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A longitudinal study of work-based, adult–youth mentoring[☆]

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Abstract

Using a longitudinal design, this study explored the relation of urban high school student attitudes toward school, work, and self-esteem beliefs to work-based mentoring, mentor satisfaction, and employment status. Participants included high school students taking part in a formal work-based mentoring program, students who established informal mentoring relationships at work, students who worked without a mentor, and students who were not employed during the academic year. While there were no significant group differences in the measures at the start of the year, results at the end of the year showed that students in the formal mentoring program believed more strongly that school was relevant to work than those who worked without a mentor. Students with mentors had higher levels of self-esteem than those who did not work. Students who were highly satisfied with their mentors had higher levels of self-esteem and believed more strongly that school was relevant to the workplace than students who did not work. The implications of these results are discussed and future research areas are identified.

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Keywords: Mentoring; School-to-work transition; Urban youth; Adult–youth mentoring programs

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1. Introduction

School-to-work programs for high school students continue to expand in the US as both businesses and schools search for ways to develop a more highly skilled workforce. For scholars, this rapid expansion has led some to focus on theoretical frameworks explaining a student's transition to work (e.g., Blustein, Phillips, Jobin-Davis, Finkelberg, & Roarke, 1997; Lent, Hackett, & Brown, 1999), while others have explored program effectiveness (e.g., Bassi & Ludwig, 2000; Linnehan, 2001). An implicit assumption of these school-to-work programs is that there are advantages to shepherding a high school student into the workforce using a structured format. Given this assumption, it is only natural that school-to-work programs that rely on adult–youth mentoring have grown considerably over the past two decades. This is particularly true for programs aimed at disadvantaged youth for whom continuing their education is often not feasible (Guetzloe, 1997). This programmatic growth, however, has not been matched with a comparable increase in empirical research, particularly research on formal programs that are based exclusively on the adult–youth mentoring relationship. Furthermore, while there has been an interest in examining different mentor–protégé types (i.e., formal vs. informal) in the organizational literature (e.g., Chao, Walz, & Gardner, 1992; Noe, 1988; Ragins & Cotton, 1999), this has not been the case in the youth-mentoring literature.

The present study addresses these latter two concerns through its longitudinal examination of student attitudes and beliefs across groups of high school students with different types of mentoring, work, and school experiences over the course of an academic year. In contrast to the organizational literature, no studies were found in the youth-mentoring literature that explored different mentoring types (e.g., formal vs. informal). Organizational scholars have focused on differences in the benefits provided by formal and informal mentors to their protégés and have defined an informal mentoring relationship as one that is developed between a mentor and protégé spontaneously, outside a structured program.

The findings of this past research, however, have been mixed. Some have reported no differences in the levels of psychosocial support given to protégés who are in formal or informal mentoring relationships (Chao et al., 1992). Others have found that informal relationships offered greater psychosocial support to their protégés than formal relationships (Fagenson-Eland, Marks, & Amendola, 1997; Ragins & Cotton, 1999). In an attempt to explain these divergent findings, it has been proposed that differences in satisfaction with the mentoring relationship may be a more powerful explanatory variable than mentoring type (Ragins, Cotton, & Miller, 2000).

Given its importance in the organizational research, coupled with the reliance of many school-to-work programs on adult–youth mentoring relationships, the lack of studies exploring issues of mentor type and satisfaction represents a significant gap in the youth-mentoring literature. Mentor type and satisfaction may be particularly important factors to explore for adult–youth mentoring programs administered at the high school level. The mentor–protégé relationships in these programs are forged at a critical time in the development of a young person's identity, a time characterized by an adolescent's struggle between industry and inferiority (Erikson, 1963, 1997).

Successfully working with mentors at their places of employment may not only impart a sense of industry or competency to the students, but the students may also derive cultural meaning from the workplace and be given social recognition by their mentors, factors that contribute to the development of a youth's self-esteem (Erikson, 1968).

