to have a lawyer to go to court. For information on how to find a lawyer, see Chapter 6, the section on finding a lawyer, and see the Resources list. If you cannot find a lawyer or absolutely cannot afford one, you do have a right to file a case pro se, that is, without a lawyer. The federal courts and some state courts have special clerks to help you.

CHAPTER 6: YOUR EQUAL EMPLOYMENT RIGHTS

Q: What law protects me from discrimination?

Title VII of the Civil Rights Act of 1964 is a federal law that prohibits employers of 15 or more people from discriminating against employees because of their sex, race, color, national origin, or religion. It covers many of the forms of discrimination you are likely to encounter because of your sex — in decisions about hiring, firing, work assignments and conditions, promotions, benefits, training, retirement policy, and wages. Labor unions, employment agencies, and joint labor-management committees are also prohibited from these forms of discrimination.

All intentional discrimination is prohibited — that is, all employment situations where your supervisor treats you less favorably than he would a man in the same situation. It is no defense that men on the sites prefer to work with other men or that the boss accepts the stereotypes that dictate "women don't belong." Discrimination in the form of a policy that looks neutral but has the effect of keeping far more women than men out is also illegal if the employer does not have a legitimate business reason for it. An example of such a policy would be a rule that only people over 5'6" could have a particular job (which would exclude far more women than men) when height is not relevant to the job duties.

Most states, and many cities and towns, have additional equal employment laws that in some cases copy federal law and in some cases give you more rights and remedies and more favorable procedures check with your state and local departments of employment/human rights/human relations for clear information on the existence and scope of other helpful equal employment laws in your area. Federal regulations forbid discrimination in registered apprenticeship programs and require the implementation of affirmative action places. (See 29 C.F.R. § 30 (1993))

Q: Does federal law protect me from being discriminated against because I'm a lesbian or perceived to be a lesbian?

While there is no federal law prohibiting employment discrimination on the basis of sexual orientation, some states: (California, Connecticut, Hawaii, New Jersey, Massachusetts, Vermont and Wisconsin) and cities (including New York City) have laws that serve this purpose. You should also be aware that behavior which you feel discriminates against you on the basis of sexual orientation may be illegal if it also relates to discrimination on the basis of sex. For example, if someone you work for persistently refers to the women who work on your job site as lesbians, he may be doing this for the purpose of harassment, hoping that this behavior will force women to leave the job. In such a situation, even if the city or state in which you work does not have a law which expressly prohibits discrimination on the basis of sexual orientation, the behavior of your employer may be considered discrimination on the basis of sex, which is disallowed by Title VII.

Q: Does the law protect me if I become pregnant?

Under Title VII, sex discrimination includes treating women differently from other temporarily sick, injured or disabled employees because of a woman's pregnancy, childbirth or related medical conditions. Basically, this means that any benefits, amounts and conditions of leave, or rights to come back to a job that other workers get from your employer when they cannot work for health reasons, should be available to pregnant women and new mothers while they are physically disabled. Under the Family and Medical Leave Act, pregnant women (and new mothers) who have worked at least a year for an employer with 50 or more employees are entitled to 12 weeks of unpaid leave each year. Your employer can require you to use up your paid vacation and sick leave as part of the 12 week leave. At the end of the leave you are guaranteed the same job or an equivalent one. If your employer offers paid leave to those with disabilities, it must offer you paid leave also.

Federal law also prohibits employers from refusing to hire or from firing an employee because of pregnancy, from forcing an employee go on leave at a point in pregnancy when she can and wants to work, or from denying a woman who has been out on approved maternity leave her previous retirement, seniority or employment level when she returns.

Q: What law prohibits sexual harassment?

Title VII also prohibits sexual harassment, which is a very common type of discrimination on construction sites. There are also city and state anti-discrimination laws that are modeled on federal laws and some, like Title VII, consider sexual harassment to be a form of sex discrimination. In addition, if the harassment causes you a personal injury, emotional or physical, you may have rights under your state workers' compensation or personal injury laws. You may wish to consult a lawyer who specializes in these areas. If the harassment involved physical touching, coerced physical confinement or coerced sex acts, you may also be the victim of a criminal act. Contact your local police.

Q: There's a lot of talk about sexual harassment, but exactly what is it?

Sexual harassment is any unwelcome sexual attention, or any harassment, even if not specifically sexual, that is directed only at one sex. Examples of sexual harassment by co-workers and/or supervisors are sexual advances, comments about your body, sex life, or sexual preference, touching, grabbing, telling sexual jokes, the display of pornography on the site, or making comments like "women belong in the bedroom or kitchen, not at work." Sexual harassment also includes specific requests for sex by someone with power over your job (such as a supervisor or union official) combined with direct or indirect threats of negative job consequences if you refuse.

Q: How much harassment must take place before the law is broken?

You do not have to tolerate sexual harassment from your boss or co-workers. If the general harassment is so severe that it interferes with your performance of your job, or it makes you intimidated, scared or stressed out, then it may be a violation of your equal employment rights under Title VII. Not every isolated incident of general sexual harassment by co-workers and/or supervisors is a violation of Title VII (unless the incident is extreme, like an assault or rape). You need to make it clear that sexual advances are unwelcome and that you want the behavior to stop. Whether you could win a sexual harassment lawsuit depends on whether the incidents complained of are severe enough or numerous enough, but even one request for sex tied to your job by your boss may be enough. Whether or not you could win a federal lawsuit based on your situation, every employer is under a duty to stamp out sexual harassment and you have every right to expect the employer to fulfill that duty.

