THE WORLD BANK ECONOMIC REVIEW, VOL. 15, NO. 1 33–53

Multi-Tier Targeting of Social Assistance: The Role of Intergovernmental Transfers

Harold Alderman

Albania provides a small amount of social assistance to nearly 20 percent of its population through a system that allows some community discretion in determining distribution. This study investigates how well this social assistance program is targeted to the poor. Relative to other safety net programs in low-income countries, social assistance in Albania is fairly well targeted. Nevertheless, the system is hampered by the absence of a clear, objective criterion to determine the size of the grants from the central government to communes as well as limited information that could be used to implement this criterion. Substantial gains in targeting could be achieved if the central government better allocated transfers to local governments, even holding local targeting at base levels.

The decentralization of government services is often proposed as a means to better match preferences and policies, to better execute policies, or both. In targeting services and transfers to the poor, decentralization may reduce the high costs of obtaining accurate information on income and needs. Local government officials, it is argued, are likely to be better informed about their communities and better able to recognize those who are genuinely poor. Households will be less able to conceal information about their circumstances from local authorities than from national authorities. Moreover, because poverty in one community may be characterized by different indicators than would poverty in another community, a decentralized system may also increase the efficiency of a safety net program by allowing local authorities to determine local eligibility criteria.

Effective decentralization does not hinge solely on the accountability and efficiency of local governments, however. Program design requires key decisions by the central government regarding the allocation of grants among local governments to internalize economic externalities and achieve equity goals (Bird and Vaillancourt 1998, Wildasin 1998). There is an inherent irony in this allocation. If it is true that local governments have better information about local conditions and preferences than the center government, then this key allocation is made using incomplete or indirect information: the central government may not have

Harold Alderman is with the Rural Development Department at the World Bank. His e-mail address is halderman@worldbank.org. The author would like to thank Robert Ackland, Anne Case, Carlo del Ninno, Deon Filmer, Margaret Grosh, Vilma Kopeja, Martin Ravallion, and Sandor Sipos for assistance on various aspects of this research.

© 2001 The International Bank for Reconstruction and Development / THE WORLD BANK

the capacity to obtain this information or local governments may not have the incentive to transmit it.

The relationship between decentralization and poverty alleviation has been reviewed by Bird and Rodriguez (1999) and Klugman (1997). Coudouel, Marnie, and Micklewright (1998) looked at safety nets administered by councils of elders in Uzbekistan, and Ravallion (1998) studied a decentralized poverty program in Argentina. This article adds to that evidence by examining the Albanian government's recent attempt to devolve responsibility for a social assistance program to local authorities. Two companion studies to this one confirm that, first, local governments do indeed use information not accessible to the center (Alderman 2001) and, second, the center uses political as well as economic criteria to determine the magnitude of intergovernmental transfers (Case 2001). In this study I examine the degree to which the central government's mistargeting of grants influences the ability of the social assistance program to reach the poorest households.

I. The Interplay of Local and Central Targeting Criteria

Decentralization can create economic inefficiencies if firms or individuals are mobile and make decisions to relocate based on taxation rates or the magnitude of local transfers. One thread of the analysis of fiscal federalism has investigated how grants from the center can be designed to avoid incentives for such inefficiencies. Wildasin (1991), for example, observed that when individual mobility is considered, efficiency implies that communities with weaker preferences for redistribution should receive *larger* subsidies from the center. Ravallion (1998) added to this literature by including the possibility that different jurisdictions may have different abilities to administer programs, as well as different preferences. He observes that theory does not determine whether providing more resources to the poorest communities enhances or hinders poverty targeting. In Argentina, for example, richer provinces show greater ability or willingness to target than poorer ones.

Efficiency, however, is not the only reason a central government may want to create incentives for local governments to redistribute assistance. Inman and Rubinfeld (1997b) addressed this issue in their discussion of welfare reform in the United States. They point out that the relative weights that the central government places on economic efficiency and individual rights influences the types of incentives and controls it chooses. This reflects another thread in the literature on decentralization: how individuals communicate their interests to governments and how different tiers of government are held accountable by their constituencies and by each other (Inman and Rubinfeld 1997a).

If directly accountable to their consistencies, local authorities may be tempted to exaggerate the extent of poverty in their area (knowing that such fraud is unlikely to be uncovered) to increase their share of national funds. This may be the case particularly if local governments are not required to provide cofinancing, which

would give them an incentive to maintain fiscal discipline. Similarly, in light of Wildasin's (1991) observation, communities may not reveal (act on) their preferences for redistribution in hopes of securing greater funding in repeated budgeting.

The gap between the information on poverty available to local governments and that transmitted to central authorities has different implications depending on the program design. For example, whether the central government chooses to distribute its social programs as entitlements granted to individuals but administered by local authorities or as block grants to local authorities can affect the federal deficit as well as poverty alleviation. In an entitlement program the central government guarantees that it will distribute social assistance to all households with incomes lower than a certain threshold. Under this type of program, mistargeting resources to the nonpoor affects central accounts.

In contrast, under a block grant program the central government gives each local authority a separate, generally predetermined, grant that it may use to provide a range of services, including social assistance to poor households within their jurisdiction. This program lessens the amount of information on the incomes of individuals that the central government must obtain, although it still presumes that the central government has accurate measures of the relative magnitude of poverty across communities. Misclassifying households need not affect the total budgetary outlay. However, mistargeting may reduce the local funds that can be used for poverty alleviation.

Block grants must be allocated according to a formula that determines the size of the central government's contribution. Often, allocations across communities are based not only on the size of their populations but also on their poverty rates. But the central government may have relatively little access to this information—exactly the information that the theory on decentralization posits they obtain inefficiently. The internal contradiction is not quite as strong as it appears, however, because regional rankings are probably far more robust than individual or household rankings. Nevertheless, because survey data are rarely accurate except at a broad level of disaggregation and because census data are generally not a good source of data on household income, the central government must still determine which available indicators are appropriate before allocating block grants.