Although the role self-esteem plays in academic achievement continues to be debated (Ross & Broh, 2000), self-esteem may be reflective of a youth's perception of competency, a perception that can be validated for the youth by the adult in the mentoring relationship. A successful, satisfying relationship with a work-based mentor is likely to be closely associated with the youth's perception of proficiency and, in turn, the young person's self-esteem. Given the likelihood of this relation, and the importance of self-esteem in the development of a young person's identity, this study examined the relation between mentoring type, satisfaction, and self-esteem.

Formal, school administered mentoring programs screen and train adults to work with students during the academic year. As teachers and counselors, mentors try to exert a positive influence over student behavior and performance at the work place. Successfully completing various work tasks will contribute to the student's sense of mastery, enhancing the young person's self-perception. Thus, it is likely that there will be a positive relationship between interacting with adults in a formal mentoring program and the self-esteem beliefs of the student participants. Additionally, since protégés receive psychosocial benefits (such as role modeling and counseling) from mentoring relationships that develop spontaneously at work (Fagenson-Eland et al., 1997; Ragins & Cotton, 1999), these benefits may also serve to enhance the competency perceptions of the students. Thus, it is also likely that high school students who establish mentoring relationships on their own will have stronger self-esteem beliefs after working with their mentors, than those who did not work with a mentor. Thus, it is hypothesized:

H1. Students who have either formal or informal mentors have stronger self-esteem beliefs over time than those who did not have mentors.

In addition to focusing on a student's self-esteem, another important outcome of many school-to-work programs is the belief that school is relevant to the workplace. Underlying most school-to-work programs is the goal of enhancing the relevance of school to work for the student, particularly for the non-college bound. Connecting school to work is believed to have positive benefits for students (Rosenbaum, 1989; Stern, Finkestein, Urquiola, & Cagampang, 1997). Formal, school-to-work programs place students in a work environment that creates a salient context for learning, thus encouraging greater student interest in school and enhancing the student's motivation to learn (Lave & Wenger, 1991; Raizen, 1989). Participation in a formal school-to-work program that has a goal of enhancing the relevance of school to work should be positively related to a student's belief about the relevance of school to work. Since mentoring relationships that develop spontaneously do not have this goal, there is not a reason to expect a relation between spontaneous mentoring experiences and student beliefs in school relevance. This led to the following hypothesis:

H2. Students in a formal mentoring program believe more strongly in the relevance of school to work over time than those who do not participate in the program.

Since work attitudes of potential entry-level workers are important factors in an employer's selection decisions (Cappelli, 1995), the development of appropriate work attitudes is another objective of many school-to-work programs. Student attitudes toward work have been positively associated with the opportunity to learn on the job, highlighting the importance of the quality of a student's job (Stern, Stone, Hopkins, & McMillion, 1990). Since the administrators of a formal mentoring program screen student jobs and role models can influence the attitudes of others (Bandura, 1986), adults chosen and trained to be student mentors at work are likely to have a positive influence on student attitudes toward work. Similar to the previous hypothesis, it is likely that interacting with a mentor in a formal program will be positively related to students' work attitudes. Thus:

H3. Students in a formal mentoring program express more favorable attitudes toward work over time than those who do not participate in the program.

The positive relation between student beliefs about the relevance of school and work attitudes with participation in a formal mentoring program is based on the principle that structured, work-based learning programs are more likely to be effective if their outcomes are clearly delineated. This is the basis of arguments made by Hamilton and Hamilton (1997) and reiterated by Stern (1997) in their discussions of the potential influence work-based learning may have on the academic performance of students.