Q: What can Title VII do for me?

Title VII states that if you prove discrimination happened, your employer can be ordered to stop discriminating, adopt new equal employment policies (sometimes including affirmative action, if appropriate) and put you in the position you would have been in at work if no discrimination had taken place. For example, your employer can be ordered to hire or promote you and pay you back wages.

Under the Civil Rights Act of 1991, which amended Title VII, money damages are available for your physical and mental suffering damages to punish the employer in extreme cases. There is currently a limit on the amount of money damages beyond your economic losses. The limit depends on how many employees the employer has. The limits are:

Total Employees	Total Non-Economic Damages
100 or less	$50,000
101 to 200	$100,000
201 to 500	$200,000
501 or more	$300,000

Your state laws on equal employment opportunity, contracts or personal injury, under which you may have additional rights, may give you unlimited damages.

Q: Are there other federal laws that protect against discrimination?

The Equal Pay Act of 1963 prohibits employers who are subject to minimum wage requirements from paying men and women unequal wages for equal work. What defines equal work is determined by the skills, abilities, and efforts required for employment positions, not by the job titles and descriptions provided by employers. Watch out for what men of your seniority get paid.

The Age Discrimination in Employment Act of 1967 prohibits an employer of 20 or more employees from refusing to hire, from firing or from discriminating against employees between the ages of 40 and 70 on the basis of age.

The Rehabilitation Act of 1973 provides protection against employment discrimination for people with disabilities. This Act provides that employers who have federal contracts of more than $2500 may not discriminate against people with physical or mental handicaps anywhere in the company. These employers must make reasonable accommodations to hire disabled workers, which mean that they must, where possible, provide ramps and other modifications which disabled workers require. The Americans with Disabilities Act of 1990, which went into effect in 1992, prohibits all employers of 25 or more employees (15 or more after July 28, 1994) from discriminating against a "qualified individual with a disability" in any aspect of employment. The Act requires employers to make reasonable accommodations for that individual that are not determined to be too expensive for the company. The disabled individual must be "qualified," that is, able to do the job with reasonable accommodations made.

Q: What should I do if I feel I have experienced discrimination?

If you think you are the subject of any form If discrimination, including sexual harassment, you should begin to keep notes. Write down the date, time, and what happened, who did it, and who witnessed it. Keep your notes in a safe place at home, and separate from your ether personal diaries or records. If your employer keeps written records about your job performance and you have a good employment record that you think someone may tamper with to justify firing you, send a sealed copy of your employment records to yourself and don't open the envelope; it may be useful evidence of the state of your records at the time of delivery, and will be safe from loss or tampering. Talk to sympathetic co-workers if you feel safe doing so. Keep any notes, cards, or presents your harasser gives you as evidence. If you are a union member, you should consider contacting our local representative or shop steward and following grievance procedures outlined in the contract (see Chapter 5).

Q: What should I do about sexual harassment?

You are not required to ignore individual incidents until they build up to be so intolerable that you must leave your job or suffer severe mental anguish. When an incident of sexual harassment occurs, you should make it clear to the harasser that you do not welcome his behavior and you want it to stop. However, you must use your own judgment about your safety and well-being because only you see the whole picture. Any legal claims you may have may be undercut if you keep silent instead of letting the person and your employer know how you feel, but only you can make the judgment whether the trade-off is worth it.

If you can't tell the harasser, consider who above him in the company you could tell. Your employer may have a sexual harassment policy and a confidential procedure for investigating and resolving sexual harassment claims. However, if you can show that the complaints procedure is a sham or that it will only expose you to greater harm — for example, if you have to complain to your harasser or his friends it should not hurt your legal claim if you don't use it. Informing your employer does not mean you have lost your right to bring a later complaint with a city, state or federal agency if the employer does not resolve the problem the way you want it. By informing your supervisor or employer of the harassment, you are putting your employer on notice, so that, if you do eventually bring a claim, you can sue your employer for knowing of the harassment yet doing nothing. You may want to put your objections in writing and keep a copy for yourself as proof that you notified them of the problem, in case they try to deny it later.

Q: If I don't want to formally complain about harassment or discrimination, what can I do?

Of course, sorting out any problem without the expense and bother of formal legal action is preferable. If you join with other women and sympathetic men at your site, you may be able to stop the discrimination through informal actions. For example, you can organize a campaign to stop a discriminatory practice, intimidate a harasser by organizing a series of lunchtime meetings to discuss sexual harassment, and start educating the more sympathetic men about harassment and urging them to speak out when they witness it.

Remember that you may not have a legal claim or you may have a claim but decide not to pursue it for any variety of seasons. For example, a suit may be too costly, too risky, too damaging to your personal life, or may not offer the sort of outcome you desire. In the course of asking for the help you need, it is probably smart not to punctuate your requests with "or I'll sue you." One special note: even if a lawsuit is too costly for you alone, you may discover, as you attempt to solve the problem informally, that others have suffered too. They could share expenses and be added to the claim either as named individuals or anonymously as members of a group of people who have been similarly treated.

Q: If the informal methods and internal complaints don't work, what can I do?

To file a complaint about harassment or discrimination, contact the nearest Equal Employment Opportunity Commission (EEOC) office, the federal agency that enforces Title VII, and/ or the human rights agency that enforces your state and/or city equal employment laws. The number and address of your nearest EEOC branch office should be in your telephone directory. If not, call 1-800-669-4000 or write to: Equal Employment Opportunity Commission, 2401 E Street, N.W., Washington, D.C. 20506.