The strategy I use in this study to explore how allocations from the center affect local targeting decisions is as follows. The first step is to indicate the sensitivity of allocation to the size of the grant. If the central government administered local assistance directly to households as an entitlement, the total allocation from the center to the community would provide no additional information than that contained in the household variables that determine eligibility. This polar case is easily rejected with the available data. Then I explore how much of an increase in the grant from the center is used to raise the number of recipients and how much is used to raise the grant per recipient. I use the regressions in this part of the analysis to project the impact of a more pro-poor allocation from the center on allocations to low-income households.

II. Social Assistance Reform in Albania

As in much of Eastern Europe and the former Soviet Union, the breakdown in central planning in Albania caused an avalanche of industrial closures. These led to both massive unemployment and a contraction of state revenues with which to finance cash transfers and price subsidies for the newly unemployed. In response, the Albanian government phased out most consumer subsidies and rationalized unemployment benefits and social assistance. For example, the government raised wheat and bread prices in two major steps in 1992 and 1993, leading to more than an eightfold nominal price increase and a tripling of the real price of bread.

At the same time the government stopped paying the wages of hundreds of thousands of employees from idled state enterprises and began a policy of layoffs. The laid-off workers received a compensation payment equivalent to 80 percent of their wage fixed for a one-year period. By the time that year had expired, the government had introduced an additional safety net, the Ndihme Ekonomika (NE) program. The NE program was designed to support urban families with no other source of income and rural families with small landholdings. As the NE is currently the main means of social assistance in Albania, I use the term synonymously with social assistance in the rest of the article.

Initially, the NE program was an entitlement conditional on an income criterion determined in the Albanian capital, Tirana. The government established and publicized minimum and maximum levels for the grants and monitored their distribution. Families applied for NE benefits at local offices of the Ministry of Labor and Social Protection and had to provide documentation of their landholdings and current employment status. Because the program involved no local cofinancing (little tax revenue is raised by local governments in Albania), local councils had little incentive to verify this documentation. Regional officers from the ministry did, however, conduct spot checks to verify the information presented by applicants.

In early 1994 the government cut NE funds because it was afraid that the cost of the program would exceed government resources. Average allocation per commune (an administrative unit containing up to nine villages and averaging roughly 1,500 households) was reduced by 25 percent. Although the government considered several objective formulas to determine the level of funds that should go to each commune, none were implemented during the period studied. Local jurisdictions were allowed to appeal these cuts (set in Tirana), but the process resulted in a bias toward urban and politically strategic districts, after accounting for population and poverty levels (Case 2001). The change in the total allocation was not accompanied by a change in the rules determining eligibility nor a change in the regulations regarding the level of transfer per recipient. In effect, the change in allocation required that the communities face a hard budget constraint, making ad hoc adjustments to the allocation procedure accordingly. Thus, to a fair degree, the separation of the central funding decision from the local determination of needs can be considered a de facto decentralization.

In October 1995 the government reformed the law controlling the NE to make it more in keeping with a block grant program, which it had become, rather than an entitlement program, which was its original design. Although the government retained the upper limit on payments per household, it eliminated the minimum level except for a small number of physically disabled people. Moreover, local administrators received the right to retain 50 percent of the difference between the block grant of social assistance money given to them by the Ministry of Labor and Social Protection and the amount that they then allocated to local households. Local authorities were authorized to use these leftover funds to finance community public works projects and to retain the funds (either physically or on account) for a year to accumulate the necessary amounts to initiate a project. However, communes could also have received additional funds from the Ministry of Labor and Social Protection (as well as other sources) earmarked for public works and, therefore, had little real incentive to use NE funds for such projects. Because communes were not directly responsible for financing health or education, they also had little incentive to use NE funds for these services.

The number of families assisted by the NE program remained fairly constant between January 1994 and August 1996, even though economic conditions in Albania improved. In August 1996, when the data for this study were collected, 145,232 families—about 20 percent of the population—received assistance from the NE program. However, most participating rural families received only a partial payment that was meant to supplement local agricultural earnings. The average payment in rural areas was only 56 percent of the payment to households that received the full level of support. In 1996 the NE program accounted for a little more than 1 percent of gross national product (GNP).

As currently administered, the commune's allocation process has three steps (Case 1997). First, families apply to the commune's office of social assistance. The program administrator (an official paid by the Ministry of Labor and Social Protection) then draws up a list of eligible recipients and estimates a household's needs according to its size and landholdings, as well as whether household members earn a wage or receive a pension. This formula is a bit atavistic, reflecting the original concept of a household entitlement. In August 1996 the core compensation was calculated as 2,150 lek (US$1 = 104.5 lek) for the first adult in the household and between 400 and 510 lek for other members in different age categories.

Unemployment insurance and pensions received are then subtracted from this amount, as is an estimate of potential earnings from land owned by a household. This estimate is based on per capita land ownership multiplied by a coefficient that varies according to the quality of the land owned. The formula allocation is truncated at zero for those above the eligibility threshold, that is, no one is taxed on the basis of this formula. The formula is also capped with an upper limit that varied according to household size. The highest value in August 1996 was 5,375 lek ($51.43) per household per month.

Finally, the elected commune council determines the actual allocation for each household. The council is free to add or subtract names, as well as to adjust the

payment per household subject to the available grant from the center. The allocation may change from month to month given new information and the total received from the center. The procedure for applying and screening is basically the same in rural communes as in cities, which may range from the size of a single commune to more than 10 times the size of the average commune.

III. DATA

The basis for this analysis is a household survey conducted between August and November 1996 under the auspices of the Ministry of Labor and Social Protection.[1] The survey was a multipurpose, modular, living standards measurement survey (LSMS), following a format used in more than 20 countries (Grosh and Glewwe 2000). However, the basic LSMS approach was modified somewhat to permit the survey questionnaire to be administered in a single visit to each household. The survey obtained data on expenditures, labor force participation, search for employment, public and private transfers, housing, consumer durables, land, livestock, and other productive assets.

