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## What Difference Does a Country Make? Earnings by Soviets in the Soviet Union and in the United States

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# **What Difference Does a Country Make ?**

## **Earnings by Soviets in the Soviet Union and in the United States\***

by

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Abstract: This paper utilizes the Soviet Interview Project (SIP) and the 1990 U.S. census to identify and to track a sample of Soviet émigrés. After examining basic descriptive statistics on income mobility, we specify and estimate earnings functions to examine the impact of a variety of explanatory factors on household earnings in the Soviet Union and in the United States.

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## **What Difference Does a Country Make ?**

### **Earnings by Soviets in the Soviet Union and in the United States**

#### **Introduction**

A major theme in the contemporary literature on emigration is the speed with which the assimilation of émigrés takes place and the factors which influence this process in the host country. An important element of success in the host country is the nature of background forces from the sending country, for example, own human capital, early patterns of career development, and family characteristics. Moreover, it is often argued that these background characteristics are important as a determinant of earnings in both the sending country and subsequently after emigration in the host country. Indeed, a critical issue in the adjustment process is the transferability of skills, especially those derived from, but ultimately used in, very different socioeconomic settings. An important case of emigration is those persons educated in the planned socialist economy of the former Soviet Union, but moving to and seeking economic success in the market setting of the United States.

In this study, we use the Soviet Interview Project (SIP) and the 1990 United States Census (Census) to identify and to track a sample of persons who emigrated from the Soviet Union to the United States. Beyond examining important basic characteristics of income change, an objective of this paper is to specify and to estimate earnings functions relating earnings in the Soviet Union and subsequent earnings in the United States to background factors derived from the Soviet experience.

Why should we be interested in the issues raised here ? Much of the evidence on the

success (or failure) of émigrés in a new setting relates to the influence of country background factors, and how those factors influence economic success (or failure) in the new host setting. In this paper we track the same people (or a cohort) to understand who has succeeded (or failed), and the importance of an individual's specific country-of-origin characteristics, such as education, in determining outcomes. The issues raised here have implications well beyond the specific case examined. Our study considers the impact of background variables from a planned socialist setting subsequently influencing outcomes in a market setting. This is a pattern of mobility common in the 1990s.

This paper is divided into six sections. In Section II we provide a brief survey of the literature relevant to our analysis. In Section III we provide a discussion of the methodology that will be used and the nature of the data. In Section IV we present an analysis of basic descriptive statistics. In Section V we turn to an analysis of earnings functions to discover what explanatory variables have been important, and how the importance of these forces has changed from the initial experience in the sending country to the subsequent experience in the host country. Finally in Section VI we summarize our findings and offer suggestions for further analysis.

## **II. Background: The Existing Evidence**

There is a large body of literature relating to the forces that influence the success of émigrés in a host country (Chiswick 1986, Schmidt 1994a,b). In addition to the importance of sending country characteristics (Borjas 1987), country-of-origin characteristics are often said to be important proxies for adaptability in a host country. These issues have been examined in some

detail for the United States (Jasso and Rosenzweig 1986, 1990, Chiswick 1978, Borjas 1992). The work of Borjas and Chiswick has paid special attention to the issue of skill transferability from sending country to host country.

Since the 1960's there has been substantial immigration from the former Soviet Union (FSU) of major importance to both the sending country (Vishnevsky and Zayonchkovskaya 1994) and the major receiving countries, specifically the United States (Chiswick 1993) and Israel (Sabatello 1994). Although the migratory flows varied over time with policy changes in the FSU (Freedman 1989) and in the United States (Tress 1991), the large numbers emigrating to the United States have been the focus of considerable research (Simon and Simon 1982, Simon 1985, Gold 1994). Of special interest to economists has been the economic adjustment of Soviet emigres in the United States, and especially the importance of explanatory factors such as linguistic capability and education (Chiswick 1993, Chiswick 1995). Indeed, beyond analyses of the general case, a great deal of attention has been given to important regional cases such as New York (Horowitz 1993, Orleck 1987, Markowitz 1993).

