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CHANGES IN MODES OF LABOUR MARKET INCORPORATION OF HIGHLY SKILLED IMMIGRANTS IN ISRAEL: A COMPARISON BETWEEN THE (FORMER) SOVIET IMMIGRANTS IN THE 1970S AND IN THE 1990S

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Abstract

This paper addresses the issue of immigrant labour market incorporation in Israel and considers how the labour market incorporation of the 1990s mass immigration from the FSU is different from the incorporation of previous waves of immigration to Israel and, in particular from that of the soviet immigrants of the 1970s. The research approaches this issue through cross-sectional and over time comparisons of socio-economic outcomes, and individual and supra-individual level factors that impact or mediates those outcomes, between those two groups of immigrants.

The findings show that the Soviet immigrants of the 1970s successfully translated their human capital and in particular education qualifications to Israel; they had relatively good labour market outcomes quite soon after immigration; but those outcomes improving only slightly thereafter. I argue, the main reason, was the assisted mode of the labour market of the immigrants in the 1970s. In contrast, the mode of labour market incorporation of FSU immigrants of the 1990s was much more guided by free market forces, and this is the source of the low labour market outcomes of the FSU immigrants shortly after their arrival in Israel, in particular, due to inadequate economic and occupational returns on their educational qualifications. However, tenure in Israel is crucial for these immigrants and allowed them to translate their human capital to Israel and significantly improve their labour market outcomes over-time. The analyses were conducted using data from the 1983 Census of the Israeli population and the 2000 Income survey data.

1. Introduction

Traditional research on ethnic minority and immigrant socio-economic incorporation has largely focussed on individual level determinants of labour market performance (Kraus and Hodge, 1990; Semyonov and Yachtman–Yaar, 1992; Cassier, 1996; Bevelander, 1999; Heath and McMahon, 1999). This research shows that immigrants, who are usually socially

and economically disadvantaged upon arrival, gradually acquire the host country specific human capital and improve their labour market outcomes with the passage of time (Chiswick, 1978, 1993; Semyonov, 1996; Berman et al, 2000). Additionally, there is a research that addresses the conditions that shape the quality of immigrants' human capital as well as its transferability, such as the national origin of immigrants and the period of their immigration (Borjas, 1993; Chiswick et al, 1998; Friedberg, 2000).

However, research evidence increasingly shows that immigrant labour market incorporation varies from country to country. This has led more recently to the development of a new body of immigration research that stresses the importance of structural level characteristics, and the effect of variation in these characteristics on the successful labour market incorporation of immigrants. This research shows that such factors as types of welfare regimes, labour market structure and immigrant policies have an important impact on the socio-economic outcomes of immigrants and on their structural incorporation in the host society (Waldinger, 1996, 2001; Portes and Rumbaut, 1990; Menahem, 1996; Reitz, 1998; Cohen and Kogan, 2007; Kogan, 2003, 2006; Model, 1997; Lewin-Epstein et al, 2003; Sa'di and Lewin-Epstein, 2004).

Research on immigration in Israel offers a unique opportunity to study how the institutional context of the host country impacts on immigrant absorption and incorporation into a new society. As a rule, in order to study how different institutional settings influence immigrant incorporation into the host country, one needs to choose two countries with different institutional arrangements (i.e. immigrant policy, educational structure, labour market conditions, etc.) and compare how immigrants who originate from the same country (and who emigrated simultaneously or during a relatively short period of time) (for example, see Kogan, 2003). However in some cases, the institutional contexts of such comparisons may be so different that it makes any comprehensive comparison between them problematic.

The recent foundation of the State of Israel means that institutional arrangements (in terms of economic conditions, ideology, and policy) have been changing much more rapidly than the institutional context of other countries. Hence, a comparison between two waves of immigrants arriving in Israel from the same country of origin at two different but not too remote time points allows consideration of how differences in the institutional context of the host country had influenced the incorporation of immigrants with similar characteristics. Indeed, immigrants arriving from the same country within an interval of a decade or so will share much in common in terms of their cultural, educational and occupational characteristics but face a very different absorbing society in terms of institutional settings. In this way the impact of institutional settings on the immigrant incorporation can be studied.

Immigrants from the Soviet Union (USSR)/former USSR (FSU) who first arrived in Israel the 1970s and then in the late 1980s and throughout the 1990s, provide a good example of immigrants with similar characteristics arriving in the host country in two waves and facing very different institutional arrangements. Indeed, although experiencing similar contextual impacts in the country of their origin and sharing similar human capital characteristics upon arrival in Israel, they had very different experiences in Israel in terms of their labour market

absorption and outcomes, due to changes in the context of the Israeli economy, the labour market and the policy towards the immigrant absorption.

Table 1 about here

Let us turn on some statistical data about two waves of the Soviet immigration: that of the 1970s and the 1990s. Although both waves of immigration were quite large the volume of the second wave was significantly bigger than the first one. Indeed, while in 1983 recent immigrants from the USSR who arrived in Israel during the 1970s were the smallest ethnic group – about 6 per cent of the whole Israeli population, unlike the 1990s when the recent immigrants from the FSU made up one of the largest ethnic groups in Israel (see Table1). However, the arrivals of both waves of immigrants were distributed rather similarly over the correspondent decades -the majority of the immigrants, almost 60 per cent, arrived in Israel between 1971-1974, and arrival of the rest was distributed almost evenly through the period between 1975-1980 with two peaks in 1978 and 1979. Thus, by 1983 59.6 per cent of recent immigrants from the USSR had 9 or more years of tenure in Israel. In 2000, between 42-45 per-cent of FSU immigrants who emigrated after 1989 had 9 or more years of tenure in Israel (see the two last columns in Table 2.a where distribution of the year of the FSU immigrants arrival is presented using the 2001 Social Mobility Survey data, which contains detailed information on the year of immigration, and Table 2.b where data from the 2000 income survey is presented).

Table 2a about here

Table 2b about here

Tables 3a and 3b show that both groups of immigrants have high relative[i] educational attainment upon arrival, which are among the best compared with any other group of the Israeli population both in the 1970s and 1990s. One can see also from those tables that among both waves of immigrants (a) the most educated immigrants arrived earlier in the decade, followed by the less educated immigrants, (b) relative level of educational attainment of the immigrants of the 1990s (compared with the most educated groups of the rest of the Israeli population, i.e. Jews of the Ashkenazim of Western origin) in better than that in the 1970s.

Turning to the occupational attainment (tables 4a and 4b) one can see that there are sharp differences in relative occupational attainment between those two waves of immigrants. The relative occupational attainment of the immigrants of the 1970s are rather well, compared to other ethnic groups of the Israeli population; the occupational attainment of the FSU immigrants of the 1990s are much less favourably compared with the occupational attainment of other ethnic groups in Israel in the corresponding decade. However, unlike the immigrants of the 1970s whose occupational attainment are rather static and do not change with the increase of their tenure in Israel (see table 4a), the occupational attainment of the immigrants of the 1990s although very disadvantageous in the 1995 when they are well compared to that of the Israeli Arabs, are influenced by immigrant tenure Israel rather strongly and for the immigrants who spent in 2000 from 9 to 11 years in Israel the

occupational attainment are quite good and well comparable to that of the other groups of the Israeli population with a comparable level of skills (table 4b).

Table 3a about here

Table 3b about here

Those differences in occupational attainment between the immigrants of the 1970s and the 1990s point at the qualitatively different processes of the immigrant absorption. While immigrants of the 1970s seem to translate very quickly their human capital in Israel, the immigrants of the 1990s seem experiencing the more classical pass of the labour market incorporation – enter the bottom of the labour market but translate the human capital in Israel and improve labour market attainment over time. Why both groups of immigrants who share very similar educational and occupational profiles upon arrival and have human capital of the same source and of the same value, they experienced extremely different labour market outcomes as well as different dynamic of those outcome over time? Research offers several explanations as to why there are differences in the labour market outcomes between those two waves of soviet immigration in Israel and why the short-term labour market absorption of the FSU immigrants of the 1990s was less successful than that of the immigrants from the USSR in the 1970s. Among such explanations is a less successful transferability of human capital of the FSU immigrants of the 1990s compared with that of the USSR immigrants of the 1970s, because of due to rapid technological developments and the high tech boom in Israel during the 1990s (see for example Friedberg, 2000); an incompatibility between the occupational composition of immigrants and the occupational structure of the Israeli labour market (Weinberg, 2000); the presence of an overcrowded labour market in Israel due to mass migration in early 1990s (Weinberg, 2000).

Table 4a about here

Table 4b about here

However, in this paper I want to highlight on another change which occurred in Israeli society between the 1970s and the 1990s and which had a profound impact on the mode of Jewish immigrant absorption in Israel in general and on the labour market incorporation of the recent FSU immigrants in particular, and hence may be responsible for the short term labour market failure of this group of immigrants. This change resulted from the liberalization of the Israeli economy which began in the mid-1980s.

In the 1970s immigrants from the USSR arriving in Israel encounter with a highly collectivistic type of economy with a tightly regulated labour market providing predominately stable and secure types of employment for Jewish immigrants. The occupational absorption of these immigrants was guided by ideological factors (“jobs for Jewish immigrants”) rather than by economic factors and this wave of immigrants was successfully absorbed in the “primary” labour market with permanent employment and good working conditions.

However, since the mid-1980s the Israeli economy was underwent rapid liberalization. The labour market, where previously stable employment opportunities for Jewish immigrants had been secured by the state and labour organizations for ideological reasons, became loosely

regulated and quickly developed a variety of flexible forms of employment relationship to meet the demand of economic efficiency under conditions of rapid development, privatisation, and globalisation, rather than to serve the best the interests of Jewish employees.

The transition of Israeli society from one with a dominant collectivistic ideology and highly corporatist economy, characterized by strong labour organization and widespread collective bargaining for employment conditions and wages (for Jewish workers), towards a more individualistic and pluralistic society with an open market-type economy, had profound labour market consequences. Thus, immigrants from the FSU in the 1990s found the Israeli labour market to be segmented according to the type of employment relationships that employers offer to workers.

These crucial economic changes were also accompanied by changes in the realm of ideology from highly collectivistic towards more individualistic values and undoubtedly changed the whole concept of immigrant absorption and practical approaches to it. As a result, unlike the previous wave of skilled immigration from the USSR which had very “fast-track” absorption because they were offered considerable support from the Jewish state in transferring their human capital to the Israeli labour market through assisted employment in the state and/or trade-union protected sector, the more recent FSU immigrants were “free” to find employment themselves and to transfer their human capital in Israel on their own, mainly through the Israeli labour market experience. As new-comers to the Israeli labour market the new immigrants were the most likely candidates to enter the segment of the labour market with non-regular and unprotected forms of employment. These immigrants, therefore, like immigrants elsewhere, needed to translate their qualifications to the new labour market, through adjusting their knowledge and skills to new demands and acquiring new language, educational and professional skills and local experience. Not only were the educational and professional skills of the majority of the immigrants devaluated and channelled into intermediate of low skilled occupations, it is also plausible to suggest that the FSU immigrants, who were new entrants to the labour market and who did not have any power to bargain for better employment conditions and wages, were channelled mainly into irregular and unprotected forms of employment in the secondary labour market. This may well be responsible to a large extent for the low labour market outcomes of the new FSU immigrants and, in particular, for a low return on their human capital.

Research Questions. Following this argument, the aim of this paper is two-fold. Firstly, it aims to examine the labour market outcomes of two groups of (former-) Soviet immigrants, who arrived in Israel respectively during the 1970s and the 1990s. A comparison between those who have comparable human capital characteristics upon arrival as well as a comparable length of the Israeli tenure, but arrived during those two different periods will allow for consideration of the differences between their labour market outcomes in the light of changes in the Israeli institutional context that occurred between the 1970s and the 1990s. A second aim of this paper is to consider how long term and profound are the effects of those changes on the absorption of the FSU immigrants. To fulfil this aim I compare the outcomes of labour market absorption the of 1990s immigrants with different lengths of

tenure in Israel and consider whether the labour market disadvantage that they experienced shortly after arrival in Israel was a short-term or long term.

This paper addresses the following *research questions:*

1. In what way are patterns of labour market absorption of the FSU immigrants of the 1990s different from those of the immigrants from the USSR of the 1970s? In particular:
   - What is the degree of the relative ethnic disadvantage of the FSU immigrants of the 1990s compared with that of the USSR immigrants of the 1970s?
   - Was the degree of transferability of human capital acquired in USSR similar in the 1970s and in the 1990s?
   - Has tenure in Israel impacted similarly on the labour market outcomes of the immigrants from the USSR/FSU in 1970s and in 1990s?
2. What are the consequences of the changes that occurred in the Israeli economy and immigrant absorption policy for the long-term absorption prospects of the FSU immigrants? In particular:
   - Whether the labour market disadvantage of the recent immigrants from the FSU documented by the 1995 Census data relate to their insufficient tenure in Israel and to an ongoing need to translate their human capital to the Israeli labour market; or does it relate to the fact that they were not actively assisted but absorbed mainly by the free labour market which would further hinder a successful economic and occupational incorporation into Israel? How does increasing tenure in Israel improve the labour market outcomes of FSU immigrants? Are the labour market outcomes of FSU immigrants who arrived in the early 1990s better in 2000 relative to 1995?
3. It is only natural to wonder is if the labour market disadvantage of the recent immigrants from the FSU documented by the 1995 Census data can be attributed to other factors rather than the changes in the Israeli economy and immigration policy? Therefore, we also asked an additional research question that addresses the issue of the extent to which the outcomes of the analysis presented in these chapter allows to rule out alternative explanations about the sources of the labour market disadvantage of the recent immigrants from the FSU, in particular, the massive scale of the FSU immigration in the early 1990s and possible implications of that on the short term labour market outcomes of the immigrants.

2. Theoretical background: segmented labour market and ethnic socio-economic inequality

To consider why the recent liberalisation of the Israeli economy and consequent segmentation of the labour market by the type of employment relationship might be crucial for the mode of immigrant labour market incorporation, let us briefly turn to the theoretical concept of a segmented labour market and consider how it is related to ethnic socio-economic inequality.