Expenditures on individual commodities were aggregated to construct total expenditures, the principal indicator of household welfare used in this study. Quantities of goods produced by the household for its own consumption were valued at the average unit price reported in the community. The annual consumption of services of durable goods was valued as a percentage of the reported stock of durables (Hentschel and Lanjouw 1996). The imputed value of rent for housing was estimated from a hedonic regression of a household's estimate of the rent that could be received for its dwelling regressed on qualities of the dwelling. As a sensitivity analysis, this imputed rent was also calculated using the reported sale value of the unit. The two measures were very strongly correlated with a correlation coefficient of 0.97. For aggregation purposes livestock were valued at the average cost of each type of animal over all rural areas, and other assets were valued at the reported current resale value. The means of variables are reported in appendix table A1.

The survey sample was based on a stratified random draw of communes (or, for the urban survey, of cities) and, subsequently, of households. The probability that an administrative unit was chosen was proportional to the number of social assistance recipients in the area.[2] That is, cluster-based sampling was used, as it often is, to reduce the cost of collecting the data. Cluster-based sampling

1. The Ministry of Labor and Social Protection is responsible for monitoring poverty, although this responsibility is shared with the Institute of Statistics. The data were collected by a private consulting firm, Consulente Albania.

2. The analysis takes these sampling weights into account. As NE recipients are overrepresented in the sample, the unweighted results would imply receipt of more assistance (as well as greater poverty) than a representative sample of the country, exclusive of Tirana. Although none of the conclusions from the regressions change substantially with weighting, the weighted average level of NE funds shows that

has an additional advantage for this study in particular. Although Albania has several administrative levels, the commune is the administrative unit that manages the block grant and, hence, is the obvious choice for defining a cluster in rural areas (of which there are 315 in Albania). Fifty communes were chosen. The commune's records of local families provided the basis for the sample with an expected draw (without replacement) of 1,400 households. No additional stratification within communes was used, despite the fact that, on average, each commune has about nine geographically distinct villages.

Only 1,091 rural interviews were completed. A few of the households that were selected could not be visited because of flooding; in a few cases household members refused to be interviewed. But the main reason for the difference between the potential number of interviews and the actual number conducted was that households had migrated out of the communes. Because there had been no census in Albania since free movement throughout the country was permitted, the Ministry of Labor and Social Protection was interested in knowing the difference between its census records and actual conditions. The 16.6 percent migration rate from rural areas since 1991 that is implied by the discrepancy between the commune's census records and the observations of the survey interviewers roughly matches the observed growth of cities during 1991–96.

In urban areas the first level of stratification for the sample is the bashki, or municipality, of which there are 47. Because a household survey was recently carried out in Tirana, that city was removed from the potential draw. Eight bashkis were selected. Maps were then used to divide each city into 16 squares, and 2 squares were chosen at random from each city. All households residing in those squares, including recent migrants, were then listed during the survey's fieldwork stage, and 30 households were selected by a random draw from each square in the sample.

These household-level data were merged with commune- and city-level data. The Ministry of Labor and Social Protection provided information on total monthly payments, population, and indicators of cultivated land per individual. The Socialist Party (in opposition at the time of the research) provided data on voting records for both local government elections in 1992 and the 1994 referendum on the constitution. Finally, a community survey obtained data from the commune's mayor and social assistance administrator. The survey provided a means to verify the data from the other two sources. Strong correlations were found between different measures of party support and between commune and ministry measures of funds received (Case 2001).

---

a smaller share of the total population reported receiving social assistance than the records of the Ministry of Labor and Social Protection indicated. Given the uncertainty about the population of the country (not to mention uncertainty about the population per census tract), it is not advisable to use this discrepancy as an indication of administrative leakage.

IV. Targeting Effectiveness

Almost half of the poorest families (those in the first decile, with per-capita expenditures less than 2,422 lek per month or US$23.18) received some assistance from the NE program between October 1995 and August–November 1996. In contrast, few of the comparatively well off households received assistance. When households are ranked by per-capita expenditures, there is a sharp decline in the share of social assistance going to each decile (figure 1). Nevertheless, most poor households are excluded from the program; even though the poorest decile received 36 percent of total NE expenditures, slightly more than half of these households did not receive social assistance (figure 2).

If the poor are defined more broadly to include the poorest four deciles (with expenditures less than 4,183 lek per month or US$40.03), the share of expenditures going to the poor rises to three-fourths of all NE expenditures. But, still, more than 70 percent of the poor do not receive NE benefits. The share of benefits going to the poor in Albania compares favorably to the share going to the poor in successful targeted food stamp programs, such as those in Jamaica or Sri Lanka (Alderman 1991), means-tested pensions in South Africa (Case and Deaton 1998), or most targeted programs in Latin America (Grosh 1994).

I measure expenditures in these estimates by subtracting the NE transfers from total expenditures. This tacitly assumes that private transfers to a household and the household's work effort are unchanged by the availability of benefits. This ex ante estimate of expenditures can be regarded as a lower bound of what household welfare would have been if there were no social assistance. Generally, a change in pensions or state transfers is partially compensated by an increase in private transfers, although this compensation is usually much less than one for

