Selectivity and Economic Assimilation of Immigrants from the Former Soviet Union in Israel and the US.

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Abstract

During the late 1970s and 1980s, Jewish emigrants from the Former Soviet Union (FSU) could choose between Israel and the US as their destination counties. Drawing on US census data (1980 and 1990 PUMS) and Israeli cross-sectional and longitudinal data, we find that immigrants from the FSU in Israel failed to reach earnings convergence with natives. The earnings growth of FSU immigrant in Israel lagged behind that of natives, as well as behind the earnings growth observed among FSU Jewish immigrants in the US between 1980 and 1990. Patterns of self-selection to immigration – on both measured and unmeasured productivity-related traits – are identified as the major reason for the relatively poor performance of FSU immigrants in Israel. Apparently, the more educated and skilled Jewish emigrants from the FSU immigrants reached Israel.

Introduction

Prior to the establishment of the State of Israel in 1948 about 50,000 Jews from the Soviet Union came to Israel, constituting about 10-15% of the Jewish population in Mandatory Palestine. Between 1948 and 1967 Jews were not allowed to leave the USSR. Consequently, only about 30,000 of the 1.3 million Jewish immigrants arriving Israel during that period were born in the Former Soviet Union (FSU). The post-1967 period is a different story. Following cold war politics during the late 1960s and 1970s, and the collapse of the Soviet Union in the early 1990s emigration from the FSU increased sharply (Massey 1999). Immigrants arrived in Israel in two main waves. The first wave,

between 1968 and the early1980s included about 170,000 immigrants. The second wave started in 1989 and included about 600,000 immigrants who arrived until 1995 (over half of them in 1990-1991), and additional 250,000 between 1995 and 2000. In total, over one million immigrants from the FSU arrived in Israel during 1968-2000. By 2000, immigrants from the FSU constituted 20% of the Jewish population in Israel, and nearly 50% of the foreign-born population.

The influx of Russian immigrants to Israel since the late 1960's coincides with Israel's economic development. Following the 1967 war, Israel has increasingly become an attractive destination for immigrants. While most immigrants who came to Israel during the 1940's, 1950s and early 1960's were stateless refugees who had no alternative but to settle in Israel, most of the 1.5 million immigrants who came to Israel in the post-1967 period elected to do so for economic, political, ideological or religious reasons. The Israeli victory in the 1967 war and its aftermath attracted Jewish immigrants from the developed countries in the West. These immigrants, especially from the US, included a disproportionate number of ideological immigrants – mostly right wing religious zealots – and cannot be considered as "economic" immigrants (Cohen 2002). By contrast, post – 1967, and especially post-1973 immigrants to Israel from the FSU appear to be increasingly motivated by economic considerations (Dominitz 1997; Cohen 2002).

Israel's migration policy is governed by the law of return, granting citizenship to all Jewish immigrants and, (since 1970), to their non-Jewish relatives. Moreover, unlike other migration countries that limit the number of immigrants and prefer skilled and young immigrants, Israel's declared policy is to admit as many Jewish immigrants as possible, regardless of age, educational level and ethnic origin. Consequently, the Israeli government actively attracted and assisted immigrants from the FSU by helping them to leave the Soviet Union, funding their moving expenses, subsidizing their housing cost, providing them with occupational training, and offering them free language classes. Despite this generous assistance, not all Jewish emigrants from the FSU reached Israel.

Jews who left USSR during the 1970s and 1980s were able to do so after they had received an exit visa following a request for family reunification from relatives in Israel.

The journey to Israel required a stopover in transit centers in Europe, where the emigrants were entitled to apply for a refugee visa for the US.¹ Between 1965 and 1988 approximately 125,000 Soviet-born refugees (80% of them Jews) were admitted to the US, about half of them during 1978-1981 (Chiswick 1997). As shown in Table 1, the share of Jewish immigrants from the FSU who chose other countries (mostly the US) as their destination rose every year from a rate of 2% between 1968-1973², to 37% in 1975, to 51% in 1977, and reached a peak of 60-80% in the late 1970s and 1980s. The rate declined sharply after October 1989, when the American authorities limited Soviet immigration to 50,000 per year. However, many FSU Jewish emigrants were quick to find alternative destinations to Israel, as well as alternative methods to enter the US. It is estimated that in the post-1989 period between one-third and one half of FSU Jewish emigrants did not come to Israel, but immigrated to other destinations (Dominitz 1997). <Table 1 here>

Self-selection patterns of FSU emigrants to the US and Israel are not likely to have been random with respect to observed and unobserved productivity-related traits. There is some evidence that FSU immigrants (Jews and non-Jews alike) arriving in the US during the 1970s were of higher educational level than those arriving Israel (Simon 1985; Klinov 1991). This is consistent with the prevailing theory of immigrants' self-selection (Borjas 1987, 1994). Given a choice, skilled immigrants tend to go to countries where the returns to skills are higher, while less-skilled immigrants prefer countries where they will be protected by a net of social services. Since returns to skills have been greater in the US than in Israel, skilled immigrants are expected to prefer the US over Israel. To the extent that such self-selection on both observed and unobserved traits among FSU immigrants has indeed occurred (namely, the less skilled arrived in Israel, and the highly skilled chose the US) there is no reason to expect rapid rates of earnings assimilation among FSU immigrants in Israel, especially not among those arriving Israel when the doors to the US were relatively open, during 1974-88.

¹ This option was not available for FSU immigrants who arrived in Israel. Once they landed in Israel they obtained Israeli citizenship, and where no longer considered refugees by the US. ² 1968-73 arrivals are considered by most writers to be more committed to come to Israel due to their stronger Jewish identity and commitment to Zionism. Subsequent cohorts are said to be motivated more by economic considerations (Dominitz 1997). In addition, the 1973 war and its

Self-Selection and Assimilation Theory. Patterns of self-selection are central for understanding labor market assimilation of immigrants (Jasso and Rosenzweig 1990a; Smith and Edmonston 1997). The ongoing debate on the declining skills of US immigrants, to take just one example, is in large part a debate on whether or not <u>all</u> immigrant groups are positively-self selected from their countries of origin (Chiswick 1978; 1986), or whether positive selectivity depends on the relative returns to skills in the countries of origin and destination (Borjas 1987).

To be sure, there is no doubt that some immigrant groups are positively self-selected on their observed characteristics, as evidenced by the high educational levels of US immigrants from India, Egypt, and other low-education countries in Asia and Africa (Portes and Rumbaut 1996). The selectivity argument, however, is not limited to observed characteristics such as educational levels, but also to unobserved traits such as motivation, "ability" (however defined), unmeasured cultural capital, and social networks. Positive selectivity on such unmeasured -- rather than measured -- traits are supposed to explain the "better than perfect" earnings assimilation of some immigrant groups whose earnings not only converge with those of natives, but surpasses the earnings of natives of the same schooling levels and other measured characteristics (Chiswick 1978). Likewise, in cases where immigrants fail to significantly narrow the earnings gap with natives, it is generally attributed not only to their low educational levels, but also to their poor unobserved skills, which are the result of their negative self-selection from the population in their source countries (Borjas 1987, 1994).

Despite the importance of patterns of self-selection to assimilation theory, there is little convincing evidence for the effects of selectivity on immigrants' labor market assimilation. This is in part due to lack of data on the distribution of measured characteristics in countries of origin, let alone the distribution of unmeasured skills, which are, by definition, "unobservable." Indeed, as shown by Jasso and Rosenzweig (1990b), positive or negative unobserved traits are often inferred uncritically by

aftermath might be responsible for some of the decrease in the proportions of emigrants choosing

economists without regard to the possibility that discrimination, period effects, return migration, or other factors may be responsible for slow rates of earnings assimilation among some immigrant groups. Consequently, sociologists of immigration, while acknowledging the process of immigrant selectivity on observed traits, rarely invoke selectivity on unobserved traits as an explanation for socioeconomic success or failure of immigrant groups. Rather, there is an attempt to identify individual and structural characteristics that may enhance or depress socioeconomic achievements of immigrants. Factors such as discrimination, cultural capital, social capital, contacts, and the characteristics of the immigrant community are explored as possible explanations for the socioeconomic fortunes of various immigrant groups and their offspring (e.g., Portes and Rumbaut 1996; Alba and Nee 1997; Zhou 1997; Logan, Alba, and Zhang 2002).

The importance of identifying unmeasured individual and structural characteristics notwithstanding, future research is unlikely to identify <u>all</u> currently unobserved characteristics that affect economic assimilation of immigrants. Indeed, selectivity on unobserved characteristics (known also as sample selection bias) has long been recognized as a key factor confounding substantive phenomena, such as labor force participation (Heckman 1980) and educational attainment (Berk 1983), with selection processes. It is unfortunate that patterns of self-selection have received only scant attention by sociologists in the domain where such patterns may matter the most – labor market assimilation of immigrants.