When you talk to federal and local agencies about discrimination or civil rights violations, find out the requirements for filing a claim. Request a description of the process in writing. The following are questions you should consider asking:

- Where and with whom do I file?
- What is the time limit within which I must file?
- What is the process once I have filed?

For the EEOC, you should ask some additional questions:

- If I file with you, do you investigate my claim or do you send it over to the state agency to investigate?
- If you send it to the state, does that have any effect on rights I may have under state law?

For state/city agencies, ask:

- If I file with you, do I lose any rights to bring my case in state court?

Be very careful to take note of the time limits required by these agencies. If you do not comply with these limits your complaint may be dismissed. Agencies will only accept discrimination or harassment complaints that are less than 180 or 300 days old (depending on the agency).

Q: Do I need a lawyer to file a complaint? If so, how do I find one?

The agency process is designed for use without lawyers and without large expenditures of time and money. There is no fee for filing. Your complaint should describe all the types of discrimination or harassment you have suffered and include all the supervisors who took part or failed to stop the co-worker harassment. The agency will notify your employer of your complaint, investigate it and try to resolve the problem.

At the end of the investigation, the EEOC will send you either a "right to sue" letter or notification that they intend to bring the case on your behalf by filing suit in federal court. If the EEOC prepares and argues the case on your behalf, you do not pay them for their efforts.

Far more common is the "right to sue" letter. It means that the EEOC will not bring the case. The letter will indicate whether or not the EEOC believes that discrimination took place. Even if the EEOC does not believe it, you may still go to court and try to prove it there. Court procedures and deadlines are stricter and more complex than agency procedures. It is best to be represented by an attorney familiar with sex discrimination or sexual harassment law. One problem with bringing your own case is that lawyers are expensive. Very little federal funding exists to pay for free legal representation for people with sex discrimination or sexual harassment cases. However, if your income is less than 125% of the federal poverty level, you may be able to get free legal services from the Legal Aid Society or a Legal Services Corporation in your area.

Additionally, you may be able to retain an attorney for either no fee or a small down payment. You and your attorney can agree that if the case is won she will seek an award of reasonable fees from your employer as provided in the applicable laws and/or receive a predetermined percentage of any money you win.

Most lawyers, even if they don't charge hourly fees until you win, require that you cover the "costs," such as filing and witness fees, deposition (formal questioning) and transcript fees, copying, telephone calls, and other out-of-pocket expenses. If you agree to this, make sure that you have a good understanding of how much this may cost. A lawsuit will be an investment of money as well as time.

To locate a lawyer, begin by asking your friends and family for a possible referral. Most state bar associations provide lawyer referral services. Some areas also have women's bar associations that provide referrals. To locate your local bar associations, look in the telephone directory under the name of the county, city, or state. In addition, you can write to the Public Education Division, American Bar Association, 750 N. Lake Shore Drive, Chicago, Illinois 60611, for a copy of "The American Lawyer. When and How to Use One," a publication of the American Bar Association.

The National Employment Lawyers Association is composed of attorneys who represent workers in employment cases and are familiar with discrimination laws (See Appendix, Resources).

Conclusion

Women in the U.S. are steadily moving toward economic equality: there are more female lawyers, judges, doctors, professors, and managers than ever before. Progress of women into the high-paying skilled trades jobs has been much slower. In 1978, the federal government set an affirmative action goal of 6.9% women in construction jobs. Even that low goal is only enforced on federally-funded projects, if at all. That means on a job with 500 workers, total compliance is achieved by hiring only 35 women. Overall, women make up only 2% of skilled trades workers.

If women were treated equally on the job, there would be no need for this Manual for Survival for women in the trades. Unfortunately, significant barriers block women from equal participation in trades work. Too many male workers, union, and employer representatives still attempt to preserve construction job sites as male, bastions and actively work to keep women out, resulting in discrimination in hiring and job referrals and sexual harassment. Because they are so few in number, tradeswomen usually face these problems in isolation.

In spite of these difficulties, thousands of women have persisted and benefited form the economic independence the work can provide. The women who survive have learned to roll with the punches, enjoy physical labor, and have developed friendships with both male and female co-workers. Organizations for women of all trades provide support systems and practical advice.

Our hope is that the practical and legal information contained in this Manual will encourage more women to enter the skilled trades and will help them not only to survive but to succeed in their chosen careers.

Glossary of Acronyms

AFL-CIO: American Federation of Labor and Congress of Industrial Organizations AU: Administrative law judge
AUD: Association for Union Democracy
BAT: Bureau of Apprenticeship and Training
CLUW: Coalition of Labor Union Women
DOL: United States Department of Labor
EEOC: Equal Employment Opportunity Commission
IBEW: International Brotherhood of Electrical Workers
NLRB: National Labor Relations Board
OLMS: Office of Labor Management Standards
OSHA: Occupational Safety and Health Administration or Act
TDU: Teamsters for a Democratic Union
Union WAGE: United Women's Alliance to Gain Equality

Employment and Labor Laws

Age Discrimination in Employment Act (ADEA), 29 U.S.C. § 621 (1967).
Americans with Disabilities Act (ADA), 42 U.S.C. § 12101 (1990).
Civil Rights Act of 1964, 42 U.S.C. § 2000 a-h .(1964).
Civil Rights Act of 1991, Pub. L. No. 102-166, 105 Stat. 1071 (1991).
Equal Pay Act, 29 U.S.C. § 206(d) (1963).
Employee Retirement income Security Act (ERISA), 29 U.S.C. § 1001 (1988). Family and Medical Leave Act (FMLA), Pub. L No. 103-3, 107 Stat. 6 (1993). Labor-Management Reporting and Disclosure Act (LMRDA), 29 U.S.C. §401 (1959). National Labor Relations Act (NLRA), 29 U.S.C. § 151 (1935) (amended in 1947). Norris-LaGuardia Act, 18 U.S.C. § 3692 (1932).
Occupational Safety and Health Act (OSHA), 29 U.S.C. § 651 (1970).
Rehabilitation Act, 29 U.S.C. § 701 (1973).

