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William Davidson Institute Working Paper Number 808
September 2005

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This Version: September 22, 2005

Earlier versions of this paper were presented at "75 Years of Development Research" at Cornell University, Ithaca NY, USA, 7-9 May 2004; "Making Peace Work," WIDER, Helsinki, Finland, 4-5 June 2004, and IZA, Bonn, Germany.

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ABSTRACT
(96 words)

We use the Living Standards Measurement Study (LSMS) household survey from post-conflict Kosovo to examine economic deprivation among Serbs and Albanians. Economic deprivation is measured by per capita household expenditure and by the incidence of poverty as captured by the headcount ratio. We examine the roles played by the stock of attributes and by the impact of these attributes on deprivation using Oaxaca-type decomposition methods. Empirical results for both decomposition analyses show differences in characteristics as well as returns to measured characteristics favor Serbs, even though Serbs have lower expenditures and higher poverty incidence than Albanians.

Keywords: poverty, ethnicity, decomposition
JEL Classifications: I32; O12; J15

1. Introduction

This paper examines the differential rates of economic achievement between the ethnic Serbian and ethnic Albanian communities in the strife torn United Nations protectorate of Kosovo. Serbs and Albanians in Kosovo were involved in an often bloody conflict in the 1990s as the Federal Republic of Yugoslavia ceased to exist as a political entity, manifesting the animosity among ethnic groups that traces back to at least the mid-nineteenth century (Pavković, 2000, p. 81). Poverty plagues the region and per capita expenditure is low, with actual and/or perceived ethnic differences fueling the fires of hate. Ethnic Serbs have less income (measured by per capita expenditure) and higher poverty incidence than ethnic Albanians.[1] In light of Serbian domination in the former Yugoslavia, and the continued incorporation of Kosovo in Serbia after Yugoslavia's breakup, at first glance this is surprising.

Both Serbs and Albanians in Kosovo can claim to be a minority. Of Kosovo's estimated mid-2000 population of two million, approximately 88% were Albanians and 7% were Serbs (Statistical Office of Kosovo, 2003). On the other hand, of Serbia and Montenegro's total population of approximately 10.5 million, Kosovar Albanians account for approximately16% of the total. The current disparity in Kosovo's ethnic composition was partly the outcome of Serbian emigration and the high Albanian natural growth rate of population. The ethnic, religious and social differences in Kosovo posed a challenge to the Yugoslav federation even before the country disintegrated in the 1990s. In 1974 Kosovo was granted autonomous status, allowing ethnic Albanians to develop their own institutions. Presumably Kosovo Albanians could then use the institutions and the tools of government to their own ethnic group's advantage. Indeed the emigration of ethnic Serbs in this

[1] Throughout this paper per capita expenditure is measured as per adult equivalent household expenditure per month.

period may have resulted from perceived and/or actual biases on the part of officialdom. Likewise, the political and economic fortunes might have swung to other direction when the autonomous status in Kosovo was revoked in 1989. Kosovo secessionists declared independence as a republic in July 1990. Kosovo is now an UN protectorate, with a functioning administrative system.

The ethnic warfare was at the center of international concern the late 1990s and has been studied throughly by social scientists interested in international relations, nationalism, religion, social networks, and so on (e.g., Job, 2002 and Pavković, 2000). Whether economic disparity might also have provided fertile ground for ethnic conflict remains an open question. Unfortunately, without availability of appropriate data, it is difficult to gauge differences in the economic welfare of ethnic groups during Kosovo's autonomous period and during its subsequent incorporation back into Serbia in the 1990s. We examine the living standards for Serbian and Albanian households, using household survey data on 2101 Albanian households and 416 Serbian households from the 2001 Living Standards Measurement Survey (LSMS) for Kosovo. The data show the degree of economic disparity after the war and during the UN intervention, but do not allow an estimation of the degree of economic disparity between the Albanians and the Serbs before the war broke out. The turmoil of war most certainly led to shifts in economic welfare in the region and hence in the picture of economic disparity between the two ethnic groups. However, if – and it is a heroic if – the impact of war and the UN's intervention has not drastically changed the nature of economic disparity between the two groups, then the LSMS may provide a rare window with which to investigate what economic disparity looked like before the war.

We use per capita expenditure and poverty incidence (headcount ratio) as measures of living standard. In the regression analysis, we explain the inter-household variations in living standards using characteristics of households and their constituent members such as age, education and wealth.

Based on the regression estimates, we decompose the differences in living standards between Kosovar Albanians and Kosovar Serbs using Oaxaca-type algorithms to clearly distinguish the amount of the gap that can be accounted for by (1) the differences in level of household members characteristics (characteristics effect), and (2) the differences in impact of household members characteristics (coefficients effect). For differences in poverty incidence, the Oaxaca-type decomposition is combined with a computation of the likelihood of poverty developed by the World Bank (2003).

Given the region's history of divisions along ethnic lines and changes in the relative dominance of the two main ethnic groups, the relative roles of the level of the attributes the groups possess and the impact of these attributes on per capita expenditure and poverty need to be identified. The importance of this identification process also stems from the need in these early stages of Kosovo's reconstruction to devise appropriate political and economic strategies. If the characteristics effect explains the disparity, then a policy aiming at reducing differences in household attributes is required. However, if the coefficients effect explains the disparity, then a policy focusing on egalitarian treatment between the two ethnic groups is required.

Our results, discussed later in this paper, suggest that the relatively greater deprivation of the Kosovar Serbian households is not explained by the roles played by demographic characteristics, education, labor market behavior, wealth and assets, transfers, geography or the sectoral distribution of employment in terms of either characteristics or coefficients effects. In fact these traditional considerations in expenditure and poverty studies actually favor the Serbs. This makes policy-making for Kosovo extremely difficult; following the "standard" policy remedies such as focusing on education would not reduce the gap in economic achievement. As mentioned above, divergence in the living standards of ethnic groups that is driven mainly by differences in the returns on the

household level characteristics brings to fore issues of equal treatment of different ethnic groups that are of paramount importance in strife-torn regions.

The rest of the paper is organized as follows: In Section 2, we describe the political and economic situation in Kosovo, while in Section 3 we consider factors which may affect living standards. Section 4 describes the LSMS data used in the empirical analysis and compares the mean characteristics of the two ethnic groups. The empirical analyses, which comprise an ordinary least square (OLS) regression to study determinants of living standards among Kosovar Albanians and Kosovar Serbs, as well as decomposing the difference in living standards, per capita expenditure and poverty incidence, between the two ethnic groups based on methodology developed by Oaxaca (1973) and the World Bank (2003), respectively, are reported in Section 5. Finally, Section 6 concludes.

2. Background

Kosovo is a small landlocked territory, a part of the Balkan peninsula. Even prior to the changes in Central and Eastern Europe (CEE), it was poor by the standards of the region. In the year before Kosovo's autonomous status was revoked, 1988, per capita output in Kosovo was only 28% of average per capita output in Yugoslavia, and the economic crisis in Kosovo was aggravated during the 1991-2000 period on account of ethnic conflict and the resultant civil war. The civil war reduced the number of able-bodied people of working age, damaged the housing stock and utilities such as power and telecommunication, and the disrupted the flow of commerce.