This paper is aimed at underscoring the importance of self-selection patterns for understanding earnings assimilation of FSU immigrants In Israel. In the absence of direct information on unmeasured skills of immigrants, other types of evidence are necessary for assessing the effects of selectivity on economic assimilation. One type of evidence is a natural experiment where immigrants are given practically a free choice between two destination countries that differ in their returns to skills. Apparently, immigration from the FSU to Israel and the US during 1974-1983 provides such an experiment. This is the period when the vast majority of Jewish emigrants who left the FSU chose either the US

Israel since October 1973.

or Israel as their destination. Since these immigrants had an option rarely available for other immigrants – immediate admission to either country – analyzing their earnings assimilation in both countries will tell us much about the patterns of self-selection on both observed and unobserved productivity-related characteristics.

By observing the earnings growth of FSU immigrants in both countries relative to demographically comparable natives (i.e. natives of the same measured characteristics), we can detect patterns of immigrants' self-selection to Israel and the US. Faster (slower) earning assimilation in the US than in Israel indicates that FSU immigrants in the US have higher (lower) levels of unmeasured skills than those coming to Israel. To be sure, the comparison between the economic fortunes of FSU immigrants in Israel and the US rests on three reasonable assumptions. The first is that the distributions of unmeasured skills of native-born Americans and native-born Israelis are similar; the second is that the skills of FSU immigrants are equally transferable to the American and Israeli labor markets; the third assumption, which we will discuss later, is that FSU immigrants are treated equally by the US and the Israeli labor markets (relative to natives in each country). Thus, while the paper focuses on Israel, it includes a US comparison necessary for testing the selectivity argument which is at the center of this study.

FSU Immigrant in Israel. Previous research on earlier cohorts of FSU immigrants – those arriving between 1968 and 1983 – has centered on their economic assimilation in Israel rather than on their self-selection. The general consensus has been that these early immigrants from the FSU successfully completed their economic assimilation in the Israeli labor market in a relatively short period. Depending upon the writer, previous studies reported that FSU immigrants in Israel attained occupations in accordance with their human capital levels (Semyonov and Lerethal 1991; Raijman and Semyonov 1998; Weinberg 2001), were expected to reach earnings parity with native Israelis of similar measured characteristics in about 19-24 years (Friedberg 2000), and were more successful in the Israeli labor market than their counterparts who went to the US (Klinov 1991). These studies relied on the Israeli censuses taken in 1972 and 1983 and the 1980 US census. In the 1990s public and scholarly attention has been diverted to the most recent immigrant cohorts. Perhaps this explains the lack of studies using the 1995 Israeli

census to test whether the estimates regarding the earnings assimilation of the early immigrants in Israel had actually occurred.³

Research on post-1988 immigrants from the FSU focused mostly on their self-selection on observed characteristics, rather than on earnings assimilation. Most studies mentioned the high levels of human capital with which these immigrants arrived in Israel relative to both the Soviet and Israeli populations (Konstantinov 1995; Beenstock and Ben Menahem 1997; Lewin Epstein, Roi and Ritterband 1997; Haberfeld, Semyonov and Cohen, 2000; Eckstein and Weiss 2002). With respect to economic assimilation in Israel, most studies focused on labor force participation, documenting impressive employment levels of immigrants in their first 2-4 years in the country. These employment levels were achieved in part at the price of occupational downgrading compared with the occupations immigrants held in the FSU (Riajman and Semyonov 1997, 1998; Haberfeld et al. 2000; Weinberg 2001; Eckstein and Weiss 2002). Unfortunately, there are no studies of earnings assimilation of post-1988 immigrants, mainly because of their relative short duration in Israel (1-6 years) at the time of the most recent census (1995). Nevertheless, popular and scholarly beliefs advance the notion that these immigrants are well on their way to full economic assimilation in the Israeli labor market (e.g. Beenstock and Ben Menahem 1997; Leshem 1997).

In sum, the available literature is far from being conclusive regarding the selectivity and earnings assimilation of the early and recent immigrant waves from the FSU in the Israeli labor market. No studies examined whether pre-1983 immigrants from the FSU have actually achieved earnings parity with natives or with natives of similar measured characteristics, nor are there estimates for the rate of earnings assimilation among post-1988 immigrants. More importantly, the comparison between the labor market success of FSU immigrants who arrived in Israel and the US during the same period, which is essential for detecting patterns of self-selection on unobserved characteristics, has not yet

³ Chiswick (1993, 1997) used the 1990s US census to estimate earnings assimilation of FSU immigrants in the US. However, he did not distinguish between Jewish and non-Jewish immigrants from the FSU, nor did he compare assimilation rates in US to those in Israel. Chiswick (1993) also includes a review of community studies about various aspects of assimilation and acculturation of FSU Jewish immigrants in the US.

been undertaken.

The present paper addresses these issues. It analyzes the selection patterns and earnings assimilation of cohorts of FSU immigrants in Israel and (for some cohorts) in the US. The paper is organized as follows: the next section presents the various data sources we use. Section 3 presents selectivity analyses by comparing the educational levels of successive cohorts of FSU immigrants in Israel, at their time of arrival, to their counterparts who reached the US, as well as to two benchmarks of native-born Israeli Jews. Section 4 focuses on earnings assimilation of the early immigrant cohorts, those arriving during 1968-83. It presents observed earnings growth rates of the various immigrant cohorts relative to growth rates among the native benchmarks in Israel, as well as relative to earnings growth of FSU Jewish immigrants in the US. Section 5 focuses on the earnings assimilation of the recent immigrants, those arriving in Israel between 1989 and 1995. The final section discusses the results and their implication for migration research in Israel, the US, as well as in other societies.

DATA

We rely on several Israeli and American data sources. We use data drawn from the 20% demographic samples of the 1972, 1983 and 1995 Israeli censuses of population. These data sets contain detailed demographic, labor market, and immigration information for a large sample of foreign-born and native-born Israelis. The three census files contain precise year of immigration, and the 1995 census contains also republic of birth (within the FSU). In each census year we created a sub-sample of two groups. The first group includes FSU-born persons, 25-64 years of age who arrived in Israel between 1968 and the census year, and were 15 years old or older upon arrival. This group of immigrants was further broken down into six migration cohorts: 1968-1973, 1974-1977, 1978-1983, 1984-1988, 1989-1991, and 1992-1995, following the main waves of immigration from the FSU to Israel.⁴

⁴ In order to utilize the 1972 census for analyzing the characteristics of the first cohort (1968-73 arrivals), we were constrained to include in some analyses 1968-1972 arrivals only. Likewise, while the third cohort ended in 1981, we added to it the small number of 1982 and 1983 arrivals in order to be able to observe their characteristics in the 1983 census.

The second group in our sub-sample contains two benchmark groups of native-born Jews to whom the FSU-born are compared. Arabs are excluded from the benchmark groups because they suffer from discrimination in the Israeli labor market (Haberfled and Cohen 1998). The first group includes a sample of 25-64 years old Israeli-born Jews to immigrant fathers born in European countries. This group of second generation Jews of European origin was found to be the most successful in the Israeli labor market. The second benchmark contains a sample of 25-64 years old Israeli-born Jews to immigrant fathers born in Asian and African countries. This group was found to be the least successful among Israeli-born Jews (Haberfeld and Cohen 1998). Israeli-born Jews to immigrant fathers born in the FSU were excluded from both benchmark groups.⁵ Comparing immigrants from the FSU to these two groups, which are located at different places in the earnings distribution, enables us to evaluate immigrants' selectivity and assimilation more accurately.⁶

We also use the matched 1983-1995 census file, created by the Israeli Central Bureau of Statistics (CBS), which includes data for individuals who were included in both the 1983 and 1995 demographic samples of the census. This special data set is a representative sample of approximately 4% of the Israeli population at both census dates (the probability of being included in both census samples), and it enables us to estimate the earnings assimilation of the early cohorts more accurately than possible with cross sectional data, as it includes earnings and other data for the same persons (both immigrants and natives) in both years – 1983 and 1995.

In addition to the census files, we use the 1992, 1995, 1998, and 2001 Income Surveys

⁵ We excluded the small group of second-generation Jews of Soviet origin because the achievements of children of immigrants are largely determined by the assimilation of their immigrant parents.

⁶ In 1983 and 1995 the respective mean (ln) earnings of native men of European origin were at the 65 and 68 percentiles, respectively, of the Israeli male (excluding post 1967 immigrants) earnings distribution; the respective percentiles among natives of Asian or African origin were 41 in 1983 and 47 in 1995. The mean (ln) earnings of women of European origin in 1983 and 1995 were at the 57 percentile of the women (excluding post 1967 immigrants) earnings distribution in both

conducted by the CBS. Income Surveys are conducted annually as supplements to Labor Force Surveys, and contain basic demographic and labor market information for a representative sample of households in communities of over 2,000 persons. The 2001 Income Survey enables us to track the earnings of post-1988 immigrants for 6 years beyond 1995 (the year of the most recent census). Such an examination is important for deriving more accurate estimates for their rates of earnings assimilation.