There is recent evidence, however, that the attitudes of protégés in organizations are more strongly related to the protégés' satisfaction with their mentors than the mentoring structure that is used (Ragins et al., 2000). Based on these findings, it is likely that work attitudes of students who are highly satisfied with their mentors will be more favorable than the attitudes and beliefs of students who are not satisfied with their mentors. Satisfactory experiences with a mentor are likely to be associated with a student's motivation and willingness to work. Moreover, since mentor satisfaction may be an indication of the acceptance by the student of the mentor as an instructing adult and one who validates students' capabilities and competencies, it is also likely that mentor satisfaction will be related to a student's self-esteem. As such, the following hypothesis is made:

H4a. Students who report higher levels of satisfaction with their mentors have higher levels of self-esteem and more favorable attitudes toward work over time than students who are less satisfied with their mentors, students who work without a mentor and students who do not work.

It was previously hypothesized that mentoring in a formal school-to-work program will be related to students' beliefs about the relevance of school, since one of the objectives of a formal school-to-work program is to demonstrate the importance

of school to a professional career. However, there is not an a priori reason to believe that mentor satisfaction is related to a student's belief in the relevance of school. Thus:

H4b. Student beliefs in the relevance of school do not differ over time for those students who report higher levels of satisfaction with their mentors, those who report lower levels of satisfaction, those who worked without a mentor, and those who do not work.

2. Method

2.1. *Participants and procedure*

Participants in this study were urban high school students who expressed the desire to participate in a work-based learning program that paired students with adult mentors at a work site. As a component of its school-to-career initiatives, the Philadelphia school district has established and manages a work-based, adult–youth mentoring program for students in its neighborhood high schools (i.e., comprehensive high schools without special admission requirements). Many of these schools primarily serve economically disadvantaged youth. At the beginning of the academic year, students are asked if they are interested in working with a mentor through the district's program. The program requires the student to work at the mentor's employer one or two days a week during the school year. Students are paid for the work they do and receive academic credit but do not receive a grade for their participation. To be eligible for the program, the students must meet minimum requirements of having a 2.00 GPA or better and a school attendance rate of 80% or better.

School district personnel solicit employers throughout Philadelphia and attempt to find a sufficient number of employment opportunities and mentors to meet student demand. Mentors volunteer to participate and attend a training program run by school district personnel who identify the objectives of the program and discuss how to work with the students. At this training session, each mentor is shown how to complete an individual training plan to more closely link the student work experience to school. Student progress relative to this plan is monitored throughout the year. While district personnel decide which students to send for interviews with the mentors (based primarily on the proximity of the student to the employer's location), the mentors make the final selection from those students they interview. Due to an insufficient number of employment opportunities and adults who volunteer to participate in the program, not all students who want to work with a mentor are actually placed during the year. It had been the district's experience in previous years that many students who express a desire to participate, but who are not placed with mentors in the program, often find work on their own during the academic year.

Two hundred two students in grades 10 through 12 across 17 Philadelphia high schools were identified as participants for this study. All of these students had expressed a desire to participate in the district's program that year. The students were

given and completed a survey during class time at the beginning of the 1999–2000 academic year. One hundred twenty-five of the 202 students in the initial sample were female (62%), 72% were African American, 5% Asian American, 11% Hispanic, and 13% White. This racial breakdown is comparable to the school district's demographics, 65% African American, 4.8% Asian American, 12.6% Hispanic, and 17.3% White. One hundred ten students (55%) were in the 12th grade, 59 (29%) in 11th, and 33 (16%) in 10th.

One hundred seventy of the 202 students who completed the initial survey were given follow up questionnaires at the end of the academic year and 100 returned them (three schools that had originally distributed surveys did not give the follow up questionnaires to their students). Of those who returned the second surveys, 69% were African American, 4% Asian American, 13% Hispanic, and 14% White; 62% were female, while 46% were from students in the 12th grade, 38% in the 11th grade, and 16% in the 10th grade. χ^2 tests showed no significant differences between those completing the first and second surveys in race ($\chi^2 = 1.31$, $df = 3$, ns), or gender ($\chi^2 = .001$, $df = 1$, ns), but fewer 12th graders returned their surveys compared to those who had completed the initial questionnaire ($\chi^2 = 7.86$, $df = 2$, $p < .05$).