List of Trades and Unions

Boilermaker - make, assemble and repair boilers, steel pressure vessels, vats, and tanks. *International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers and Helpers, 565 New Brotherhood Building, 8th Street at State Avenue, Kansas City, KS 66101,* (913) 371-2460

Bricklayer - build and repair walls, partitions, fireplaces, chimneys and other structures from material such as brick, tile, concrete cinders, glass, gypsum, and terra cotta.
International Union of Bricklayers and Allied Craftsmen, 814 15th Street, NW, Washington, DC 20005, (202) 783-3788

Carpenter - construct, erect, install and repair structure of wood, plywood, and wallboard.
United Brotherhood of Carpenters and Joiners of America,101 Constitution Avenue, NW, Washington, DC 20001 (202) 546-6206.

Cement Mason - smooth and finish exposed concrete surfaces on walls, floors, steps, sidewalks, roads and driveways. *Operative Plasterers' and Cement Masons' International Association of the United States and Canada, .112517th Street, NW, Washington, DC 20036 (202) 393-6559.*

Electrician - lay out, install, maintain, and test electrical wire systems, fixtures and apparatus that control heating, lighting, communications, air conditioning, and refrigeration systems. International Brotherhood of Electrical Workers,1125 15th Street, NW, Washington, DC 20005 (202) 296-1200.

Floor Coverer - install, replace and repair all types of flooring. *United Brotherhood of Carpenters and Joiners*
of America, 101 Constitution Avenue, NW, Washington, DC 20001, (202) 546-6202.

Helper, Handler, Equipment Cleaner, and Laborer - assist skilled workers and perform routine tasks required to complete a project. *Laborers' International Union of North America - 905 16th Street, NW, Washington, DC 20006 (202) 737-8320.*

Glazier - cut and install all types and sizes of glass. *Glass, Molders, Pottery, Plastics and Allied Workers International Union, 608 East Baltimore Pike, Media, PA 19063, (215) 565-5051.*

Insulation Worker - paste, staple, wire, tape, or spray insulation on surfaces.
International Association of Heat and Frost Insulators and Asbestos Workers, 1300 Connecticut Avenue, NW, Washington, DC *20036, (202) 785-2388.*

Ironworker - fabricate, erect, assemble, and install fabricated structural metal products in the erection of large buildings. *International Association of Bridge, Structural and Ornamental Iron Workers, 1750 New York Avenue, NW, Suite 400, Washington, DC 20006, (202) 383-4800.*

Latherer- create and install supporting backings of metal lath, iron, or gypsum on ceilings and walls for plaster application. *Operative Plasterers' and Cement Masons' International Association of the United States and Canada, 1125 17th Street, NW, Washington, DC 20036, (202) 393-6509.*

Millwright - level, align, move, and set up large pieces of machinery and heavy equipment as per blueprints, plans and drawings. *International Association of Machinists and Aerospace Workers, 1300 Connecticut Avenue, NW, Washington, DC 20036, (202) 857-5200.*

Operating Engineer **-** operate and maintain a variety of heavy duty, power-driven construction machines such as bulldozers and cranes. *International Union of Operating Engineers, 1125 17th Street, NW, Washington, DC 20006, (202) 429-9100:*

Painter- prepare surfaces, mix and apply paint to surfaces.
International Brotherhood of Painters and Allied Trades of the United States and Canada, United Unions Building, 1750 New York Avenue, NW, Washington, DC 20006, (202) 6370700.

Pipefitter- assemble, install and maintain pipes needed to carry water, steam, compressed air, gas, and fluids for all operations. *United Association of Journeymen end Apprentices of the Plumbing and Pipe Fitting industry* a *the United States and* Canada, P.O. *Box • 37800 NW, Washington, DC 20013, (202) 6285823.*

Plasterer - apply and smooth wet plaster on walls and ceilings.
Operative Plasterers' and Cement Masons' International Association of the United States and Canada, 1125 17th Street, NW, Washington, DC 20036, (202) 393-6569.

Plumber- install, repair, and alter pipe systems and fixtures for water, gas, sewage, and drainage systems.
United Association of Journeymen and Apprentices of *the Plumbing and Pipe Fitting Industry Washington, DC 20036, (202) 638-3228.*

Sheet Metal Worker - build and install a wide variety of products form sheets of steel, alum inurn, copper and other metals. Sh*eet Metal Workers International Association, United Unions Building, 1750 New York Avenue, NW, Washington, DC 20006, (202) 738-5880.*

Systems/Plant Operator - operate, maintain, and repair machinery in industrial plants and systems. May be considered an operating engineer, International *Union of Operating Engineers, 125 17th Street, NW, Washington, DC 20036, 202) 429-9100.*

RESOURCES

9 to 5, National Association of Working Women
614 Superior Avenue, NW
Cleveland, OH 44113
(216) 566-9308
(800) 522-0925 (Hotline)

An advocacy group for working women, dealing with a variety of issues from sexual harassment to equal pay. The job problem hotline provides counseling. Members receive additional benefits.