To compare the educational selectivity and earnings assimilation of FSU immigrants in Israel and the US, we use the 1980 and 1990 Public Use Microdata files (PUMS) of the US census. FSU Jewish immigrants in the US PUMS are defined as those born in the FSU, speaking at home English, Russian, or Yiddish, and stating a Russian, American, or Jewish first ancestry (since "Jewish" is not an accepted ancestry, such persons are coded as "998", which is the code given to those stating a religion in the PUMS). FSU immigrants who speak other languages at home or state other ancestries (e.g. Armenian, Ukrainian) are less likely to be Jewish (Schvartz-Shavit 1995). The PUMS coding of year of arrival in the 1980 census enables us to observe the educational level and earnings upon arrival of FSU immigrants arriving the US in 1975-79. The 1990 PUMS enable us to observe the educational level of four more cohorts (1980-1981, 1982-1984, 1985-1986, and 1987-1990).⁷ More importantly, we can use the 1980 and 1990 PUMS to track the earnings growth of the 1975-1979 cohort in its first 10-15 years in the US, relative to a benchmark of native born Americans.

RESULTS

Immigrants' Selectivity

We begin with descriptive analysis of educational levels of post-1967 FSU immigrants in Israel at the time they arrived in Israel. Unfortunately we are unable to compare the immigrants to the Jewish population that remained in the FSU because the data necessary for that purpose (i.e., a representative sample of the Jews in the FSU) are not readily available. Instead, we compare the various migration cohorts to one another, to the two

¹⁹⁸³ and 1995; the respective percentiles among women of Asian or African origin were 43 and 41.

⁷ Because of the small size of the 1982-1984 cohort, we combined it with 1980-81 arrivals.

benchmark groups of native Israelis, as well as to the immigrants who chose the US as their destination. Table 2 presents immigrants' educational levels – the main measured indicator of immigrants' skills. Human capital levels that immigrants bring with them to the destination country tell us much about the nature of selectivity that takes place during the migration process.⁸

< Tables 2 here>

Educational levels of immigrants from the FSU vary across cohorts and destination countries. The schooling levels the 100,000 FSU Jewish emigrants choosing the US during 1975-79 and 1980-1984 were much higher than the levels of the 60,000 who chose Israel. Specifically, over half of those reaching the US came with a college degree, compared with less than 30% among those reaching Israel. Since both Israel and the US were open at that time to FSU emigrants, such a difference in the educational level provides an unequivocal evidence for the positive self-selection of FSU immigrants who arrived in the US compared with those who chose to settle in Israel.

On the face of it, the above argument is inconsistent with the educational level of FSU immigrants arriving in Israel during 1984-88. During these years, before the change in the US immigration policy, FSU immigrants to Israel had higher educational levels than all preceding or subsequent immigrant cohorts to Israel, and similar to the levels of their counterparts reaching the US during 1985-1986. However, as shown in Tables 1 and 2, this cohorts is very small: less than 1,000 FSU immigrants came to Israel in 1984-1986 (only 3,000 were allowed to exit the FSU), and only about 4,000 came in 1987-1988. Moreover, between 1984 and 1986 less than 2,000 FSU born persons were admitted as refugees to the US. Taken together, these figures suggest that we should not rely on this small cohort (whose circumstances of immigration, because of its small size, are not well known) as a benchmark for evaluating changes in the educational level of FSU immigrants in Israel.

By the late 1980s, immigration from the FSU to Israel and the US picked up again, albeit under new immigration rules. The educational level of those reaching the US declined

⁸ In order to assure that immigrants' schooling reported was acquired in the FSU, we raised in this

somewhat relative to previous cohorts reaching the US, and was similar to the educational levels of those reaching Israel, which were higher than those of earlier cohorts. What could account for such a change? Most likely, part of the explanation has to do with the fact that since 1989 most FSU Jews were admitted to the US as relatives rather than as refugees. Patterns of immigrant self-selection were constrained by visa availability; hence some highly educated immigrants who would have preferred the US were not able to obtain entry visas to the US, and therefore arrived in Israel.

From the Israeli perspective, the negative selectivity of immigrants of the 1970s was not viewed as such, since they came to Israel with higher levels of human capital than nativeborn Israelis of Asian-African origin.⁹ The selectivity on education of FSU immigrants to Israel improved after 1983. The small cohort of 1984-88 and the huge cohort of 1989-91 came with educational levels above those of both native benchmark groups, and similar to the levels of FSU immigrants who went to the US. However, beginning in 1992, the educational levels of successive cohorts of immigrants from the FSU to Israel have been declining. Whether this is due to changes in patterns of self-selection to immigration to Israel, or rather reflects the declining educational levels of the remaining Jewish population in the FSU, we cannot tell, as we do not have data on the educational levels in the FSU at different times. However, there is evidence (Lewin Epstein, Semyonov, Kogan and Wanner 2003) that FSU Jewish immigrants reaching Canada during the early 1990s had higher schooling levels than those reaching Israel (difference of over 2 year in average years of education). Yet, even the lower educational levels of the most recent cohort to Israel are above the average of the Israeli population, and nearly as high as the levels of the advantageous benchmark group.

Economic Assimilation

Early cohorts (1968-1983 arrivals) in Israel. Earnings assimilation refers to the earnings growth of immigrants above and beyond the growth experienced by natives or

analysis (Table 2) the lower limit of age upon arrival in Israel to 22.

⁹ Within each migration cohort, immigrants from the Asian Republics of the FSU – some 35% of immigrants in the first cohort and about 20% of the remaining cohorts – have lower levels of human capital than their European counterparts, and there are no appreciable differences in human capital levels between men and women.

by natives of similar measured characteristics.¹⁰ In the absence of discrimination, earnings are a function of productivity, which is, in turn, a function of skills. This being the case, earnings are considered as the best single indicator for both measured and unmeasured skills.

We begin with estimating the earnings assimilation of the first wave of FSU immigrants, those arriving between 1968 and 1983. First, we analyze the censuses of 1983 and 1995 to compare the earnings of salaried immigrants arriving between 1974 and 1983 (who were 25-50 in 1983) to the earnings among natives of European origin of the same ages in the same years.

<Table 3 here>

The results demonstrate that immigrants of these cohorts have not experienced any earning assimilation between 1983 and 1995. Not only did immigrants fail to close the gap with natives, the gap between immigrants and natives of European origin has widened during this 12-year period. Of particular interest are members of the 1978-1983 cohort, who came to Israel in the 5 years preceding the 1983 census. Between 1983 and 1995 these immigrants increased their duration in Israel from 1-5 years to 12-17 years. Theoretically, immigrants' earnings growth (relative to natives) should be the greatest during their first years in the host country when they make the greatest progress in knowledge of the local labor market, language, and other country specific characteristics (Chiswick 1978). Yet the results suggest that the (ln) earnings gap between FSU immigrants of this cohort and natives of European origin increased from about 0.38 in 1983, to 0.42 in 1995. Only among those 35-44 years old in 1983 the earnings growth of immigrants was greater than the growth among natives of European origin. But even among this group, the (ln) earnings gap in 1995 (when the immigrants were 47-56 years old) was very wide (0.47) ¹¹ suggesting that immigrants will never close it.

Immigrant women appear to do somewhat better than men. Although no immigrant

¹⁰ See Alba and Nee (1997) for a discussion of various dimensions of immigrants' assimilation. ¹¹ The transformation from (ln) earnings differential to an earnings ratio is done by: [exp(ln immigrants' earnings – ln natives' earnings)]. Thus, (ln) difference of .469 is translated into a ratio of 0.63 which means that in 1995, FSU immigrants aged 47-56 earned, on average, 63% of what natives of European origin of this age group earned.

group succeeded in closing the earnings gap with natives of European origin, women arrivals in 1978-83 somewhat narrowed the earnings gaps with women of European origin. Moreover, while immigrants of both gender groups had higher earnings in 1983 than earnings of native of Asian or African origin, immigrant women of both cohorts enhanced their earnings advantage over this weaker benchmark during 1983-95, compared with immigrant men who lost some of their advantage during the 12-year period.

It is possible that the figures presented in Table 3 are biased to some extent by selective return migration (Lieberson 1978), mortality, and other factors affecting the representations of immigrants and/or natives in both the 1983 and 1995 censuses. If, for example, successful immigrants leave Israel, exit the labor market or move into selfemployment more than successful natives do, the earnings of salaried immigrants in 1995 will be biased downward and will not represent their true earnings mobility during 1983-1995. Likewise, if skilled natives enter the labor market at a later age than less skilled natives do, the 1995 figures will overestimate their true earnings growth (Duleep and Dowhan 2002). To overcome these potential biases, we used the matched 1983-1995 CBS file that contains data on the same individuals in both 1983 and 1995. The pattern of results (Table 4) is the same as in Table 3, and even stronger. The earnings gaps among this selective sample of persons who were salaried workers in both 1983 and 1995 have widened during that period, and the results are unchanged among all age groups, with the exception of men 35-44 in 1983 who arrived between 1978 and 1983. Evidently, immigrants who arrived during 1974-1983, both men and women, who worked in both 1983 and 1995, did not narrow the earnings gaps with natives during this 12-year period, but rather, saw their earnings decline relative to natives of both Europeans and Asian-African origin.