Since 1999, Kosovo has been a protectorate under the guidelines of UN Security Council Resolution number 1244, and the recovery of the economy was evident soon after the end to the war, significantly aided by a reconstruction boom financed by international donors. By the second half

of 2000, agricultural output was estimated to have reached 75% of its pre-conflict level, the investment-GDP ratio climbed to almost 40%, and per capita GDP stood at USD 759. This recovery was marked by two major distortions: total domestic consumption in 2000 was 146% of GDP, and imports accounted for approximately 80% of GDP.

The UN Mission in Kosovo (UNMIK), which is responsible for Kosovo's administration, put into place institutions that have helped in the process of economic re-invigoration. The UNMIK helped create a Central Fiscal Authority (CSA) to implement tax policy and formulate a budget for Kosovo that is non-overlapping with the budgets of Serbia and Montenegro. The UNMIK and CSA together put in place a new tax system and a tax administration to replace both the old system inherited from Yugoslavia, as well as the parallel tax systems that had sprung to life during the conflict. The import regime was simplified and deregulated; there are no quantitative restrictions and the new tariff rate is a flat 10% for all goods and services. A Department of Reconstruction was created to coordinate donor assistance with public investments. Finally, the jobs of overseeing the payments system and domestic banks were entrusted to the newly created Banking and Payments Authority of Kosovo (BPAK).

The economic recovery continued through 2001, with Kosovo's 2001 per capita GDP, growing at a rate of 18.4%. However, earlier imbalances persist. For example, total consumption in 2001 was 121% of GDP. From a macroeconomic point of view, this was clearly unsustainable in the long run. More important, despite the high consumption-GDP ratio, anecdotal evidence suggested that a significant proportion of both the Serbs and the Albanians lived in poverty.

3. Factors Determining Living Standard

There are several factors which affect the level of living standards. A household's lower per

capita expenditure and likelihood of being poor increases with its youth dependency ratio and with its old age dependency ratio, i.e., the proportion of household members in the 0-15 and greater than 65 age groups. The presence of young children (0-15 years of age) and elderly people (older than 65), whose employability and earning abilities are low, reduces the overall labor power of the household, and, in some cases, working age household members are not able to participate in the labor market to their potential because they have to take care of their children and the elderly (e.g., Pezzin and Schone, 1998). Even among working age adults, the ability to effectively participate in the labor market may depend on age and gender (e.g., Scott, Berger and Garen, 1995; Stanley and Jarrell, 1998), and so we want to account for the average age of adults in the household, and the proportion of working age household members who are male. Also households with female heads are likely to have lower incomes and expenditure levels (e.g., Bhaumik and Nugent, 1998), and these households have a greater likelihood of being in poverty.

The literature suggests that both employability and the returns on education can be significantly different for individuals with different levels of education (e.g., Grubb, 1993; Arum and Shavit, 1995). For this we include the proportion of working age household members with the different levels (and types) education, namely, no formal education, primary education, general secondary education, vocational training, and tertiary or university education.

Among labor market characteristics of the households, we see in Table 1 the average number of weeks of labor/employment per household member per year, the proportion of adults in the households who are employed, and the proportion of households that have a working head. To the extent that a household's head is the person best capable of transforming his/her capabilities into employment and income, unemployed status for a household's head possibly reduces the average return on its labor supply, and hence the importance of the latter variable. In addition, in poorly

performing economies, employment on family-owned farms and businesses may manifest disguised unemployment rather than entrepreneurship, such that there may be a positive correlation between employment on a family farm or business and per capita expenditure and the poverty status (e.g., Mckinley and Alarcon, 1995). Thus we report the proportion of households that have working age members employed in a family farm or business.

A household's wealth can be an important determinant of its income and expenditure. In the context of Kosovo, we measure the tangible wealth of households by the extent of their land ownership and the value of their livestock. These are particularly relevant for a geographic region where markets were either disturbed or non-existent on account of prolonged military conflict, especially because land and livestock contribute directly towards expenditure.

Further, we take into account social capital in the form of extended families and networks of friends who also contribute towards the economic well being of a household. The literature on *inter vivos* transfers bears testimony to the fact that such social capital plays a crucial role in the context of expenditure smoothing both in developing and developed economies (Bhaumik and Nugent, 2000). We, therefore, report the proportion of households that receive private transfers from friends and extended family. In the same vein, it can be argued that public transfers add to the well being of the households, and that the two types of transfers should be treated differently because their marginal impacts on the expenditure of a household are different (Maitra and Ray, 2003). Hence, we also report the proportion of households that receive public support on account of disabilities of their adult members. Note, however, that ownership of a disability card may reflect failing health of one or more adult household members, i.e., the health related capabilities of the households, much more than public transfers *per se*.

In Kosovo the location of a household and whether or not it was uprooted from its place of

origin may significantly contribute to its economic well being (or, conversely, economic deprivation). Geographical displacement brought about by war cannot only lead to job loss and, subsequently, long term unemployment, it can also disrupt established social networks. Because of the war, migration may not have been voluntary, and migrants might have lost wealth. Also, it is possible that emigration out of the country was not evenly distributed among all income classes. We therefore include the proportion of households living in urban areas, as well as proportion of households reporting having had to migrate from their place of origin after the disintegration of Yugoslavia.

In brief, we expect the following to be true: A household's per capita expenditure is likely to be higher if (a) its youth dependency and old age dependency ratios are low, (b) the proportion of males among working age adults is high, (c) the household head is male, (d) the proportion of educated working age adults is high, (e) the household has a relatively large endowment of land and livestock,[2] (f) the household receives public and/or private monetary or quasi-monetary transfers, (g) the household does not have a history of migration across regions, and (h) the household is located in an urban area. Since the likelihood of being in poverty is a decreasing function of income/expenditure, the reverse is expected to be true in so far as the probability of being in poverty is concerned.

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[2] The impact of landownership on poverty is ambiguous. There is evidence to suggest, for example, that the degree of poverty acuteness (or consumption deprivation) among female-headed households may be lesser than expected, on account of self-consumption of what they produce on the family land holdings (e.g., Buvinic and Gupta, 2001). On the other hand, Moene (1992) has argued that under certain circumstances redistribution of land from large landholders to landless laborers increases poverty.

4. Data

In 2001 in order to better assess the width, depth and correlates of poverty and other measures of economic well-being, the World Bank organized a Living Standards Measurement Survey (LSMS) in Kosovo. The survey, which was carried out between September and December of 2000, collected data from 2,880 households, and is statistically representative of both the Kosovo Albanians and Kosovo Serbs. After accounting for missing values, the survey provides information on 2101 Kosovo Albanian households and 416 Kosovo Serbian households.[3]

In Table 1 we report per capita expenditure in both the Serbian and Albanian communities. Albanian households have higher per capita expenditure than Serbian households: Albanian household's average per capita expenditure is 128.98 DM while that of Serbian household's is 111.23DM. There is also a considerable difference in the head count ratios for the two communities, though poverty incidence is high for both.[4] While 46% of the Albanian households are in poverty, the proportion of Serbian households who live below the poverty line is 57%. The average difference in the living standards of the poor and non-poor households, however, is similar for the two communities. The ratio of the per capita expenditure of the non-poor to poor households is 2.34 for the Albanians and 2.25 for the Serbs.