The segmented labour market approach argues that the source of labour market differences in reward between different social groups is due to a different allocation of these groups to different labour market segments, which offer different sets of opportunities in terms of employment conditions and hence, labour market outcomes. According to this approach, young people, as well as low status class, ethnic, race and gender groups, have a very high likelihood of employment in such segments of the labour market where jobs are unstable and insecure and where the economic return for education and job experience is low. Opportunities to move from those segments of the labour market to more privileged ones are rare, and those who are channelled into insecure and unstable jobs at the beginning of their working career have difficulties in obtaining regular forms of employment. Hence, such people are persistently denied privileges relating to permanent employment. As a result, labour market segmentation creates a mechanism of social and economic exclusion, which widens socio-economic gaps in society (Bonacich, 1972; Hodson and Kaufman, 1982; Polivka, 1996; Polavieja, 2002; Benjamin and Gowlaw, 2005).

Labour market segmentation based on the type of employment relationship. The most recent version of labour market segmentation is based on flexible employment policy used by the same firm/organization for workers by offering them different types of employment contracts.

The introduction of flexible or non-standard employment relationships (NSE) since the mid-1980 in many European countries allowed employers to hire temporary workers for jobs that did not require firm-specific training and skills. As a result of the introduction of NSE, many firms/organizations quickly became internally segmented and divided into primary sector workers (usually veteran workers who enjoyed regular forms of employment with a high degree of protection) and secondary sector workers (usually new labour market entrants or those who re-enter employment those who have non-standard forms of employment and were excluded from the system of long-term benefits such as pension, health insurance, etc. (Kalleberg et al, 2000). NSE and consequent labour market segmentation thus became an important mechanism of social and economic exclusion, of the creation and perpetuation of socio-economic inequality in a society (Polivka, 1996; Hudson, 2001).

3. The Israeli Context

The Economic Reform of the 1980s in Israel and its consequences for labour market incorporation of the recent FSU immigrants. The transition of Israeli society from a prevalent collectivistic ideology and highly corporatist economy, characterized by strong labour organization and widespread collective bargaining for employment conditions and wages (for Jewish workers) toward a more individualistic and pluralistic society with an open market-type economy, had profound labour market consequences. Before the 1985 economic reform, employment in the Israeli public and private sectors had been controlled rigorously by labour unions, which, through collective bargaining, sustained wages and provided secure employment for workers. As part of the economic stabilization program, the number of permanent employment positions in the public sector decreased significantly, while a growing demand for public services was supplied through NSE positions. Following the public sector, employers in the private sector also began to make extensive use of flexible employment arrangements to reduce costs and to increase organizational efficiency and budgeting (Sagie and Weisberg, 2001). In the second half of the 1990s the rates of NSE in Israel were among the highest in the developed countries. On average 5.2-8 per cent (according to different sources) of workers in Israel had non-standard forms of employment (Radai, 1998; Sagie and Weisberg, 2001; Benjamin and Gowlaw, 2005). The use of NSE in Israel is particularly high in the public sector where about 15 per cent of workers have non-standard forms of employment[ii]. The public sector accounts for 84 per cent of NSE workers in Israel.

Introduction of the NSE in Israel had profound labour market consequences especially for the labour market absorption of new immigrants from the USSR. Indeed, before the 1985 economic reform the Israeli labour force had been subdivided into the primary and secondary employment according to national lines. That subdivision was rooted in the unique combination of historical, political, ideological, demographic and economic factors that surrounded the establishment of Jewish settlement in Mandatory Palestine when Jewish settlers from Eastern Europe were hopelessly losing in open competition with a vast and very cheap labour source in the rural Arab population. The paramount task of Yeshuv organizations, therefore, was to create “work for Jews”. The Histadrut and Zionism movement subsidized employment and social services for Jews and created an internal Jewish labour market sheltered from competition with Palestinian Arabs (Shalev, 2004). During the subsequent decades, a highly collectivist type of economy was developed which carried over into the first decades of Israeli statehood, when the ruling Labour party which was identified with Histadrut, had a strong influence on the state employment structure (Sharaby 2002). Thus, most of the employment opportunities for Jewish workers existed in the primary labour market, where labour was highly organized and well protected and workers had good employment conditions and wages. The secondary labour market comprised of jobs in construction and agriculture and personal care services, predominantly filled by the Palestinian Arabs and to a much smaller extent, Sephardic[iii] Jewish immigrants from small peripheral towns, and since the 1980s, foreign workers. The majority of new immigrants prior to 1985 were guaranteed a job in the primary sector of the Israeli economy.

The economic reform of 1985 and the introduction of flexible employment relationships led to the segmentation of the previously rather homogeneous primary labour market into different segments of employment – (a) regular employment on the basis of collective agreements; (b) regular or temporary employment on the basis of personal contacts; (c) employment via temporary help agencies; and (d) employments via contract companies (Galin, 1999). The regular forms of employment on the basis of collective agreements or personal contracts were available for the veteran incumbents of the labour market. Thus, the new FSU immigrants were channelled into non-standard forms of employment that is mostly employment via temporary help agencies; and via contract companies. Unlike previous generations of Ashkenazim[iv] immigrants to Israel who were sheltered from competition with those who offer cheaper labour, the FSU immigrants found themselves in an open labour market competing with the traditional incumbents of the secondary sector in Israel - Palestinian Arabs, foreign workers and Sephardic immigrants, as well as with young first-time labour market entrants.

The liberalization of the Israeli economy and transition from a collectivistic economy to a free labour market was accompanied by broader ideological changes in Israel. By the end of the 1980s Israel departed significantly from the centralistic and socialistic ideological paradigm, which had prevailed during the early decades of Israeli statehood. This ideological change was also reflected in immigrant absorption policy.

Policy toward the immigrant absorption – differences between the 1950s-1970s and 1990s. Absorption policy in Israel changed conceptually between 1947 and 1990. In the late 1940s and through the 1950s-1960s, absorption policy was highly centralized and the Israeli government intervened directly in every aspect of immigrant absorption (Neumann 1999) and provided new immigrants with housing, employment, and educational, health and welfare services. The government employed a strategy of population dispersion, motivated by political, economic and defence needs. Many immigrants were directed to newly established settlements in the country periphery and labour intensive industries were established there to provide the immigrants with employment.

The direct intervention policy had been changing gradually during the 1970s-1980s while in the 1990s a completely new “direct” absorption concept has been employed.

When FSU immigrants began to arrive in Israel in the 1990s, the government ceased intervening in the patterns of their settlement and employment, at least directly. New immigrants who had arrived since 1989 were provided with financial help during the first year after arrival and were free to choose a place of residence. Although the government was helping immigrants to translate their human capital to Israel by providing them with free language course during the first six month after immigration and making available for the unemployed immigrants with academic degrees occupational re-orientation/training courses[v] the majority of immigrants needed to translate their educational and professional skills in Israel on their own. Overall, the degree of state intervention was minimal and the recent wave of immigration from the FSU could be described as the first wave of immigrants in Israel whose absorption was guided chiefly by free market forces.

4. Hypotheses

On the basis of the argument presented above it is reasonable to assume that differences in the institutional arrangements that existed in Israel during the 1970s and the 1990s are responsible for differences in the labour market outcomes of the two groups of immigrants from the USSR and FSU. The evidence from the immigration research shows that immigrants upon arrival have a low return on their human capital which is of foreign origin but the return on the human capital of immigrants improves with the passage of time, mainly because immigrants acquire local knowledge and transform their skills to the new labour market (see Chiswick, 1978; Borjas, 1992; Friedberg, 2000). However, these postulates are built up on the assumption that immigrant labour market incorporation is "unassisted" and guided by the labour market forces rather than by policy interventions. Knowledge about the institutional arrangements in Israel during these periods allows for formulation of the following hypotheses:

Hypothesis 1.

- the degree of socio-economic disadvantage of immigrants from the USSR who arrived in Israel during the 1970s will be small even shortly after arrival in Israel; it will be much smaller than that of the immigrants of the 1990s from the FSU.
- although immigrants from the USSR needed to adjust their human capital to Israel (for example, they needed to learn Hebrew) the degree of that required adjustment was small because their educational and professional qualifications were accepted in Israel. Therefore, shortly after arrival, immigrants did not experience a significant loss on their human capital of foreign origin but were rewarded for it in a way that is similar to those who acquired human capital in Israel.
- while an increase in tenure for the USSR immigrants improves socio-economic outcomes, the impact of the tenure would be weak and, in particular, it will be much weaker than that for the immigrants of the 1990s; similarly an increase in tenure in Israel would not significantly alter the return on their human capital.

Hypothesis 2.

In the 1990s due to the unassisted or "direct" immigrants labour market absorption and the labour market segmentation one may expect that

- The FSU immigrants shortly after immigration would enter the segments of NSE; as a result they would experience a particularly low return on their human capital, which is of a high quality but of foreign origin.

Hypothesis 3.

- the FSU immigrants would translate their human capital in Israel with the passage of time and would be able to enter a more advantageous segments of employment and receive better financial and occupational returns on their education and skills; thus, considering the labour market outcomes of immigrants who immigrated in the early 1990s in the time point which is more distanced from the date of their arrival in Israeli

that 1995 would show that those immigrants improved considerably their labour market outcomes relatively to 1995.

Of course, I do not have a direct indication of the segment of employment of the respondents and hence I cannot offer a direct test of the first part of the Hypothesis 3. However this hypothesis can be tested indirectly. Let us assume that those ethnic groups who are employed in the same segment of the labour market have similar occupational compositions. Thus one can compare the occupational composition of groups of the FSU immigrants who have different lengths of tenure in Israel with those groups of the veteran Israeli population who are known to be (a) traditional incumbents of the secondary labour market, i.e. the Israeli Arabs; (b) employed in both secondary and primary sectors, i.e. Sephardic Jews; and finally (c) employed in the primary sector, i.e. the Ashkenazim Jews. The position of the FSU immigrants with a different length of tenure in Israel within ethnic the occupational scale can offer an indication of how successfully the FSU immigrants are moving from occupational patterns of ethnic groups that are chiefly employed in the secondary sector toward the occupational patterns of those who are employed mostly in primary sector.

The final hypothesis addresses the last research question about the extent to which the labour market overcrowding created by a massive character of the Soviet immigration in the early 1990s is responsibly for the low short-term outcomes of the immigrants in the Israeli labour market. Although this issue cannot be addressed directly there are a number of indirect indicators[vi] that shed light on the most important factors that shaped the labour market absorption on the immigrants of the 1990s in Israel.

Thus, if the massive character of the FSU is the one to blame for the labour market disadvantage of the FSU immigrants documented by the 1995 Census data, then one may expect that those who arrived in Israel after the mass immigration from the FSU passed its peak, i.e. after 1993-94, would suffer less from an over-crowded labour market and therefore their labour market outcomes would be considerable better than that of the FSU immigrants who arrived in Israel during the 1990-1992, when immigration to Israel was particularly large.

If however, one believes that changes in the Israeli economy and society and in particular, labour market segmentation and subsequent availability for new immigrants of the initial employment opportunities mainly in the NSE segments are responsible for the differences between labour market outcomes of the most recent and previous waves of skilled immigration to Israel, then one can assume that:

Hypothesis 4.

Not only did the FSU immigrants who arrived in early 1990s face among other factors an overcrowded labour market and a lack of informal support networks, find themselves in less advantageous segments of employment, but their counterparts who arrived in the mid and late 1990s and who benefited both from a stabilized labour market and informal support of family and friends in Israel would have had similarly low labour market outcomes shortly after arrival because they were also channelled into segments with NSE.

5. Data, Research Strategy, Variables and Methodology of the Research

5.1 Data and Research Strategy

To answer the research questions three following data sets were selected: the 1983 Census of the Israeli Population, the 1995 Census of the Israeli Population, and the 2000 Income Survey (see Appendix 1 for the detailed description of the data sets). To study the labour market outcomes of the Soviet immigrants of the 1970s, the 1983 Israeli Population Census data were used. The data contains information about the respondent's country of birth, country of birth of the respondent's father, year of arrival in Israel, demographic characteristics, labour force status, employment status, occupation, individual income, and detailed educational attainment of the respondents in terms of number of years of schooling, type of educational institution last attended and the highest educational certificate attained by the respondents. The 1983 Census of the Israeli Population data makes information available about the labour market outcomes of the USSR immigrants with up to 11-12 years of Israeli tenure. A feature that both waves of Soviet immigration, that of the 1970s and of the 1990s, have in common is that although both of them were spread through almost a decade, the main peak of immigration from the (former) USSR took place in the first half of the corresponding decade, that is, the mass immigration was in fact compressed into a three-four year period both in the 1970s (1971-1974) and in the 1990s (1989-1992) when the majority of immigrants arrived, while the arrival of the rest was redistributed over a longer period[vii] when a relatively small amount of immigrants were arriving each year (see table2.s where the distribution of the new FSU immigrants of the 1990s by the year of arrival in Israel is presented using the 2001 Social Mobility Survey where detailed information about the year of immigration is available). As a result, in the early 2000s tenure in Israel of the FSU immigration of the 1990s was distributed quite similarly to that of the Soviet immigrants of the 1970s in 1983. Therefore the data of the 2000 Income survey which is used for the analysis of the labour market outcomes of the FSU immigrants of the 1990s, offers a good opportunity to compare the modes of labour market incorporation of Soviet immigration of the 1970s and the 1990s with a similar length (up to 11 years) and distribution of tenure in Israel. Additionally, the 1995 Census of the Israeli population was used when necessary to compare comparisons between short term outcomes of the FSU immigrants in the mid-1990s and in 2000.

There are a number of differences in how information is presented using the Population Censuses and the Income Survey data. The most important difference is in the way of measuring the educational attainment and year of immigration to Israel. Data pertaining to the income survey does not have information about the type of the highest educational certificate received by the respondents but only about the type of the last educational institution attended (i.e. there is no information whether a particular level of study was completed and respective educational certificate obtained). To insure comparability between the outcomes of the USSR immigrants during the 1970s and the FSU immigrants during the 1990s, in what follows I will use the type of last educational institution attended[viii] as a measure of the educational attainment the 1983 Census data as well in the regression

analyses. In the regression analyses the total number of years of schooling of respondents is also added as an additional control measure for the level of education.