<Table 4 here>

Although immigrants' average earnings fail to converge with natives' earnings, they may reach parity with natives of similar measured characteristics. The data, however, do not lend support to this hypothesis. The failure of immigrants to reach parity with natives is not because immigrants and natives have different characteristics, nor it is because natives increase their educational level during the 12-year period. Table 5 presents

regression estimates based on the matched 1983-1995 data, where the dependent variable is the (ln) monthly earnings growth between 1995 and 1983 for natives and immigrants. The independent variables include schooling and schooling change between 1983 and 1995, age, (ln) monthly hours of work, marital status, an indicator for Hebrew knowledge (available only in 1983), and six dummy variables for the six combinations of cohort of arrival and Republic of birth (the two omitted benchmark groups are natives of European origin in columns 1 and 3, and natives of Asian African origin in columns 2 and 4). The results suggest that among all cohorts, the earnings growths of immigrants are equal or lower than among natives. Once again, the immigrants of interest are the most recent of the earlier waves (those arriving in Israel in 1978-1983) and who are thus expected to show the steepest growth rates. Yet the results suggest that the earnings growth of FSU immigrant men of this cohort were about 22-30%¹² lower than that of natives of the same characteristics.

<Table 5>

No clear pattern of results was found regarding the differential assimilation of immigrants born in the Asian or European Republics of the FSU. Within some cohorts the earnings growth of immigrants born in Asian republics is lower than the growth experienced by their European counterparts, while the reverse is true among other cohorts. The general pattern of results, namely, that immigrants lag behind natives of similar measured characteristics, is similar when the benchmark group is composed of natives of Asian-African origin. Likewise, the pattern among women is similar to that found among men. We therefore conclude that the widely discussed process of earnings convergence has not occurred among FSU immigrants in Israel during 1983-1995. In fact, between 1983 and 1995 earnings growth rates among most immigrant cohorts lagged behind the growth rates of demographically comparable natives of either European or Asian-African origin.

FSU Immigrants in the US and Israel. Previous research attributed the poor performance of pre-1968 Middle Eastern immigrants in the Israeli labor markets to institutional barriers in the Israeli society and labor market (Cohen 2002), and to the fact that most of them were refugees rather than economic migrants (Chiswick 1978). To be

¹² The transformation from the coefficient (b) to percentage is done by: [exp(b)] - 1

sure, one explanation for the relatively poor performance of post-1967 FSU immigrants in Israel may be that they, too, are refugees fleeing the repressive regime of the FSU before its collapse. This explanation, however, is not consistent with US data regarding FSU Jewish immigrants. If the economic performance of FSU emigrants in Israel resembles that of refugees, similar performance should be observed among those of them who arrived in the US. Recall that during the 1970s and early 1980s Jewish emigrants from the FSU could choose between Israel and the US. We hypothesize that the selfselection patterns – on both observed and unobserved traits – of this natural experiment that took place in transit cities in Europe should not have been random. We have seen in the previous section that immigrants' self-selection to Israel and the US during 1975-84 was far from random. Rather, highly educated immigrants flocked to the US, while at the same time the less educated came to Israel. It is likely that the same pattern of selectivity operated regarding the unobserved, productivity-related characteristics of the immigrants, namely, highly skilled FSU Jewish emigrants reached the US, whereas less skilled emigrants went to Israel.

To test this hypothesis we used the 5% PUMS of the 1980 and 1990 US censuses and analyzed the earnings growth of FSU Jewish immigrants arriving in the US during 1975-79¹³, 25-50 years old in 1980 in comparison to the earnings growth of their counterparts who arrived in Israel during 1978-1983. We compared the earnings growth in the US to a benchmark of white, non-Hispanic natives, and the growth in Israel to a benchmark of native Israelis of European origin. Of particular interest are comparisons between immigrants of the same educational levels. Upon arrival, highly educated Jewish immigrant men in the US earned about half of what highly educated white, non-Hispanic natives earned (Top panel of Table 6). Ten years later, in 1989, these immigrants practically achieved earnings parity with natives (earned about 1% less than highly educated natives). Less educated FSU Jewish immigrants narrowed the (ln) earnings

¹³ 1975-1979 arrivals are ideal for this purpose as they are the only immigrants for which we have two observations (1979 and 1989) necessary for estimating earnings growth in their first 10-15 years in the US. Both the earlier cohort (1975-1979, which does not include as many Jews), and the later cohorts (1980-86) do not enable us to estimate their earnings upon arrival.

gaps with comparable natives from 0.74 in 1979 to 0.12 in 1989.¹⁴ Immigrant women in the US also experienced impressive earnings assimilation and, by 1989, surpassed their native counterparts. By contrast, in Israel, the earnings growth of highly educated FSU immigrant men and women were about the same or even lower than the growth among natives of European origin (second panel of Table 6).

<Table 6 here>

Whatever label one attaches to FSU Jewish emigrants – refugees or economic immigrants – the fact remains that they successfully assimilated in the US labor market, and failed to assimilate in the Israeli market. Most likely, immigrants choosing to come to Israel were not as positively selected on their unobserved characteristics as those choosing the US. Thus, self-selection to the US and Israel is central for understanding the rapid assimilation of FSU immigrants in the American vs. the Israeli labor market. Apparently, more skilled, motivated, and able emigrants who left the FSU during 1975-1979 chose the US, where initial earnings are relatively low, but the returns to skills rise rapidly with time in the local labor market. Less skilled immigrants chose Israel, where the economic risks are lower, but so are the returns to measured and unmeasured skills.

Recall our assumption that the US and Israeli labor markets treat FSU immigrants equally (relative to natives in each country). However, if this assumption is violated, then the success of immigrants choosing the US rather than Israel may be due to institutional differences between the Israeli and US economies and labor markets (Lewin Epstein et al. 2003). Specifically, if the Israeli labor market, for whatever reasons, includes barriers to immigrants' economic progress, while the US labor market is free from such barriers, then the differential assimilation of FSU immigrants in Israel and the US may reflect, at least in part, such institutional barriers. It is unlikely, however, that institutional differences are responsible for the entire difference between the economic progress of FSU immigrants in Israel and the US. If that were the case, other immigrant groups

¹⁴ We also estimated regression equations of the 1989 earnings of FSU Jewish and non-Jewish immigrants who arrived in 1975-79 relative to the earnings of white, non-Hispanic natives, controlling for education, age, hours of work, and marital status. The results suggest that in 1989, FSU Jewish immigrants in the US earned as much as comparable natives, while non-Jewish FSU immigrants lagged behind natives and FSU Jewish immigrants by about 19%. Our results show a

arriving in Israel would have also been experiencing, like FSU immigrants, negative or no earnings assimilation during 1983-1995. But as shown at the bottom panels of Table 6, Israeli immigrants from the US and Romania – the two largest sending countries to Israel during 1978-83 apart from the FSU – did narrow the gap with natives Israelis during that period, although not as much as FSU immigrants in the US.

Since Jewish migration from the US to Israel is characterized by ideological and religious motivations, a very high rate of return migration, and by negative selectivity on education, ¹⁵ their (relatively low) earnings assimilation is less relevant for our purpose. The experience of Romanian immigrants, however, is more relevant, as they came from a country similar to the FSU, but did not enjoy the same US visa offer that was available to FSU emigrants. As shown in Table 6, Romanian Jewish men who came to Israel between 1978 and 1983 – whose skills were equally transferable to the Israeli labor market as the skills of FSU immigrants –significantly narrowed the earnings gap with natives of European origin during 1983-95, and immigrant women even surpassed natives. However, because neither Romanian men, nor any gender group of US immigrants succeeded in reaching earnings parity with natives of the Israeli labor market and society, in addition to selectivity, played a role in depressing the earnings growth of FSU immigrants in Israel.

One method of testing the relative role of negative selectivity vs. institutional factors in depressing the earnings assimilation of FSU immigrants in Israel is to analyze the earnings of the 1.5 generation immigrants in Israel, namely, those who arrived as

faster assimilation rate than reported by Chiswick (1993, 1997), mainly because we distinguished between Jewish and non-Jewish FSU immigrants.