In Table 2 we report the results of three sets of t-tests using the descriptive statistics appearing in Table 1. We test the null hypotheses that the means for variable *i* are the same for the

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[3] This is an over-sampling of Serbian households. In a sample of only Serbs and Albanians, Serbs should account for 7.36% and Albanians 92.6% of the observations. In our data, 83% of the households are Albanians, and the rest are Serbs. We use weights to account for this difference between the population and the sample.

[4] The data were used to construct monthly and daily expenditure per adult equivalence for each household, and this estimate was compared with the poverty line of DM 3.499 per adult per day (World Bank, 2001). With this poverty line, our data show that 56.7% of Serb households and 45.9% of Albanian households live in poverty.

poor and non-poor households for each ethnic group (columns 1 and 2). We also test whether mean characteristics are different between Albanians and Serbs by looking all Albanians and Serbs (column 3), the non-poor Albanians and Serbs (column 4) and poor Albanians and Serbs (column 5). As reported in Table 2, the t-values associated with the hypotheses are mostly significant at the 1% level, and are, by and large, consistent with our priors. Some salient aspects of the data, drawn from the mean characteristics (Tables 1 and 2), are as follows:

First, the youth dependency of Albanian households is nearly twice that of Serbian households; the opposite is true for old age dependency. Overall, 28% of Serbian households and 36% of Albanian households are either in the 0-16 age group or are older than 65. Among Albanian households, there is a noticeable difference in the youth dependency between poor (36%) and non-poor (29%) households, while among Serbian households the significant difference between poor (14%) and non-poor (6%) households is in the context of old age dependency.

Second, a larger proportion of Albanian households (9%) have no formal education compared to Serbian households (3%). The incidence of absence of formal education is also noticeably higher among poor households (Albanians, 12%; Serbs, 4%) than among non-poor households (Albanians, 7%; Serbs, 1%). Also, members of Albanian households are more likely to have primary education, than members of Serbian households. The proportions of household members with primary and secondary education, respectively, are 45% and 29% for Albanian households, and 31% and 51% for Serbian households. Further, a greater proportion of household members of poor households in both ethnic communities have primary education, as opposed to secondary education, when compared with non-poor households. There are no significant differences in the exposure of Albanian and Serbian households, nor of poor and non-poor households, to vocational and tertiary education.

Third, the age structure of households and the educational attainments of household members indicate that Serbian household members are younger and more educated than those of Albanian households. Members of a Serbian household enjoy longer periods of employment annually (20.64 weeks) than those of Albanian households (16.20 weeks). Members of poorer households (Albanians, 12.82 weeks, Serbs, 18.38 weeks) work about 25-30% less than their counterparts in non-poor households (Albanians, 19.02 weeks, Serbs, 23.69 weeks). This is consistent with the observation that a greater proportion of working age adults of non-poor households (Albanians, 47%; Serbs, 51%) were employed at the time of the survey than the proportion of working age adults in poor households (Albanians, 34%; Serbs, 43%).[5]

Fourth, Serbian households own much more land than Albanian households, the size of land holdings of the Serbian and Albanian households being 120 acres and 70 acres, respectively. Interestingly, while there is no difference in the size of land holdings between poor and non-poor Albanian households, non-poor Serbian households own double the amount of land – 160 acres as opposed to 80 acres – owned by poor Serbian households.

Fifth, while there is no difference between the incidence of ownership of disability cards among Albanian and Serbian households (10% each), the former are much more likely to receive private transfers. Indeed, only 5% of Serbian households receive private transfers, compared with 44% of Albanian households. However, the extent of access to a disability and private transfers are not noticeably different across poor and non-poor households.

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[5] Researchers often use the employment status of the household head as a proxy for the extent of labor market participation of household members. The data bear out this expected positive correlation between the employment status of household heads and that of working age adults in general. While 72% of heads of non-poor Albanian households and 66% of heads of non-poor Serbian households are employed, the corresponding figure for heads of both poor Albanian and poor Serbian households is 57%.

Finally, a vastly greater proportion of Albanian households (76%) migrated during the 1990s than did Serbian households (9%). This is clearly consistent with the anecdotal evidence that suggests Albanian migration in the face of military operations from Serbia until the intervention by NATO in the late 1990s. However, there is no significant difference between the incidence of migration across poor and non-poor households of both ethnic groups. Similarly, while Serbian households (42%) are more likely to be located urban areas than the Albanian households (28%) at the time of the survey, there is not much of a difference between the urban-rural distribution of poor and non-poor households.

The descriptive statistics indicate that, as expected, poor households, on average, have lower capabilities (e.g., education) and lesser endowments (e.g., landholding) than non-poor households. Correspondingly, members of poor households work less than their counterparts in non-poor households. In other words, the difference between the earnings/living standards of poor and non-poor households, as well as their position relative to the poverty line, is likely to be explained by differences in capabilities and endowments. However, the puzzle that remains to be addressed is the reason for the significantly lower per capita expenditure and the significantly greater incidence of poverty among Serbian households, than among Albanian households, despite the fact that the members of the former have age structures and educational attainments that are more consistent with higher earnings than those of the latter. Albanian households have almost certainly been helped by the inflow of private transfers, an observation that is consistent with anecdotal evidence, but it would indeed be surprising if private transfers alone can more than offset the disadvantage of the Albanian households with respect to characteristics, a disadvantage that was likely to have been reinforced by their predominantly rural locations and their need to migrate as a consequence of the conflict. In other words, the empirical question is whether the characteristics that favor the Serbs had a relatively

muted impact on their earnings/living standards than the characteristics that favor the Albanians. This question will be explored in greater detail in the next section.

5. Ethnic Differences in Expenditure and Poverty Incidence

In order to study why Serbs are more severely deprived than Albanians in terms of per capita expenditure and poverty incidence, we employ Oaxaca-type decomposition analysis. Our approach is to first estimate the correlates of (log) per capita expenditure using OLS for Kosovar Albanians and Kosovar Serbs. Thereafter, the difference in mean per capita expenditure of the two ethnic groups is examined using a decomposition method that highlights the relative roles of differences in characteristics and coefficients in explaining differences in living standards. From the OLS estimates we are also able to develop a poverty profile and subsequently decompose the differences in the incidence of poverty between Kosovar Albanians and Kosovar Serbs into aforementioned characteristics and coefficient effects.

5.1 The Impact of Household Characteristics on Living Standards

We regress the (logarithm of) per capita expenditure of sampled households on the characteristics that are likely to influence their earnings as discussed in the section 3. Our specification includes the age and gender structures of the households, gender of the household head, education attainment of the household members, extent of labor market participation of household members, endowments as measured by landholding and livestock ownership, public and private transfers, an indicator of whether or not the household migrated between the breaking up of Yugoslavia and the imposition of UNMIK governance structure in Kosovo, and an indicator of whether the household is located in an urban area. Further, controls were added to account for the

sector of employment of working age adults. The specification borrows significantly from the literature on poverty (e.g., The World Bank, 2001), Engel curves and consumption (e.g., Bhaumik and Nugent, 1998) and labor supply and earnings (e.g., Dimova and Gang, 2004).