Another important difference between the 1983 Population Census data and the 2000 Income survey data is that the variable "year of immigration" is a continuous variable in the 1983 data, while it is grouped in the 2000 data and therefore indicates a period rather than a specific year of immigration. As a result, for the FSU immigrants it is only possible to distinguish between those who have immigrated during the period 1989-1991 and those who immigrated in 1992 or afterwards. To allow a comparison between the labour market outcomes of the Soviet immigrants of the 1990s and the 1970s among those with a similar length of tenure in Israel, the Soviet immigrants of the 1970s were also subdivided by two cohorts – those with 9-12 years of tenure (those who arrived between 1970-1973) and those with 1-8 years of tenure (those who arrived between 1974-1983).

Based on the 1983 population census and the 2000 income survey I will first consider the labour market outcomes of the FSU immigrants from the 1970s and consider the degree of their relative socio-economic disadvantage and as well as variation in the latter among immigrants with different lengths of tenure in Israel. Then similar analyses will be conducted for the FSU immigrants of the 1990s. A comparison between the labour market outcomes of the immigrants of the 1970s and of the 1990s with similar lengths of tenure in Israel (i.e. those who respectively spent either up to 8 or 9 or more years in Israel) would allow a consideration of how their labour market outcomes vary according to the period of immigration on the one hand; a cross-sectional comparison among immigrants with different lengths of tenure would allow, on the other, a consideration and comparison of how an increase in tenure in Israel had an impact on labour market outcomes during the 1970s and the 1990s.

5.2 Variables

Variables used in the main analysis in this paper are described in Figure1

Figure 1 about here

5.3 Methodology

The research was conducted in three stages. In the first stage economic outcomes of the immigrants are considered in 1983 and 2000.

Linear regression models for income in 1983 and 2000 were estimated and the results are presented in Tables 5 and 6 respectively. The dependent variable in both years is the natural logarithm of the gross monthly income from work. Several regression models were estimated for each year and the independent variables were added step by step, allowing first to obtain "gross" ethnic income gaps, then assessing how those gaps have changed after a particular independent variable is added to the model, and finally, estimating the "net" ethnic income gaps by means of a regression model that includes all independent variables. Although the Israeli currency is different[ix] in 1983 and 2000, I consider the outcomes of regression

analysis by discussing for each year the relative size of ethnic disadvantage compared with the benchmark ethnic group for the same year, and then I compare the ***relative*** size of ethnic disadvantage in 1983 and 2000. Therefore, differences in the currency between 1983 and 2000 should not cause a problem in the interpretation of findings.

Linear regression models for 1983 includes six dummy variables to distinguish between seven ethnic groups in Israel while the regression models for 2000 includes seven dummy variables which subdivide the population by eight ethnic groups (see Figure 1 for details). The variables used in both models are identical. Thus, both models control for type of educational institution last attended by respondents, the total numbers of years of schooling, the weekly number of working hours, marital status, age, and gender of respondents. Additionally, both for 1983 and 2000, linear regression models including all independent variables described above, and interaction terms for ethnicity and the educational occupational attainment, are estimated to assess whether the economic return on education varies between ethnic groups. Finally, for both 1983 and 2000, a model which in addition to all previous variables also include occupational category as wells as interaction terms between the ethnicity and occupational standings were estimated. The aim of the last models was to assess net ethnic differences in economic return on similar occupational standing.

In the second part of this research ethnic occupational standings are studied. First, observed ethnic occupational distributions in 1983, 1995 and 2000 are considered and both over-time and cross-sectional comparisons between ethnic occupational distributions is conducted by means of indexes of net occupational differences (INDs). A detailed description of how the INDs were calculated and used is given below. Particular attention is paid to the consideration of how the occupational standings of (former-)Soviet immigrants in 1983, 1995 and 2000 differ and how the occupational standings of the FSU immigrants with up to 8 years or the Israeli tenure and with more that 9 years of the tenure in 2000 differ. In addition, the occupational standing of the FSU immigrants in 1995 and 2000 are compared with those of other ethnic groups to assess how the occupational standing of the FSU immigrants had improved between 1995 and 2000 relative to other ethnic groups.

Finally, the multinomial regression models for years 1983 and 2000 are estimated to assess and compare the net ethnic differences in the odds of achieving a particular occupational destination both across the years as well as within each year.

The dependent variable consists of the seven occupational categories (for a description see Figure1). Similar to the income regression models, the multinomial model of occupational attainment for 1983 includes six dummy variables to distinguish between seven ethnic groups in Israel, while the model for 2000 includes seven dummy variables which subdivide the population by eight ethnic groups (see Figure1 for details). Other variables used in both models are identical. Thus, both models control for type of last educational institute attended by respondents, total numbers of years of schooling, age, and gender of respondents. The models presented in Tables 6 and 7 contain all control variables and hence the coefficients of ethnicity variables estimated by those models can be considered as “net” ethnic differences in the relative odds of achieving a certain occupational level. The second type of

multinomial regression model includes, in addition to the variables outlined above, interaction effects between ethnicity and type of educational institute last attended on occupational attainment.

As it is conventional in the research on group disadvantage (see for example Grodsky and Pager, 2001) I use the estimated coefficients of the ethnicity variables to assess the relative size of ethnic disadvantage compared to the reference ethnic group – the Israeli born Jews of Ashkenazim origin (the second and later generations).

Index of net differences. The Index of Net Differences (IND) (Fossett et al, 1986) provides a measure of differences between the groups' distributions by the categories of the variable of interest, which is of an ordinal level of measurement. The IND presents a difference between two opposing probabilities of group advantage. The first is the probability that any member of group A will be of a higher occupational standing than any member of group B. The second probability is that any member of group B is of a higher occupational standing than any member of group A. Thus, the IND takes a positive value if group A has a higher occupational standing, a negative value if group B has a higher occupational standing, and zero if the occupational standing of both groups are similar. The measure is defined by the following formula (adopted from Fossett et al, 1986):

$$IND=100*(\sum A_i CB_i - \sum B_i CA_i) \quad (1)$$

(where A_i is the proportion of group A in occupation i; B_i is the proportion of group B in occupation i; CA_i is the cumulated proportion of group A ; in the occupations ranked below occupation i; CB_i is the cumulated proportion of group B in the occupations ranked below occupation i.)

In this paper the IND has been calculated for the occupational attainment variable (see the section Variables above). Seven occupational categories are ranked on the basis of the Kraus Occupational Prestige Score[x] (Hodge et al, 1982). The results are presented in Figure2.

Additionally, a cumulative indexes of net occupational differences (CIND), that is, a sum of all INDs between the ethnic group of interest and all other ethnic groups (i.e. this is a sum of all IND values in the row corresponds to the ethnic group of interest) were estimated. The CINDs have the advantage of providing a single value that allows assessing the *occupational standing* of a particular ethnic group relative to all other ethnic groups. As a result, CINDs allow the occupational ranking of all ethnic groups within a single scale on the basis of their occupational standing. A zero value of CIND would indicate that an ethnic group has an intermediate occupational standing, while for those ethnic groups which have non-zero CIND the sign and the magnitude would show the direction and a degree of their occupational advantage/disadvantage.

Figure 2 about here

6. Findings

6.1. Regression analysis results: Income attainment and gross and net ethnic income gaps in Israel in 1983 and 2000

Linear regression models for income in 1983 and 2000 are presented in Tables 5 and 6 respectively. Both tables present findings in a similar manner. Thus, the first column presents the model that contains only ethnicity variables, and hence represents "gross" ethnic income gaps. Additional independent variables are added step by step and a comparison between the estimated parameters of the ethnicity variables between any two subsequent models allows accessing how a particular variable(s) added in that step impact(s) on ethnic income inequality. The final model in each table (column 5 and column 4 respectively for the years 1983 and 2000) includes all independent variables and hence presents "net" ethnic income gaps. The estimated parameters of the interaction terms between ethnicity and type of educational institution last attended from the corresponding regression model (see section Methodology above for details) are presented in Tables 6a. Finally, estimated parameters of interaction terms between ethnicity and occupational category (see section Methodology above for details) are presented in Table 6b.

Ethnic income attainment and differences between 1983 and 2000. In 1983 the net ethnic gaps for USSR immigrants with less than 9 years of tenure in Israel were larger than that of other Ashkenazim immigrants, almost as large as those for immigrants of Sephardic origin, while for immigrants who spent 9 or more years in Israel ethnic wage gaps were slightly smaller (the differences in the size of the ethnic wage among the USSR immigrants with up to 8 years of tenure in Israel and those who stayed longer is only 0.07 log unit). Ashkenazim immigrants in 1983 did not have a statistically significant income gap in 1983. Given, that the latter group is very heterogeneous from the point of view of immigrant tenure in Israel let us turn to the findings presented in Table A3.1 where Ashkenazim immigrants are subdivided according to the duration of tenure in Israel. From the findings presented in this table, one can learn that USSR immigrants with 9-13 years of tenure in Israel have ethnic wage gaps similar to that of Ashkenazim immigrants with up to 8 years of tenure in Israel, while the Ashkenazim immigrants with 9-13 years of tenure have a very small but statistically significant ethnic wage gap. It is also evident that ethnic wage gaps vary significantly between Sephardic immigrants with 8 or less years of tenure those with 9 to 13 years of tenure in Israel.

Turning now to the subsequent models presented in Table 5 we see how accounting for group differences in the various resources those ethnic groups bring to the labour market change ethnic wage gaps.

Table 5 about here

Accounting for educational differences between ethnic groups reduces ethnic wage gaps for all ethnic groups, however the size of the reduction varies by ethnicity in a manner that reflects wide differences in educational attainment between ethnic groups. The ethnic wage gap for the Soviet immigrants with 8-13 years of tenure in Israel decreases significantly and to a larger extent than for their former counterparts who spent up to 8 years in Israel,

reflecting the better educational levels of the former group relative to the latter. However, the largest reduction in the size of ethnic wage gap is for Sephardic immigrants. Thus, for Sephardic immigrants the ethnic wage gap decreases on 0.20 log units and becomes as small as 0.03 log units, indicating that low educational levels are the main source of economic disadvantage of Sephardic immigrants. Ethnic wage gaps for the Israeli born ethnic groups, Jews of Sephardic origin and Arabs also narrowed but remain quite large, which points to the additional factors that are responsible for the relative economic disadvantage of those ethnic groups compared with the reference ethnic group.

Accounting for demographic characteristics such as sex, marital status and age of the respondents slightly widens the wage gaps for Soviet immigrants and Ashkenazim Jews, and increases the gap significantly for Sephardic immigrants and especially for Arabs. While controlling for those characteristics considerably reduces the ethnic wage gaps for the Israeli born Jews of Sephardic origin, this means that the demographic profile of Israeli born Jews of Sephardic origin (who in 1983 used to be the youngest group among the Israeli population), is highly responsible for their relative economic disadvantage.

Finally, accounting for further resources such as the number hours worked and occupational placement allows one to estimate net ethnic wage gaps (see last two columns in Table 5 and in Table A1 in Appendix).

The net ethnic wage gaps for USSR immigrants are particularly comparable with those for Ashkenazim immigrants and Sephardic immigrants with similar lengths of tenure in Israel (i.e. those who spent up to 8 years and from 9 to 13 years respectively). Not only do immigrants of any origin who have spent up to 8 years in Israel suffer from rather similar degree of relative economic disadvantage compared with the reference ethnic groups (the disadvantage is the smallest one for the USSR immigrants), but also the impact of tenure in Israel is rather similar for all ethnic groups of immigrants who in 1983 altogether spent up to 13 years in Israel.

Let us now turn to 2000 data to consider ethnic income gap of the FSU immigrants with up to 8 and more than 8 years of tenure in Israel.

Unlike 1983, when gross ethnic wage gaps of Soviet immigrants were larger than that of Ashkenazim immigrants but comparable with or smaller than the gross wage gaps of other ethnic groups, in 2000 the gross ethnic wage gaps are very large for the FSU immigrants. Thus, the largest degree of economic disadvantage exists for immigrants from the FSU who have up to 8 years of tenure in Israel, while FSU immigrants who in 2000 had spent between 9 and 11 years in Israel have ethnic wage gaps that are only slightly smaller that that for Arabs, but significantly larger than that of other Jewish groups (see the first two columns in Table 6). However, tenure in Israel during the 1990s demonstrates a strong impact on the economic attainment of the FSU immigrants and those who immigrated in 1990-1991 have an ethnic wage gap that is twice as small as for those FSU immigrants who immigrated in 1992 or thereafter. Turning to findings that are presented in Appendix (see Table A2) one will see that ethnic wages in 2000 are also large for other immigrants who immigrated to Israel after 1985. Thus, all Ashkenazim and especially Sephardic immigrants who arrived in Israel in 1985 or thereafter suffer from a considerable degree of gross income disadvantage

compared to those from similar ethnic origins who immigrated to Israel during the period 1970-1984.

Table 6 about here

Moreover, tenure in Israel does not change the degree of gross economic disadvantage of Ashkenazim immigrants. However, it should be kept in mind that unlike the FSU immigrants, Ashkenazim immigrants are a very heterogeneous group that consist of immigrants from a variety of origins, and who possess very different human capital characteristics; the comparison between groups of Ashkenazim immigrants with different lengths of tenure in Israel is quite problematic especially when gross ethnic differences in labour market outcomes are considered. Therefore, I will concentrate on the consideration of a reduction in the size of ethnic wage gaps using the income regression models presented in Table 6 and then go back to consideration how different are wage gaps for groups of Ashkenazim of Sephardic immigrants when net ethnic wage gaps are discussed.