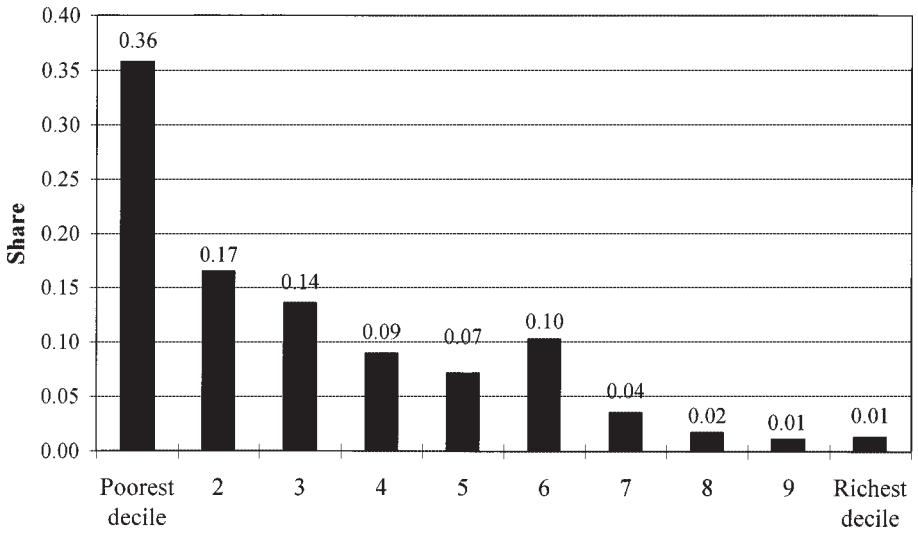

FIGURE 1. Share of Social Assistance Received by Expenditure Decile, 1995–96

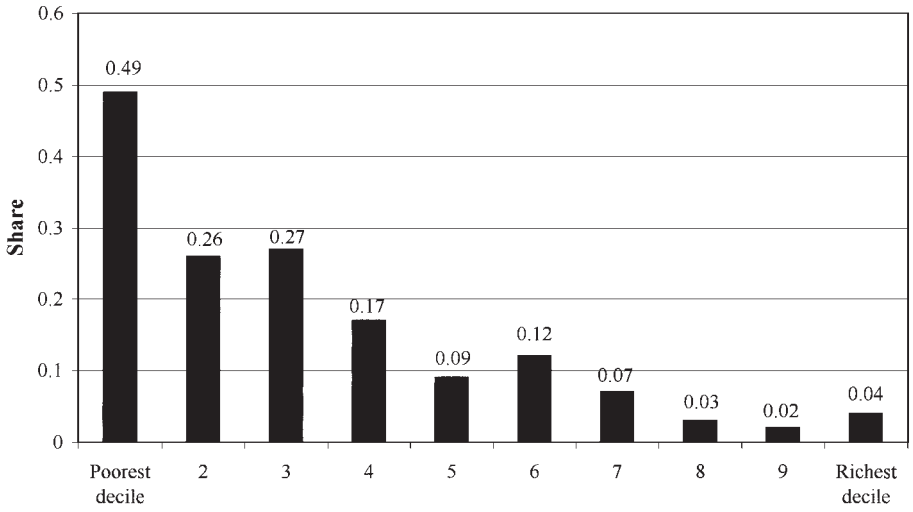

FIGURE 2. Share of Each Expenditure Decile Receiving Social Assistance, 1995–96

one (Cox, Jimenez, and Jordan 1995). However, if the benefits from the NE program substitute fully for private transfers and work effort, it must be assumed that households will gain increased leisure as a result of receiving NE benefits, whereas their nonresident relatives who would have otherwise sent them money will have higher consumption.

Even so, the distribution of the NE looks similar to the ex ante rankings—because few poor people become nonpoor on receiving NE benefits. The NE program raises 13 percent of the households in the poorest decile above the poverty line, as compared with only 3.5 percent of households in the poorest four deciles. The benefit that is transferred is modest relative to the average income of the population. Recipient households in rural areas receive, on average, 289 (standard deviation = 211) lek per capita per month in NE benefits. Although a lower percentage of urban households receive assistance, those that do qualify receive 590 (standard deviation = 189) lek per capita per month.

V. Regression Analysis

This overall targeting performance reflects both the effectiveness of the allocation in each community as well as the ability of the central government to determine the amount that each community should receive. I estimate two sets of regressions to see how the size of the grant to the community affects poverty targeting within the local jurisdiction. First, I estimate the probability that a household receives social assistance using a probit regression. Second, I regress the amount received per household on a set of household characteristics, conditional on the household receiving some assistance. This made it possible to investigate whether local authorities use increases in their allocations from the

central government to raise the number of beneficiaries or to raise the payment to existing beneficiaries.[3]

Results of the Decomposition

The coefficients of expenditures show that as expenditures increase, both the probability of support and the amount of assistance provided to a household, conditional on its being a recipient, decreases, holding family composition and assets constant (table 1).[4] This decline with rising consumption indicates the poverty targeting of the program.

The results also show that pensions and the presence of a wage earner influence the amount of social assistance received in a manner that differs from the overall effect of total expenditures. That is, families receiving pensions or earning wages are not treated the same as families with equal levels of consumption supported from other sources of income or transfers. There is an additional reduction in the probability of assistance for pension recipients and wage earners beyond the impact of the increased consumption financed by such income. The impact of having a wage earner or receiving a pension is similar. The average value of an old-age pension, conditional on having one, is 2,455 lek per month, and the value of other pensions is 2,199 lek. Thus, the average reduction in the probit equation would be 0.8 for an old-age pension and 0.9 for the others. Both of these are close to the coefficient in the probit for having a wage earner in the household (–1.1). Commune officials may be better able to observe these sources of income than other sources, although they do not yet have access to computerized files to verify pensions. Pensions and wages do not have a significant effect on the amount of assistance conditional on having been selected, possibly because these households have concealed this information from community officials.

The regressions in table 1 also include a measure of the amount of assistance that the Ministry of Labor and Social Protection provides to local authorities. These data are taken from ministry records and verified with local officials. In the first two regressions this measure is averaged over all households. It might seem unremarkable that the resources provided to the local authority are strongly correlated with the amount of assistance a household receives. However, the significance of the variable for the allocation from the center is a simple test of the departure from a program that bases allocations on a common formula or entitlement. Rural households in communities with higher than average per-household grants from the center receive more than similar households in other communities. Excluding the variable that measures the allocation from the cen-

3. The analogous probit and conditional ordinary least squares (OLS) regressions for urban areas are less informative than those for rural areas because the urban sample is smaller than the rural sample (especially the sample used in the conditional OLS). However, these results also indicate poverty targeting in urban areas (Alderman 2001).

4. Alderman (2001) indicated that the measurement of a commune's targeting by expenditures is robust to alternative definitions of expenditures as well as to whether observed or predicted expenditures are used.