APPENDIX 23 – CHILDREN'S AWARENESS – Construction Figures

Building is a fascinating, challenging process that provides closure. It runs the gamut from children building sand castles in a sand box to adults building skyscrapers on Manhattan. It is never too early to make people aware of construction.

Bob the Builder http://www.hitentertainment.com/bobthebuilder/
One of the more popular television programs and associated spin-off toys and videos is that of Bob the Builder, which is focused on preschoolers ages 2-5.

Bob

Wendy

Bob and his friend Wendy together with their animated pieces of construction equipment build a variety of projects in a series of videotapes. These provide an excellent look at building is obviously of interest to preschoolers.

Evaluation: There are two issues that relate to today's environment -
Wendy is not treated as an equal of Bob and given the same opportunities to build.
The figures and related materials are produced by Lego, which is located in Denmark. The blond-haired, light skinned figures look Danish and Bob even wears blue overalls similar to Danish construction workers.

Construction Jack http://www.constructionjack.com
Construction Jack consists of a realistic series of construction worker dolls or figures specific to a trade. There are currently four figures available: carpenter, electrician, painter, and plumber. Each figure comes complete with trade specific tools and appropriate clothing and protective equipment.

Construction Jack the Carpenter comes equipped with the following:

Construction Jack figure	Hard hat
Work shirt	Safety glasses
Tape measure	Toolbox
Overalls	Hammer
Steel toed boots	Handsaw
Tool belt	Work jacket

In addition to providing the physical figure, the package comes with a description of the trade:

Carpenters make up the largest group of skilled tradesmen in the construction industry. They learn their trade through formal union apprenticeships, informal on-the-job training, or through employer and vocational education programs. This training teaches them how to draft and read blueprints, do layouts, and cut and join wood, fiberglass, drywall and other materials. They learn to saw, nail, join, drill, plane, and glue these materials to each other.

Some carpenters only work on homes and other residential structures framing walls, partitions, floors, ceilings, and roofs. Others only work on large commercial buildings such as shopping malls, offices, stadiums, and bridges. They may do concrete forming for footings and foundations, or even cement finishing. Still others only perform remodeling jobs, or make and mend furniture, or install prefabricated components into structures. They may be finish carpenter's helpers, cabinet installers, home renovators, or all of the above at one point or another. Many carpenters end up being a "Jack of All Trades" during their career, mastering many different skills along the way.

Carpenters must be experienced in the use of many different power and hand tools, including saws, drills, chisels and sanders. They must know how to use all of the latest safety tools and equipment. Last but not least, they must be very precise in all of this work, measuring the final results with framing squares, levels and plumb bobs. It takes many years of hard work to master the skills necessary to perform these tasks

accurately and professionally. Most carpentry work is physically demanding, often involving work on ladders and scaffolding, lifting and carrying heavy loads, and often performed outdoors in extremes of heat and cold.

The description of electricians is:

Ever since Benjamin Franklin first discovered the principles of electricity by flying his famous kite in a lightning storm, man has harnessed electricity and benefited from its power. And from those early days, the electrician has worked to bring this almost magical source of energy, light and convenience to the world. Nearly every aspect of our lives is touched by the work of the electrician. Our power and air-conditioning systems, our communications systems, our lights, computers, refrigerators, televisions, the hundreds of devices which make our daily lives so convenient and so comfortable, all were made possible by the dedication and skill of the hardworking electrician.

Most electricians serve long formal apprenticeships, and they are perhaps the most highly trained of all the building tradesmen. Electricians work from blueprints to install fuses, wiring, circuits, outlets, and control panels in homes, offices, factories and schools. They install conduit, attach wiring and cables to circuit breakers and transformers, and install very complex electrical equipment such as industrial motors and generators. They work on the power lines which bring electricity into homes, businesses, shopping centers and sports arenas. They help install telephone and security systems. Some electricians perform mostly maintenance work, replacing fuses and wiring, installing or repairing electrical equipment in the home or factory, or testing existing electrical equipment.

As computers and the Internet grow in popularity, electricians are working to install the fiber optic and coaxial cables which connect our computers into a global network of computers known as the World Wide Web, allowing us to communicate with people around the world in a matter of seconds.

Because electricity is so important but so difficult to control, electricians also spend a lot of time testing and inspecting their work. They are trained to use many measurement tools such as voltmeters and oscilloscopes to make sure that the electricity flows safely where and when it is needed.