Accounting for educational attainment has a different impact on the wage gaps of two groups of the FSU immigrants – the ethnic gap remains almost unchanged for immigrants with more than 8 years of tenure but the gap reduces for immigrants with less than 8 years of tenure. The above findings reflect differences in the educational levels of FSU immigrants who arrived in Israel before 1992 and those who arrived afterwards – the former were better educated (see Table 3.a), while the educational attainment of the latter was worse than that of their counterparts who arrived earlier in Israel but also worse than that of the reference ethnic group, i.e. the Israeli born Jews of Ashkenazim origin. For other ethnic groups including educational attainment to the income regression changes the ethnic wage gaps in a manner rather similar to that observed in 1983 and 1995.

Accounting for differences in demographic characteristics between ethnic groups does not change the ethnic wage gap for either of them. Finally, accounting for weekly working hours and occupational placement allows an estimation of the net ethnic wage gaps (see two last columns in Table 6 and Table A2 in Appendix).

Overall, the net income gap is largest for the FSU immigrants with up to 8 years of tenure in Israel. It is much larger than the net ethnic wage gap for Ashkenazim immigrants with a similar length of Israeli tenure. However, tenure in Israel has a strong impact on the income attainment of recent FSU immigrants, and the net ethnic income gap for those who spent between 8-11 years in Israel is pretty much similar to that of the Ashkenazim immigrants who immigrated between 1985-1991. One may see that for all groups of immigrants, those who immigrated after 1985 have significantly worse relative income attainment, compared with those who did so before 1985.

Let us now turn to ethnic differences in the economic return on educational attainment and consider differences in the return on educational institution attended abroad relative to educational institution attended in Israel. Table7 presents estimated parameters of the interaction terms between ethnicity of immigrants and type of educational institution attended, with all the Israeli born population is used as a reference group. The reference type of last educational institution is a secondary school.

Type of the last educational institution. In 1983 all immigrants from the USSR as well as Ashkenazim immigrants had a similar return for any type of educational institution as the reference group and immigrants with more that 8 years of tenure also having a better return on attendance at a post-secondary non-academic institution than the Israeli born population.

Table 7 about here

Sephardic immigrants, however, were experienced a higher reward for any type of educational institution than the reference ethnic group.

On the contrary, in 2000 all USSR/FSU immigrants experienced a much worse return for any tertiary type of educational institution than that of the Israeli born population, while other groups of immigrants were rewarded for attendance at a tertiary educational institution similar to the reference ethnic group. However, an improvement in the return for attendance at any tertiary level of education among the FSU immigrants can be seen once their tenure in Israel increases: - 0.11 log unit improvement for the academic institution and 0.05 log unit improvements for post-secondary non-academic institution. These findings indicated that unlike the 1970s when Soviet immigrants did not pay a penalty for education acquired abroad, during the 1990s the respective penalty was very high. However, tenure in Israel during the 1990s worked to the advantage of the FSU immigrants, and a reduction in the penalty for having a non-Israeli type of education points at the successful translation of the FSU immigrants' human capital with increased tenure in Israel.

6.2 Occupational outcomes

There are several matters that attract our attention in the descriptive section about the relative occupational attainment of immigrants from USSR in 1983. Firstly, their representation in professional occupations (both academic/professional and associated professional/technical occupations) is as good as that of the other Ashkenazim immigrants and the Israeli born Jews of Ashkenazim origin, reflecting (a) good levels of educational attainment of the USSR immigrants and (b) the fact that their educational and professional skills have not been devalued but transferred successfully to the Israeli labour market. Secondly, the occupational attainment of USSR immigrants is quite good for those who spent up to 7 years in Israel, but does not really improve with increasing tenure in the country.

On the contrary, the occupational attainment of the FSU immigrants improved considerably with the passage of time and in 2000 FSU immigrants with 9 or more years of tenure in Israel have an occupational distribution very similar to that of the USSR immigrants of the 1970s who by 2000 had spent more than 20 years in Israel. Moreover, comparing the occupational distribution of the USSR immigrants of the 1970s in 1983 (the two first rows in Table 4.a) with the occupational distribution of the same group of immigrants in 2000 (the third row in Table 4.b) one can see that over the years the occupational standing of the USSR immigrants remains almost unchanged. Indeed, the latter preserved almost the same proportion in academic/professional and semi-professional/technical occupations over the years and only slightly improved their representation in managerial and clerical occupations.

Unlike the USSR immigrants of the 1970s, other immigrants of Ashkenazim origin improved their occupational standing over the period 1983-2000 by almost doubling their representation in academic and professional occupations (compare row three in Table 4a with row four in Table 4b). Of course, a direct comparison between occupational distributions in 1982 and in 2000 is problematic due to changes in the occupational structure of the Israeli labour market over a considerable period of almost 20 years. However we may consider the relative occupational standing of the USSR/FSU immigrants in different years, in comparison with other ethnic groups in the corresponding years and see whether the relative occupational position of the USSR/FSU immigrants has been improving over time by using indexes of net occupational differences (IND) as described in the Methodology section.

Relative ethnic occupational standings in 1983, 1995 and 2000. The INDs for ethnic groups in Israel in 1983, 1995, and 2000 are presented in Tables 8a and 8b, and 8.c, where each cell contains the index of net occupational differences (IND) between the two groups whose names appear in the head of the corresponding column and row. The smaller the value of the IND between the two groups, the closer they are in terms of occupational distribution. A positive value of IDF in any cell indicates that the group whose name appears in the corresponding row has a better occupational distribution than the group whose name appears in the head of the corresponding column. Respectively, a negative value of the IND indicates that the former has a lower occupational distribution than the latter. This way of presenting the IND is particularly convenient because it allows for assessment of differences in the occupational standing between any two ethnic groups, but also examination of the relative position of the group of interest in the system of ethnic occupational hierarchy. Indeed, for a given ethnic group the number of negative IND values in the corresponding row indicates how many ethnic groups have a poorer occupational distribution that the group of interest, and respectively, the number of positive IND values in the row indicates how many groups have a better occupational distribution than the former group. A comparison between the absolute values of IND from the same rows allows one, in addition to the direction, also to see the magnitude of occupational advantage/disadvantage between the considered ethnic group and any other ethnic groups.

Because the occupational distribution of the USSR immigrants with more than 8 years of tenure in Israel was very similar to that of the USSR immigrants with tenure between 1-8 years, I consider the entire USSR immigrant who immigrated to Israel during the 1970s as a single group. Due to very different occupational standings of the FSU immigrants with up to 8 years of tenure in Israel and those with 9 and more years of tenure in Israel in 2000, I calculate the indexes of net occupational differences separately for the two groups.

Table 8a about here

Table 8b about here

Table 8c about here

In 1983 the USSR immigrants have intermediate occupational standings - better than that of the Israeli Arabs and Sephardim Jews, but worse than that of the Ashkenazim Jews. The closest value of the IND is between the USSR immigrants and the second generation Sephardic Jews. The values of the CIDNs, which can be used as an indicator of an ethnic groups' position on the ethnic occupational scale, is positive for the USSR immigrants (Table 8a).

In 1995 the absolute values of CINDs became bigger, meaning that the range of the ethnic occupational scale (and hence the occupational polarization) between ethnic groups increased (Table8.b). This results from an increase in the relative occupational disadvantage of Arabs and a simultaneous increase in the occupational advantage of all Jewish ethnic groups and especially that of the Ashkenazim Jews, in 1995 compared with 1983. The occupational standing of immigrants from the USSR (those who immigrated in the 1970s) improved in 1995 relative to Sephardic Jews (the occupational distance between the Israeli born of Sephardic origin and the USSR immigrants in 1983 was twice as small as in 1995). However, the relative occupational standing of the Israeli born Jews of Ashkenazim origin improved at higher rates between the 1985 and 1995, and as a result the occupational distance between the latter and the USSR immigrants increased between 1983 and 1995.

Let us consider the occupational standings of the FSU immigrants of the 1990s. Data from the 1995 Population Census show the IND between FSU immigrants with up to six years tenure in Israel and Arabs is positive, but its absolute value is small, indicating that the occupational standing of those two groups is rather similar. These data are in contrast to the data of 1983 when the occupational standing of the USSR immigrants with up to 8 years of tenure in Israel was not only much better than that of Arabs, but also better than that of Sephardic Jews (both immigrants and Israeli born).

To follow up on the occupational standing of the FSU immigrants, let us now turn to a consideration of the relative occupations standing of ethnic groups in Israel in 2000 (Table 8c).

In 2000, FSU immigrants with up to 8 years tenure in Israel have an occupational distribution that is quite similar to that of their counterparts in 1995 with up to 6 years of tenure in Israel. Similar to 1995, the smallest value of IND in 2000 is again between the FSU immigrants with up to 8 years of tenure and the Israeli Arabs. However the occupational distribution of FSU immigrants who spent more than 8 years in Israel improved significantly and the value of IND is smallest between the latter and Sephardic immigrants of the Israeli origin;

The findings regarding differences in the occupational distribution between ethnic groups can be summarised as follows: (a) the occupational distribution of the USSR immigrants of the 1970s did not improve over time relative to other ethnic groups. (b) On the contrary, the occupational distribution of the FSU immigrants improved tremendously over time.

6.3 Multinomial regression analyses results

Tables 9 and 10 present multinomial regression analysis results for the years 1983 and 2000 respectively, for the probability of being in a particular occupational category relative to the probability of being in skilled blue collar occupation. Findings in the previous section were based on a consideration of the overall differences in occupational distribution between ethnic groups without accounting for between-group differences in human capital characteristics. The aim of the multinomial regression analyses of occupational attainment presented in this section is to consider net ethnic occupational disadvantages.

Net ethnic differences in the relative odds of being in a particular occupational category: comparison between 1983 and 2000. In 1983 both groups of the USSR immigrants with up to 8 years of tenure and with 9-13 years of tenure, have similar net probabilities of being in academic professional; associated-professional/technical and sales/services occupations. For immigrants with more than 8 years of tenure, the log-odds ratios of being in a clerical occupation are higher than that of their counterparts with up to 8 years of tenure, but the difference lies on the border of statistical significance; however, immigrants with up to 8 years of tenure have statistically significant lower log-odds ratios of being in managerial occupations and statistically significant higher log-odds ratios of being in unskilled occupations than immigrants with more than 8 years of tenure (see Table 9).

Table 9 about here

Table 10 about here

In 2000, FSU immigrants with up to 8 years of tenure in Israel have the lowest log- odds of being in any occupational category with the exception of the unskilled occupations (see Table10). However, their counterparts - with 9 or more years of tenure in Israel – have a considerably better relative occupational standing. The net relative disadvantage of the FSU immigrants who spent between 9-11 years in Israeli achieving any white collar occupation is still bigger in terms of statistical significance than that of USSR immigrants of the 1970s, but it is almost twice as small as that of the FSU immigrants with up to 8 years of the tenure. The only exception is among those in unskilled occupations – the FSU immigrants with between 9 to 11 years of tenure in Israel have a positive and statistically significant log-odds of ending up in that occupational category while the odds for other groups of the USSR/FSU immigrants are not statistically significant.

In summary, the occupational standing of immigrants from the FSU 1990s improved significantly, and the degree of net occupational disadvantage decreased with an increase of immigrant tenure in Israel. That is in great contrast with 1983 when tenure in Israel had very little impact on the occupational standing of immigrants from the USSR.

7. Discussion and Conclusions

The aim of this paper was to consider differences in the mode of labour market incorporation of Soviet immigrants of the 1970s and the 1990s. Based on changes that occurred in Israel between the decades that separate the arrival in Israel of those two waves of Soviet immigration, it was suggested that changes in Israel were characterized by a transition from a prevalent collectivistic ideology and highly corporatist economy with strong labour organization and high degree of the state intervention, towards a more individualistic and pluralistic society with a liberalized and an open market-type economy, which had profound labour market consequences in particular on the modes of labour market absorption of the new FSU immigrants. It is argued that the FSU immigrants were incorporated in the labour market with a minimum of state assistance mostly through free market labour forces and therefore upon arrival they entered the newly emerged segments of the labour market with non standard forms of employment. This caused low/poor labour market outcomes, particularly in the short term. However, it was also suggested that good human capital of the FSU immigrants would allow them to improve their labour market standing in the long run.

Because the main hypothesis about the impact of economic liberalization and the consequent labour market segmentation on patterns of new immigrant incorporation into the Israeli labour market cannot be tested directly, several indirect tests of this hypothesis were suggested:

(a) It was suggested that tenure in Israel would impact differently on the labour market outcomes of the (former-) Soviet immigrants of the 1970s and the 1990s. Indeed the findings show that while differences in the labour market outcomes among the immigrants of the 1970s with different lengths of tenure in Israel were small, tenure in Israel has a much more important impact on the labour market outcomes of immigrants from the FSU of the 1990s. Thus, in 2000 both the income and occupational attainment of the FSU immigrants with 9 or more years of Israeli tenure had significantly improved relative to their counterparts who had spent up to 8 years in Israel.

(b) Another indication of the profound differences in the mode of the labour market incorporation between two waves of (former) Soviet immigration in Israel relates to the degree of transferability of human capital as measured by educational attainment (which are assumed to have been acquired in the USSR due to the relatively older age when the majority of Soviet immigrants arrived in Israel). Indeed, the impact of education on labour market outcomes varies tremendously between the two groups of Soviet immigrants – while the USSR immigrants enjoyed almost the same labour market return on their education as those who received their education in Israel, the FSU immigrants both in 1995 and in 2000 experienced a significant economic penalty for any tertiary level educational qualification; in 1995 the FSU immigrants also experienced a large occupational penalty for education of USSR origin, however, the degree of that penalty decreased in 2000 particularly for those who had spent 8 or more years in Israel.