The coefficients and the robust standard errors of the ordinary least squares (OLS) regressions are reported in Table 3. The F-statistics (Albanians, 26.29, Serbs, 7.88) are both significant at the 1% level, and the adjusted R-square values (Albanians, 0.24, Serbs, 0.30) are very reasonable for cross-section regressions involving the reported sample sizes (Albanians, 2101, Serbs, 416). The specification is clearly a better fit for Serbian households than for Albanian households.

The coefficient estimates indicate that youth dependency, as measured by the proportion of household members who are in the 0-15 age group, have a negative impact on the living standards of both Albanian and Serbian households. In addition, Albanian households are adversely affected by the presence of 16-25 year old members. However, the living standards of neither the Albanian nor the Serbian households are affected by the extent of their old age dependency, i.e., by the presence of household members who are older than 65. More puzzling is the observation that living standards of Albanian households are adversely affected if the head of the household is male. The literature on poverty suggests that the reverse is likely to be the case. However, the military aspects of the conflict makes the negative impact of a male household head on living standards of Albanian households plausible.

Education has the predictable positive impact on household living standards of both the communities. Two things should be noticed in this context. First, the impact of education on the living standards of the households increases with the quality of the education. For example, the coefficients of secondary education are 0.56 for the Albanian households and 0.88 for the Serbian households, while the coefficients for tertiary education are 0.73 and 1.41, respectively, for these two

communities. Second, the "return" to education for the Serbian households, as measured by the impact of their expenditure level, is higher than the returns to education of the Albanian households. Note that we have already controlled for sectoral distribution of occupation of the household members, and hence this difference between Serbs and Albanians do not represent sectoral effects.

Predictably, the employment status of the household head and the average numbers of weeks employed by the working age household adults have a positive impact on per captia expenditure, but only for Albanian households. This is consistent with the descriptive statistics that indicate that there is greater difference among poor and non-poor Albanian households with respect to employment status, than among poor and non-poor Serbian households. The OLS coefficients also indicate that while landownership does not affect the living standards of the two communities significantly, ownership of livestock adds to the living standards of Albanian households.

Finally, in keeping with our priors, private transfers have a significant impact on the living standards of both Albanian and Serbian households. However, while a much greater proportion of the Albanian households receive transfer, the impact of such transfer on living standards is much higher for the Serbian households.

5.2 Decomposing the Difference in Living Standards

We explore the relative influences of the *characteristics* and *coefficients effects* on the differences in the average level of monthly per capita expenditure between the Albanian and Serbian communities, using the stylized Oaxaca decomposition algorithm. Oaxaca decomposition is widely used to find out the sources of differences in log-wages in decomposition analysis. The Oaxaca decomposition equation is as follows:

$$\overline{Y}_A - \overline{Y}_B = (\overline{X}_A - \overline{X}_B)\beta_A + \overline{X}_B(\beta_A - \beta_B) + \overline{e}_A - \overline{e}_B, \quad (1)$$

where $\overline{Y}_j$ and $\overline{X}_j$ are respectively average log per capita expenditure and $1 \times K$ vector of average socio-economic characteristics of group j (A and B); β_j is $K \times 1$ vector of parameters; $\overline{e}_j$ is an average error term which is zero from the construction of OLS. The first, second and third components of the right-hand side of the equation are, respectively, characteristics, coefficients and residuals effects. The residuals effect is zero since OLS is used in our study.

The decomposition results are reported in Table 4, and they are based on the OLS estimates reported in Table 3.[6] To recapitulate, the per capita expenditure of an average Serbian household is DM 111.23 and that of an average Albanian household is DM 128.29. The difference in the logarithm of this measure of living standard between Serbian and Albanian households, therefore, is -0.147. The overall characteristics and coefficients effects obtained from the decomposition analysis are, respectively, 0.077 and -0.224 log points.

This result can be interpreted as follows: The positive value of the characteristics effect means that if the Serbian and Albanian households were to have the same OLS coefficients, i.e., the same impact of characteristics on their living standards, then, solely on the basis of the differences in the characteristics, the (logarithm of) Serbs' per capita expenditure would have been *higher* than that of the Albanians by 0.077. On the other hand, the coefficients effect of -0.224 implies that if both Serbs and Albanians were to have the same characteristics, such that the difference in the living standards between the two ethnic groups arose from the differences in the OLS coefficients (i.e., the

[6] The methodology for hypothesis testing with the decomposition equations can be found at Yun (2004b), which extends Oaxaca and Ransom (1998).

rates of return on the characteristics) alone, then the (logarithm of) Serbs' per capita expenditure would have been *lower* than that of the Albanians by 0.224 log points.

In short, Serbs would be *worse off* if the differences between their characteristics and those of the Albanian households disappear. They will be *better off* if there is no difference in the effectiveness of (or returns to) those characteristics between the Serbian and Albanian households. The former result is consistent with the conventional wisdom, as also the descriptive statistics reported in Table 1, that Serbs in Kosovo had more favorable characteristics, on average, than the Albanians. However, the latter result, which explains why Serbs have a lower per capita expenditure than the Albanians despite having better characteristics, needs closer inspection.

Estimating coefficients includes estimating the constant term, and the coefficients effect generally incorporates the constant term's effect. The constant term's coefficients effect explains the gap between Serbs and Albanians which are not attributed to controlling or measured variables. That is, the differences in the constant terms may be interpreted as baseline differences between the two ethnic communities.[7] We can break the constant term effect out from the other coefficient effects. Rewriting (1),

$$\bar{Y}_A - \bar{Y}_B = \sum_{k=1}^{k=K} (\bar{X}_A^k - \bar{X}_B^k)\beta_A^k + (\beta_A^1 - \beta_B^1) + \sum_{k=2}^{k=K} \bar{X}_B^k(\beta_A^k - \beta_B^k) + \bar{e}_A - \bar{e}_B, \qquad (1')$$

where β_j^1 is constant term for group j (A and B).

From the second and third rows of Table 4, we can see that by separating out the constant term's coefficients effect, we gain a clearer picture of what is going on. Both the characteristics

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[7] A similar interpretation can be found in Blinder (1973). However, Oaxaca and Ransom (1999) caution that the coefficients effect will vary depending on which dummy variables are omitted. In order to check the robustness of our decomposition results, we experimented with alternative omitted variables, and found the decomposition results do not change substantially.

effect and the coefficient's effect of the "controlling" or "measured" variables favor the Serbs, while the *constant's* coefficient effect overwhelmingly favors Albanians. If the characteristics of the Serbian and Albanian households, and the returns on these measured characteristics for these two ethnic communities, were to be equalized, on account of the constant term alone the difference in the per capita expenditure of the Serbian and Albanian households would have been –0.644 log points, that is, Albanians are overwhelmingly better off. Despite the Serbian advantage both in terms of measured characteristics and their coefficients (i.e., returns on these characteristics), Serbs in Kosovo suffer more severe economic deprivation than Albanians on account of the constant term in the regression specification. This brings to the fore the importance of this constant term, and we shall revisit this issue later in this paper.