The follow up survey asked the students if they worked with a mentor in the district's formal program that past year. Of those returning the second questionnaire, 15 (15%) had been placed with a mentor in the program. Student ID numbers were used by the district to verify the participation of these students. Students who indicated they were not placed with mentors in the district's program were asked if they had worked during the year and also asked the following question:

A mentor is someone at work who is older and you respect. Mentors give advice, are someone who you can talk with, who listens and wants to help you. If you worked at a job this past year, would you say you had a mentor?

This wording was used so that the meaning of a mentor would be clear to high school students and would include the major elements of mentoring used in the literature, i.e., someone who is more experienced (Baugh, Lankau, & Scandura, 1996); provides advice (Bowen, 1985; Hamilton & Hamilton, 1992); and cares about and listens to the protégé (Rogers & Taylor, 1997; Sipe, 1999). If the students answered yes to this question, they were then asked to complete the same questions about their experiences with their mentors as those students who worked with a mentor in the district's program.

Forty-seven students who returned the second questionnaire and had not participated in the formal program indicated they had been employed during the academic year. Twenty-four of these said they had established a mentor relationship at work, while 23 indicated they had not. Twenty-eight students indicated they had not worked at all during the year. Ten students were unable to be classified either because of conflicting information (e.g., they said they did not have a mentor relationship at work, yet answered the mentor-relevant questions) or because they did not answer the identifying questions (e.g., had they worked during the year and did they have a mentor at work). These students were dropped from the study.

Thus, the students were initially classified into four groups. The first ($n = 15$) were students placed with mentors in the formal mentoring program. The average age of this group of students was 17.5, 67% were in the 12th grade, 33% were in the 11th, 67% were female, 40% were African American, 47% Hispanic, 7% White, and 7% Asian American. The second ($n = 24$) were students who established an informal mentoring relationship with someone at work. The average age of this group was 17.8, 46% were in the 12th grade, 50% in the 11th, and 4% in the 10th, 67% were African American, 21% White, 8% Hispanic, and 4% Asian American, while 67% were female.

The third group of students ($n = 23$) worked, but reported they did not have a mentor. Seventy percent of these students were female, the average age was 17.1, 78% were in the 12th grade, 13% in the 10th, 9% in the 11th and 65% were African American, 22% White, and 13% Hispanic. The fourth group consisted of students who had not worked during the year ($n = 28$). The average age of these students was 16.7, 36% were in the 10th grade, 54% in the 11th, 11% in the 12th, 61% were female and 82% were African American, 4% Hispanic, 11% White, and 4% Asian American. χ^2 tests indicated that neither the gender nor age of the students differed significantly across groups (gender: $\chi^2 = .48, 3, ns$; date of birth: $\chi^2 = 254.2, 252, ns$), but the groups did differ on race and year in school (race: $\chi^2 = 19.8, 9, p < .05$; grade: $33.7, 6, p < .001$).

2.2. Measures

Attitudes and beliefs. Student attitudes and beliefs were measured at both time 1 and time 2 (beginning and the end of the academic year) using measures taken from previous research. Three outcomes were assessed, self-esteem, student attitude toward work, and the student's belief in the relevance of school to work.

Self-esteem at time 1 and time 2 was assessed as the mean of 10 items from Rosenberg (1965). The self-esteem measure showed acceptable levels of internal consistency (time 1, $\alpha = .85$; time 2, $\alpha = .77$). Sample items of the self-esteem measure include: "I take a positive attitude toward myself," "I feel that I have a number of good qualities," and "I feel I do not have much to be proud of" (reverse scored). Responses were made on a seven-point scale, ranging from 1 = 'Strongly disagree' to 7 = 'Strongly agree.' Rosenberg's self-esteem scale was originally developed from responses of over 5000 high school juniors and seniors in a study of multiple self-attitudes (Rosenberg, 1965) and has shown evidence of high internal consistency in later studies using similar respondents ($\alpha = .87$, Steinberg & Dornbusch, 1991).