In summary, despite research evidence elsewhere about the initial difficulties which immigrants experience upon arrival at the host country due to differences in their own human capital and that which is valued in the new country (e.g. Friedberg, 2000), as well as

evidence about the crucial significance of tenure in the host country for the labour market outcomes of new immigrants (Chiswick, 1978); in 1983 the Soviet immigrants of the 1970s successfully translated their human capital and in particular education qualifications to Israel; they had relatively good labour market outcomes quite soon after immigration, but those outcomes improved over time only slightly. The main reason for that is the assisted mode of their labour market absorption and the support that the immigrants received from the state both in terms of recognition of their educational and professional qualifications as well as in their incorporation into the primary segments of employment. In contrast, the mode of the labour market incorporation of the FSU immigrants of the 1990s was much more guided by the free market forces, state intervention in their labour market absorption was minimal and the immigrants needed to translate their human capital to Israel themselves. This is the source of low labour market outcomes of the FSU immigrants shortly after arrival in Israel, in particular, due to inadequate economic and occupational returns on their educational qualifications. However, tenure in Israel was crucial for those immigrants and allowed them to translate their human capital to Israel and improve significantly their labour market outcomes. Indeed, the educational qualifications of the FSU immigrants seemed to be completely devalued in 1995. In 2000 education, however, education seems to have been better rewarded at least occupationally, and in 2000, this was particularly true for immigrants with eight or more years of tenure.

Similarly, ethnic wage gaps in 2000 are significantly smaller for the FSU immigrants with 9 or more years of Israeli tenure than for their counterparts who spent up to 8 years in Israel.

Of course, such an improvement in occupational attainment and income attainment cannot be completely attributed to the improvement of the immigrant human capital and/or its better translation in Israel. An additional factor that causes such striking differences between the occupational outcomes of immigrants from the FSU with different lengths of tenure in Israel, and between the FSU immigrants in 1995 and 2000, is possibly related to the fact that in Israel in 2000 among the economically active and employed immigrants from the FSU were present those who had immigrated at a relatively young age and/or obtained their higher education in Israel. They were rewarded considerably better for their education than those who completed their education in the FSU. Unfortunately, the limitations of the 2000 Income survey data and the absence of a precise year of immigration does not allow to control for immigrant age at immigration, which would be a good approximation of the source of their human capital, however, the age of respondents is controlled in the regression models and therefore, the impact of the latter factor on the findings cannot be very significant.

(c) The findings show a similar degree of economic disadvantage as well as similarities in the occupational distribution of the FSU immigrants with a relatively short length of Israeli tenure both in 1995 and in 2000. This suggests that the very large size of the FSU immigration and resulting over-crowding in the labour market in the early 1990s are only partly to blame for the low occupational attainment of the FSU immigrants in 1995. Indeed, if the latter was the case, then immigrants from the FSU who arrived later on, for example, in the second half of the 1990s when the annual immigration inflow from the FSU became relative small, would be affected by the overcrowding to a lesser extent, and therefore, their

labour market outcomes and in particular, occupational distribution would be better compared with that of the FSU immigrants in 1995. However, the findings show that the occupational distribution of the former is as bad as that of the latter.

Of course, it may be argued that the large supply shock that the Israeli economy experienced in the early 1990s due to the influx of the FSU immigrants had a long-term character and was still in effect in 2000. However, in that case one would not expect that the labour market outcomes of the FSU immigrants who immigrated in early the 1990s would have improved significantly by 2000. Yet that is exactly the case –in 2000 net ethnic gaps in the probability of getting an academic/professional occupation for those of the FSU immigrants who spent in Israeli from 9-11 years were much smaller than for the FSU immigrants in 1995 who spent in Israel up to 5-6 year[xi]. Moreover, the data for 1983 show that a probability of reaching a higher occupational status varies only a little by the length of the immigrant tenure in Israel not only for the Soviet immigrants but also for the immigrants from other origins. However, that is not the case any longer in 1995 and in 2000. Thus, an additional analysis (see Appendix II) shows that in 1995 among Ashkenazim immigrants (from other than Soviet origin) who arrive in Israel after 1985 the probability to reach a higher occupational status was lower that that probability for the earlier ways of immigrants with a similar length of the Israeli tenure, however this probability was improving over time on higher rates than it was the case for the earlier waves of immigration. These findings show that all immigrants who arrived in Israeli after 1985 were subject to the same macro-level processes as the recent immigrants from the FSU.

Therefore it is plausible to suggest the main reason for low labour market outcomes of the FSU immigrants in contrast with good labour market outcomes which the USSR immigrants of the 1970s enjoyed even shortly after immigration resulted from the profound changes in Israel which occurred between the 1970s and the 1990s, i.e. its liberalization, the sharp reduction of the degree of state intervention in the labour market, the introduction of a flexible form of employment relationship among those a wide usage of irregular forms of employment and a subsequent segmentation of the labour market by the type of employment that is offered to different groups of workers.

Consideration of indexes of net occupational differences between ethnic groups suggest that there are very large similarities between the occupational distributions of the Israeli Arabs and the FSU immigrants with a relatively short tenure in Israel both in 1995 and in 2000. These findings provide additional support to the hypothesis that upon arrival, immigrants from the FSU immigrants were absorbed occupationally by the same segment of the labour market where the majority of Arabs were employed, i.e. the secondary labour market with non-regular forms of employment. However, as their tenure in Israel increased the FSU immigrants began to resemble more those who are employed in more advanced sectors of the labour market and therefore it can be suggested that the FSU immigrants are moving in the direction of gaining more regular forms of employment.

As a rule, when the labour market experiences a prolonged immigration shock in a situation of stagnation, when new jobs are not being created and existing jobs are being redistributed between immigrants and veteran labour market incumbents, under conditions of fast

economic growth the arrival of immigrants boosts further development (see, for example, Borjas, 1990). This was certainly the case in Israel, which was experiencing unprecedented economic growth throughout the 1990s (Shalev, 1989). Indeed, due to the economic reform of 1985 and the policy of economical liberalization and globalisation, since the late 1980s early 1990s Israel entered a phase of rapid economic and technological development that has led to a restructuring of the Israeli economy, the development of high-tech industry at the expense of traditional sectors of the Israeli economy and further economic boom (Shalev, 1998 p.31). The massive wave of immigration in the early 1990s from the FSU provided the essential oiling of for the wheel of economic development and contributed to the unprecedented boom of the high tech industry in Israel of the 1990s through bringing a large supply of highly skilled and educated but relatively cheap labour force to Israel.

The FSU immigrants provided a highly skilled labour force, ready to work in a high-tech industry without needing additional investment in training, and as a result, whole new industrial zones comprised chiefly from high-tech firms were opened in the Israeli periphery throughout the 1990s. Immigrants from the former USSR with academic professions in engineering, computers, and sciences entered emerging high-tech enterprise as a middle-range qualified workforce – computer operators, technicians, printed circles assemblers and low range programmers. A case study conducted by the author in 1995 in several high-tech firms in Migdal-HaEmek – a peripheral town in the country's Northern District where a large high-tech industrial zone was established and developed since early 1990s, showed that the middle-to high-range technical and operative personnel were comprised almost completely of the recent FSU immigrants who had a previous engineering occupation in the FSU. As a rule, those immigrants had non-standard forms of employment, without any conditions and any protection of their employment, even without a minimum amount of paid holidays. They were paid per-hour, at rates that were not only far below their level of qualifications, but also far below the skill–level of the jobs that were being performed. The overwhelming majority of them worked 12 hours-6 day shifts that were becoming night shifts every second week.

However, many of those immigrants, especially those who were relatively young, managed to experience upward occupational mobility in several years, often as a result of redundancy and unemployment that usually opened an opportunity to participate in fee-free professional courses on different levels. Among such courses were professional courses for various occupations in engineering and especially in computer sciences, which were organized by the Ministry of Labour in cooperation with a number of higher educational institutions and which were offered to unemployed persons who possessed higher education in a related field and were interested in improving their employability. As a rule, those courses opened up to their graduates professional level positions in high-tech firms, and many of the FSU immigrants successfully used this opportunity to get into 'good' jobs. Although those courses were the most important source of occupational mobility for the FSU immigrants, some immigrants managed to improve their occupational standing through work experience and occupational mobility within the same firm where there initially stated to work at low-to-middle rank level.

In summary, this paper looks at the labour market experience of the two groups of Soviet migrants that arrived during the 1970s and the 1990s respectively. The two groups possessed very similar characteristics upon arrival in terms of their educational and occupational profiles but they had very different labour market outcomes. The different outcomes of the two groups of Soviet migrants demonstrate the importance of societal level factors and immigration policy on the success, or otherwise, of migrant groups. It is evident that the specific economic and social circumstances and the official policies of the host country have a significant impact on the labour market experience of migrant groups, at least in the short term.

The study shows that the employment opportunities for migrants are now in the disadvantaged segments of the labour market that offers workers non-standard forms of employment and low pay. Even highly educated and skilled migrants, especially in a context of mass migration, are disadvantaged in the labour market opportunities available to them, at least in the short term. However, if the new migrants are highly educated and possess modern occupation skills, they manage to apply these in the new labour market and move relatively quickly into occupational positions that are more appropriate to their educational level. Thus, in case of the recent Soviet migration to Israel, eleven years after their arrival they have significantly better labour market outcomes than those of their counterparts who have arrived more recently. Moreover, the economic and occupational return on the education and experience of these recent Soviet migrants ten years after their arrival in Israel is similar to that of the Israeli born population of European origin.

This study's findings have important implication for the research on the labour market integration of contemporary Eastern and Central European immigrants in Western labour markets due to large similarities that exist in the educational and socio-economic profile between the FSU immigrants and the immigrants from the Eastern and Central Europe; The educational profile of these Soviet migrants resembles that of the Eastern and Central European migrants currently entering the Western European labour markets following the enlargement of the European Union. This, combined with recent changes in the Israeli economy – its liberalization and globalization – enhances the relevance of this research for policy makers and academics in Western Europe.

From this study, it might be expected that the labour market experiences and outcomes of migrants from Central and Eastern European to Western countries will be similar to those of the Soviet migrants to Israel and will be subject to the same changes over time. The current research evidence on Eastern and Central European migration shows that these migrants mainly enter blue-collar jobs in services and construction in labour markets in the west, regardless of their good educational credentials. But their high human capital will facilitate their occupational mobility and it is likely that they will improve their economic and social standing in several years, as it was the case in Israel.

Therefore, understanding the processes of migrant incorporation in Israel, including the role of some aspects of government policy, could contribute to an understanding of the general phenomenon of migration in the contemporary world.

Bibliography

Averitt, R.T. 1968. The Dual Economy: The Dynamics of American Industry Structure. N.Y: Norton.

Beck, F.M., P.M. Horan, and C.M. Tolbert III 1978 “Stratification in a Dual Economy: A Sectoral Model of Earnings Determination.” American Sociological Review 43: 704-720.

Benjamin, O. 2002. “Duality in the Relations between Women and the State in Israel: the Case of Women Employed through Temporary Help Agencies in the Public Sector.” Chevra U’rvacha 22: 455-80 (in Hebrew)

Benjamin, O. and R. Goclaw. 2005. “Narrating the Power of Non-Standard Employment: The Case of the Israeli Public Sector.” Journal of Management Studies 42(4): 737-759

Berman, E., Lang, K. and E.Siniver. 2000. “Language-Skill Complementarity: Returns to Immigrant Language Acquisition.” NBER Working Paper No. 7737

Bevelander, P. 1999. “The Employment Integration of Immigrants in Sweden.” Journal of Ethnic and migration Studies 23(3): 445-468.

Bonacich, E. 1972. “A Theory of Ethnic Antagonism: The Split Labour Market.” American Sociological Review 37: 547-559.

_____ . 1976. “Advanced Capitalism and Black/White Race Relations in the United States: A Split Labour Market View.” American Sociological Review 41: 34-51

Borjas, G. 1992. “Ethnic Capital and Intergenerational Mobility.” Quarterly Journal of Economics CVII: 123-150.

_____ . 1993. “Immigration Policy, National Origin, and Immigration Skills: A Comparison of Canada and the United States National Origin and the Skills of Immigrants in the Postwar Period” in Borjas, J. and R. B. Freeman(ed.) Immigration and the Work Force : Economic Consequences for the United States and Source Areas. Chicago: University of Chicago Press.

Cassier, N. 1996. ”Race Composition and Earnings: Effects by Race, Region and Gender.” Social Science Research 25: 375-399

Chiswick, B. 1978. ”The Effect of Americanization on the Earnings of Foreign Born Men.” Journal of Political Economy 86: 897-922

_____. 1993. “Soviet Jews in the United States: An Analysis of their Linguistic and Economic Adjustment” International Migration Review 27: 260-285

Chiswick, B.R., Cohen. Y. and T. Zach. 1998. “The Labour Market Status of Immigrants: Effects of the Unemployment Rate at Arrival and Duration of Residence” Industrial and Labour Relations Review.

(can be accesses from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=3454)

Cohen, Y. and I. Kogan. 2007. “Next year in Jerusalem … or in Cologne? Labour Market Integration of Jewish Immigrants from the Former Soviet Union in Israel and Germany in the 1990s.” European Sociological Review, 23 (2): 155-168.

Esping-Anderson, G. 1999. Social Foundations of Post-Industrial Economies. New York: Oxford University Press.

Evans, M.D. and J. Kelly. 1991. “Prejudice, Discrimination, and the Labour Market: Attainment of Immigrants in Australia.” American Journal of Sociology 97: 271-759

Fossett. M.A., O.R. Galle, and W.R.Kelly. 1986. “Racial Occupational Inequality, 1940-1980: National and Regional Trends.” American Sociological Review 51(3): 421-429

Friedberg, R. 1998. “Does University Students’ Choice of Field of Study Respond to High-Skilled Immigration?” Brown University Economics Department Working Paper 99-97.

_____ 2000. "You can’t Take It With you? Immigrant Assimilation and the Portability of Human Capital: Evidence from Israel." Journal of Labour Economics 18(2): 221-251

Galin, A. 1999. “Outsourcing: Organisational and Managerial Aspects.” Israeli Yearbook on Labour Law 7: 43–64 (in Hebrew).

Grodsky, E. and D. Pager. 2001. “The Structure of Disadvantage: Individual and Occupational Determinants of the Black-White Wage Gap.” *American Sociological Review*. V.66:542-567.

Heath, A. and D. McMahon. 1999. “Ethnic Differences in Labour Market: The Role of Education and Social Class Origin.” Centre for Research into Elections and Social Trends: Working Paper. N 69

Hodson, R. and R.L. Kaufman. 1982. “Economic Dualism: A Critical Review” American Sociological Review 47: 727-739

Hodge R W, Kraus V, Schild E O. (1982): 'Consensus in Occupational Prestige Ratings: Response to Guppy'. Social Forces, 60: 90-6.