¹⁵ Since there is readily available information in the US on the schooling level of American Jews, it is possible to observe directly the nature of the educational selectivity of US Jewish immigrats to Israel. Analysis of Israeli data reveals a steady decline in the educational levels of US immigrants to Israel (from 77% percent college graduates in the late 1960s to 64% in the early 1990s), at a time when, according to US data, the college graduation levels of US Jews increased from 48% in 1970 to 73% in 1990 (Cohen 2002). It is reasonable to assume that the ideological and religious motivations of US immigrants to Israel resulted not only in negative self-selection on educational levels, but also in negative self-selection on unobserved, productivity-related traits, such as motivation to achieve high income positions in Israel.

children, but received much of their schooling in Israel. If the main force driving the difference in earnings growth between FSU immigrants in Israel and the US are institutional barriers in the Israeli labor market, then such barriers, assuming that they are no targeted specifically against FSU immigrants, should affect all members of the 1.5 generation alike. If, however, negative self-selection is the main factor responsible for the poor performance of FSU immigrants in the Israeli labor market, then the effects of such negative selectivity should be transmitted, at least in part, to their offspring (Carliner 1980; Wilson 1986; Coleman 1988), but not to other immigrants of the 1.5 generation whose parents were not negatively selected.

<Table 7 here>

To test this hypothesis we used the 1995 Israeli census to estimate the earnings of immigrants, 25-45 yeas old in 1995, who came to Israel when they were 6-14 years of age from the five largest sending countries – FSU, US, Romania, Argentina, and Morocco – during 1968-1983. The dependent variable is (ln) monthly earnings, and the independent variables are years of schooling, age, (ln) monthly hours of work, and dummy variables coded 1 if respondent was married, had at least a B.A. degree, was born in FSU, in the US, in Romania, in Argentina, and in Morocco (the omitted categories are composed of natives of European origin or of Asian-African origin). The results (Table 7) lend support to the selectivity hypothesis. FSU (and US) Immigrants of the 1.5 generation whose parents were negatively selected on their observed and unobserved characteristics, earn less than demographically comparable natives of European origin. Other members of the 1.5 generation – Romanian, Argentineans, and even Moroccan, whose coethnics arriving in Israel during the pre-1968 period suffered from institutional discrimination (Peres 1971) – reached earnings parity with natives of European origin. Apparently, differences in patterns of self-selection of FSU immigrants to Israel and the US are more enduring than differences between the Israeli and US economies and labor market in explaining the different earnings growth of FSU immigrants in the two countries.

Recent Cohorts in Israel (1989-1995 arrivals). Unfortunately, we are unable to analyze the earnings growth of post 1988-FSU immigrants in the US, since we need two data observations for such analyses, not currently available. Likewise we are unable to use the

matched 1983-1995 file to estimate the earnings growth of post-1988 immigrants in Israel, nor can we use the 1995 Israeli census to compare mean earnings of immigrants and natives, as most post-1983 immigrants came after 1989, just 5 years before the 1995 census. Thus, observing their relative earnings in 1995 does not tell us much about their assimilation since we have no information on their earnings when they arrived in Israel. This being the case, we use the 1992, 1995, 1998, and 2001 Income Surveys to track the earnings growth of post-1988¹⁶ immigrants relative to natives' earnings growth. The results (Table 8) suggest that immigrant men entered the labor market with very low earnings relative to the benchmark groups, and in their first 10-11 years in Israel somewhat narrowed the gap. However, as late as 2001, the (ln) earnings gap between 1990-91 arrivals (10-11 years after arrival) and natives of European origin is -0.609, which is appreciably the same as was the gap in 1995 (4-5 years after arrival). This suggests that the entire process of earnings assimilation occurs in the first 4-5 years in the country, and that immigrants of this cohort are not expected to ever reach parity with natives.

Immigrant women appear to do somewhat better than men. Unlike men, in some age/education groups the gaps among women in 2001 are narrower than in 1995, suggesting that earnings assimilation lasts longer among women than among men. Moreover, between 1992 and 2001 women nearly closed the entire earnings gap with Asian African women, while men failed to narrow this gap after 1995.

<Table 8 here>

Immigrants of the most recent cohort do not fare better. In fact, there is no evidence for cohort differences in unobserved characteristics between the two most recent immigrant cohorts, those arriving in 1989-1991 and those arriving in 1992-1995. While the two cohorts differ in the educational levels (which are reflected in their relative earnings upon arrival), there are no appreciable differences in their earnings assimilation in their first 6 years in Israel. Specifically, between 1992 and 1998 the earlier cohort (1989-1991 arrivals) narrowed the (ln) earnings gap with natives of European origin from -0.855 to -0.651. The respective figures for the most recent cohort (1992-1995 arrivals) between

¹⁶ The size of the 1984-1988 cohort is too small for such an analysis.

1995 and 2001 are -1.04 and -0.828. The extent to which the gaps narrowed between the two cohorts are similar among different age and educational groups, as well as among the two gender groups. Likewise, this result is not sensitive to the benchmark group to which the two cohorts are compared.

Next we used the 2001 income survey to derive an estimate for the rate of earnings assimilation among post-1988 immigrants, 25-50 years old. Using this survey enables us to include immigrants arriving in 1996-2001, in addition to those arriving between 1989-1995. The dependent variable is (ln) earnings, and the independent variables are years of schooling, age, YSM (years since migration),¹⁷ (ln) monthly hours of work, and dummy variables coded 1 if respondent was an immigrant, was married, and had at least a B.A. degree. The results of this earnings model are presented in Table 9. Natives of European origin earn about 160%¹⁸ more than demographically comparable immigrant men upon arrival, and each year in Israel immigrants' earnings increase above that of natives by 5.3%. Consequently, immigrants are expected to reach parity with comparable natives of European origin in about 30 years¹⁹ (23 years with demographically comparable natives of Asian-African origin). The results among women are appreciably the same. Since the average age of immigrants in this sample is over 37 years of age, the estimated convergence time is outside the range of our estimates, which means that post-1988 immigrants are unlikely to achieve earnings parity with natives of either origin.

<Table 9 about here>

Post -1988 immigrants may eventually reach earnings parity with demographically comparable native Israelis only if their unobserved productivity-related characteristics are appreciably better than those of the early immigrant cohorts (1968-1983 arrivals). Results of cross section and cross-cohorts models (Appendix A) suggest that no such cohort effects can be inferred.²⁰

¹⁷ The 2001 income survey does not include precise year of immigration. Rather, immigrants are groups into four cohorts (1990-1991; 1992-1994;1995-1997; and 1998-2001), we assigned the cohorts YSM values of 10, 7, 5, and 2, respectively.

¹⁸ [Exp (.957)] -1 = 1.60¹⁹ Years for convergence are calculated by dividing the initial percentage earnings gap by the YSM coefficient: 160 / 5.3 = 30.19 years.

²⁰ For estimating cohort effects we pooled the 1983 and 1995 Israeli census samples. This enables us to estimate if specific cohorts earn significantly more than other cohorts, controlling

DISCUSSION

Despite their relatively high educational levels, immigrants from the FSU in Israel achieved earnings parity only with the benchmark group whose educational levels were much lower – natives of Asian or African origin. No cohort of immigrants has achieved earning convergence with natives of European origin, nor with other natives of the same education and other measured characteristics. Moreover, pre-1983 immigrants and especially 1978-1983 arrivals experienced negative assimilation in their first years in Israel. The earnings assimilation of post-1988 immigrants has been, so far, rather limited, and there are no apparent differences in the earnings growth between those arriving in 1989-1991 and those arriving during 1992-1995, despite the higher educational levels of the former cohort. Immigrant women are doing better than men relative to all natives, but they lag behind native women of similar measured characteristics no less than men do.

Taken together, our results cast doubt on popular and scholarly views that FSU immigrants, both those of the 1970s as well as those of the 1990s, have fully assimilated, or are well on their way to full assimilation in the Israeli society, economy, and labor market (Beenstock and Ben Menahem 1997; Leshem 1997; Friedberg 2000). Although the integration of FSU immigrants in Israel has been impressive in other dimensions (labor force participation, political participation, housing ownership, language acquisition) they have failed, despite their high level of education, to reach the earnings levels of the leading group in the Israeli society – native born of European or American origin – and there is no reason to believe that they will ever achieve it. Moreover, the failure of FSU immigrants to fully assimilate in the Israeli labor market extends to

for YSM and other measured characteristics. We also corrected the model for a period effect by multiplying the 1983 immigrant earnings by a factor indicating the growth in real earnings of native Israelis between 1983 and 1995 (Bloom and Gunderson 1990). The results (Appendix A) suggest that the most recent cohorts (1989-91, and 1992-95) earn significantly less than the other cohorts. Thus, to the extent that there are effects for recent cohorts, they are negative. However, these negative cohort effects are probably due to the short duration and low earnings of the two recent cohorts in Israel in 1995, just 1-6 years after they arrived Israel. Indeed, there is evidence that cross-cohort models tend to underestimate the cohort effect for immigrants whose initial earnings are low (Duleep and Regets 1994), as is the case with the two most recent cohorts. We are therefore reluctant to conclude that the most recent cohorts differ from the earlier cohorts with respect to their unobserved characteristics.

members of the 1.5 generation. While most immigrants arriving as children in the 1970s reached earnings convergence with the most advantageous group of Israeli natives before they were 45 years old, FSU immigrant children failed to do so.