We can further break down the characteristics and the coefficients effects into subgroups of variables or even individual variables. The breakdown of the characteristics effect, reported in Table 4, shows that equalization of the demographic and educational characteristics of the Serbian and Albanian households would hurt the former most, while the Albanians would be adversely affected if the Serbs receive support from extended families and other parts of the social network to the same extent. The Serbs would be particularly hurt by equalization of the youth dependency and the proportion of working age household members across the two ethnic groups. Differences in tangible assets such as land and livestock do not play a significant role in determining the differences in the average living standards of the two communities. These results too are largely consistent with the descriptive statistics.

The breakdown of the coefficients effect for the measured independent variables, i.e., except for the intercept, suggests that the gap in the per capita expenditure of the Serbian and Albanian households would be increased if there were an equalization of the OLS coefficients, i.e., the rates

of return on the characteristics, of the two ethnic groups. For example, 0.272 log points for demographic characteristics implies that the returns to demographic characteristics favor Serbs substantially; The disparity would be greater than what we observe if the differences in the coefficients of demographic characteristics were to be nullified. Similarly, Serbs are better off with the existing differences in the OLS coefficients for the education variables across the two communities. Given that these coefficients can be loosely interpreted as returns on the household characteristics, the results reported in Table 4 imply that the Serbian households had an edge over the Albanian households in terms of both characteristics and coefficients (i.e., the impact of these characteristics on living standards). However, these advantages by Serbs over Albanians via both characteristics and coefficients effects of measured characteristics cannot overcome the baseline disparity favoring Albanians that is captured by the difference in the intercepts.

5.3 Poverty Decomposition based on OLS Estimates

We employ an approach proposed in World Bank (2003) to help understand why households are in poverty.[8] According to World Bank (2003), poverty incidence can be computed using the following two step method. First, construct the ratio of per capita expenditure (Y) to the poverty line (Z), i.e., $R = Y/Z$. The regression equation is $\log R = X\gamma + u$, where R, X, and γ are, respectively, an $N\times 1$ vector, an $N\times K$ matrix of independent variables, and a $K\times 1$ vector of coefficients. Second, the probability of being in poverty is obtained by computing $Pr(\log R < 0)$; usually this probability is computed using the standard normal distribution function, $\Phi(\cdot)$, i.e., $Pr(u < -X\gamma) = \Phi(X\tilde{\gamma})$, where $\tilde{\gamma} = -\gamma/\sigma$ and σ is the standard deviation of error term (u).

[8] See Dreze and Srinivasan (1997) for an analysis of poverty incidence among widow-headed households in India.

Obviously, if $X\gamma$ is larger or $X\tilde{\gamma}$ is smaller, then it is likely that the ratio of per capita expenditure to the poverty line increases and the likelihood of being in poverty decreases.

Implementing the above is very simple. In our case, it is even simpler. When we compare the regression, $\log R = X\gamma + u$, with the one used for studying per capita expenditure, $\log Y = X\beta + e$, we can easily find that the difference is only in the constant terms.[9] Hence, we can use the estimates reported in Table 3 for studying poverty incidence, that is, $\tilde{\gamma}_1 = (\log Z - \beta_1)/\sigma$ for the intercept, and $\tilde{\gamma}_k = -\beta_k/\sigma$ for $k = 2, 3, ..., K$, where σ is the standard deviation of $u = e$.

Algebraically, the differences in the average probability of being poor between groups *A* and *B*, $(\overline{P}_A - \overline{P}_B)$, may be decomposed into two components which represent the characteristics effect and coefficients effect. Asymptotically, this is,

$$\overline{P}_A - \overline{P}_B = \left[\overline{\Phi(X_A\tilde{\gamma}_A)} - \overline{\Phi(X_B\tilde{\gamma}_A)}\right] + \left[\overline{\Phi(X_B\tilde{\gamma}_A)} - \overline{\Phi(X_B\tilde{\gamma}_B)}\right], \qquad (2)$$

where "over bar" represents the value of the sample's average.

The above decomposition provides us with the overall coefficients and characteristics effects. In order to find the contribution of each variable to the predicted poverty rate gap, in terms of characteristics and coefficients effects, i.e., the detailed decomposition, we employ a decomposition equation proposed by Yun (2004a,c);[10]

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[9] Note that $\log R = \log Y - \log Z$, and the poverty line, Z, is fixed and common to both ethnic groups.

[10] In order to obtain a proper weight, Yun (2004a) uses the following approximations; first, an approximation of the value of the average of the function, $\overline{\Phi(X\tilde{\gamma})}$, with that of the function evaluated at the average value of exogenous variables $\Phi(\overline{X}\tilde{\gamma})$; second, a first order Taylor expansion to linearize the characteristics and coefficients effects around $\overline{X}_A\tilde{\gamma}_A$ and $\overline{X}_B\tilde{\gamma}_B$, respectively.

$$\overline{P}_A - \overline{P}_B = \sum_{k=1}^{k=K} W_{\Delta X}^k \left[(\overline{\Phi(X_A \tilde{\gamma}_A)} - \overline{\Phi(X_B \tilde{\gamma}_A)} \right] + \sum_{k=1}^{k=K} W_{\Delta \tilde{\gamma}}^k \left[\overline{\Phi(X_B \tilde{\gamma}_A)} - \overline{\Phi(X_B \tilde{\gamma}_B)} \right], \quad (3)$$

where

$$W_{\Delta X}^k = \frac{(\overline{X}_A^k - \overline{X}_B^k)\ \tilde{\gamma}_A^k}{(\overline{X}_A - \overline{X}_B)\ \tilde{\gamma}_A}, \ W_{\Delta \tilde{\gamma}}^k = \frac{\overline{X}_B^k\ (\tilde{\gamma}_A^k - \tilde{\gamma}_B^k)}{\overline{X}_B\ (\tilde{\gamma}_A - \tilde{\gamma}_B)}, \text{ and } \sum_{k=1}^{k=K} W_{\Delta X}^k = \sum_{k=1}^{k=K} W_{\Delta \tilde{\gamma}}^k = 1,$$

where $\overline{X}_A^k$ and $\overline{X}_B^k$ are average values of explanatory variables *k* for groups *A* and *B*, respectively.

As indicated by equation (3), the detailed decomposition is simple and easy to implement as long as coefficient estimates are available. This methodology is also free from path dependency, unlike a sequential replacement approach that computes the contribution of an individual variable or its coefficient to the differences in, for example, poverty incidence by switching the values of one group with those of a comparison group, such as in the method proposed by Fairlie (2003). The sequential replacement approach is sensitive to the order of switching.[11] The detailed decomposition equation (3) is a generalization of what Even and Macpherson (1990, 1993) propose for estimation of only the characteristics effect in situations where the underlying econometric analysis involves the use of probit models.[12]

Turning to an examination of the covariates of poverty, the stylized empirical literature on poverty uses a per adult expenditure (i.e., expenditure) based poverty line to determine whether or not a household is in poverty. Using World Bank (2003), we can construct the impacts of the covariates on poverty incidence for each ethnic group, and, using Yun (2004a and 2004c),

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[11] See Ham, Svejnar and Terrell (1998, p. 1137) for a discussion of path-dependency.