Kalleberg, A., Reskin B. and K. Hudson. 2000. “Bad Jobs in America: Standard and non-Standard Employment Relations and Job Quality in the United States.” American Sociological Review 65: 256–78.

Kogan, I. 2003. “Ex-Yugoslavs in the Austrian and Swedish labour markets: the significance of the period of migration and the effect of citizenship acquisition.” Journal of Ethnic and Migration Studies 29(4): 595–622

Kogan, I. 2006. “Labour Markets and Economic Incorporation among Recent Immigrants in Europe.” Social Forces 85 (2): 697-721.

Kraus, V. 1986. “Group differences: The Issue of Decomposition.” Quality and Quantity 20: 181-190.

Kraus, V. and R.W. Hodge. 1990. Promises in the Promised Land: Mobility and Inequality in Israel. N.Y: Greenwood Press

Lewin-Epstein, N. Semyonov. M., Kogan, I. and R.A. Wanner. 2003. “Institutional Structure and Immigrant Integration: A Comparative Study of Immigrants’ Labour Market Attainment in Canada and Israel.” International migration Review. 37 (2): 389-420

Menahem, G. 1996. "Urban Restructuring and the Absorption of Immigrants: A Case Study in Tel-Aviv." in Carmon, N(ed.). Immigrants and Integration in Post-Industrial Societies: Theoretical Analysis and Policy -Related Research. Basingstoke: MacMillan Press

Model. S. 1997. “An Occupational Tale of Two Cities: Minorities in London and New York.” Demography. 34: 539-550.

Neumann, S. 1999. “Aliyah to Israel: Immigration under Conditions of Adversity.” IZA Discussion Paper No. 89

Ofer, G., Vinokur, A. and Y. Bar-Chaim. 1980. “Absorption in Israel and Economic Contribution of Immigrants from the Soviet Union.” The Maurice Falk Institute for Economic Research. Jerusalem

Olsten, K.M. and A.L. Kalleberg. 2004. “Non-Standard Work in Two Different Employment Regimes: Norway and the United States”. Work, Employment and Society 18(2): 321-484.

Polavieja, J.G. 2002. “Temporary Contracts in Spain: An Employment-Rent Approach” Sociology Working Paper 2002-01. Department of Sociology, Oxford University (can be accesses at http://www.soviology.ox.ac.uk/swps/2002-01)

Polivka, A. 1996. “Contingent and Alternative Work Arrangements Defined”. Monthly Labour Review 119: 3–9.

Polivka, A. and T. Nardone, 1989. “On the Definition of “Contingent Work.’” Monthly Labour Review 112: 9–16.

Portes, A. and R. Rumbaut. 1990. Immigrant America: A Portrait. Berkeley: A University of California Press.

_____. 2001. Legacies: the story of the immigrant second generation. Berkeley; London; New York: University of California Press; Russell Sage Foundation.

Radai, F. 1998. The Policy of Employing Workers Through Manpower Agencies: The Legislator, the Courts and the Histadrut (Unions). Institute of Social and Economic Research of the New Histadrut (in Hebrew). Tel-Aviv.

Raijman R. and M. Semyonov. 1995. “Modes of Labour Market Incorporation and Occupational Cost among Immigrants to Israel.” International Migration Review 29: 375-396

Raijman, R. and M. Semyonov. 1997. “Gender, Ethnicity and Immigration: Double Disadvantage and Triple-Disadvantage Among Recent Immigrants in the Israeli Labour Market.” Gender and Society 2: 108-125.

Raijman R. and M. Semyonov. 1998. “Best of Times, Worst of Times and Occupational Mobility: The Case of Soviet Immigrants in Israel” International Migration 36(3): 291-312(+22)

Reitz, J. G. 1998. Warmth of the Welcome. Westview Press.

Reitz, J. G., Frick, J.R., Calabrese, T. and G. C. Wagner. 1999. “The Institutional Framework of Ethnic Employment Disadvantage: A comparison of Germany and Canada. ” Journal of Ethnic and Migration Studies 25 (3): 397-443.

Rosenfeld, M.J. and M.Tienda, 1991. “Mexican Immigration, Occupational Niches, and Labour-Market Competition: Evidence from Los Angeles, Chicago and Atlanta, 1970 to 1990.” in Bean, A.D. and S. Bell-Rose (eds.) Immigration and Opportunity: Race, Ethnicity and Employment in the United States. N.Y: Russell Sage Foundation

Sa’di, A. H. and N. Lewin-Epstein. 2004. “Minority Labour Force Participation and in the Post-Fordist Era: The Case of the Arabs in Israel.” In Samuel, Y. and I. Harpaz (eds.) Work and Organizations in Israel. Schnitzer Studies in Israeli Society. 11. Transaction Publishers: New Brunswick: 413-436.

Sagie, A. and J. Weisberg. 2001. “The Transformation on Human Resources Management in Israel .” International Journal of Manpower 22(3): 226-234

Semyonov. M. 1996. “On the Cost of Being an Immigrants in Israel: The Effect of Tenure, Origin and Gender”. Research in Social Stratification and Mobility 15: 115-132.

Semyonov , M. and Lorenthal. 1991. “Country of Origin, Gender and the Attainment of Socioeconomic Status: A Study of Stratification in The Jewish Population of Israel.” Research in Social Stratification and Mobility 10: 327-345

Semyonov, M. and E. Yachtman–Yaar. 1992. “Ethnicity, Education, and Occupational Inequality: Jews and Arabs in Israel.” International Perspectives on Education and Society 2: 215-224.

Semyonov, M., D.R.Hoyt, and R.I.Scott. 1984. “Place, Race and Differential Occupational Opportunities.” Demography 21(2): 259-270

Shaginyan-Shapira, M. 2007. Socio-Economic Inequality in an Immigrant Absorbing Society. D.Phil. Dissertation, University of Oxford

Shalev, M. 2004. “Have Globalisation and Liberalization “Normalized ” Israel’s Political Economy?” In Samuel, Y. and I. Harpaz (eds.) Work and Organizations in Israel. Schnitzer Studies in Israeli Society. 11. Transaction Publishers: New Brunswick: 279-314.

Sharaby, L. 2002. “Israeli Economic Growth: Success without security.” Middle East Review of International Affairs 6(3): 1-17

Waldinger, R. 1996. Still the Promised City? : African-Americans and New Immigrants in Postindustrial New York. Cambridge. Mass.; London : Harvard University Press.

Weinberg, N. 2001. “Immigrants Employment and Occupational Mobility in a Context of Mass Migration: Soviet Immigrants in Israel.” European Sociological Review. 17: 169-188.

Zhou, M. and J. Logan. 1989. “Return on Human capital in Ethnic Enclaves: New York City’s Chinatown.” American Sociological Review 54: 809-820

Figures and Tables

Variables used in the main analysis in this chapter are described in Figure 6.1

Figure 1: Variables

Description	Categories 1983	2000
Ethnicity Obtained from the original variables "county of birth"/ "country of father birth" (for the Israeli born) and "year of immigration" (for the Soviet immigrants).	1.The immigrants from the USSR with 1-8 years of tenure in Israel (immigrated between 1974-1983) 2.The immigrants from the USSR with 9-13 years of tenure in Israel (immigrated between 1970-1973) 3.Sephardic immigrants 4.Ashkenazi immigrants (excluding the USSR immigrants) 5.Second generation of Israeli born Jews of Sephardim origin 6. Second or third generation of Israeli born Jews of Ashkenazi origin 7.The Israeli Arabs .	1. The immigrants from the FSU with 1-8 years of tenure in Israel (immigrated between 1992-2000) 2. The immigrants from the FSU with 9-12 years of tenure in Israel (immigrated in 1990, 1991) 3. Immigrants from the USSR of the 1970s 4.Sephardic immigrants 5.Ashkenazi immigrants (excluding the USSR/FSU immigrants) 6.Second generation of Israeli born Jews of Sephardim origin 7. Second or third generation of Israeli born Jews of Ashkenazi origin 8.The Israeli Arabs.
Wide occupational category- obtained from the 1 digit standard classification of occupations by (with minor changes - that has 7 occupational categories obtained from the one-digit standard classification of occupations of Israeli Central Bureau of Statistics (CBS) where the number of occupational categories is reduced to 6 by combining all skilled blue collar occupations into the same category.	1.academic and professional occupations; 2.associated-professional and technical occupations); 3.managerial occupations; 4.clerical occupations; 5.sales and services occupations; 6.semi-skilled and skilled blue collar occupations in industries, construction, transportation, agriculture; 7. unskilled occupations in industries, construction, transportation agriculture ;	1.academic and professional occupations; 2.associated-professional and technical occupations); 3.managerial occupations; 4.clerical occupations; 5.sales and services occupations; 6.semi-skilled and skilled blue collar occupations in industries, construction, transportation, agriculture; 7. unskilled occupations in industries, construction, transportation agriculture;
Sex	1.Male 2. Female	1.Male 2. Female
Marital status	1. Married 2. Divorced, widowed 3. Single	1. Married 2. Divorced, widowed, separated 3. Single
The highest educational qualification	1. Up to intermediate school level ; 2. Secondary ; 3.Secondary with matriculation certificate (Bagrut); 4. Post secondary non-academic; 5. Academic-Bachelor degree; 6. Academic - Master or Doctor degree.	Absent in the 2000 Income survey data
Type of last educational institution attended	1. did not go to school, school unknown or up to intermediate school 2. general secondary school 3.vocational school (including agricultural) 4. post-secondary non academic school (i.e. teacher training college) 5. university	1. did not go to school, school unknown or up to intermediate school 2. general secondary school 3. vocational school (including agricultural) 4. post-secondary non academic school (i.e. teacher training college) 5. university
Year of immigration	Continuous variable	Ordinal level variable 1.before 1947; 2.1948-1954; 3.1955-1960; 4.1961-1964; 5.1965-1971; 6.1972-1979; 7. 1980-1989 8.1990-1991; 9.1992+

Figure 1: Variables (contd)

Description	Categories 1983	2000
Age at immigration	1.Born in Israel or immigrated up to age 25 2. immigrated between 26-35 3. immigrated between 36-45 4. immigrated after 45 continuous variable "age at immigration" was calculated as **"year of immigration"-"year of birth"** and its values were then grouped into above four categories	Because the variable "age at immigration" in based on the variable "year of immigration" and the latter variable was extensively banded in the 2000 income survey data, it proved to be impossible to construct the former variable for the 2000 data sets. Therefore, to preserve a comparability of findings between 1983 and 2000, the variable "age at immigration was omitted from the regression analysis for both years"
Natural logarithm of monthly wages	Continuous variable calculated from the monthly wages from salaried work of employees	Continuous variable calculated from the monthly wages from salaried work of employees
Weekly working hours	Continuous variable	Continuous variable
Age	Continuous variables calculated as	Continuous variables calculated as
Age squared	1983-"year of birth"	2000-"year of birth"
Total years of schooling	Continuous variable	Continuous variable

Figure 2: The Kraus Occupational Prestige Score for the one-digit standard classification of occupations in Israel

Standard Classification of CBS	Kraus occupational prestige score (mean)	Ranked of revised occupational classification - seven occupational categories	Kraus occupational prestige score (mean)
Major Group 0-Academic Professional	81	**Group I** 0-Academic Professional	81
Major Group I- Associate Professional and Technicians	61	**Group 2** II- Managers	78
Major Group II- Managers	78	**Group 3** I- Associated professional, Higher technical workers	61
Major Group III- Clerical Workers	44	**Group 4-** III-Clerical Workers	44
Major Group IV- Agents, Sales and Service Workers	40	**Group 5** IV -Agents, Sales and Services Workers	40
Major Group V- Skilled Agricultural Workers	27	**Group 6** V-VIII Skilled workers in agriculture, Industry, construction transportation	30
Major Group VI- Industry, Construction and other skilled workers	38		
Major Group VII- Industry, Construction and other skilled workers	24		
Major Group VIII- Industry, Construction and other skilled workers	22	**Group 7** IX - Unskilled Workers	11
Major Group IX- Unskilled Workers	11		

Table 1: Ethnic composition of the Israeli population in 1983 (column percentage)

	Total	%
Immigrants from the USSR up to 7 year tenure	5105	4.0
Immigrants from the USSR from 8 to 13 years of tenure	2327	1.8
Ashkenazim immigrants	30469	23.6
Sephardic immigrants	17772	13.8
Second generation Sephardic origin	32835	25.5
Second and more generations Ashkenazim origin	29769	23.1
Arabs	10699	8.3
Total	128976	100.0

Source: Calculated from the 1983 Israeli Population Census Data

Table 2a: Distribution of the USSR immigrants of the 1970s and of the 1990s by year of immigration (column percentages)

Immigration from the USSR of the 1970s			Immigration from the FSU of the 1990s		
	%	Cumulative Percent		%	Cumulative Percent
1971	8.6	9.2	1989	5.2	5.2
1972	20.7	29.9	1990	18.3	23.5
1973	19.1	49.0	1991	18.3	41.8
1974	10.6	59.6	1992	6.5	48.4
1975	5.0	64.6	1993	6.5	54.9
1976	4.1	68.7	1994	5.2	60.1
1977	5.0	73.7	1995	3.3	63.4
1978	8.1	81.8	1996	10.5	73.9
1979	10.7	92.5	1997	4.6	78.4
1980	5.6	98.0	1998	9.8	88.2
1981	1.5	99.5	1999	4.6	92.8
1982	.4	100	2000	7.2	100.0
1983	.0				

Source: Calculated from the 1983 and the 1995 Israeli Population Census Data and -the 2001 Social Mobility Survey

Table 2b: Distribution of the FSU immigrants of the 1990s by year of immigration, in 2000 (column percentage)

	Frequency	%	Cumulative Percent
1989	76	3.7	3.7
1990-1991	867	41.6	45.3
1992+	1139	54.7	100.0
Total	2082	100.0	

Source: calculated from the 2000 Income Survey of the Israeli Population.