Although this study focuses on adjustment in the United States, the large number of emigres from the FSU settling in Israel (Sabatello 1994) has warranted attention. This attention has focused on both the macroeconomic impact on the Israeli economy (Hercowitz and Meridov 1991) and on microeconomic adjustment. Empirical evidence suggests that the skilled workers from the FSU were unable to sustain their occupational status in the host country (Weiss and Gotlibovski 1994).

It has been shown (Duleep and Regets 1993), however, that country-of-origin effects dissipate rather more quickly than earlier thought to be the case, though case studies, for

example, Gang and Zimmermann's (1996) study pertaining to Germany, raise doubts on this issue. None of these studies have analyzed which factors contributed to immigrants success in their home country and compared them to the factors influencing success in the host country.

### **III. Methodology and Data**

The analysis in this paper proceeds in two sequential steps. In the first step, we characterize the economic structure of our sample of individuals. Here we examine a number of measures of income change and income mobility in order to compare the initial experience in the sending country and the subsequent experience in the host country. In the second step, we estimate earnings functions in order to examine the impact of a number of background factors (education, family background, employment history) on family income.

Fundamentally, we are interested in the influence of Soviet background factors on earnings in the Soviet Union prior to emigration, earnings in the United States after emigration, and earnings in the United States after a period of adjustment to the market setting. We want to know: 1) if they are doing better or worse?; 2) who is doing better or worse?; 3) why are those who are doing better, in fact, doing better?. The answers to these questions help contribute to our understanding of the role country-of-origin plays in émigrés adjustment to the U.S. labor market.<sup>1</sup> We are able to examine the movement of people in our sample from the socialist Soviet setting to the market-oriented U.S. setting, and analyze the potential impact of labor market transition in the former Soviet Union and potentially in other transition cases. To examine both the Soviet and the U.S. setting, we use the Soviet Interview Project (SIP) and the U.S. 1990 Census (Census).

The SIP data provides us with a unique contemporary sample of émigrés who moved from the Soviet Union to the United States in the period January 1, 1979 to April 30, 1982 and provides us with detailed retrospective background information on those who emigrated.<sup>2</sup> The SIP data was collected in 1983.<sup>3</sup> The second source of data that we use is the 1990 U.S. Census. Although it is not possible to create a direct link between the SIP data and that of the Census, the latter indicates country-of-origin and date of arrival in the United States. Thus we can analyze the same cohort by examining those who arrived in the United States from the former Soviet Union during the same period as those in the SIP data base.

The SIP data reports on a variety of aspects of household behavior of respondents during their lifetime in the Soviet Union through the end of their last normal period (LNP), the date on which they declared their intention to emigrate from the Soviet Union, and information on their initial situation in the U.S. Our study is based upon a sample of 919 (the Blue sub-sample of the SIP data base) for whom both basic and extended household characteristics are known. Of these 919 persons, 51 had to be deleted because fundamental information on them was lacking, so that we have a sample of 882 respondents that we analyze.

In this study, we look at earnings and earnings mobility, examining three years: first, Soviets in the Soviet Union in 1976; second, Soviets in the United States in 1983, and finally, Soviets in the United States in 1989. The Soviets that we examine in the Soviet Union in 1976 and in the United States in 1983 are the same people drawn from the SIP data base. The Soviets whose earnings we examine in 1989 are drawn from the 1990 census which reports income for 1989. The census allows us to isolate those who arrived in 1976-1984 and those who arrived in 1980-81. We analyze both groups isolating the same age cohort as that in the SIP sample.

Our measure of success in both the Soviet Union and in the United States is household income.<sup>4</sup> In this study we are interested in household income to analyze family decision making. Where necessary, we convert Soviet Household income to U.S. dollars using a Purchasing Power Parity exchange rate for 1976, then converting to 1983 U.S. dollars. Although the specific dates vary for members of the Soviet sample, we assume that the year 1976 was the end of the last normal period (LNP) for all in the sample.<sup>5</sup>