[12] See Doriron and Riddell (1994) for another attempt to generalize Even and Macpherson's methodology using the probit model.

decompose the differences in the headcount ratios of the Albanian and Serbian households into the now familiar characteristics and coefficient effects.[13]

Table 5 reports a summary of the decomposition of the "predicted" (in contrast to the actual) overall poverty rate difference (10.58%) between Serbs (56.10%) and Albanians (45.51%).[14] First of all, we can see the results of the two decomposition analyses – for difference in per capita expenditure and differences in poverty incidence – lead to almost identical conclusions. The overall characteristics effect is –0.058 (-5.8%, or -54.41% of the gap in poverty incidence of 10.58%)The overall coefficients effect is 0.163 (16.3%, or 154.41% of the gap in poverty incidence). The same basic interpretation applies here that we discussed with reference to the per capita expenditure decomposition: Serbs would be *worse off* if the differences between their characteristics and those of the Albanian households disappear, and Serbs would be *better off* if there is no difference in the poverty mitigating effectiveness of those characteristics between the Serbian and Albanian households. Again, however, when we isolate the constant term from the other coefficient effects, we have a different story. If the impacts of these measured characteristics were equalized for Serbian

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[13] An alternative approach is to estimate a probit with the binary dependent variable indicating whether the household is in poverty or not, and then using probit equations to decompose. Our probit results were consistent with the World Bank's (2001) analysis of poverty in Kosovo, which concluded that poverty in Kosovo is more likely to afflict households with high dependency ratios, low education, low rates of labor market participation, and with low quantity and quality of assets such as land and livestock. The decomposition based on our probit estimates are available from the authors on request and are very similar to those reported in the text using the World Bank (2003) method.

[14] The observed overall difference in poverty rates are 11.87% between Serbs (57.38%) and Albanians (45.52%). Note that the World Bank (2003) approach is based on OLS estimations. A World Bank (2003) acknowledges that binary choice models (e.g., probit) typically have better predictive power in classifying households as poor or non-poor than fitting poverty incidence using regression estimates (OLS). Though the continuous variable contains more information there is a trade-off between the gain from using estimates from the continuous variable regression and the better fit of binary choice models.

and Albanian households, the predicted poverty gap – now based solely on the difference in the constant terms – would be 0.473 (47.3%), more than four times of the observed differences in poverty incidence.

Table 5 shows only the breakdown of the characteristics and coefficients effects by sub-groups of variables used in the analysis since the results are quite similar to those reported in Table 4 for decomposing differences in the per capita expenditure. The interpretation of the results are quite similar to what we did for the Table 4. For example, a coefficients effect of -0.196 (–19.6%) for demographic characteristics means that if the impact of demographic characteristics were the same for Serbs and Albanians, the predicted gap in poverty incidence would be widened. Similarly, Serbs are better off with the existing differences in the impact of education, transfers and the sectoral distribution of employment. In other words, not only do the characteristics favor the Serbs, the impact of these characteristics on the likelihood of being in poverty also favors this ethnic group. Once again, the measured variables favor Serbs in terms of both characteristics and coefficients effects, but baseline difference in poverty incidence captured by the differences in constant terms makes Serbs suffer higher poverty incidence.

6. Summary and Conclusions

Kosovo is a poor region of the former state of Yugoslavia where the two ethnic communities have been locked in open strife since the early 1990s. This ethnic warfare was the center of international attention in late 1990s and has been studied throughly by social scientists, particularly those with interests in international relations, nationalism, religion and ethnicity. However, the lacuna in the literature is marked by the absence of a study that examines whether economic disparity might also have provided a fertile ground for ethnic conflict. Unfortunately, the economic disparity

between the two ethnic groups before the conflict is not easy to study due to lack of data availability. The LSMS in Kosovo in 2001 provides a small window for investigating the origin of the disparity between the two ethnic groups, though due to the timing of the survey ensures that the results obtained from empirical analyses of the data may not necessarily be consistent with stylized observations about the role of household characteristics and indeed returns on these characteristics in determining differences in living standards across socio-economic groups.

In Kosovo, the per capita expenditure of Albanian households, a measure of the household's living standard, is higher than that of Serbian households. Correspondingly, the incidence of poverty is higher among the Serbian households (57.3%) than among the Albanian households (45.4%). One may expect that this is on account of Albanian households having relatively favorable characteristics, and/or a favorable impact of these characteristics on living standards and the likelihood of being in poverty.

Our analysis shows that it is the Serbian households that actually have more favorable characteristics. The impact of these measured characteristics on living standards is also more favorable for the former than for the latter. This suggests that, contrary to actual trends, we should observe Kosovar Serbs having both a higher standard of living and lower likelihood of being in poverty than Kosovar Albanians. As we have seen, when we isolate the impact of the constant term from the coefficients of measured attributes we get a clearer picture of what is happening: the constant terms's coefficients effect shifts relative deprivation in consumption (expenditure/income) and the burden of poverty onto the Serbs. This suggests that any analysis would be incomplete in the absence of a plausible interpretation of the constant term.

In the context of the decompositions, the share of the constant term incorporates in itself the impact of the factors not attributed to controlling or measured variables in the regression

specification. One may wonder whether the enormous coefficients effect of the constant term is an artifact of the econometric issue of model specification. However, the variables and the functional form used for the OLS analysis are highly stylized, and therefore omitted variable bias may not be a plausible explanation in so far we talk about economic variables that determine living standards of households. Further, our decomposition results are robust to the choice of the omitted categories in the regression specification. Finally, descriptive statistics, which have reasonable values that are consistent with our priors about both Kosovo and the distinction between poor and non-poor households, indicate that measurement issues do not pose any obvious problem. Hence, it is difficult to ascribe the role played by the constant term in the decomposition analyses to limitations on which variables to include.

This suggests that to interpret the intercept in the decompositions we need to look at other factors. Living standards in a strife-torn country remain hostage to a large number of complications, for example, grey market activities, flirtation with the (non existent) law in the form of smuggling, and the role and policies of the international community, which has had a presence in Kosovo since 1999. However, it is also possible that the disparity reflects an entrenched pro-Albanian bias in the political economy of Kosovo that came into existence during the period of Kosovo's self-governing autonomy from Serbia, namely, 1974-89.

This, in turn, highlights the dilemma of the international community that seeks to provide a functional governance structure in Kosovo. In order for political normalcy to return to Kosovo, as a precursor to economic prosperity, both the Serbian and the Albanian communities have to feel that they are equals in both the economic and the political arena. However, on the one hand, to the extent that Serb households have better attributes and higher returns, on average, on these attributes, the Albanian community would seek redress in the form of economic parity. At the same time, to the

extent that Serb households have lower living standards, on average, despite having more favorable characteristics and returns on these characteristics, they would seek redress in the form of a level playing field in economic and political arenas, whether the origins of the disparity and animosity between these groups originated during Albanian autonomy (1974-89) or the consequence of the UNMIK policies in post-civil war Kosovo, or even earlier.