A student's attitude toward work was measured as the mean of an eight-item scale reflecting a student's orientation and motivation to work (Stern et al., 1990). These items included: "A person should feel a sense of pride in his/her work," "A person should feel some responsibility to do a decent job even if his/her boss isn't around," and "The best job a worker can get is one that allows him/her to do almost nothing during the workday" (reversed scored). Responses to these items were made on a seven-point scale, ranging from 1 = 'Strongly disagree' to 7 = 'Strongly agree.' This scale was originally constructed from a multi-sample study of US high school students.

The measures at both times of this study showed an acceptable internal consistency (time 1, $\alpha = .73$; time 2, $\alpha = .68$).

A student's belief in the relevance of school was the mean of 10 items from Roy and Rosenbaum (1996). These items included positive measures of future relevance (e.g., "School teaches me valuable skills" and "My courses in school give me useful preparation I'll need in life") and items measuring the irrelevance of school (e.g., "Even if I don't work hard in school, I can make my future plans come true" and "People can do OK even if they drop out of high school"). Responses were made on a seven-point scale, ranging from 1 = 'Strongly disagree' to 7 = 'Strongly agree.' Negatively worded items were reversed scored, so the higher the score, the more relevant the student believes school is to work. Roy and Rosenbaum (1996) originally created two separate scales from these items (a school relevance scale and an even-if scale), but both measures had low reliabilities ($\alpha = .57$ and $\alpha = .62$, respectively). For the current study, these scales were combined after reverse scoring the negative (even-if) items to improve the internal consistency of the multiple item scale (time 1, $\alpha = .79$; time 2, $\alpha = .70$).

Control factors in the analyses included gender, coded as a dummy variable (1 = female and 0 = male), three grade levels (10th, 11th or 12th) and a four level variable measuring the race of the protégé (African American, Asian American, White, and Hispanic). These factors were used as controls in the analyses since the χ^2 tests showed differences in grade level and race across the groups of interest and gender was significantly correlated with two of the three dependent variables.

The mean of six items developed for this study was used to measure protégé' satisfaction with the mentor. Sample items included: "I enjoyed being with my mentor," "I learned something from my mentor," and "I had a good time with my mentor." Responses to these items were made on a seven-point scale, 1 = 'Strongly disagree' to 7 = 'Strongly agree.' Internal consistency for this scale ($\alpha = .89$) is in line with other previously used measures of mentor satisfaction ($\alpha = .83$, Ragins & Cotton, 1999; $\alpha = .83$, Ragins et al., 2000).

Since 39 participants in this study had established mentor relationships (15 through the school program and 24 on their own) the median of the mentor satisfaction variable was used to split the data into high and low satisfaction groups. A median, rather than a tripartite (Ragins et al., 2000) or even quartile split was done to insure there were sufficient sample sizes in each group.

2.3. Analyses

The first three hypotheses require a test across four groups of students categorized by mentor type (formal vs. spontaneous) and employment status (employed, with no mentor and not employed). ANCOVA's were used to test for group differences for each outcome variable. The time 1 measure of the dependent variable was included in the ANCOVA as the covariate, along with the three control factors: gender, grade level, and race. The final two hypotheses (4a and 4b) required tests across levels of mentor satisfaction and employment status. For this analysis, the four groups consist of students who reported high and low levels of satisfaction with their mentors, students who worked without a mentor and students who were not employed.

3. Results

Table 1 shows the means, standard deviations, and correlations of the variables. Gender correlated significantly to school relevance and work attitudes at time 2, an indication that female students had stronger beliefs and attitudes at the end of the academic year than the male students in this sample. Students were generally satisfied with their mentors (mean = 5.44), had relatively high levels of self-esteem, particularly at time 2, had favorable attitudes toward work, but did not believe very strongly in the relevance of school to work at both time 1 and time 2. Time 1 attitudes and beliefs were correlated with their respective time 2 attitudes and beliefs, with the exception of student attitudes toward work. This may be indicative of random changes occurring in this attitude over time for these high school students.