#### **IV. Income Distribution and Income Mobility**

Why do we want to look at income distribution ? Our initial goal in this study is to examine the transfer of income (income mobility) within the group and to examine changes in the amount of income available. Did Soviets who emigrated to the United States improve their position when they first arrived in the United States ? Were the same people who were relatively successful in the Soviet Union (i.e. those with higher income) relatively successful in the United States ? Or, were other émigrés more successful in the U.S. setting ? What happened to these former Soviets after several years in the market economy of the United States ? To understand the benefits of the move to the United States and the subsequent assimilation into the market economy from a Soviet background, we begin with an examination changes in the level of income, the existence of poverty and finally the extent of income inequality among the 882 individuals in our SIP sample. We compare earnings in 1976 in the Soviet Union and in 1983 in the United States for this same group of individuals. Note that for purposes of income comparisons, we translate rubles to dollars using a purchasing power parity exchange rate. Estimates of PPP exchange rates for the mid 1970s range from 0.4 to 0.6 Although we present



comparisons using both 0.5 and 0.6 as variants, our discussion in the text assumes a PPP of 0.5.<sup>6</sup>

Evidence on income change is summarized in Table 1. While average monthly family income increased from 1,325 to 1,551 (both measured in 1983 U.S. dollars) between 1976 (Soviet Union) and 1983 (United States), the degree of inequality measured by the Gini coefficient increased from 0.32 to 0.39. Thus while family income grew by approximately 17 percent over a period of 7 years, the degree of inequality increased by almost 22 percent, a significant change in a relatively short period of time.<sup>7</sup> If we use the 1983 U.S. dollar poverty line as a norm, the percentage in poverty increased from 18 in the Soviet union in 1976 to 21 in the United States in 1983, though the magnitude of the poverty gap actually decreased by 35 percent.<sup>8</sup> Notice that our measures of poverty levels and observed changes in those levels refer to our sample only. While it is possible to use appropriate weights to draw conclusions about the general Soviet population, that was not the intent of this study.<sup>9</sup>

The changes in average income, poverty, and inequality as people move from the Soviet Union and first arrive in the United States hint at a change in the income generating capacities of émigrés. Is it that those who were well off in the Soviet Union are even more well off than their émigré cohort, increasing inequality ? Has the initial shock of moving to the market economy of the United States brought those who were just above poverty in the Soviet Union into poverty in the U.S. ? To gain insight into these issues, we need to examine income mobility among our cohort of émigrés.

The Spearman Rank Correlation Coefficient between the Soviet Union (SIP) and the U.S. (SIP) of total household income available to individuals is 0.26, indicating some, but not a strong, preservation of the rank order of incomes among our cohort of émigrés. The Fields-Ok measure

of total mobility is 73 percent between 1976 and 1983 (Fields and Ok 1994).<sup>10</sup> Decomposing the Fields-Ok measure of total income mobility into that derived from the growth of incomes and that derived from transfers of incomes among individuals, transfers accounted for 56 percent while growth accounted for only 17 percent.

We cannot extend our analysis of income mobility to the Census. However we can examine measures of income distribution. From 1983 to 1989, the real (1983 \$) average household income of émigrés approximately doubled. Inequality increased by approximately another 15 percent and the percentage of individuals who lived in poverty decreased. These numbers vary somewhat depending upon whether we look at the cohort arriving in 1975-1984 or 1980-1981, although the general picture is the same. By 1989, the Soviet émigrés more or less took on the characteristics of the others in the U.S. economy, however, with noticeably higher average income, more poverty, and more inequality compared to the general U.S. population.

Quite clearly there is a large amount of mobility within our cohort of émigrés. Those who were most successful in the Soviet Union were not necessarily those who were most successful in the United States. In the next section, we address possible explanations for these observed outcomes.

## **V. Correlates of Success**

Our objective in this analysis is to examine the impact of a variety of factors that explain household income and changes in household income as families moved from the Soviet Union to the United states. We want to know if it is the same factors which explain household income

determination for this same group of people when they move from the Soviet Union to the United States. In brief, can we identify the underlying causes of the income mobility picture we describe above ? In Table 2, we provide descriptive statistics for the variables available from the two data sets.<sup>11</sup>

In Table 3 we present our estimates of earnings functions with log of household income as the dependent variable and marital status, gender, household size, age and age squared and education as explanatory variables.<sup>12</sup> We examine earnings in the Soviet Union in 1976 followed by earnings by the same group of Soviets in the United States in 1983 and thereafter earnings of Soviets in the United States derived from the U.S. Census of 1990.