It is important to note that some, but not all, of our results are sensitive to the benchmark group. The choice of the benchmark group affects the extent to which immigrants succeed in narrowing unadjusted earnings gaps with natives, but not necessarily the adjusted gaps. Specifically, immigrant men narrow average earnings gap, and immigrant women even overtake natives of Asian or African origin, whose average educational levels are lower than those of FSU immigrants. However, the results of the multivariate models are appreciably the same regardless of the benchmark group chosen, and suggest that FSU immigrants in Israel are not likely to reach earnings parity with demographically comparable natives of either origin.

The main reason for the relatively poor performance of pre-1983 FSU immigrants in Israel is rooted in their patterns of self-selection. We have shown evidence that the more educated and skilled among FSU emigrants chose to reach the US, while the less educated and less skilled ended up in Israel. This pattern may have been mitigated after 1988, after which most FSU immigrants had to rely on US relatives to obtain visas. Yet the results do not show major changes in the rate of earnings assimilation among post-1988 cohorts in Israel. Two explanations, not mutually exclusive, are probably responsible for this result. First, there is the effect of time of arrival. Post-1988 immigrants, some 600,000 of them, were faced, upon arrival, with exceptionally difficult conditions in the Israeli labor market. This huge wave of immigrants, especially in 1990-1991 (equivalent to the US receiving approximately 20 million immigrants in just two years) put an enormous strain on the Israeli economy and labor market in the 1990s. There is evidence that the size of this immigrant wave depressed their occupational mobility (Raijman and Semyonov 1998; Weinberg 2001;); apparently it also slowed their earnings assimilation.

Second, patterns of self-selection to Israel may have not appreciably changed after 1988, as fully one-third of FSU emigrants did not come to Israel, and the proportion reached

50% during 1992-95 (Dominitz 1997). While there are no appreciable differences in the observed characteristics of those immigrating to Israel or the US in the late 1980s, the educational level of FSU Jewish immigrants who arrived in Canada between 1990 and 1994 was appreciably higher than the level of their counterparts coming to Israel during these years; likewise, the earnings growth of FSU immigrants was much greater in Canada than in Israel (Lewin Epstein et al. 2003). It is thus plausible that similar selection patterns for immigration from the FSU to Israel continued in the 1990s, namely, the more educated and those with better unobserved characteristics chose destinations other than Israel, but not necessarily the US.

Whatever the specific unmeasured, productivity-related characteristics are, it is evident that they are not necessarily correlated with observed characteristics such as educational levels. The non-random sorting of immigrants to Israel and the US was not limited to educational level, but occurred also among immigrants of the same educational level. No other process but selectivity on unobserved characteristics could explain the opposing experience of persons of similar educational level and other measured characteristics in the Israeli and the US labor markets. Identifying such unobserved earnings-enhancing characteristics is not an easy task. While it is possible that future research may identify some of these traits, it will not be possible to identify all unmeasured characteristics that affect labor market assimilation of immigrants. Here we can only speculate on some possible factors. For example, it is likely that those choosing Israel place greater importance on Zionism, broadly defined, than on economic success, while the reverse is true among those choosing the US. In a survey of FSU Jewish immigrants in the US and Israel (Gitelman 1985), immigrants were asked for their motivations for leaving the FSU during the late 1970s. Their answers reveal that immigrants in the US place greater importance on educational, vocational, and economic factors than immigrants in Israel. By contrast, those arriving in Israel place greater importance on their desire to live with fellow Jews and in close proximity to relatives than their US counterparts. Thus, motivation for achieving high income is likely to be one such unmeasured characteristic. Social networks and community characteristics may also play a role in the differential success of FSU immigrants in Israel and the US, but there are no comparative studies that can shed light on this possibility.

Notwithstanding the importance of patterns of self-selection, we cannot reject the possibility that the Israeli labor market includes some institutional features that are also responsible for the lack of earnings assimilation of FSU immigrants in Israel. While Jewish immigrants from Romania, whose selectivity was not negative, performed much better in the Israeli labor markets than their FSU counterparts, neither Romanian men, nor US immigrants in Israel achieved earnings convergence with native Israelis of European origin. Some characteristics of the Israeli labor market and society, in addition to patterns of negative self-selection, may also contribute to the less-than-perfect economic progress of immigrants. Israel's supportive absorption policy on the one hand, and relatively rigid, regulated and structured labor market on the other hand, might play a role in explaining patterns of earnings assimilation of immigrants in Israel. The state-run absorption policy enhances immigrants' employment ratios upon arrival, while the rigidity of the labor market may depress immigrants' earnings progress (relative to natives) in subsequent years. Identifying such immigrant-specific institutional barriers in the Israeli labor market and society relative to the US, requires research which is beyond the scope of this paper. Yet this factor may be important for understanding the earnings growth of FSU and other immigrant groups in Israel and possibly in other countries. Thus, immigrant earnings growth above and beyond the growth among natives or among demographically comparable natives is not a universal phenomenon, but rather depends on the immigrants' self-selection patterns, as well as on the institutional arrangements prevailing in the labor market of the receiving country.

On a broader level our results underscore the importance of using longitudinal data for tracking immigrants' economic progress (Jasso, Massey, Rosenzweig and Smith 2000). Previous research, relying on 1972 and 1983 data for estimating immigrant earnings models concluded that FSU immigrants in Israel are expected to reach parity with natives of similar observed characteristics in approximately 20 years. Likewise, research based on the 1980 US census could not expect the rapid rise in the earnings of FSU Jewish immigrants in the US, and concluded that FSU immigrants are doing better in the Israel than in the US (Klinov 1991). Our analyses, based on more recent Israeli and US earnings data demonstrated that immigrants of the late 1970s in Israel did not experience

any earnings growth relative to natives, while their counterparts reaching the US experienced very high growth levels in their first 10-15 years in the US.

Finally, the results are of significance from an American perspective. In the last two decades there has been much discussion about the declining skills of immigrants arriving in the US (Borjas 1987; Chiswick 1986; Jasso and Rosenzweig 1990b), and how the US loses the most skilled immigrants to other countries. The migration flow between the FSU, Israel, and the US is a counter example to this assertion. Our results regarding the earnings growth of the cohort of 1975-79 of FSU Jewish immigrants in Israel and the US demonstrate that the US has performed rather well in the immigration market, and attracted more skilled immigrants than Israel did. In addition, the migration flow between the US and Israel favors the US, at least with respect to immigrants' skills: while Israeli-born in the US are drawn from the more educated strata of Israeli society, and fully assimilate in the US labor market (Cohen 1996), the reverse movement, of US Jews immigrating to Israel, has changed its nature over time and in the post-1975 period has been characterized by negative selectivity on education and possibly on unobserved traits. However, in recent years not all migration flows between the three counties favor the US. By the late 1980s – when FSU immigrants had to rely on US relatives to gain admission to the US – Canada, rather than the US or Israel, received the highly educated FSU Jewish immigrants.

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Year	No. leaving FSU	No. arriving in Israel	No. arriving to other Countries	Soviet Refugee and Asylee approvals in	Percent not arriving in Israel
				the US	
	1	2	3	4	5 (3/1)
1968-70	4,263	4263	0	209	0
1971	12,897	12839	58	88	0.4
1972	31,903	31,652	251	228	0.7
1973	34,733	33,277	1,456	591	3.6
1974	20,767	16,888	3,879	2221	18.7
1975	13,363	8,435	4,928	3209	36.9
1976	14,254	7,250	7,004	7,090	49.1
1977	16,833	8,350	8,483	5,296	50.4
1978	28,956	12,090	16,866	9,931	58.2
1979	51,331	17,278	34,053	27,135	66.3
1980	21,648	7,570	14,078	28,692	65.0
1981	9,448	1,762	7,686	11,244	81.4
1982	2,692	731	1,961	2,838	72.8
1983	1,314	861	453	1,449	35.4
1984	896	340	556	791	62.1
1985	1,140	348	792	674	69.5
1986	904	201	703	833	77.8
1987	8,155	2,072	6,083	3,278	74.6
1988	18,961	2,173	16,788	18,880	88.5
1989	71,005	12,117	58,888 ^a	39,831	82.9
1990	228,400	183,400	45,000	53,130	19.7
1991	187,500	147,520	39,980	57,587	21.3
1992	122,398	64,648	57,750	66,022	47.2
1993	101,887	66,145	35,742	51,983	35.1
1994	100,830	68,079	32,751	43,470 ^b	32.5
1995		50,642			

Table 1. Number of FSU Jewish emigrants leaving the FSU, arriving in Israel and in other countries 1968-1994.