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Table 1
Characteristics of the Households

	Albanians			Serbs		
	All	**Non-poor**	**Poor**	**All**	**Non-poor**	**Poor**
Expenditure and poverty						
Per adult equivalent expenditure (DM)	128.29 (73.35)	173.71 (70.82)	73.92 (19.78)	111.23 (66.99)	163.55 (72.04)	72.37 (20.55)
Poverty Rate		0.46 (0.50)			0.57 (0.49)	
Demographic characteristics of households						
Proportion aged 15 or below	0.32 (0.21)	0.29 (0.21)	0.36 (0.21)	0.18 (0.20)	0.18 (0.19)	0.18 (0.21)
Proportion aged 16-25	0.21 (0.20)	0.22 (0.21)	0.20 (0.20)	0.16 (0.21)	0.18 (0.23)	0.14 (0.19)
Proportion aged 26-35	0.14 (0.17)	0.15 (0.18)	0.14 (0.16)	0.13 (0.20)	0.14 (0.22)	0.12 (0.17)
Proportion aged 36-45	0.11 (0.14)	0.11 (0.15)	0.11 (0.13)	0.13 (0.20)	0.17 (0.23)	0.10 (0.16)
Proportion aged 46-55	0.10 (0.15)	0.11 (0.16)	0.08 (0.13)	0.15 (0.22)	0.16 (0.23)	0.14 (0.21)
Proportion aged 56-65	0.07 (0.15)	0.08 (0.16)	0.06 (0.13)	0.16 (0.28)	0.12 (0.23)	0.18 (0.31)
Proportion aged above 65	0.04 (0.12)	0.04 (0.10)	0.05 (0.13)	0.10 (0.23)	0.06 (0.16)	0.14 (0.27)
Average age of adults	37.42 (7.88)	37.36 (7.78)	37.48 (8.00)	43.65 (11.53)	41.20 (10.05)	45.47 (12.20)
Proportion of adults who are male	0.48 (0.15)	0.49 (0.15)	0.46 (0.15)	0.48 (0.20)	0.51 (0.20)	0.46 (0.21)
Households with male head	0.93 (0.25)	0.94 (0.24)	0.93 (0.26)	0.87 (0.34)	0.93 (0.25)	0.83 (0.38)
Education of adults						
Proportion with no formal education	0.09 (0.16)	0.07 (0.14)	0.12 (0.18)	0.03 (0.12)	0.01 (0.04)	0.04 (0.16)
Proportion with primary education	0.45 (0.30)	0.39 (0.29)	0.52 (0.30)	0.31 (0.34)	0.19 (0.27)	0.40 (0.36)
Proportion with secondary education	0.29 (0.26)	0.33 (0.26)	0.25 (0.25)	0.51 (0.35)	0.58 (0.35)	0.46 (0.35)
Proportion with vocational training	0.08 (0.17)	0.09 (0.18)	0.07 (0.16)	0.07 (0.18)	0.09 (0.20)	0.06 (0.16)
Proportion with tertiary education	0.09 (0.19)	0.12 (0.23)	0.05 (0.14)	0.08 (0.20)	0.13 (0.26)	0.04 (0.11)

Table 1 continued	**Albanians**			**Serbs**		
	All	**Non-poor**	**Poor**	**All**	**Non-poor**	**Poor**
Labor market characteristics						
Average number of weeks of labor per household member per year	16.20 (13.03)	19.02 (13.10)	12.82 (12.12)	20.64 (18.32)	23.69 (18.11)	18.38 (18.16)
Proportion of working adults	0.41 (0.29)	0.47 (0.28)	0.34 (0.28)	0.47 (0.38)	0.51 (0.37)	0.43 (0.39)
Household with working head	0.65 (0.48)	0.72 (0.45)	0.57 (0.50)	0.61 (0.49)	0.66 (0.47)	0.57 (0.49)
Proportion of households with members working in family farms & businesses	0.27 (0.28)	0.29 (0.29)	0.24 (0.28)	0.34 (0.40)	0.33 (0.39)	0.34 (0.40)
Wealth/Assets						
Acreage of land household owns (000)	0.07 (0.10)	0.07 (0.10)	0.07 (0.09)	0.12 (0.62)	0.16 (0.93)	0.08 (0.13)
Value of animals household owns (000 DM)	0.56 (0.78)	0.57 (0.81)	0.55 (0.73)	0.46 (0.75)	0.39 (0.73)	0.51 (0.76)
Transfers						
Households at least one of whose members has a disability card	0.10 (0.30)	0.09 (0.28)	0.12 (0.32)	0.10 (0.30)	0.08 (0.28)	0.11 (0.32)
Household at least one of whose members receive private transfers	0.44 (0.50)	0.44 (0.50)	0.43 (0.50)	0.05 (0.21)	0.06 (0.23)	0.04 (0.19)
Geographic characteristics						
Households that migrated from another region	0.76 (0.43)	0.75 (0.43)	0.77 (0.42)	0.09 (0.29)	0.09 (0.28)	0.09 (0.29)
Urban households	0.28 (0.40)	0.31 (0.41)	0.24 (0.38)	0.42 (0.49)	0.44 (0.49)	0.40 (0.49)
Number of households	2101	1136	965	416	180	236

Source: LSMS, author's own calculation.
Notes: The figures within the parentheses are standard deviations.

Table 2
T-tests for Differences in Characteristics of the Households

	Poor vs. Non-Poor		Albanians vs Serbs		
	Albanians	Serbs	All	Among Non-Poor	Among Poor
Per adult equivalent expenditure (DM)	***	***	***	-	-
Poverty rate	NA	NA	***	NA	NA
Demographic characteristics of Households					
Proportion aged 15 or below	***	-	***	***	***
Proportion aged 16-25	***	*	***	**	***
Proportion aged 26-35	-	-	-	-	-
Proportion aged 36-45	-	***	***	***	-
Proportion aged 46-55	***	-	***	***	***
Proportion aged 56-65	***	**	***	**	***
Proportion with adults above 65	***	***	***	*	***
Average age of adults	-	***	***	***	***
Proportion of adults who are male	***	***	-	*	-
Households with male head	-	***	***	-	***
Education of Adults in Household					
Proportion with no formal education	***	***	***	***	***
Proportion with primary education	***	***	***	***	***
Proportion with secondary education	***	***	***	***	***
Proportion with vocational training	***	*	-	-	-
Proportion with tertiary education	***	***	-	-	-
Labor market characteristics					
Average number of weeks of labor per household member per year	***	***	***	***	***
Proportion of working adults	***	**	***	*	***
Household with working head	***	*	-	-	-
Proportion of households with members working in family farms & businesses	***	-	***	-	***
Wealth and non-wage income					
Acreage of land household owns (000)	-	-	***	***	-
Value of animals household owns (000 DM)	-	-	**	**	-
Transfers					
Households at least one of whose members has a disability card	**	-	-	-	-
Household at least one of whose members receive private transfers	-	-	***	***	***
Geographic Characteristics					
Households that migrated from another region	-	-	***	***	***
Urban households	***	-	***	***	***

Note: *, ** and *** indicate significance at the 10%, 5% and 1% levels, respectively.
Column 1: Albanian poor vs. Albanian nonpoor; Column 2: Serb poor vs. Serb nonpoor; Column 3: Albanians vs. Serbs; Column 4: Nonpoor Albanians vs. Nonpoor Serbs; Column 5: Poor Albanians vs. Poor Serbs.