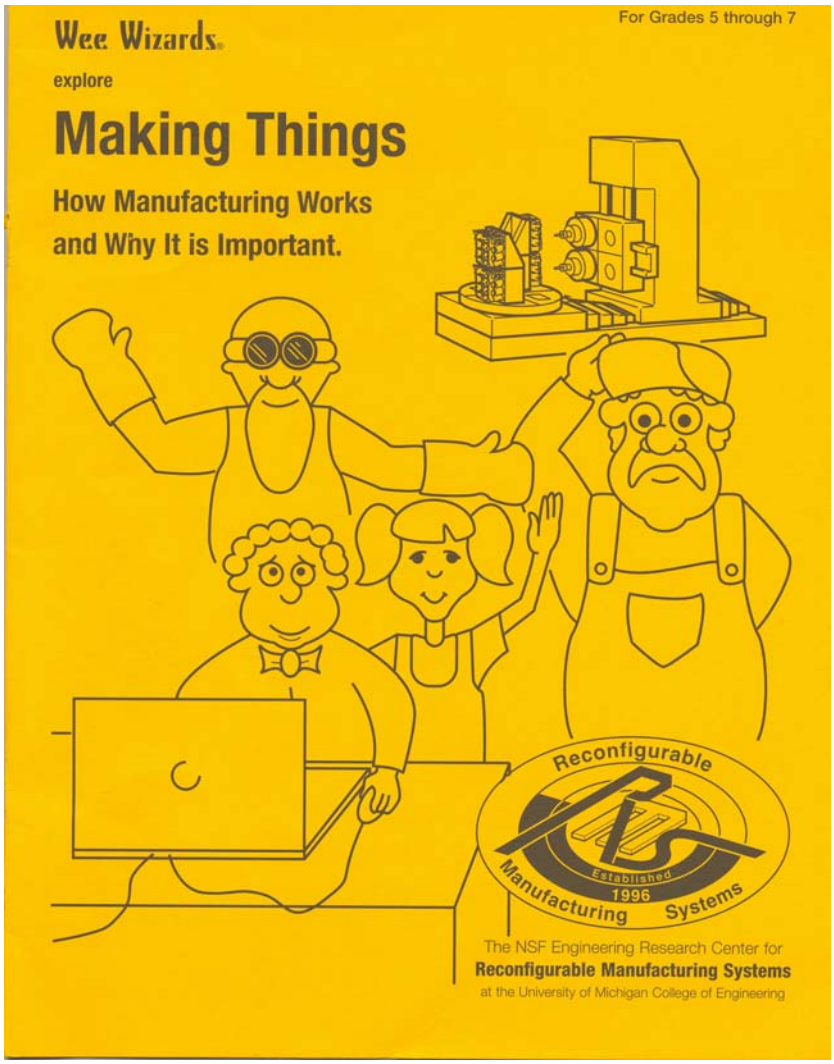
Evaluation: On its website, the company indicates that it is bringing out a Construction Jill figure to appeal to girls. The Construction Jack figures are all white males. The figure with its trade specific attire and tools along with the trade description provides an excellent introduction to a trade.

APPENDIX 24 – CHILDREN'S AWARENESS - Books

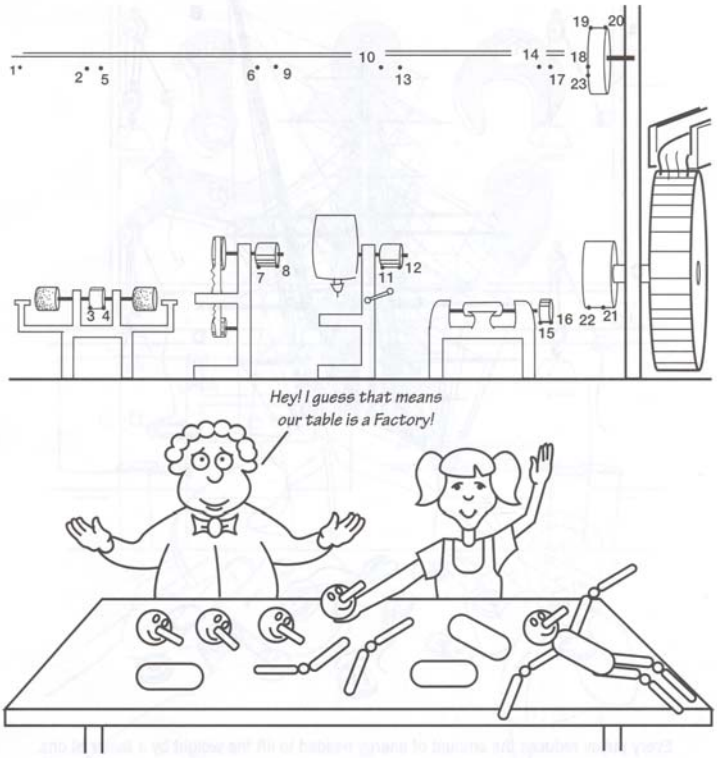
Information and Coloring Books

As students move through elementary school, their interests move away from dolls and figures to other pursuits, particularly as their reading skills improve. To continue developing students' awareness of construction and those trades that comprises it. Doing this requires students to participate in activities that are not only entertaining but informative. A search of the web revealed many coloring books and other types of children's books about construction.

The NSF Engineering Research Center for Reconfigurable Manufacturing Systems at The University of Michigan College of Engineering recently produced the booklet depicted below for use in grades 5-7.



The booklet is designed to provide the reader with basic information about manufacturing. It looks at various manufacturing issues, machines, and tools in order to give readers an exposure and understanding of manufacturing. A sample page from the book is presented below.