Source: Columns 1,2,3 and 5, Dominitz 1997, based on Jewish Agency Reports and Israeli Ministry of Absorption. Column 4, Chiswick (1997) based on US Dept. of Justice *1993 Statistical Yearbook of the INS*.

^a According to Dominitz (1997), until 1989 the numbers include Jews who arrived in transit centers in Europe (mostly Vienna), and proceeded to countries other than Israel. Since 1990 the numbers include Jews who emigrated directly

from the FSU to other countries. This being the case, the post-1989 figures are less accurate than the figures for the years 1968-1989.

^b The figure for 1994 is based on Dept. of State, and refers to refugee admission from the Soviet Union.

		Mean years of schooling				Percent with at least a B.A. degree						
Census:	1972	1 9	8 3		1995		1972	1 9	8 3		1995	
Year of arrival.:	1968-73	1974-77	1978-83	1984-88	1989-91	1992-95	1968-73	1974-77	1978-83	1984-88	1989-91	1992-95
N of cases	2,532	3,209	3,873	472	29,223	17,250	2,532	3,209	3,873	472	29,223	17,250
A. Men												
Total in Israel	10.4	12.1	12.2	14.6	13.8	12.8	20.3	29.4	29.7	63.2	48.4	36.6
Asian Rep.				12.6	13.1	12.3				33.3	41.8	31.8
European Rep.				14.8	13.8	12.9				66.3	49.3	37.7
Sec. Gen. Eur. ^b	13.2	13.6	13.6	13.7	13.7	13.7	24.1	25.6	25.6	32.3	32.3	32.3
Sec. Gen. A-A ^c	9.6	10.8	10.8	11.7	11.7	11.7	.04	.05	.05	10.0	10.0	9.5
(Total in US)		(14.4)	(14.9)	(15.2)	(14.4)			(53.9)	(57.4)	(55.9)	(47.3)	
B. Women												
Total in Israel	9.8	11.3	11.7	13.9	13.8	12.7	15.0	23.9	26.1	51.4	49.3	36.6
Asian Rep.				12.4	13.2	12.3				21.7	42.8	32.8
European Rep.				14.1	13.8	12.8				54.4	50.1	37.4
Sec. Gen. Eur ^b	12.6	13.6	13.6	13.9	13.9	13.9	13.0	20.8	20.8	30.9	30.9	30.9
Sec. Gen. A-A ^c	9.0	10.9	10.9	12.1	12.1	12.1	.01	.04	.04	10.7	10.7	10.7
(Total in US)		(13.8)	(14.5)	(14.7)	(14.0)			(46.2)	(52.4)	(52.5)	(43.4)	

Table 2: Educational levels of immigrant from the FSU when they arrived in Israel and the US (in parentheses), by continent of birth, and period of immigration, 1968-1995.^a

^a Data for FSU immigrants in Israel are drawn from the 1972, 1983, and 1995 Israeli censuses of population for persons 25-64 years old in that year. Data for FSU immigrants in the US are drawn from the 1980 and 1990 PUMS for persons 25-64 years old in the census year. Immigrants arriving either country when they were less than 22 years of age are excluded from the analysis. Number of cases refers to number of immigrant respondents in each cohort arriving Israel, not including the benchmark groups. Number of cases for the US cells range between 34 for men arrivals in 1985-86 and 200-600 for the other cohorts. The years of arrival of the four US cohorts are 1975-1979; 1980-84; 1985-1986; and 1987-1990.

^b Second generation Israeli natives of European origin.

^c Second generation Israeli natives of Asian or African origin.

	Ν	1en	Wome	en
Year:	<u>1983</u>	<u>1995</u>	<u>1983</u>	<u>1995</u>
1974-1977 arrivals				
Relative to Asia-Africa	.165	.073	.188	.250
Relative to Europeans	234	359	031	062
Age 25-34 in 1983	179	359	049	102
Age 35-44 in 1983	396	382	043	071
1978-1983 arrivals				
Relative to Asia-Africa	.020	.009	.065	.176
Relative to Europeans	379	423	154	136
Age 25-34 in 1983	280	384	086	111
Age 35-44 in 1983	572	469	229	185

Table 3. Mean (ln) monthly earnings differentials between immigrants arriving in1968-1983 and natives, 25-50 years old in 1983 and 37-62 years old in 1995.^a

^aFigures are based on analyses of the 1983 and 1995 Israeli censuses. At least 100 observations of immigrants are used for deriving the figure in each cell.

Table 4. Mean (ln) monthly earnings differentials between immigrants arriving in1974-1983 and natives, 25-50 in 1983 and 37-62 years old in 1995, who were salaried workers in both 1983 and 1995.^a

		Men	Women	n
	<u>1983</u>	<u>1995</u>	<u>1983</u>	<u>1995</u>
1974-1977 arrivals				
Relative to Asia-Africa	.235	.055	.160	.186
Relative to Europeans	186	377	026	042
Age 25-34 in 1983	178	474	.034	020
Age 35-44 in 1983	281	359	160	178
1978-1983 arrivals				
Relative to Asia-Africa	.110	020	.109	.015
Relative to Europeans	311	455	147	213
Age 25-34 in 1983	262	516	072	197
Age 35-44 in 1983	458	354	239	279

^aFigures are based on analyses of the matched CBS file including information about the <u>same</u> <u>persons</u> in 1983 and 1995. At least 50 observations of immigrants are used for deriving the figure in each cell among men, and 40 among women.

	Ν	Men	Women			
Benchmark group: Hebrew 83	Europeans .027 (.049)	Asia-Africa .017 (.48)	Europeans .019 (.056)	Asia-Africa .038 (.056)		
Ln hours 95	(.049)	(.48)	(.036)	(.036)		
	.303***	.171***	.539***	.363***		
	(.036)	(.035)	(.031)	(.033)		
Married 95	.115***	.144***	.056*	003		
	(042)	(.050)	(.033)	(.034)		
Age 95	010***	001	001	.007***		
	(.002)	(.002)	(.002)	(.002)		
Years of Schooling 83	.029***	.054***	.033***	.053***		
	(.006)	(/006)	(.007)	(.007)		
Years of Schooling growth 95-83	.030***	.036***	.022**	.041***		
	(.011)	(.010)	(.010)	(.012)		
B.A.+ 83	.220***	.170***	.195***	.215***		
	(.039)	(.052)	(.040)	(.054)		
B.A. + growth 95-83	.111**	.105	.082*	.026		
	(.048)	(.065)	(.049)	(.065)		
Ln earnings 83	586***	630***	699***	603***		
	(.024)	(.029)	(.023)	(.027)		
C68-73 Europeans	101*	058	112**	143**		
	(.055)	(.056)	(.052)	(.055)		
C74-77 Europeans	175***	142**	126*	113*		
	(.57)	(.059)	(.064)	(.066)		
C78-83 Europeans	238***	194***	175**	169**		
	(.059)	(.060)	(.071)	(.073)		
C68-73 Asians	142	108	309***	238**		
	(.088)	(.086)	(.103)	(.101)		
C74-77 Asians	338***	257***	050	055		
	(.091)	(.087)	(.210)	(.206)		
C78-83 Asians	270**	196*	484***	393**		
	(.118)	(.112)	(.158)	(.154)		
Constant	4.17	4.19	3.62	2.88		
F	60.5	39.8	80.4	42.3		
R squared (adjusted)	.320	.287	.456	.339		
Number of cases	1895	1453	1419	1207		

Table 5. Regression estimates of (ln) monthly earnings growth (1995-1983) among natives and immigrants, aged 25-50 in 1983 and 37-62 in 1995 (s.e. in parentheses).^a

^aFigures are based on analyses of the matched CBS file including information about the same persons in 1983 and 1995. Immigrants arriving in Israel when they were less than 15 years old are excluded. Included in the equations are salaried workers who worked at least 4 weeks per year and earned at least 1,000 NIS a month (in 1995 prices). See note a and b in Table 2 for the benchmark groups.

* p < .01 p < .05 ** ***

P < .001

		Men	W	omen
	<u>1979</u>	<u>1989</u>	<u>1979</u>	<u>1989</u>
1975-1979 FSU arrivals in US	640	.126	274	.346
With at least B.A.	720	013	484	.172
With less than B.A.	739	119	344	.197
	1983	1995	1983	1995
1978-1983 FSU arrivals in Israel	379	423	154	136
With at least B.A.	264	284	082	050
With less than B.A.	452	501	223	220
1978-1983 Romanian arrivals in Israel	370	133	.071	.186
With at least B.A.	415	216	029	.081
With less than B.A.	598	384	054	003
1978-83 US arrivals in Israel ^b	289	193	086	181
With at least B.A.	503	298	231	395

Table 6. Mean (ln) earnings differentials between salaried immigrants and natives, 25-50 in 1979 (US) or 1983 (Israel): immigrants arriving in the US during 1975-1979, or in Israel during 1978-1983.^a

^aFigures for Israel (monthly earnings) are based on analyses of the Israeli censuses for 1983 and 1995. The benchmark group is composed of natives of European origin. In 1995 immigrants were 37-62 years old. Figures for the US (annual earnings) are based on the 5% PUMS of the US censuses of the 1980 and 1990. In 1989 immigrants were 35-60 years old. The benchmark group is composed of white, non-Hispanic natives. Each cell is based on at least 100 immigrants, with the exception of the cells among Romanian women that are based on at least 37 observations. ^b Number of cases with less than a B.A. degree is too small.