Prior to running the initial ANCOVA's to test the first three hypotheses, ANOVA's were run to test for preexisting differences in the outcome measures across the four groups (students with mentors in the formal program, students with mentors not in the program, those who worked without a mentor, and those who did not work) at the beginning (time 1) of the school year. The student's race, gender, and grade were used as control factors in these analyses. There were no significant differences in the adjusted means of the outcomes at time 1 across the four student groups (self-esteem: $F_{3,78} = .93$, *ns*; school relevance: $F_{3,78} = .30$, *ns*; work attitude: $F_{3,78} = .26$, *ns*).

An ANOVA was also run to determine if there was a difference in the time (number of months) the students actually worked with their mentors between those students in the district program and those who found mentors on their own. This analysis showed that there were no group differences in this variable ($F_{1,25} = .65$, *ns*). Although the students with mentors in the formal program reported higher levels of satisfaction with their mentors than those with informal mentors (5.24 vs. 5.07), this difference was not significant ($F_{1,28} = .12$, *ns*). Additionally, there were no significant differences between the students with formal and informal mentors in student reports of the frequency their mentors spoke with them about the relevance of school ($F_{1,25} = .002$, *ns*) and about the students' jobs ($F_{1,25} = .37$, *ns*). However, the informal mentors did speak with their protégés more frequently about how to be successful in an organization than the formal mentors ($F_{1,24} = 5.32$, $p < .01$).

To test the first three hypotheses, three ANCOVA's were run to determine if there were significant differences across the four groups, mentored (formal and informal), and non-mentored students (employed and not employed) for each attitude and belief. It was hypothesized that students in formal mentor programs believe more strongly in the relevance of school and express more favorable attitudes toward work than those not in the program, and that students with mentors have stronger self-esteem beliefs than students without mentors. The three ANCOVA's all showed significant mean differences across the groups, although some differences were moderate, using two-tailed tests (school relevance: $F_{3,79} = 2.82$, $p < .05$, $\eta^2 = .10$; work attitude: $F_{3,77} = 2.37$, $p = .08$, $\eta^2 = .09$; self-esteem: $F_{3,78} = 2.09$, $p = .05$, $\eta^2 = .10$). Group means, after adjusting for their respective covariates, are shown in Table 2. Students in the formal mentor program and those with an informal mentor reported

Table 1
Means, standard deviations, and correlations for all variables^a

Variable	Mean	SD	n	1.	2.	3.	4.	5.	6.	7.	8.
1. Female	.66	.48	90								
2. Mentor satisfaction	5.44	1.20	34	.07							
Time 1:											
3. School relevance	4.58	1.02	90	-.00	.12						
4. Self-esteem	5.03	1.29	90	-.13	-.16	.46**					
5. Attitude toward work	5.27	1.02	88	-.03	.00	.60**	.65**				
Time 2:											
6. School relevance	5.09	.88	90	.25*	.18	.30**	.08	.12			
7. Self-esteem	5.68	.95	89	.08	.19	.12	.23*	.15	.24*		
8. Attitude toward work	5.73	.83	90	.23*	.18	.03	-.02	.01	.47**	.48**	

^a Correlations include Pearson and point biserial coefficients.

* $p < .05$.

** $p < .01$.

Table 2
Mean differences by program structure and employment status^a

Variable	Mentor in formal program	Mentor not in formal program	Work, no mentor	No work
Self-esteem	5.68 ^a	5.65 ^b	5.61 ^c	4.97 ^{a,b,c}
School relevance	5.35 ^d	5.40 ^{e,f+}	4.77 ^{d,e}	4.96 ^{f+}
Attitude toward work	5.33	5.72 ^g	5.13 ^{g,h+}	5.59 ^{h+}

^a Means are adjusted for covariate, time 1 measure of relevant variable. Means with the same superscript differ at $p < .05$ (two-tail tests).

^{f+} Significance level $p = .08$.

^{h+} Significance level $p = .07$.

significantly higher levels of self-esteem at the end of the school year, than those who did not work.