TABLE 1. Decomposition of Rural Social Assistance into Probability of Assistance and Amount Received

Variable	Probit *(dependent variable = 1* if received assistance)	Conditional OLS *(dependent variable = 1* if received assistance)	Probit *(dependent variable = 1* if received assistance)	Conditional OLS *(dependent variable = 1* if received assistance)
Old-age pension (lek)	–.00032	-5.5×10^{-5}	–.00032	0.9×10^{-5}
	(5.41)	(0.82)	(5.36)	(0.12)
Other pension (lek)	–.00040	-9.4×10^{-5}	–.00039	3.7×10^{-5}
	(3.37)	(0.66)	(3.37)	(0.26)
Wage earner (1 = yes)	–1.124	0.046	–1.110	0.169
	(6.28)	(0.21)	(6.32)	(0.69)
Predicted expenditure	–.000053		–.000056	
	(2.96)		(3.34)	
Logarithm of total expenditure		–0.228		–0.237
		(2.51)		(2.64)
Distance to commune offices	.00066	1.8×10^{-4}	.0010	1.8×10^{-4}
(minutes)	(0.66)	(0.17)	(0.90)	(0.17)
Logarithm social assistance	.619	.381		
to commune per household	(5.56)	(2.76)		
Logarithm social assistance			0.422	0.266
grant ratio			(3.07)	(2.28)
Value of land (100 lek)	-6.96×10^{-5}	5.31×10^{-6}	-9.18×10^{-7}	-2.96×10^{-8}
	(3.03)	(0.30)	(3.92)	(0.14)
Value of animals (100 lek)	6.17×10^{-5}	08.18×10^{-6}	-1.05×10^{-7}	1.31×10^{-7}
	(0.49)	(0.06)	(0.08)	(0.09)
Number of children	0.180	0.094	0.190	0.071
age 5 and under	(3.45)	(1.99)	(3.01)	(1.38)
Number of male children	0.045	0.043	0.092	0.053
age 6–15	(0.66)	(1.09)	(3.01)	(1.19)
Number of female children	0.094	0.054	0.116	0.383
age 6–15	(1.91)	(1.36)	(2.42)	(0.95)
Adult males	0.162	0.041	0.178	0.494
	(1.96)	(095)	(2.18)	(1.10)
Adult females	0.321	0.104	0.333	0.0808
	(4.59)	(1.78)	(4.94)	(1.46)
Elderly	0.280	–0.259	0.314	–0.276
	(1.69)	(2.49)	(1.81)	(2.49)
Mills ratio		1.14		–0.313
		(1.00)		(1.90)
Sample size	1091	303	1091	303

Note: The dependent variable in the OLS regressions is the monthly receipt of social assistance per household in August–November 1996. *t*-statistics (in parentheses) are corrected for heteroskedasticity and cluster sampling.

Source: Author's calculations.

tral government (results not shown) lowers the magnitude of the coefficient of household expenditures in the probit regression by only 2 percent and that of the logarithm of expenditures by 20 percent in the conditional regressions.

With these results, it is possible to directly estimate (using logarithms) the *proportional* increase in assistance that local authorities give to each household when the household receives a proportional change in its allocation from the central government. To elaborate, the expected value of assistance from the NE program is the product of the probability that the household obtains assistance and the average value of assistance for those households that receive NE benefits. Using the formula for a derivative of a product, it is then possible to determine the overall change in the logarithm of NE benefits given a change in the logarithm of grants to the community (Ln*Gr*) using the regression for eligibility and conditional allocation. In particular:

$$(1)\quad \delta(\mathrm{Ln}NE) / \delta(\mathrm{Ln}Gr) = [\delta(Probability) / \delta(\mathrm{Ln}Gr)] * E(\mathrm{Ln}NE \mid NE > 0) + [\delta(\mathrm{Ln}NE) / \delta(\mathrm{Ln}Gr)] * E(Probability)$$

where *Probability* refers to the probability that NE benefits>0, and E(.) denotes the expected value. Thus we can construct the elasticity of household allocations with respect to the grant to local authorities from the central government using the derivatives of the probit results calculated at the mean of all variables and the coefficients of the conditional OLS.

This elasticity is 1.09. It is not significantly different than 1.0, which would be its value if local authorities do not use their extra resources to fund other projects as their allocation from the central government increases. This pass-through of central funds to the individual is much larger than is common in other countries (Hines and Thaler 1995). However, it is important to recall that the range of activities that is or can be legally funded by local governments is limited in Albania. The most obvious alternative use of NE funds is for public works. But communes may also receive additional funds from the Ministry of Labor and Social Protection (as well as other sources) earmarked for public works and, therefore, have little incentive to use NE funds for this activity. Communes have rarely used social assistance funds for such endeavors (Agolli 1997).

More than 90 percent of the increase in allocation from the central government is used to raise the number of families in the community that receive assistance rather than to raise the payment to existing recipients. In other words, the first term in equation 1 dwarfs the second. This is the case even though recipients of social assistance in rural areas receive little money compared to recipients in urban areas.

In lieu of the measure of per-household allocation, the regressions in columns three and four of table 1 include a measure of funding for social assistance at the level of the commune that is scaled according to each community's need. The indicator of the grant from the center in these regressions is the ratio of the per-household grant from the Ministry of Labor and Social Protection to the amount of social assistance that would have been received if assistance was based on the

formula for allocation that was used when the program was first introduced. As mentioned above, this formula is still the first step in determining assistance. The ratio of the ministry's allocation relative to the formula used to estimate need averaged only 0.17 (standard deviation = 0.14) in rural areas. Using a measure of assistance provided by the center that is scaled to an assessment of the average level of need in the community does not change the qualitative result. As with the regressions that use average grants per household, the coefficient of this ratio indicates that communities devote most of an increase in the amount of social assistance from the center to include more households in the program rather than to increase allocations to recipients.

Alternative Regression Specifications

Before addressing the main objective of this study—assessing the sensitivity of poverty targeting at the household level to variations in the size of grants from the center—it is useful to explore two variations of the regressions reported. First, the first four columns of table 2 indicate that there are no significant differences across expenditure groups in terms of the change in the amount of assistance received when the central government's allocation to the local authority changes. This implies that local authorities appear to make an across-the-board proportional adjustment to their per-household allocations rather than to protect the poorest from shortfalls by cutting their allocation less than the allocation to those who are less poor.[5] Given that the poorest households receive more assistance than less poor households, a proportional change in the allocation from the central government results in a higher absolute adjustment of payments to poorer households when there are shortfalls in the availability of social assistance.