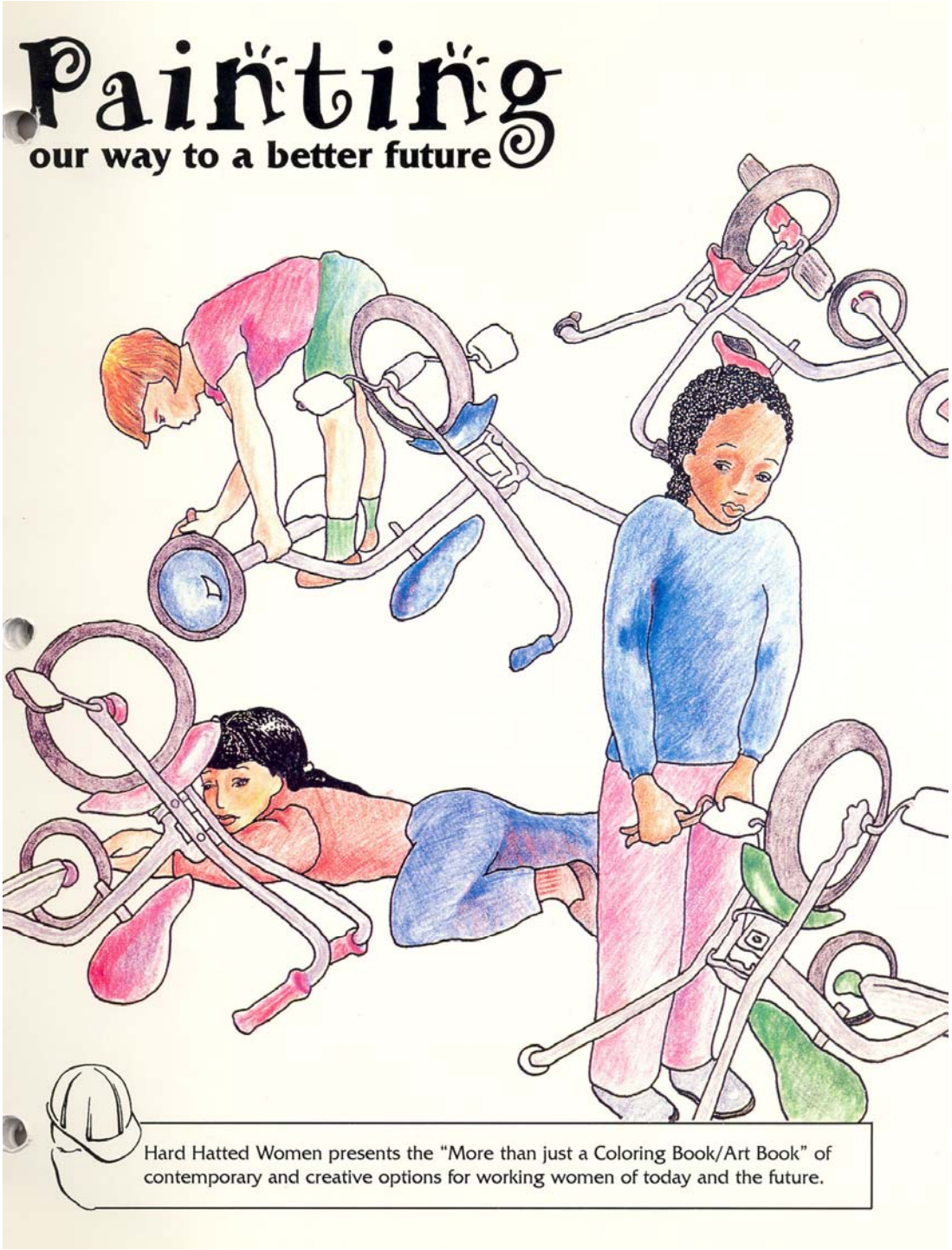
Hayward and Callie are opening an old-fashioned puppet factory. Connect the dots above to show how early factories powered their machine tools.

When craftsmen work together to produce the same products their shop becomes a **Factory**. Early factories often used water or steam to power rows of machine tools connected with a long rotating beam called a "line shaft." Line shafts helped them work faster but they still could only build things one at a time.

3

Coloring Book for Girls

Construction is dominated by men. It might be a little strong to say that construction is an industry of men, run by men, for men, but when people think of construction workers, they think of male construction workers. Attracting women into the trades will require that that image change.



The book depicted above was produced by Hard Hatted Women, a Cleveland, Ohio based organization devoted to furthering the entrance and advancement of women in the building trades. The images to be colored depict women in a variety of activities in the building trades and other non-traditional occupations.

If the industry is to be successful in attracting and integrating women into the construction workforce, it is imperative that girls and young women see women in construction craft roles

Maggie uses powerful tools as a journeylevel carpenter. When she was an apprentice, she learned all the safety rules and how to use her power tools properly.

APPENDIX 25 – MODERN DAY ICON

Modern Icon

Rosie the Riveter was a symbol during World War II of women who left their homes and jobs of housewives to replace their husbands in the defense plants. The image portrayed was of strong, competent women. The t-shirt shown below was created by Dr. Lynn Shaw (shawl@cgu.edu) as part of a program titled Women in Trades and Technology. The program exposes women to high-paying jobs in non-traditional occupations and provides training to assist women in gaining access to these jobs.