Table 3
Determinants of Per Capita Expenditure of Albanians and Serbs (OLS estimation)

	Albanians		Serbs	
	Estimate	S.E.	Estimate	S.E.
Constant	4.36***	(0.11)	3.72***	(0.23)
Demographic characteristics of households				
Proportion aged 15 or below	- 0.65***	(0.10)	- 0.35*	(0.21)
Proportion aged 16-25	- 0.20**	(0.09)	- 0.16	(0.17)
Proportion aged 36-45	- 0.01	(0.09)	0.10	(0.15)
Proportion aged 46-55	0.10	(0.10)	- 0.08	(0.16)
Proportion aged 56-65	0.10	(0.12)	- 0.17	(0.18)
Proportion aged above 65	- 0.11	(0.13)	- 0.19	(0.16)
Proportion of adults who are male	0.09	(0.09)	0.15	(0.16)
Households with male head	- 0.11**	(0.05)	0.07	(0.09)
Education				
Proportion of adults with primary education	0.20***	(0.08)	0.32*	(0.19)
Proportion of adults with secondary education	0.56***	(0.08)	0.88***	(0.20)
Proportion of adults with vocational training	0.46***	(0.10)	0.80***	(0.23)
Proportion of adults with tertiary education	0.73***	(0.10)	1.41***	(0.22)
Labor market characteristics				
Average number of weeks of labor per household member per year	0.00**	(0.00)	0.00	(0.00)
Proportion of working adults	0.08	(0.11)	- 0.20	(0.21)
Household with working head	0.07**	(0.03)	0.04	(0.07)
Proportion of households with members working in family farms & businesses	0.04	(0.07)	0.14	(0.13)
Wealth/Assets				
Acreage of land household owns (000)	0.20	(0.15)	0.01	(0.01)
Value of animals household owns (000 DM)	0.04**	(0.02)	0.04	(0.03)
Transfers				
Households at least one of whose members has a disability card	0.03	(0.04)	- 0.09	(0.07)
Household at least one of whose members receive private transfers	0.10***	(0.02)	0.33***	(0.11)
Geographic Characteristics				
Households that migrated from another region	0.00	(0.03)	- 0.09	(0.07)
Urban households	0.02	(0.03)	0.05	(0.06)
F-Statistics	26.29***		7.88***	
Adjusted R-square	0.24		0.30	
Number of households	2101		416	

Note: *, ** and *** indicate significance at the 10%, 5% and 1% levels, respectively. Weights are used in estimation. Standard errors which are robust to mis-specification are reported. Sector of employment is also controlled.

Table 4
Decomposing Difference in Per Capita Expenditure of -0.147 log points between Serbs and Albanians

	Characteristics Effect		Coefficients Effect	
	Estimate	Share	Estimate	Share
Aggregate Effect	0.077	- 51.79	- 0.224***	151.79
Aggregate Effect Without Constants	0.077	- 51.79	0.419	- 283.73
Constant			- 0.644**	435.52
Demographic characteristics of households	0.029	- 19.54	0.272	- 183.95
Proportion aged 15 or below	0.051*	- 34.28	0.096	- 65.23
Proportion aged 16-25	0.009	- 6.13	0.009	- 6.00
Proportion aged 36-45	0.002	- 1.64	0.011	- 7.55
Proportion aged 46-55	- 0.004	2.71	- 0.018	12.51
Proportion aged 56-65	- 0.014	9.63	- 0.020	13.36
Proportion aged above 65	- 0.011	7.77	- 0.004	2.52
Proportion of adults who are male	0.001	- 0.75	0.028	- 18.75
Proportion with male head	- 0.005	3.16	0.170*	- 114.81
Education	0.128***	- 86.46	0.236	- 159.37
Proportion of adults with primary education	- 0.044*	29.61	0.055	- 36.89
Proportion of adults with secondary education	0.192***	- 129.71	0.094	- 63.60
Proportion of adults with vocational training	- 0.006***	4.07	0.027	- 18.34
Proportion of adults with tertiary education	- 0.014***	9.57	0.060***	- 40.53
Labor market characteristics	0.009	- 5.93	- 0.128**	86.68
Average number of weeks of labor per household member per year	0.012	- 8.11	- 0.021	13.95
Proportion of working adults	- 0.011	7.53	- 0.114	77.37
Household with working head	- 0.002	1.24	- 0.020	13.30
Proportion of households with members working in family farms & businesses	0.010	- 6.58	0.027	- 17.94
Wealth/Assets	- 0.004	2.54	- 0.012	7.85
Acreage of land household owns (000)	0.001	- 0.38	- 0.013	8.57
Value of animals household owns (000 DM)	- 0.004	2.92	0.001	- 0.72
Transfers	- 0.131***	88.43	0.089	- 60.15
Proportion of households at least one of whose members has a disability card	0.000	- 0.02	- 0.012	7.95
Proportion of household at least one of whose members receive private transfers	- 0.131***	88.45	0.101	- 68.11
Geographic Characteristics	0.066	- 44.36	- 0.057	38.85
Households that migrated from another region	0.058	- 39.40	- 0.067	45.22
Urban households	0.007	- 4.96	0.009	- 6.37
Sector of Employment	- 0.020**	13.52	0.020	- 13.63

Note: Share is the ratio of the contribution of each factor to the overall differences in per capita expenditures (-0.148 log points) between Serbs (4.568) and Albanians (4.716), in percentage terms. *, ** and *** indicate significance at the 10%, 5% and 1% levels, respectively.

Table 5
Decomposing Difference in Poverty Rates of 10.58% between Serbs and Albanians using Estimates of Per Capita Expenditure Regression Equations

	Characteristics Effect		Coefficients Effect	
	Estimate	Share	Estimate	Share
Aggregate Effect	- 0.058	- 54.41	0.163***	154.41
Aggregate Effect Without Constants	- 0.058	- 54.41	- 0.310	- 292.49
Constant			0.473**	446.91
Demographic characteristics	- 0.022	- 20.53	- 0.196	- 185.31
Education	- 0.096***	- 90.84	- 0.175	- 165.57
Labor market characteristics	- 0.007	- 6.23	0.092**	87.18
Wealth/Assets	0.003	2.67	0.008	7.71
Transfers	0.098**	92.91	- 0.065	- 61.79
Geographic Characteristics	- 0.049	- 46.61	0.042	39.61
Sector of Employment	0.015**	14.21	- 0.015	- 14.31

Note: Share is the ratio of the contribution of each factor to the "predicted" overall difference in poverty rate (10.58%) between Serbs (56.10%) and Albanians (45.51%), in percentage terms. The observed overall difference in poverty rate are 11.87% between Serbs (57.38%) and Albanians (45.52%). The predicted poverty rate is computed using estimates from the per capita expenditure regression. The details of the computation using the per capita expenditure regression is explained in the main text. *, ** and *** indicate significance at the 10%, 5% and 1% levels, respectively.

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