A number of important conclusions derive from Table 3. First, while marital status is statistically important in all cases, gender mattered in the Soviet Union but did not initially matter in the United States in 1983. Age and age squared, a proxy for experience, jointly mattered in the Soviet Union and in the United States. Finally, the level of educational attainment matters in all cases.

Although the impact of explanatory variables is broadly similar for the different explanatory variables across the four samples, it is possible that either or both the slope and the intercept (that is the equations) differ from one sample to another. Using SIP household earnings in the United States in 1983 as our norm, we tested for possible differences using standard F tests. Marital status and gender have a statistically similar impact across all four samples. The number of persons in the household is significantly different in the Soviet Union in 1976, though the same as compared to the two samples from the U.S. Census. Age and age squared are jointly statistically different in all four samples suggesting that the impact of experience is different in

the different samples. Finally, while the impact of education on earnings is statistically the same as between the Soviets in the Soviet Union in 1976 and the Soviets in the U.S. in 1983, it differs in both samples of Soviets drawn from the U.S. Census of 1990 when compared to the SIP 1983 estimates. This latter evidence suggests that while the impact of Soviet education on earnings was similar at home and initially in the U.S., there was over time a change (increase) in the impact of Soviet education on earnings in the new market setting.<sup>13</sup> These findings are important in that they tell us that there are returns to Soviet type education in market settings, though it is more difficult to know whether education is truly capturing an addition to human capital, is acting as a signalling device, or is simply capturing worker attributes such as motivation.

How important was education in the expansion of earnings ? For those in the Soviet Union in 1976 (SIP data), the attainment of higher education increased household income by approximately 16 percent, while for the same sample after emigration to the United States in 1983, household income increased by 20 percent, though these increases are not statistically different from one another.<sup>14</sup> Turning to the same age cohort in the U.S. census, higher (Soviet) education increased household income for those arrivals in the U.S. (1975-1984) by 68 percent, and for those arrivals in the U.S. (1980-1981) by 79 percent. Apparently the Soviet system flattened the returns to education across age. These latter increases are statistically different from those of the SIP sample for 1983. These results strongly suggest that there were important benefits in the U.S. market from higher education obtained in the Soviet Union. Thus while education is significant in both settings, it is much more important in the United States. This finding is important since it suggests that the type of education characteristic of the former

planned socialist systems can in fact be transferred to new socioeconomic settings. Specifically, as markets are introduced in the formerly Soviet-type settings, we would expect the returns to education to be high. This seems to contradict contemporary observations that people are losing interest in education.<sup>15</sup> However, this apparent lack of interest in education may simply be a result of the general chaos in educational institutions prevailing during the transition period.

The evidence presented in Table 3 is important because it allows us to look at the impact of a number of explanatory variables for an identical set of émigrés in two very different settings of the sending and host countries between 1976 and 1983. In addition, we can, using the comparable cohort derived from the 1990 U.S. census, examine the impact of these variables on Soviets in the U.S. over a longer period of time. Use of the U.S. census, however, limits the available explanatory variables.<sup>16</sup>

In Table 4, we provide estimates of earnings functions using additional explanatory variables available in the SIP data base but not available in the Census. As in the estimates presented in Table 3, we use the log of household income as the dependent variable. Our explanatory variables include those already discussed, and in addition, include potentially important background factors such as parental education (mother and father), ethnicity, military experience, geographic mobility within the Soviet Union, job mobility within the Soviet Union, place of residence at the end of the last normal period, job status in the Soviet Union and finally, city size. Again as in the basic comparisons presented in Table 3, we compare Soviet earnings in the Soviet Union in 1976 with earnings by Soviets in the United States in 1983.

The results of our broader estimates are presented in Table 4.<sup>17</sup> Marital status is statistically significant both in the Soviet Union and in the United States, and the magnitude of

impact is statistically the same. The impact of gender is weak and the same in both cases as is the impact of education. Notice that including the extended list of explanatory variables reduces the impact of higher education to 8.5 percent in the Soviet Union and 7.3 percent in the U.S. The impact of experience is statistically important in the United States, not in the Soviet Union. Turning to the additional explanatory variables, two broad observations are relevant. First, the impact of the additional variables is limited though with interesting differences. For example, fathers education is significant in the Soviet Union, not in the United States (though they are not significantly different from each other), while mothers education is not important in either case.<sup>18</sup> Migration history is important in the Soviet Union, not in the United States, while job status (low level of initial employment) is important in the Soviet Union. Finally, city size matters in the Soviet Union, not in the United States.