In addition, students who worked with mentors either through the formal program or in spontaneous relationships, believed more strongly in the relevance of school than those students who worked without mentors. Those who worked without a mentor believed less strongly in the relevance of school than those in the other three student groups. Attitude toward work was stronger for students in informal mentoring relationships than those who worked without a mentor. In fact, these student attitudes at the end of the school year were lowest for those who had worked and did not have a mentor. There was a significant difference in this variable between those who had mentors not in the formal program and those who worked, as well as between the latter group of students and those who did not work ($p = .08$).

Three different ANCOVA's were run to test hypotheses 4a and 4b. Hypothesis 4a predicted that students who were satisfied with their mentors would have higher levels of self-esteem and stronger work attitudes than students who expressed less satisfaction with their mentors, as well as those who did not work with a mentor. It was also expected (4b) that mentor satisfaction would not be related to the belief that school is relevant to work. Similar to the first three ANCOVA's, the time 1 measures of the dependent variables were used as covariates, and control factors included race, grade level, and gender. The four groups for these analyses were created by level of mentor satisfaction (high and low) and employment status (employed with no mentor and not employed during the year). Two of the three ANCOVA's showed mean differences across the groups, self-esteem ($F_{3,73} = 2.66, p = .05, \eta^2 = .10$) and school relevance ($F_{3,74} = 3.27, p < .05, \eta^2 = .12$). The ANCOVA for work attitude was not significant ($F_{3,72} = 1.98, ns$). Table 3 shows the adjusted group means for self-esteem and school relevance variables.

Students who reported high levels of satisfaction with their mentors had significantly higher levels of self-esteem at the end of the academic year than students who did not work. Similar to the initial analysis, students who did not work had the lowest levels of self-esteem of any of the groups. There was also a relation between mentor satisfaction and student beliefs. Students who reported higher levels of mentor satisfaction believed more strongly in the relevance of school to work than students who either worked without a mentor or those who did not work.

Table 3
Mean differences by mentor satisfaction and employment status^a

Variable	High mentor satisfaction	Low mentor satisfaction	Work, no mentor	No work
Self-esteem	5.81 ^a	5.44	5.61 ^b	4.99 ^{a,b}
School relevance	5.59 ^a	5.23	4.82 ^a	5.00 ^a

^a Means are adjusted for the covariate, time 1 measure of relevant variable. Means with the same superscript differ at $p < .05$ (two tail tests).

4. Discussion

This study has shown evidence of a positive relation between formal and spontaneous mentoring experiences to the beliefs and work attitudes of urban youth. Consistent in part with hypotheses one and two, working with a mentor in a formal program was related to student self-esteem and the belief in the relevance of school to work. Contrary to expectations of hypothesis three, however, there was also a relation between a spontaneous mentoring relationship and student attitudes toward work. Similar to Ragins et al. (2000), the present study also showed evidence that protégé attitudes and beliefs are related to satisfaction with a mentor, highlighting the importance of the quality of the relationship between the mentor and student. These results are evidence for the belief that positive, supportive adult mentoring relationships that develop in or outside a formal program may be an effective means to counteract some of the negative contextual barriers faced by many urban youth today (Lent, Brown, & Hackett, 2000).

This study also found that students who worked without mentors believed that school was less relevant to work than students who had mentor relationships during the year. This is consistent with some of the early research by Steinberg, Greenberger and their colleagues, which showed negative consequences of working part time for high school students (Greenberger & Steinberg, 1981; Greenberger & Steinberg, 1986; Steinberg, Greenberger, Garduque, Ruggiero, & Vaux, 1982). These negative outcomes were partially attributed to the lack of contact students had on their jobs with adults who would act as positive role models (Greenberger & Steinberg, 1986; Greenberger & Steinberg, 1981). In the present study, students reported their mentors spoke with them frequently about the relevance of school (formal program: mean = 4.1, Informal = 4.0 on a five-point scale, 1 = Not at all, 5 = A lot). Perhaps the mentors successfully persuaded their students when they communicated this message about the relevance of school, particularly in the relationships in which the students were highly satisfied with their mentors.