Second, the last four columns of table 2 provide some assurance that the relationship between the assistance received by the household and the size of the grant to the community is not a result of the endogeneity of the grant. To address the possibility that the Ministry of Labor and Social Protection observes aspects of community poverty that are not specified in the regression in table 1 but are correlated with assistance provided to households, the final two pairs of regressions use instrumental variables for the grant to the community (or the grant ratio). The instrument for the community grant is based on auxiliary regressions relating the grant to the population of the commune, the average size of land cultivated, whether the mayor is of the same party as the central government, the percentage of votes for the referendum on the constitution (favored by the Democratic Party in power), and the percentage of votes squared. Case (2001) indicates that the voting pattern of the commune is a strong determinant of the allocation from the center. In the regressions used here, the *F*-test statistic(3,44) for the significance of the three election variables is 4.21 for the logarithm of the per household grant (regression R^2

5. A commune may cut the allocation to the poor less when there is a shortfall and raise it more when there is a windfall. Although a dynamic data set is better suited for testing this, I did allow the coefficient of the grant from the center to the poor to vary if the average grant was greater or less than the median. There was no significant difference in these coefficients.

Table 2. Alternative specifications for the Determinants of Rural Social Assistance

Variable	Probit(1)	Conditional OLS(2)	Probit(3)	Conditional OLS(4)	Probit(5)	Conditional OLS(6)	Probit(7)	Conditional OLS(8)
Predicted expenditure	–.000027		–.000042		–.00050		–.00051	
	(1.49)		(2.48)		(2.97)		(3.10)	
Logarithm of total expenditure		–0.450		–0.528		–0.203		–0.220
		(3.17)		(4.02)		(2.29)		(2.38)
Logarithm social assistance to commune per household (poorest expenditure quintile)	0.633	0.293						
	(5.70)	(2.29)						
Logarithm social assistance to commune per household (second expenditure quintile)	0.655	0.340						
	(6.12)	(2.37)						
Logarithm social assistance to commune per household (third expenditure quintile)	0.597	0.324						
	(5.21)	(2.63)						
Logarithm social assistance to commune per household (fourth and fifth expenditure quintiles)	0.542	0.381						
	(4.86)	(3.09)						
Instrumented logarithm social assistance					0.669	0.428		
					(4.26)	(2.44)		
Logarithm social assistance grant ratio (poorest quintile)			0.371	0.465				
			(2.37)	(3.51)				
Logarithm social assistance grant ratio (second quintile)			0.277	0.328				
			(1.69)	(3.02)				
Logarithm social assistance grant ratio (third quintile)			0.359	0.254				
			(2.36)	(2.27)				
Logarithm social assistance grant ratio (fourth and fifth quintiles)			0.559	–0.035				
			(5.55)	(0.28)				
Instrumented logarithm of social assistance grants ratio							0.786	0.244
							(2.69)	(1.03)

Notes: All other variables in table 1 are also included in the regression reported here although they are not listed in the table. *t*-statistics are in parentheses.
Source: Author's calculations.

= 0.61), whereas the figure is 4.37 in regressions explaining the logarithm of the grant ratio (regression $R^2 = 0.30$). Surprisingly, neither average expenditures per commune based on the sample data nor the poverty rate were significant in alternative specifications, which also include land cultivated.

Although the identifying instruments are not totally immune from the possibility that they are themselves endogenous, the regressions in columns 5 and 6 of table 2 reinforce the conclusion from the first two columns of table 1. There is no substantial difference between the coefficients of the instrumented version and their counterparts. The difference that does exist may have as much to do with measurement error as with a common causality; although the total allocation from the Ministry of Labor and Social Protection to the commune is known with near certainty, the population of the commune used to construct the average allocation may be inaccurate. The coefficient of the instrumented grants ratio in column 7 is, however, surprisingly large; if taken at face value it implies a far *greater* increase in the probability of receiving assistance with a higher grant compared to column 3 of table 1. The point estimate in column 8, however, is similar to its uninstrumented counterpart.

Can Reallocating Grants Improve Poverty Targeting?

To investigate whether reallocating the national budget for social assistance can improve poverty targeting, I devised a few scenarios using the results in table 2, as well as corresponding regressions for urban areas. These are designed to show how each way of distributing the same amount of social assistance to local authorities targets that assistance to the poor. Each column in the top half of table 3 shows the percentage of the poor who receive assistance, given three different poverty lines. The lower half of the table indicates the share of the total allocation that would go to those households.

The first column in table 3 shows the situation in August 1997 and corresponds to figures 1 and 2. The second column shows the predicted distribution based on the regressions that explain the probability of receiving assistance and the amount received (reported in columns 1 and 2 of table 2). The ranking of households from these regressions (holding the number of urban and rural recipients constant) would provide assistance to 53 percent of the poorest decile, to 42.7 percent of the poorest two deciles, and to 31.3 percent of the poorest four deciles. It is not surprising that these rankings closely approximate the observed poverty rankings, because the regressions seek to predict current behavior.

The last five columns of table 3 modify this ranking by conducting counterfactual experiments in which the grants to the commune are varied. Again, the number of households receiving assistance and the total amount of funding from the central government are held constant. Targeting grants on the basis of a local authority's share of the total number of poor in its sector (urban or rural) would raise the percentage of households in the poorest decile that would benefit from the program by nearly 20 percent of the baseline. Gains to the poorest two deciles would be similarly proportional, although they would be comparatively modest