Table 7. Regression estimates of (ln) monthly earnings of natives and immigrants of the 1.5
generation arriving between 1968 and 1983 when they were 6-14 years old: salaried workers, 25-45
years old in 1995. ^a

Variable	Ν	Men	W	omen
	1	2	3	4
Age Benchmark group:	Europeans	<u>Asia-Africa</u>	<u>Europeans</u>	<u>Asia-Africa</u>
	.031***	.022***	.020***	.018***
	(.001)	(.001)	(.001)	(.001)
Ln hours	.504***	.297***	.611***	.510***
	(.014)	(.009)	(.011)	(.007)
Years of Schooling	.055***	.071***	.065***	.100***
	(.003)	(.002)	(.003)	(.014)
B.A.+	.140***	.074***	.101***	.032**
	(.018)	(.015)	(.015)	(.014)
Married	.236***	.235***	.069***	.027**
	(.015)	(.009)	(.013)	(.009)
Immigrant born in: FSU	114***	027	069***	028
	(.022)	(.019)	(.021)	(.019)
USA	236***	195***	088	097
	(.062)	(.056)	(.061)	(.059)
Romania	012	.060	.042	.059
	(.071)	(.065)	(.060)	(.058)
Argentina	.003	.080	075	054
	(.057)	(.052)	(.055)	(.053)
Могоссо	036	.074	003	.064
	(.043)	(.039)	(.42)	(.040)
Constant	3.870	4.983	3.361	3.477
F	564	635	518	916
R squared (adjusted)	.328	.224	.294	.281
Number of cases	11,539	22,001	12,407	23,382

^a Data are drawn from the 1995 Israeli census. Included in the equations are salaried workers who worked at least 4 weeks per year and earned at least 1,000 NIS per month.

*

**

p < .01 p < .05 P < .001 ***

Table 8. Mean (ln) earnings differentials between immigrants arriving in 1989-1995 and natives, 25-50 years old in 1992 and 34-43 years old in 2001.^a

		М	en		Women				
	1992	1995	1998	2001	1992	1995	1998	2001	
1989-1991 arrivals ^b									
Relative to Asia-African	462	182	230	204	520	182	092	072	
Relative to European	855	626	651	609	811	504	421	413	
Age 25-34 in 1992	376	350	457	498	762	373	232	275	
Age 35-44 in 1992	-1.07	756	721	590	858	433	501	430	
With at least B.A.	950	782	788	746	766	568	592	582	
With less than B.A.	772	595	596	647	827	573	341	369	
1992-1995 arrivals ^c									
Relative to Asia-African		601		440		673		370	
Relative to European		-1.04		828		994		712	
Age 25-34 in 1992		708		656		892		722	
Age 35-44 in 1992		-1.24		913		909		635	
With at least B.A.		-1.32		946		-1.25		891	
With less than B.A.		870		757		816		553	

^aAt least 50 observations of immigrants are used for deriving the figure in each cell. ^b In the 1998 and 2001 Income Surveys the 1989-91 cohort does not include the small number of 1989 arrivals.

^c In the 2001 Income Survey, the 1992-1995 cohort does not include 1995 arrivals. In the 1998 Income Survey, it is not possible to calculate the earnings of 1992-1995 arrivals, because all immigrants arriving during 1992-1998 are grouped together.

Variable		Ν	Лen	W	omen
		1	2	3	4
Age	Benchmark group:	Europeans .005** (.002)	<u>Asia-Africa</u> .005*** (.002)	<u>European</u> .006*** (.002)	<u>Asia-Africa</u> .005** (.002)
Ln hours		.973*** (.061)	.961*** (.050)	.937*** (.038)	.948** (.034)
Years of Schooling		.039*** (.007)	.070*** (.006)	.055*** (.006)	.066*** (.006)
B.A.+		.246*** (.041)	.124*** (.036)	.047 (.035)	.087** (.032)
Married		.253*** (.041)	.255*** (.032)	.145*** (.030)	.130** (.025)
Immigrant		957*** (.054)	786*** (.047)	861*** (.047)	730*** (.044)
YSM*Immigrant		.053*** (.006)	.052*** (.006)	.049*** (.005)	.047*** (.005)
Constant F		4.39 150.4	3.81 162.3	4.11 196.7	3.84 214.7
R squared (adjusted) Number of cases		.408 1519	.349 2112	.461 1560	.403 2221

Table 9. Regression estimates of (ln) monthly earnings of natives and immigrants arriving between 1990 and 2001: salaried workers, 25-50 years old.^a

^a Data are drawn from the 2001 Income Survey. Immigrants arriving in Israel when they were less than 15 years old are excluded. Included in the equations are salaried workers who worked at least 4 weeks per year and earned at least 1,000 NIS per month.

* p < .01 ** p < .05 *** P < .001 Appendix A

Table A1: Regression estimates of (ln) monthly earnings^a for immigrants from the FSU using cross sections and pooled 1983 and 1995 Israeli census data (s.e. in parentheses).^b

		section: i			Pooled: immigrants 1983-95				
	Men			men		Men		omen	
	1	2	3	4	5	6	7	8	
	1983	1995	1983	1995	No Adjust.	Adjust. ^c	No Adjust.	Adjust.	
Variables:									
YSM ^d	.070	.069	.078	.092	.053	.049	.060	.056	
	(.016)	(.004)	(.016)	(.004)	(.004)	(.001)	(.005)	(.005)	
YSM ^{2 d}	003	0015	004	002	0008	0008	0009	0009	
	(.001)	(.000)	(.001)	(.000)	(.000)	(.000)	(.000)	(.000)	
Age	.100	.078	.052	.044	.033	.033	.011	.011	
	(.004)	(.003)	(.005)	(.003)	(.003)	(.003)	(.004)	(.004)	
Age ²	001	001	001	001	0004	0004	0002	0002	
C	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	
Immigrant	651	984	547	-1.039					
e	(.056)	(.014)	(.011)	(.015)					
Years of	.048	.038	.068	.051	.033	.033	.045	.045	
Schooling	(.002)	(.002)	(.002)	(.002)	(.001)	(.001)	(.002)	(.002)	
BA+	.132	.176	.095	.130	.200	.200	.172	.172	
2.1	(.015)	(.010)	(.014)	(.010)	(.011)	(.011)	(.011)	(.011)	
(ln) hours	.440	.456	.582	.647	.344	.344	.583	.583	
(11) 110415	(.014)	(.009)	(.011)	(.007)	(.011)	(.011)	(.009)	(.009)	
Married	.229	.218	.025 ^f	.079	.130	.130	.078	.078	
Married	(.015)	(.010)	(.013)	(.008)	(.012)	(.012)	(.010)	(.010)	
C 68-73 ^e	(.015)	(.010)	(.015)	(.000)	.062	.182	.083	.204	
C 00-75					(.024)	(.024)	(.027)	(.027)	
C 74-77 ^e					.119	.221	.172	.274	
C /4-//					(.024)	(.024)	(.026)	(.026)	
C 78-83 ^e					.113	.193	.195	.275	
C / 8-85						(.020)	(.022)		
C 84-88 ^e					(.020)			(.022)	
C 84-88					.267	.295	.226	.255	
C 00 01 ⁶					(.048)	(.048)	(.050)	(.050)	
C 89-91 ^e					.061	.072	.086	.099	
Constant	3.142	3.877	2.915	3.193	(.013) 4.763	(.013) 4.772	(.015) 3.431	(.015) 3.442	
R ²	.272	.395	.245	.405	.261	.264	.343	.347	
F	660.6	2210	534.5	2341	576.6	588.1	817.1	832.0	
Ν	15,914	30,449	14,836	30,903	21,236	21,236	20,341	20,341	

^a 1983 earnings were transformed into 1995 inflation-adjusted NIS.

^b Data are drawn from the 1983 and 1995 Israeli censuses of population for persons 25-64 years old in the census year. Immigrants arriving in Israel when they were less than 15 years old are excluded. Natives include Israeli -born Jews of European origin. Included in the equations are salaried workers who worked at least 4 weeks per year and earned at least 1,000 NIS a month (in 1995 prices).

^c Model was adjusted for period effect. See note 20.

^d In models 1-4, where natives are included, the coefficient for YSM and its square term are interactions of YSM*Immigrant, and YSM² * Immigrant. ^e The omitted cohort is 1992-1995.

^f Coefficient not significant at the .050 level. All other coefficients are significant at the .001 level.