## **VI. Conclusions**

In this study, we have used microeconomic (household) data to analyze the impact of a number of explanatory variables upon household income in the former Soviet Union and in the United States after emigration. In the latter case, we examined a basic (identical) sample in the Soviet Union and in the United States, and in addition, an identical cohort based upon the identification of émigrés in the U.S. census of 1990. We are interested in changes in the within group income status between the Soviet Union in 1976 and the same sample in the United States in 1983, and later in 1989, and estimates of earnings functions to explain the importance of a variety of theoretically relevant explanatory variables.

We found that while the household income of émigrés from the Soviet Union increased

after their domicile in the United States, the degree of inequality increased significantly as did the share of this population experiencing poverty as defined by U.S. poverty norms.

Our evidence shows that as a Soviet émigré entered the U.S. market economy, there were both similarities and differences from the past. Marital status influenced household income in both settings, while gender was statistically important only in the Soviet Union. Understandably, family size mattered in both settings. On the other hand, returns to both education and experience are greater in the United States. These latter effects are important indicators of assimilation into a new and very different setting. Finally, as we moved beyond the basic variables to include additional explanatory variables, there was little difference between impact in the Soviet Union and in the United States, though in general the impact was statistically uneven. Father's education matters, as does migratory history and initial job status, while ethnicity, mother's education and mobility in the Soviet Union do not seem to matter.

Can we say why those who did well in the Soviet Union may differ from those who do well in the United States ? It would seem that in a group of émigrés, there are some who will do well and others who will not, the difference determined by the presence or absence of a variety of conditioning factors. Thus it is inappropriate to characterize the likelihood of success in a new setting simply by identifying country-of-origin. Moreover, to the extent that settings and conditioning factors differ from one case to another, it would seem that achievement in transition settings will be uneven.

Our results contribute to two current policy debates. First, there is an important debate in the migration literature on country-of-origin. The hypothesis that country-of-origin matters is winning converts and beginning to influence public policy. Most studies that look at country-

of-origin are looking at between group variation. They either assume a dummy variable for country, or capture country-of-origin effects by using proxies such as the average education level of those in the sending country. Our study looks at within group variation - how this group of Soviet émigrés who came to the U.S. at the same time and under the same conditions is doing. In the extreme version of the country-of-origin hypothesis, i.e. the country-of-origin captures almost everything important about these people, especially their productivity in the U.S., one should find little variation in how members of the same group from the same country are doing. To the extent that there is in fact variation, it raises questions as to how much one can trust the proxy “country-of-origin” as a determinant of the contributions immigrants will make to the U.S. economy. Our results suggest that there is large intra-group variation.

A second public policy issue is what we can expect to happen to the distribution of income in transition economies as they move towards a market oriented economy. What will be the determinants of success in the market economy, and how will this success be influenced by the past ? The move of a large group from the Soviet Union to the United States has presented us with an important example in which we can examine income distribution and income generating characteristics of a move to a market economy.



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<sup>1</sup> If one holds to the extreme incarnation of the country-of-origin hypothesis, i.e., that country-of-origin completely captures all of a persons important labor market characteristics, then we should find no variation in the performance of individuals in our sample.

<sup>2</sup> The initial SIP consisted of 2,793 respondents aged 21-70 years at time of emigration. We do not know their exact date of entry into the United States. A detailed discussion of the original materials can be found in Millar et. al. (1987). The first major studies from the data base including commentary on the data can be found in Millar (ed.) (1987) while recent analysis of the household can be found in Ofer and Vinokur (1992), Linz (1995) and Gang and Stuart (1996).

<sup>3</sup> Note that for this population selective return migration is not a problem for the analyses.

<sup>4</sup> From a conceptual point of view, household income is the appropriate measure of success. In the SIP data base both respondents income and household income is provided for the Soviet Union, but in the U.S. (1983) we have only household income. Thus to have a consistent measure in all three periods, we use household income.