APPENDIX 26 – CAREER FINANCIAL ANALYSIS

Cost Comparison

Traditional 4 Year College vs. 5 Year Apprenticeship Degree Program

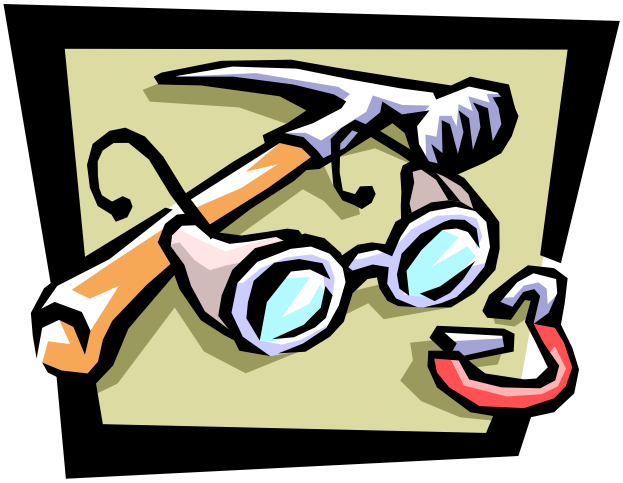
AVERAGE COST OF A 4 YEAR COLLEGE DEGREE		AVERAGE COST OF A 5 YEAR APPRENTICESHIP	
Student Loan of	$40,000 @ 7.5%	Tuition of	$4,050.00 (may vary)
* $322.24 monthly for 20 years		Books	$0.00
* $3,923.69 per year			
* $37,366.25 interest			
* $77,336.25 Total repayment of loan			
Average wages you may make if you graduate		**Average union building trade wages**	
1st 4 years in college	$ -0-	1st year as an apprentice	$31,794
$40,000 per year next 5-10 years	$200,000	2nd year as an apprentice	$37,908
$60,000 per year next 11-15 years	$300,000	3rd year as an apprentice	$44,022
$80,000 per year next 16-20 years	$400,000	4th year as an apprentice	$48,619
(only about 30% make it to this level)		5th year as an apprentice	$54,724
		Journey 6-10 years	$316,349
		Journey 11-15 years	$349,273
		Journey 16-20 years	$385,625
Average total for 20 years	$900,000	Average total for 20 years	$1,268,314
Deduct for school	$ 77,336	Deduct for school	$ 4,050
20 YEAR NET $822,664		**20 YEAR NET $1,264,264**	

YOU JUST LOST *$441,600* FOR TAKING THE TRADITIONAL ROUTE

- **Based on Apprentice/Journey hours of 1944 per year and wages as of 1/1/2006 (Does not include fringe benefits)**
- **Your results may vary, no guarantee is implied or expressed**

APPENDIX 27 – TRANSITION TO TRAINER

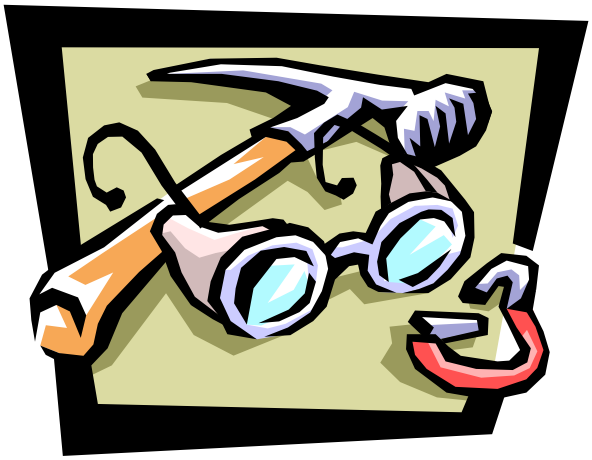
Transition to Trainer



Your Role as a Journey Worker

Produced by the Wisconsin Technical College System Board and
The Department of Workforce Development, Bureau of Apprenticeship Standards

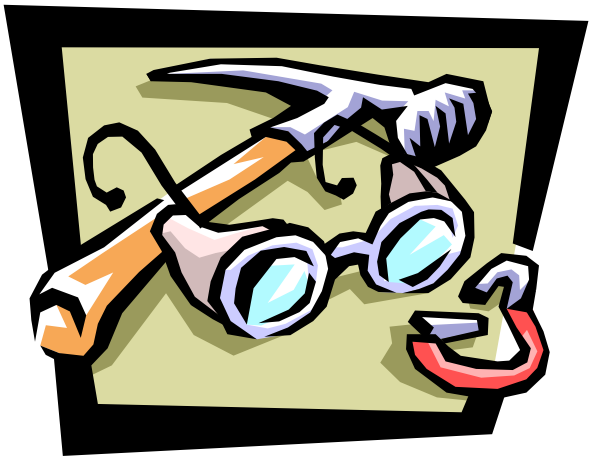
Transition to Trainer



Facilitator Guide

Produced by the Wisconsin Technical College System Board and
The Department of Workforce Development, Bureau of Apprenticeship Standards

Train the Trainer



Preparing to Teach the Transition to Trainer Course

Produced by the Wisconsin Technical College System Board and
The Department of Workforce Development, Bureau of Apprenticeship Standards

Why This Workshop?

Apprenticeship training is a collaborative partnership: employer and employee associations, government and educational institutions each play their roles.
In reality, most learning takes place through the daily interaction between an apprentice and his or her co-workers. Surveys have shown that apprentices are least satisfied with the on-the-job portion of their training, particularly the ability (and sometimes willingness) of journey level workers and supervisors to pass on their knowledge of their trade.

This workshop is the result of the combined efforts of employees and employers representing a wide range of apprenticeable trades. In spite of their diverse backgrounds, all agreed on the essentials of what it takes to be a good trainer of apprentices.

You have already learned to use the tools of your chosen trade. We hope that introducing you to a new set of basic tools, the tools of a jobsite trainer, will encourage you to take the next step; becoming a role model, perhaps even a mentor to those who follow you. We hope you will seek out opportunities to actively improve apprenticeship training and give back to your trade.