Table 3. Poverty Targeting of Alternative Proxy Indicators

	Current patterns (1)	Predicted allocations using table 2, columns 1 & 2 (2)	Basing grants on share of rural or urban poverty		Basing grants on total poverty		Equating per household grants to community (7)
			Poorest 10 percent (3)	Poorest 40 percent (4)	Poorest 10 percent (5)	Poorest 40 percent (6)	
Percentage of poorest 10 percent receiving assistance	48.9	53.6	64.1	62.3	65.7	62.4	60.1
Percentage of poorest 20 percent receiving assistance	37.4	44.7	50.5	50.9	51.0	52.2	52.0
Percentage of poorest 40 percent receiving assistance	29.2	31.7	33.9	34.1	34.9	36.1	35.4
Share of total allocations received by poorest 10 percent	35.7	38.4	42.3	40.3	49.2	46.4	43.5
Share of total allocations received by poorest 20 percent	52.2	58.5	65.7	64.9	72.7	73.0	70.8
Share of total allocations received by poorest 40 percent	74.8	80.3	87.4	86.5	93.2	95.5	91.4

Source: Author's calculations.

if the target group were defined to include the poorest 40 percent of the population. The degree of improvement in the inclusion of poor households differs little depending on whether the share of the poor in the local authority's area of jurisdiction is calculated on the basis of the total number of households in the poorest 10 percent, the poorest 20 percent (not shown in the table), or the poorest 40 percent of the sectors' population (column 4).

Both indicators of targeting effectiveness improve further if the number of *rural* recipients is not held constant and if the total funding to the community is based on the share of poverty across sectors rather than within a sector (columns 5 and 6). The improvement is especially marked for the share of funds going to the poorest decile, which would increase by nearly 40 percent over the baseline simulation. Finally, the last column of table 3 shows that if the central government allocated grants to cities and communes on an equal per-household basis and if the cities subsequently allocated these funds in accordance with the results in table 2, targeting would still improve over the values predicted from current behavior. The amount of funding received by the poorest deciles would increase in rural areas, where more of the poorest households reside. Currently, these areas have a comparatively large number of recipients who each receive a relatively small grant.

VI. Conclusions

Two of the results reported here should be highlighted. First, social assistance is well targeted to the poor in Albania compared with other developing countries. Second, local authorities better allocate social assistance among households than does the central government among local authorities.

To elaborate, the observation that half of social assistance is going to the poorest quintile is analagous to the proverbial half-full/half-empty cup. The program is as well targeted as many of the more effective programs of price subsidies or food-related transfers elsewhere in the developing world (Alderman 1991, Alderman and Lindert 1998, Grosh 1994) or as other cash transfer programs in non-OECD countries, such as South Africa's pension program (Case and Deaton 1998). The fact that social assistance in Albania is well targeted is particularly noteworthy because both the size of the total assistance budget relative to overall public expenditures and the low level of income inequality in Albania—hence the difficulty of distinguishing the poor from the nearly poor—might have led to a less favorable outcome. Still, there are many poor people who are not covered.

The weak link in the chain from the center to the poor appears to be the process by which the center allocates funds to the communes. In the absence of information other than land holdings and the number of people receiving pensions—the Ministry of Labor and Social Protection does not even have unemployment statistics disaggregated at the level of the commune—the allocation of social assistance funds from the central government to local authorities is ad hoc and is not strongly correlated with the level of poverty in local communities. This is

fully in keeping with other evidence for Albania (Case 2001) and with global experience (Coudouel, Marnie, and Micklewright 1998, Bird and Rodriguez 1999, Schady 2000, Galasso and Ravallion 1999).

If the central government in Albania were to make NE into an entitlement program or if it were to make the allocation among communities conform more closely to their poverty rankings, the targeting efficiency of the program would improve even more. More funding would be required to make NE into an entitlement program. To allocate funds according to communities' poverty ranking, the central government would require more information than is currently available. However, the scenarios studied show that the improvement is not particularly sensitive to whether a low or high poverty is used to rank communities. Also, any improvements in targeting at this first level do not pose the same disincentive effects that are possible with improved targeting at the individual level.

Unlike many studies that highlight a problem for which no easy solution is apparent, this study presents a problem for which there are solutions. In particular, a number of recent improvements in poverty mapping can provide transparent poverty rankings for small local government units. For example, precise poverty mapping can be achieved by linking household survey data to census data (Hentschel and others 2000, Statistics South Africa 2000). To be sure, Albania did not have a census at the time of this research. However, once such data are obtained, it is a fairly simple exercise to construct such a mapping.

This study highlights the fact that in order to take advantage of local governments' assumed access to local information, there must be a corresponding flow of information to the center as well as an incentive to use this information. The greater complexity of decentralized programs may raise the potential of improved delivery, but also increases chances for misallocating funds at different nodes.

Appendix

Table A-1. Means and Standard Deviation of Key Variables

	Rural		Urban	
Variable	All	Assistance recipients only	All	Assistance recipients only
Social assistance (lek/month)	230.09	1,280.46	261.04	2,326.52
	(612.09)	(860.54)	(781.74)	(801.01)
Recipients Y/N	0.18	1	0.11	1
	(0.38)	(0)	(0.32)	(0)
Formula allocation (lek)	1,639.64	2,807.04	2,168.88	3,125.75
	(1,502.34)	(1,141.92)	(1,697.27)	(1,235.69)
Expenditures	21,251.29	16,356.13	23,725.29	18,517.78
(lek/household/month)	(11,080.35)	(9,095.66)	(10,331.58)	(8,039.57)
Expenditures less durables	20,948.45	16,233.84	23,008.55	18,135.12
(lek/household/month)	(10,828.81)	(9,014.68)	(9,935.13)	(7,898.67)

(*continued*)

TABLE A-1. (*continued*)