Table 3a: Highest educational qualification by ethnicity (row percentages) in 1983

	No certificate or below secondary	Secondary certificate	matriculation certificate	not academic post secondary certificate	Academic certificate
Immigrants from the USSR up to 7 year tenure	27	9	21	16	27
Immigrants from the USSR from 8 to 13 years of tenure	24	7	21	14	34
Ashkenazim immigrants	28	17	20	13	22
Sephardic immigrants	52	21	14	7	6
Second generation Sephardic origin	36	30	17	11	6
Second and more generations Ashkenazim origin	13	20	24	16	27
Arabs	65	8	12	7	8

Source: calculated from the 1983 Israeli population Census

Table 3b: Type of last school attended by ethnicity, 2000 (row percentages)

Immigrants from the FSU up to 8 year tenure	No school or up to intermediate level school	Vocational school (including agricultural)	General Secondary school	Post-secondary non-academic institution	Academic institution
Immigrants from the FSU from 9 to 11 years of tenure	1.16	6.6	10.9	25.4	56.0
USSR immigrants of the 1970s	8.99	11.6	14.3	26.5	38.6
Ashkenazim immigrants	2.7	11.8	15.1	23.2	47.3
Sephardic immigrants	18.5	25.6	23.3	16.3	16.3
Second generation Sephardic origin	4.65	33.4	22.6	16.4	22.9
Second and more generations Ashkenazim origin	1.56	13.1	16.2	18.9	50.3
Arabs	32.7	6.86	32.2	11.8	16.4

Source: Calculated from the 2001 Social Mobility Survey

Table 4a: Occupational composition of ethnic groups in 1983 (row percentages)

	Academic/ professional	Managerial	Associated professional	clerical	Sales /services	Skilled workers in industry/ agriculture	Unskilled workers
Immigrants from the USSR up to 7 year tenure	20	1	21	12	2	38	6
Immigrants from the USSR from 8 to 13 years of tenure	16	2	19	15	4	37	6
Ashkenazim immigrants	15	9	20	22	7	27	1
Second and more generations Ashkenazim origin	16	9	28	22	5	19	1
Sephardic immigrants	4	5	13	18	5	50	5
Second generation Sephardic origin	4	3	17	26	6	41	2
Arabs	5	1	16	6	5	52	14

Source: Calculated from the 1983 Israeli Population Census Data

Table 4b: Occupational composition of ethnic groups in 2000 (row percentages)

	Academic/ professional	Managerial	Associated professional	clerical	Sales /services	Skilled workers in industry/ agriculture	Unskilled workers
Immigrants from the FSU up to 8 year tenure	7	1	8	7	18	31	28
Immigrants from the FSU from 9 to 11 years of tenure	18	2	17	12	13	27	11
USSR immigrants of the 1970s	17	5	21	17	15	14	11
Ashkenazim immigrants	29	10	26	15	10	6	4
Second and more generations Ashkenazim origin	23	12	20	21	12	9	3
Sephardic immigrants	6	6	12	19	21	22	14
Second generation Sephardic origin	8	6	14	27	17	19	9
Arabs	7	3	13	10	10	43	14

Source: Calculated from the 2001 Social Mobility Survey

Table 5: Linear regression. Dependent variable: natural logarithm of monthly income for employees in 1983 (the 1983 Israeli Population Census data). Unstandardized parameters, statistically significant estimates are in bold

	Model 1		Model 2		Model 3		Model 4		Model 5		Model6	
	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error
Intercept												
Ethnic group (Israeli born of Ashkenazi origin ref. category)	**10.3**	0.00	**10.1**	0.01	**9.63**	0.01	**9.84**	0.01	**9.91**	0.01	**9.75**	0.01
USSR immigrants 1-8 year of tenure	**-0.25**	0.01	**-0.20**	0.01	**-0.18**	0.01	**-0.21**	0.01	**-0.27**	0.01	**-0.22**	0.01
USSR immigrants 9-11 year of tenure	**-0.18**	0.01	**-0.08**	0.01	**-0.07**	0.01	**-0.10**	0.01	**-0.15**	0.01	**-0.11**	0.01
Ashkenazim immigrants first generation	0.01	0.01	**0.08**	0.01	**0.04**	0.01	**-0.02**	0.01	**-0.03**	0.01	**-0.02**	0.01
Sephardic immigrants first generation	**-0.23**	0.01	**-0.03**	0.01	**-0.09**	0.01	**-0.13**	0.01	**-0.13**	0.01	**-0.11**	0.01
Israeli born second generation Sephardic origin	**-0.30**	0.01	**-0.17**	0.01	**-0.13**	0.01	**-0.05**	0.01	**-0.06**	0.01	**-0.04**	0.01
Arabs	**-0.48**	0.01	**-0.22**	0.01	**-0.40**	0.01	**-0.37**	0.01	**-0.34**	0.01	**-0.31**	0.01
Type of last school (general secondary school reference category)												
Did not study or up to intermediate school			**-0.04**	0.01	**-0.14**	0.01	**-0.16**	0.01	**-0.15**	0.01	**-0.12**	0.01
Vocational school			**0.12**	0.01	**0.02**	0.01	**0.05**	0.01	**0.03**	0.01	**0.05**	0.01
Post-secondary non-academic			**0.02**	0.01	**0.09**	0.01	**0.10**	0.01	**0.16**	0.01	**0.10**	0.01
University			**0.17**	0.01	**0.13**	0.01	**0.12**	0.01	**0.15**	0.01	**0.07**	0.01
Years of schooling			**0.04**	0.00	**0.04**	0.00	**0.04**	0.00	**0.04**	0.00	**0.03**	0.00
Sex (female the reference category)					**0.64**	0.00	**0.63**	0.00	**0.47**	0.00	**0.49**	0.00
Marital status (single the reference category)												
Married					**0.21**	0.01	**0.10**	0.01	**0.11**	0.01	**0.10**	0.01
Divorced, widowed, separated					**0.14**	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Age							**0.01**	0.00	**0.01**	0.00	**0.01**	0.00
Age squared							**-0.001**	0.00	**-0.001**	0.00	**-0.001**	0.00
Weekly hours of work									**0.01**	0.00	**0.01**	0.00
Wide occupational category												
Academic, professional, managerial												
Associated professional, technical											**0.41**	0.01
Secretarial, clerical											**0.27**	0.01
Sales services											**0.18**	0.01
Unskilled											**-0.04**	0.01
N=128976												

Table 6: Linear regression. Dependent variable: natural logarithm of monthly income for employees in 2000 from the 2000 Income Survey data. (unstandardised parameters, statistically significant estimates are in bold)

	Model 1		Model 2		Model 3		Model 4		Model 5		Model6	
	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error
Ethnic group (Israeli born of Ashkenazi origin ref. category)	**8.86**	0.00	**8.61**	0.01	**8.66**	0.01	**8.92**	0.01	**8.70**	0.01	**8.6**	0.01
FSU immigrants 1-8 year of tenure	**-0.81**	0.01	**-0.75**	0.01	**-0.75**	0.01	**-0.76**	0.01	**-0.79**	0.01	**-0.60**	0.01
FSU immigrants 9-11 year of tenure	**-0.41**	0.01	**-0.43**	0.01	**-0.43**	0.01	**-0.46**	0.01	**-0.51**	0.01	**-0.40**	0.01
USSR immigrants of the 1970s	**-0.21**	0.01	**-0.14**	0.01	**-0.14**	0.01	**-0.17**	0.01	**-0.17**	0.01	**-0.13**	0.01
Ashkenazim immigrants first generation	**-0.07**	0.01	**-0.06**	0.01	**-0.07**	0.01	**-0.10**	0.01	**-0.13**	0.01	**-0.10**	0.01
Sephardic immigrants first generation	**-0.30**	0.01	**-0.08**	0.01	**-0.10**	0.01	**-0.15**	0.01	**-0.16**	0.01	**-0.11**	0.01
Israeli born second generation Sephardic origin	**-0.27**	0.01	**-0.12**	0.01	**-0.11**	0.01	**-0.11**	0.01	**-0.10**	0.00	**-0.06**	0.00
Arabs	**-0.49**	0.01	**-0.23**	0.01	**-0.35**	0.01	**-0.35**	0.01	**-0.29**	0.01	**-0.23**	0.01
Type of last school (general secondary school reference category)												
Did not study or up to intermediate school			**-0.16**	0.01	**-0.24**	0.01	**-0.27**	0.01	**-0.22**	0.01	**-0.16**	0.01
Vocational school			**0.03**	0.01	**-0.06**	0.01	**-0.06**	0.01	**-0.04**	0.01	**-0.01**	0.01
Post-secondary non-academic			**0.11**	0.01	**0.12**	0.01	**0.13**	0.01	**0.17**	0.01	**0.11**	0.01
University			**0.36**	0.01	**0.37**	0.01	**0.38**	0.01	**0.38**	0.01	**0.24**	0.01
Years of schooling			**0.02**	0.00	**0.02**	0.00	**0.02**	0.00	**0.02**	0.00	**0.01**	0.00
Sex (female the reference category)					**-0.55**	0.00	**-0.55**	0.00	**-0.23**	0.00	**-0.26**	0.00
Marital status (single the reference category)												
Married					**0.30**	0.01	**0.14**	0.01	**0.16**	0.01	**0.13**	0.01
Divorced, widowed, separated					**0.10**	0.01	**-0.08**	0.01	**-0.06**	0.01	**-0.03**	0.01
Age							**0.01**	0.00	**0.01**	0.00	**0.01**	0.00
Age squared							**-0.001**	0.00	**-0.001**	0.00	**-0.001**	0.00
Weekly hours of work									**0.03**	0.00	**0.03**	0.00
Wide occupational category											**0.43**	0.01
Academic, professional, managerial												
Associated professional, technical											**0.32**	0.01
Secretarial, clerical											**0.20**	0.01
Sales services											**-0.16**	0.01
Unskilled											**-0.11**	0.01
N=11868												

Table 7: Differences in economic return on education of immigrants (compared with the Israeli born) (non-standardized estimated parameters of the interaction terms between ethnicity of immigrants and the last educational institution attended, statistically significant estimates in bold).

	Beta	Sign.	Beta	Sign.	Beta	Sign.	Beta	Sign.
	University		Post-secondary non academic		Vocational		Up to intermediate	
1983								
USSR immigrants 1-8 year of tenure	-0.03	0.04	-0.05	0.04	**-0.06**	0.04	0.04	0.04
USSR immigrants 9-12 year of tenure	-0.03	0.04	0.02	0.04	0.01	0.04	0.02	0.03
Sephardic immigrants	**0.08**	0.02	**0.09**	0.02	**0.04**	0.01	0.02	0.01
Ashkenazim immigrants	0.00	0.02	0.00	0.02	**0.05**	0.01	-0.00	0.01
2000								
FSU immigrants 1-8 year of tenure	**-0.30**	0.02	**-0.15**	0.02	-0.01	0.02	**0.15**	0.03
FSU immigrants 9-11 year of tenure	**-0.41**	0.02	**-0.20**	0.02	0.01	0.03	**0.21**	0.06
USSR immigrants of the 1970s	**-0.08**	0.03	**-0.11**	0.03	-0.01	0.03	0.04	0.04
Sephardic immigrants	-0.00	0.02	-0.02	0.02	**0.08**	0.01	**0.10**	0.02
Ashkenazim immigrants	**-0.07**	0.02	-0.03	0.02	**0.08**	0.02	**0.16**	0.03

Table 8a: Index of Net occupational differences among ethnic groups in 1983 (from the 1983 Israeli Population Census data)

	Second generation Sephardic origin	Sephardic immigrants	Arabs	USSR immigrants of the 1970s	Ashkenazim immigrants	Second & more generations Ashkenazim origin	CIDN
Second generation Sephardic origin	0	19.5	24.2	-6.5	-26.2	-23.0	**-12**
Sephardic immigrants	-19.5	0	9.4	-21.0	-41.8	-39.7	**-113**
Arabs	-24.2	-9.4	0	-26.5	-44.3	-41.7	**-146**
USSR immigrants of the 1970s	6.5	21	26.5	0	-15.6	-12.2	**26**
Ashkenazim immigrants	26.2	41.8	44.3	15.6	0	4.3	**132**
Second and higher generations Ashkenazim origin	23.0	39.7	41.7	12.2	4.3	0	**121**

Table 8b: Index of Net occupational differences among ethnic groups in 1995 (from the 1995 Israeli Population Census data)

	Second generation Sephardic origin	Second generation Sephardic origin	Arabs	USSR immigrants of the 1990s	Ashkenazi immigrants	Second and more generations Ashkenazi origin	USSR immigrants of the 1970s	CIND
Second generation Sephardic origin	0	13.1	26.9	22.7	-30.4	-34.1	-14.4	**-16**
Sephardic immigrants	-13.1	0	14.4	10.2	-40.1	-43.9	-25.2	**-98**
Arabs	-26.9	-14.4	0	-4.4	-48.7	-52.5	-35.5	**-182**
USSR immigrants of the 1990s	-22.7	-10.2	4.4	0	-44.6	-48.4	-31.2	**-153**
Ashkenazim immigrants	30.4	40.1	48.7	44.6	0	-2.1	14.8	**177**
Second and higher generations Ashkenazim origin	34.1	43.9	52.5	48.5	2.1	0	17.5	**200**
USSR immigrants of the 1970s	14.4	25.2	35.5	31.2	-14.8	-17.5	0	**74**

Table 8c: Index of Net occupational differences among ethnic groups in 2000 (from the 2000 Income Survey data)