<sup>5</sup> The Last Normal Period (LNP) is an important concept in the SIP data base. It was assumed that once a family declared its intention to emigrate its circumstances would change, possibly dramatically, due to official hostility. When respondents were asked to report on various aspects of their Soviet living experience, the base period chosen was that immediately prior to the declaration of intent to emigrate. It is possible that prior to the LNP, pre-immigration preparations may have been undertaken. This raises the issue of the selectivity of the migration stream. Since we do not have data on those people who did not migrate to the US, we cannot address the issue.

<sup>6</sup> Purchasing Power Parity (PPP) exchange rates for the FSU have always been controversial. The rates used here derive from a major World Bank Study conducted in the 1980's. While overall consistency of these results with other studies provides some comfort in their accuracy, nevertheless, there may be downward biases resulting from the difficulties of including what the Soviets termed social consumption funds, and upward bias resulting partly from an overstatement of product quality and also from inappropriately high prices. The details of purchasing power estimates can be found in (Marer 1985). See also footnote 9.

<sup>7</sup> The average number of persons in a household decrease from 3.4 in 1976 to 2.6 in 1983 and increase to 2.9 in 1989. We have made no adjustment for these changes in household size when calculating the Gini coefficients. However, we did examine changes in male and female labor force participation behavior. We found that the patterns were unchanged from the LNP to 1983 to the U.S. census. This is especially so for the 16-55 age group.

<sup>8</sup> The poverty gap refers to the differential between actual income and the defined poverty line for those whose income is in fact below the poverty line. For our poverty measures, we have adjusted for family size.

<sup>9</sup> Here we are interested in studying the same cohort across countries and time, and not, in particular, how representative our sample is of the general Soviet population in the mid-1970's. However, note that our calculations of income distribution are comparable to Atkinson and Micklewright (1992) and others for the same period.

<sup>10</sup> This is a distance measure of mobility, where growth mobility is equal to the increase in the average income of the group, and transfer mobility measures (holding growth constant) the movement of income among individuals in the group.

<sup>11</sup> The econometric work was done using SHAZAM 7.0 (White et. al., 1990) and LIMDEP 6.0 (Greene, 1992).

<sup>12</sup> The estimation is a bit problematic because we are using household income as the dependent variable, while the right hand side consists of individual characteristics. We include the number of persons in the household on the right hand side. The regression coefficient on this variable represent how much family size contributes to family income.

<sup>13</sup> Our analysis distinguishes those without and those with higher education. Those without higher education have only a high school education, while those with higher education have education beyond the high school level.

<sup>14</sup> The percentage change is calculated as  $\exp[\beta - (1/2)V(\beta)^2] - 1$ , where  $\beta$  is the estimated coefficient on education and  $V(\beta)$  is the variance of  $\beta$ . See Kennedy (1981).

<sup>15</sup> See for example Fan and Spagat (1994) and Spagat (1995).

<sup>16</sup> In Table 3, the dependent variable is household income. However, for the LNP and for the 1990 U.S. Census we also have individual earnings and hours worked. We have estimated earnings functions for these two years using individual earnings as the dependent variable and including hours worked as one of the right hand side variables. The results confirm the patterns established in Table 3. However, as one would expect, the coefficients on marital status and household size were smaller, those on gender and experience larger, while the coefficient for education was unchanged.

<sup>17</sup> As suggested by the referees, we also examined a difference equation where the dependent variable is the difference between the log of income in 1983 and the log of income in 1976. These results generally confirm our previous findings presented in Table 4. Specifically, individual coefficients in the difference equation were not significant. In part, this is because the coefficients from year to year in Table 4 are similar. Also, in the difference equation estimation, the variance of the estimate almost doubles.

<sup>18</sup> The significant role for father's education but not mother's also shows up in work on Germany (Gang and Zimmermann 1996). Evidence from the United States and many developing economies show a more important role for mother's education (Haveman and Wolfe 1995).