Variable	Rural		Urban	
	All	Assistance recipients only	All	Assistance recipients only
Expenditure less housing and durables(lek/household/month)	18,590.93 (10,305.82)	14,305.87 (8,360.92)	17,548.27 (9,001.68)	13,634.78 (6,757.69)
Household size	4.91 (2.19)	5.12 (2.23)	4.06 (1.47)	4.19 (1.67)
Wage earner (1 = Yes)	0.22 (0.41)	0.06 (0.24)	0.47 (0.50)	0.08 (0.27)
Value of animals (100 lek)	649.17 (579.78)	559.42 (443.94)	36.99 (207.81)	0 (0)
Value of land	4,599.68 (7,213.47)	1,442.87 (2,566.70)	1,019.67 (6,566.09)	30.25 (224.92)
Old-age pension (lek)	837.56 (1,543.68)	225.96 (703.59)	1602.01 (2,550.95)	704.70 (1,886.07)
Other pensions (lek)	133.93 (598.42)	46.60 (341.95)	165.66 (874.21)	35.76 (214.91)
Number of children age 5 and under	0.68 (0.87)	0.92 (0.95)	0.42 (0.67)	0.57 (0.86)
Number of male children age 6–15	0.59 (0.83)	0.73 (0.95)	0.42 (0.67)	0.54 (0.73)
Number of female children age 6–15	0.64 (0.84)	0.65 (0.87)	0.47 (0.66)	0.72 (0.72)
Number of adult males	1.36 (0.90)	1.23 (0.77)	1.21 (0.77)	1.07 (0.61)
Number of adult females	1.18 (0.81)	1.23 (0.73)	1.10 (0.67)	1.14 (0.47)
Number of elderly males	0.30 (0.46)	0.21 (0.42)	0.23 (0.43)	0.09 (0.29)
Number of elderly females	0.38 (0.51)	0.24 (0.46)	0.35 (0.50)	0.14 (0.36)
Travel time to commune office	57.57 (48.37)	72.28 (56.14)	13.71 (8.81)	16.34 (8.83)
Grant to commune (lek)	290.54 (256.52)	487.69 (262.34)	574.25 (186.33)	585.74 (183.57)
Grant to commune as ratio to requirements	0.17 (0.14)	0.23 (0.12)	0.26 (0.06)	0.27 (0.07)

Source: Author's calculations.

REFERENCES

The word "processed" describes informally reproduced works that may not be commonly available through library systems.

Agolli, Artan. 1997. *Decentralization and Social Assistance. Impact of Social Capital: The Case of Albania.* Tirana: The Albania Institute.

Alderman, Harold. 1991. "Food Subsidies and the Poor." In George Psacharopoulos, ed., *Essays on Poverty, Equity and Growth.* Elmsford: Pergamon Press.

———. 2001. "Do Local Officials Know Something We Don't? Decentralization of Targeted Transfers in Albania." *Journal of Public Economics* (forthcoming).

Alderman, Harold, and Kathy Lindert. 1998. "Self-targeting of Food Subsidies: Potential and Limitations." *World Bank Research Observer* 13(2):213–30.

Bird, Richard, and Edgard Rodriguez. 1999. "Decentralization and Poverty Alleviation. International Experience and the Case of the Philippines." Public Administration and Development, 19(3):299–319.

Bird, Richard, and Francois Vaillancourt. 1998. "Fiscal Decentralization in Developing Countries: An Overview and Perspective." In Richard Bird and Francois Vaillancourt, eds., *Fiscal Decentralization in Developing Countries*. Cambridge: Cambridge University Press.

Case, Anne. 1997. "The Decentralization of Social Assistance: Evidence from Albania." Woodrow Wilson School, Princeton University. Processed.

———. 2001. "Election Goals and Income Redistribution: Recent Evidence from Albania." *European Economic Review* 45(3):405–23.

Case, Anne, and Angus Deaton. 1998. "Large Cash Transfers to the Elderly in South Africa." *Economic Journal* 108(September):1330–61.

Coudouel, Aline, Sheila Marnie, and John Micklewright. 1998. *Targeting Social Assistance in a Transition Economy: The Role of the Mahalla in Uzbekistan*. Florence: UNICEF Innocenti Occasional Papers #63.

Cox, Donald, Emmanuel Jimenez, and John Jordan. 1995. *Family Safety Nets and Economic Transition. A Study of Private Transfers in Kyrgzstan*. World Bank, Development Research Group, Washington, D.C.

Galasso, Emanuela, and Martin Ravallion. 1999. *Distributional Outcomes of a Decentralized Welfare Program*. World Bank, Development Research Group, Washington, D.C.

Grosh, Margaret. 1994. *Administering Targeted Social Programs in Latin America. From Platitudes to Practice*. Washington, D.C.: World Bank.

Grosh, Margaret, and Paul Glewwe, eds. 2000. *Designing Household Survey Questionnaires for Developing Countries: Lessons from Ten Years of LSMS Experience*. Oxford: Oxford University Press.

Hentschel, Jesko, and Peter Lanjouw. 1996. *Constructing an Indicator of Consumption for the Analysis of Poverty. Principles and Illustration with Reference to Ecuador*. Living Standards Measurement Study Working Paper 124, World Bank, Washington, D.C.

Hentschel, Jesko, Jean Olson Lanjouw, Peter Lanjouw, and Javier Poggi. 2000. "Combining Census and Survey Data to Trace the Spatial Dimensions of Poverty: A Case Study of Ecuador." *World Bank Economic Review* 14(1):147–65.

Hines, James, and Richard Thaler. 1995. "The Flypaper Effect." *Journal of Economic Perspectives* 9(4):217–26.

Inman, Robert, and Daniel Rubenfeld. 1997a. "The Political Economy of Federalism." In Dennis Mueller, ed., *Perspectives on Public Choice*. Cambridge: Cambridge University Press.

———. 1997b. "Rethinking Federalism." *Journal of Economic Perspectives* 11(4):43–64.

Klugman, Jeni. 1997. *Decentralization: A Survey from a Child Welfare Perspective*. UNICEF Innocenti Occasional Papers #63, Florence.

Ravallion, Martin. 1998. *Reaching Poor Areas in a Federal System*. Policy Research Working Paper 1955, World Bank, Washington, D.C.

Schady, Norbert. 2000. "The Political Economy of Expenditures of the Peruvian Social Fund, 1991–1995." *American Political Science Review* 94(2):289–304.

Statistics South Africa. 2000. "Combining Census and Survey Data to Construct a Poverty Map for South Africa." In *Statistics South Africa, Measuring Poverty*. Pretoria.

Wildasin, David. 1991. "Income Redistribution in a Common Labor Market." *American Economic Review* 81(4):757–74.

———. 1998. "Fiscal Aspects of Evolving Federations: Issues for Policy and Research." Policy Research Working Paper 1884, World Bank, Washington, D.C.