Contrary to initial expectations, no evidence was found for differences in the beliefs and attitudes of the students who had mentors in the formal program and those with mentoring relationships established informally at work. It was expected that a formal program with specific objectives would more likely engender strong work attitudes and student beliefs in the relevance of school. There are a number of possible explanations why these differences were not found. The predisposition and eagerness

of the students to a mentoring experience may have been a contributing factor. The present study's sample was selected from a pool of students who had expressed an interest in working with a mentor through the school district's program. The students who were not placed in the program may have been predisposed to establishing relationships with adults who had characteristics similar to those targeted by administrators of the formal program. Given the students' interest in participating in the program, it is also likely that the students who established informal mentor relationships at work would be receptive to the mentor's influence. If true, this would highlight the importance of student expectations and motivation to participate in a formal work-based mentoring program.

In addition to the students' motivational predisposition to mentoring, another possible reason why differences were not found between the two student groups may be the underlying motivation of the mentors. Mentoring is based on pro-social behavior, which has been explained from either a social exchange or communitarian perspective (Gibb, 1999). The social-exchange perspective sees pro-social behavior as calculated, i.e., people will behave in this way only if they believe they will get something in return for their actions. The alternative, communitarian view, however, assumes that motivation for this type of behavior lies in an individual's values. Those who possess values that are consistent with, and support the community at large, will engage in pro-social behavior because it is the right thing to do (Gibb, 1999).

It seems likely that this view is most relevant to an adult's decision to mentor a student either by volunteering through a formal program or establishing a mentor-protégé relationship informally. In adult-to-adult mentoring relationships, as protégés advance in their organizations, mentors will receive certain career-related benefits (Kram, 1983, 1985; Wright & Wright, 1987). It is unlikely, however, that these same organizational benefits will accrue to mentors with student protégés, since, in all likelihood, the student will not stay with the mentor's employer. Thus, mentors who either volunteer to work with students in a formal program or do so on their own may possess similar values, values that are indicative of an 'other-focused,' rather than a 'self-focused' orientation (Allen, Poteet, & Burroughs, 1997). It is likely that the motivational basis for mentors who voluntarily mentor youth at their places of employment may be the same as those who volunteer to work with a student in a formal, structured program. Similar to the importance of the student's motivational predisposition, the mentor's predisposition to the relationship may also be an important factor in the success of an adult-youth relationship.

This study reaffirms the potential importance of mentoring urban youth, whether it occurs through a formal program or spontaneously at the work place. Recently, some organizational scholars have suggested a shift in focus away from dyadic mentoring relationships to the study of mentoring networks in and outside organizations (Higgins & Kram, 2001). However, youths in general, and many urban youths from lower socio-economic backgrounds in particular, have limited opportunities to develop such diverse networks of relationships. Thus, facilitating the establishment of positive relationships with adult mentors at work may continue to be an important strategy for school districts and organizations interested in students' school-to-work transitions. Furthermore, the relation found between the present study's outcomes and

the protégés' satisfaction with their mentors implies that the implementation of a work-based, adult–youth mentoring programs should also focus on the quality of the mentors.

The use of longitudinal data in this study contributes to the validity of its findings. However, the sample size and the attrition from time 1 to time 2 serve to limit the extent to which the study's results may be generalized to populations outside the current sample. Despite the fact that data were collected over time, care must be exercised before drawing a causal relationship between the type of mentoring experiences to student attitudes and beliefs. As with other studies of this nature, sample selection bias may exist, as the predisposition of the students to enroll in the program may have affected both the pre- and postmeasures of the outcomes (Burtless & Orr, 1986). This possibility is somewhat mitigated by the fact that no significant group differences were found in the outcomes at the start of the academic year and that all the students in the sample had expressed a similar desire to work with a mentor.

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