**Table 1**  
**The Distribution of Monthly Household Income**

	1976 F.S.U. S.I.P.	1983 U.S. S.I.P.	1989 U.S. 1990 Census 1975-84 arrived	1989 U.S. 1990 Census 1980-81 arrived	1989 U.S. 1990 Census Popu- lation
Monthly Average Income, Local Currency	379	1551	3988	3741	3459
Average Income, 1983 U.S.\$ PPP = .5 R/\$ PPP = .6 R/\$	1325 1104	1551	3203	2993	2767
% Below Poverty PPP = .5 R/\$ PPP = .6 R/\$	18 27	21	14	18	13
Poverty Gap (\$ Below Poverty Line) PPP = .5 R/\$  PPP = .6 R/\$ ( )Average Income of the Poor	188 (537) 209 (530)	123 (453)	147 (412)	154 (426)	
Inequality(Gini Coefficient)	.32	.39	.44	.46	.40
Pierson Correlation Coefficient	.13				
Spearman Rank Correlation Coefficient	.26				
Fields-Ok Income Mobility Measure Absolute(.5R/\$) Total of which: Growth Transfer Percentage Total of which: Growth Transfer Absolute(.6R/\$) Total of which: Growth Transfer Percentage Total of which: Growth Transfer	847,747 199,022 648,725 73 17 56 846,498 393,811 452,687 87 40 47				
Household Size	3.4	2.6	2.9	2.9	
Sample Size	882	882	2738	721	

Source: Authors' calculations from U.S. Government (1993a, 1993b, 1993c); Marer (1985), Millar et. al. (1987).

Notes: To calculate poverty measures, income in the Soviet Union was converted to 1976 U.S. dollars using a purchasing power parity exchange rate (we assume, for everyone, their income in the last normal period in the Soviet Union was for 1976). Next, inflate 1976 U.S. dollars to 1983 U.S. dollars. Use the 1983 U.S. poverty line by household size to see how many people in our sample live in poor households and how poor is the household they are living in (for a family of 3 this was \$661.50). Similar adjustments were made for all years. For example, 1990 census, which has income from 1989, we deflate to 1983 prices.

**Table 2**  
**Means and Standard Deviation of the Variables**

Variable	Former Soviet Union, S.I.P.	United States S.I.P. 1983	United States 1990 Census, 1975-84 arrived	United States 1990 Census, 1980-81 arrived
Marital Status (Married = 1)	.79 (.41)	.76 (.43)	.75 (.43)	.75 (.43)
Gender (Male = 1)	.45 (.50)	.45 (.50)	.46 (.50)	.46 (.49)
Number of persons in household	3.36 (1.37)	2.63 (1.13)	2.94 (1.31)	2.86 (1.22)
Age	38.9 (14.1)	47.2 (13.9)	51.0 (14.0)	51.5 (14.5)
Education (High = 1)	.68 (.47)	.68 (.47)	.62 (.48)	.61 (.49)
Father's Education (High = 1)	.32 (.47)	.32 (.47)		
Mother's Education (High = 1)	.28 (.45)	.28 (.45)		
Jewish (Yes = 1)	.81 (.39)	.81 (.39)		
Military Experience (Yes = 1)	.40 (.49)	.40 (.49)		
Migration History in Soviet Union (Yes = 1)	.48 (.50)	.48 (.50)		
Changed Jobs in SU (yes = 1)	.53 (.50)	.53 (.50)		
Job Status in 1st Job				
low	.36 (.48)	.36 (.48)		
never worked	.04 (.19)	.04 (.19)		
Place LNP				
Ukraine	.24 (.43)	.24 (.43)		
Baltics	.06 (.24)	.06 (.24)		
Belarus & Moldava	.10 (.30)	.10 (.30)		
Caucasus	.05 (.21)	.05 (.21)		
Central Asia	.07 (.26)	.07 (.26)		
City-Size LNP (less than 500,000 = 1)	.22 (.41)	.22 (.41)		
# of cases	882	882	2738	721

Source: Authors' calculations from U.S. Government (1993a, 1993b, 1993c); Marer (1985), Millar et. al. (1987).



**Table 3**  
**Regression Results from SIP and 1990 U.S. Census**

Variable	Former Soviet Union, S.I.P. 1976	United States S.I.P. 1983	United States 1990 Census, arrived 1975-84	United States 1990 Census, arrived 1980-81
Dependent Variable	LN(household income in SU)	LN(household income in US)	LN(household income)	LN(household income)
Marital Status (Married = 1)	.2135* (.0480)	.2018* (.0563)	.3052* (.0418)	.2280* (.0857)
Gender (Male = 1)	.1226* (.0352)	.0509 (.0404)	.0722** (.0295)	.1178** (.0616)
Number of persons in household	.1640* (.0161)	.2017* (.0280)	.2306* (.0154)	.2404* (.0363)
Age	.0095 (.0083)	.0115 (.0112)	.0638* (.0086)	.0466** (.0191)
Age-squared	-.0002 (.0001)	-.0003* (.0001)	-.0007** (.0001)	-.0006* (.0002)
Education (High = 1)	.1457* (.0415)	.1844* (.0419)	.5520* (.0348)	.5855* (.0724)
Constant	4.7755 (.1646)	6.4595 (.2580)	7.9004 (.2215)	8.2714 (.4876)
# of cases	882	882	2738	721
Adjusted R <sup>2</sup>	.26	.41	.44	.39
Log-likelihood function	-5738.92	-7019.95	-31522.3	-8279.79
Are age and age-squared jointly significant	Yes at .05 level	Yes	Yes	Yes

Source: Authors' calculations from U.S. Government (1993a, 1993b, 1993c); Marer (1985), Millar et. al. (1987).

Notes: Using White's heteroskedasticity-consistent covariance matrix. Using SHAZAM 7.0. \* significant at .01; \*\* significant at .05; \*\*\* significant at .10; Standard errors in parentheses.

**Table 4**  
**Regression Results from SIP**

Variable	Former Soviet Union, S.I.P. 1976	United States S.I.P. 1983
Dependent Variable	LN(household income in SU)	LN(household income in US)
Marital Status (Married = 1)	.2099* (.0482)	.1922* (.0567)
Gender (Male = 1)	.0914*** (.0525)	-.0137 (.0609)
Number of persons in household	.1789* (.0516)	.2133* (.0270)
Age	.0088 (.0086)	.0165 (.0113)
Age-squared	-.0001 (.0001)	-.0003* (.0001)
Education (High = 1)	.0827*** (.0508)	.0714 (.0535)
Father's Education (High = 1)	.0894*** (.0536)	.0198 (.0648)
Mother's Education (High = 1)	.0518 (.0518)	.0962 (.0637)
Jewish (Yes = 1)	-.0230 (.0446)	-.0202 (.0532)
Military Experience (Yes = 1)	.0391 (.0541)	.1045*** (.0606)
Moved in Soviet Union (Yes = 1)	-.0893** (.0378)	-.0462 (.0431)
Changed Jobs in SU	-.0105 (.0359)	-.0472 (.0434)
Job Status in 1st Job low never worked	-.0084 (.0484) -.2005** (.0985)	-.1214** (.0505) -.1042 (.1238)
Place LNP Ukraine* Baltics* Belarus & Moldava* Caucasus* Central Asia*	-.0705 (.0435) .1123*** (.0663) -.0120 (.0599) .0845 (.1155) -.0916 (.0931)	.0417 (.0496) .0697 (.0839) .0873 (.0735) -.0639 (.0825) -.1492*** (.0846)
City-Size LNP (Small = 1)	-.1042** (.0502)	-.0615 (.0543)
Constant	4.8041 (.1882)	6.4243 (.2760)
# of cases	882	882
Adjusted R <sup>2</sup>	.28	.42
Log-likelihood function	-5720.45	-7005.6
Jointly significant Age and Age-squared Job Stability 1st Job Place end LNP Mother's and Father's Education Job Status 1st Job and Changed Job in SU	No No Yes at .10 level Yes at .05 level No No Yes at .10 level	Yes at .01 level Yes at .05 level No No No Yes at .10 level

Source: Authors' calculations from U.S. Government (1993a, 1993b, 1993c); Marer (1985), Millar et. al. (1987).

Notes: Using White's heteroskedasticity-consistent covariance matrix. Using SHAZAM 7.0. \* significant at .01; \*\* significant at .05; \*\*\* significant at .10; Standard errors in parentheses.