	Second generation Sephardic origin	Second generation Sephardic origin	Arabs	FSU immigrants arrived in 1990- 1992	Ashkenazi immigrants	Second and more generations Ashkenazi origin	FSU immigrants arrived after 1992	USSR immigrants of the 1970s	CIND
Second generation Sephardic origin	0	7.7	26	-1.3	-27.7	-32.3	27	-14	**13**
Sephardic immigrants	-7.7	0	19.5	-7.6	-33.7	-38.5	19.3	-20.4	**-68**
Arabs	-26	-19.5	0	-23.5	-46.9	-50.5	-3.9	-36.1	**-206**
FSU immigrants more than 8 years of tenure	1.3	7.6	23.5	0	-24.9	-27.3	22.8	-10.8	**-7.6**
Ashkenazim immigrants	27.7	33.7	46.9	24.9	0	-1.8	47.5	16.4	**194**
Second generations Ashkenazim origin	32	38.5	50.5	27.3	1.8	0	53.1	18.4	**222**
FSU immigrants up to 8 years tenure	-27	-19.3	3.9	-22.8	-47.5	-53.1	0	-37.2	**-155**
USSR immigrants of the 1970s	14	20.4	36.1	10.8	-16.4	-18.4	37.2	0	**85**

Table 9: Results of the multinomial regression. Dependent variable: probability of being in particular occupational category in 1983. The reference occupational category- skilled blue collar occupations (from the 1983 Israeli Population Census data). Log odd ratios (statistically significant estimates are in bold)

	Academic/ professional		**Associated professional/ technical**		**Managerial**		**Clerical/secretarial**		**Sales/services**		**Semi-skilled/ unskilled**[xii]	
	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error
Intercept	-2.82	0.17	-0.95	0.1	-0.66	0.11	0.028	0.08	-0.82	0.11	-3.2	0.26
Ethnic group (Israeli born of Ashkenazi origin second and higher generations the4 reference category)												
USSR immigrants 1-8 year of tenure	-0.85	0.28	-0.71	0.23	-3.34	1.03	-1.22	0.23	-1.58	0.39	0.73	0.4
USSR immigrants 9-11 year of tenure	-0.78	0.24	-0.69	0.19	-1.21	0.31	-0.92	0.18	-1.55	0.33	1.58	0.32
Ashkenazim immigrants first generation	-0.22	0.13	-0.14	0.1	-0.21	0.12	-0.16	0.09	-0.17	0.13	0.46	0.28
Sephardic immigrants first generation	-0.82	0.15	-0.47	0.1	-0.65	0.12	-0.41	0.09	-0.88	0.13	0.78	0.25
Israeli born of Sephardic origin	-0.33	0.17	-0.27	0.11	-0.62	0.17	-0	0.1	-0.34	0.14	0.51	0.28
Arabs	-0.38	0.22	0.15	0.14	-1.85	0.31	-1.09	0.16	-0.54	0.17	1.59	0.26
Type of last school (general secondary school the reference category)												
Did not study or up to intermediate school	-0.44	0.25	-0.63	0.11	-1.11	0.15	-1.24	0.09	-0.76	0.13	-0.1	0.18
Vocational school	-0.67	0.29	-0.39	0.11	-0.54	0.14	-0.66	0.08	-0.9	0.13	-0.7	0.22
Post-secondary non-academic	1.172	0.19	1.59	0.12	0.207	0.17	-0.86	0.13	-0.48	0.2	-1.4	0.6
University	2.389	0.2	0.81	0.15	1.029	0.18	-0.11	0.15	0.247	0.2	-0.9	0.61
Age at immigration												
26-35	-0.25	0.17	-0.28	0.14	-0.9	0.18	-0.12	0.12	0.064	0.17	0.61	0.18
36-45	-0.75	0.23	-0.91	0.2	-1.37	0.26	-0.45	0.17	-0.37	0.25	0.75	0.23
46 and older	-0.83	0.35	-1.27	0.34	-2.87	0.63	-0.5	0.26	0.204	0.34	0.59	0.36
total years of schooling	0.686	0.02	0.44	0.02	0.361	0.02	0.208	0.02	0.109	0.02	-0.1	0.02
Age	0.041	0.01	0.02	0	0.069	0	0.029	0	0.018	0	-0	0.01
Sex (male is the reference category)	0.845	0.09	1.42	0.07	-0.48	0.11	1.48	0.06	0.555	0.09	-0.4	0.13

N=128976

Table10: Results of the multinomial regression. Dependent variable: probability of being in particular occupational category in 2000. The reference occupational category- skilled blue collar occupations(from the 2000 Income Survey data). Log odds ratios (statistically significant estimates are in bold)

	Academic/ professional		**Associated professional/ technical**		**Managerial**		**Clerical/secretarial**		**Sales/services**		**Semi-skilled/ unskilled**[xiii]	
	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error
Intercept	**-0.69**	0.07	**0.83**	0.05	**0.43**	0.05	**2.51**	0.04	**1.51**	0.04	-0.55	0.05
Ethnic group (Israeli born of Ashkenazi origin second and higher generations the4 reference category)												
FSU immigrants 1-8 year of tenure	**-3.29**	0.05	**-3.04**	0.05	**-5.24**	0.14	**-3.17**	0.05	**-1.57**	0.05	-0.02	0.04
FSU immigrants 9-11 year of tenure	**-1.63**	0.06	**-1.34**	0.06	**-3.13**	0.09	**-1.63**	0.06	**-0.83**	0.06	**0.76**	0.05
USSR immigrants of the 1970s	**-0.85**	0.08	**-0.54**	0.07	**-1.58**	0.10	**-0.89**	0.07	**-0.47**	0.07	-0.14	0.08
Ashkenazim immigrants first generation	**-0.67**	0.06	**-0.60**	0.05	**-0.95**	0.06	**-0.77**	0.05	**-0.36**	0.05	0.08	0.06
Sephardic immigrants first generation	**-0.96**	0.06	**-0.51**	0.05	**-1.02**	0.06	**-0.61**	0.05	**-0.08**	0.05	-0.03	0.05
Israeli born of Sephardic origin	**-0.93**	0.05	**-0.58**	0.04	**-0.95**	0.05	**-0.45**	0.04	**-0.37**	0.04	**-0.09**	0.04
Arabs	**-1.02**	0.07	**-0.44**	0.06	**-1.79**	0.08	**-1.20**	0.06	**-0.90**	0.05	**0.33**	0.05
Type of last school (general secondary school the reference category)												
Did not study or up to intermediate school	**-1.20**	0.32	**-1.31**	0.12	**-1.53**	0.13	**-1.88**	0.07	**-0.62**	0.05	**0.10**	0.05
Vocational	**-0.91**	0.12	**-0.19**	0.05	**-0.82**	0.06	**-0.37**	0.04	**-0.12**	0.04	**0.36**	0.03
Post-secondary non-academic	**0.48**	0.07	**1.11**	0.05	**-0.50**	0.06	**-0.57**	0.04	**-0.37**	0.04	**-0.22**	0.04
University	**2.00**	0.07	**0.49**	0.06	**0.31**	0.06	**-0.60**	0.05	**-0.30**	0.05	**-0.88**	0.05
Age	**0.01**	0.00	**-0.01**	0.00	**0.03**	0.00	-0.00	0.00	**-0.01**	0.00	-0.00	0.00
Total years of schooling	**0.54**	0.01	**0.39**	0.01	**0.33**	0.01	**0.19**	0.01	**0.12**	0.01	0.08	0.01
Sex (female is the reference category)	**-0.36**	0.03	**-0.79**	0.03	**0.57**	0.03	**-1.35**	0.03	**-0.75**	0.03	**1.69**	0.03

Appendix 1

The 1983 Population Census

The micro-data of the demographic version of the 1983 Census of Population and Housing was used in part three of the thesis. The Census questionnaire was administered in every fifth household in Israel and includes 20% of the Israeli population in 1983 (sample size is 807,51). The demographic file contains detailed data on country of birth, country of birth of respondent's father, year of arrival in Israel, demographic characteristics, labour force status, employment status, occupation, individual income, and detailed educational attainment of the respondents. In the present study the original sample was restricted further to include only those were 25-64 year old. employed (excluding self-employed) and had a non-zero income from work. The final sample size is 110,000 individuals.

The 2000 income survey data

Income Surveys investigate the incomes of households and of individuals aged 15+ in these households. The household record includes incomes from salaried work, self-employment, pensions, allowances and other sources. In this study only income from salaried work is used. The individual record includes, among other variables, detailed years of schooling, type of educational institute (most recent) attended by respondents, demographic characteristics, large occupational category, employment status, country of origin of respondent, country of origin of respondents' fathers, period of immigration to Israel, and indication for immigrants from the former USSR. The original sample is representative for the Israeli working population and includes 32,892 respondents. This sample was restricted to salaried workers ages 25-64. The final sample size accounts to 10,655 respondents. The 2000 income survey does not include the population of East Jerusalem, a factor which could be responsible for differences in relative labour market attainment of Arabs between 1995 and 2000 in this study.

The 1995 Population Census

The 1995 Population Census Demographic Version was used to produce some descriptive statistics. I build a subset of the working population aged 24-65 (excluding foreign workers and self employed) for whom information about education level, country of birth and year of immigration (for immigrants), country of birth of father (for Israeli born), labour market status, employment status, occupation and income were available. The size of the sample is 178,430 respondents.

Appendix 2

There is an additional possibility to verify although indirectly if *the labour market disadvantage of the recent immigrants from the FSU documented by the 1995 Census data can be attributed to other factors rather than the changes in the Israeli economy and immigration policy?*

Let us assume that the overcrowding of the labour market, which resulted from the extremely large size of Soviet immigration in the early 1990, was responsible for the low labour market outcomes of the FSU immigrants. In that case, new immigrants who arrived in Israel during the early 1990s from origins other than FSU origin, and especially those who possessed a good human capital upon arrival, should not suffer from the overcrowding to such a large extent as the FSU immigrants, but instead have an absorption track rather similar to that of their counterparts who have arrived in Israel before the 1990s. On the other hand, if structural changes in the Israeli economy since the mid 1980s were responsible for the differences in patterns of labour market incorporation between the Soviet immigrants of the 1970s and immigrants from the FSU in the 1990s, then other immigrants who arrived in Israel after the 1985 economic reform would also have experience an impact from changes in the opportunity structure of the labour market, which resulted from the reform. In this case, the labour market outcomes of new immigrants from origins other than FSU origin during the 1990s would be different from that of their counterparts who arrived in Israel before the 1985, in a way that resembles differences in labour market outcomes between the two waves of Soviet immigration.

However, it is not straightforward to test the above assumptions empirically. There are methodological issues arising from difficulties in identifying two sufficiently large groups of immigrants from the same national origin (and who, therefore, have a comparable human capital, which was shaped by rather similar factors that acted in the country of their origin), who arrived in Israel in two waves, one of which was before and the other one after the 1985 economic reform, as it is possible to do in the case of Soviet immigration. Therefore, one may choose to overcome the possible problem of small numbers of immigrants involved in the comparison, by comparing the labour market outcomes of all immigrants from origins other than Soviet origin, who arrived before and after the 1985 economic reform. However, in the latter case groups involved in the comparison would have a large internal heterogeneity due to wide variation in the national origin of immigrants and hence, in the factors that shaped the human capital, which they brought to Israel. Therefore, it would be problematic to arrive at any conclusions surrounding the impact of macro-conditions of immigrant absorption on the socio-economic outcomes of immigrants. One may try to restrict the comparison by wide ethnic origin and to consider differences in labour market outcomes of Ashkenazim immigrants who arrived before and after 1985, however even in this case there would be large within-group variation in the immigrant human capital characteristics. Therefore, the findings arising from such comparison should be interpreted with caution, although they may give some indications of processes that shaped the labour market

absorption of veteran immigrants vs. recent immigrants in Israel. The last hypothesis in this study can be formulated as following:

Hypothesis 5

- The relative labour market outcomes of new immigrants of any other origin rather than of Soviet origin would be worse in the 1990s than in the 1970s.
- Tenure in the Israeli market has a stronger impact on the outcomes of immigrants (of non-Soviet origin) in the 1990s than in the 1970s.
- Immigrants who arrived in the early 1990s and those who arrived in the mid-late 1990s would suffer from low socio-economic outcomes shortly after immigration.
- The size of relative disadvantage experienced by those of the non-Soviet immigration in the early 1990s is smaller than that of the FSU immigrants, and these differentials can be attributed to the additional negative impact of mass immigration from the FSU and overcrowding of the labour market had on the outcomes of the FSU immigrants in the early 1990s.

In the Appendix II I present the findings of the analyses that are at aimed confirming research hypothesis 5.

Variables used in the analyses

All variables which are used in this part of analyses are similar to those used in the main part of the analysis in Chapter 6, with the exception that the ethnicity variables have additional categories due to a subdivision of the Ashkenazim and Sephardic immigrants to sub-populations according to the length of their tenure in Israel.

Figure A.1: Description of the categories of "Ethnicity" variables used for the verification of the Hypothesis 5 in Chapter 6

Description	Categories		
	1983	1995	2000
Ethnicity Obtained from the original variables "county of birth"/ "country of father birth" (for the Israeli born) and "year of immigration" (for immigrants).	1.The immigrants from the USSR with 1-8 years of tenure in Israel (immigrated between 1974-1983) 2.The immigrants from the USSR with 9-13 years of tenure in Israel (immigrated between 1970-1973) 3.Sephardic immigrants with 9-13 years of tenure in Israel 4.Sephardic immigrants with 1-8 years of tenure in Israel 5.Sephardic immigrants immigrated before 1970 6.Ashkenazi immigrants (excluding the USSR immigrants) 1-8 years of tenure in Israel 7.Ashkenazi immigrants (excluding the USSR immigrants) 9-13 years of tenure in Israel 8.Ashkenazi immigrants (excluding the USSR immigrants) immigrated before 1970 9.Second generation of Israeli born Jews of Sephardim origin 10. Second or third generation of Israeli born Jews of Ashkenazi origin 11.The Israeli Arabs	1.The immigrants from the USSR/FSU with 1-6 years of tenure in Israel 2.Sephardic immigrants with 1-10 years of tenure in Israel (immigrated in 1985 or thereafter) 3.Sephardic immigrants with 11-25 years of tenure in Israel 4.Sephardic immigrants immigrated before 1970 5.Ashkenazi immigrants (excluding the USSR immigrants) 1-10 years of tenure in Israel (immigrated in 1985 or thereafter) 6.Ashkenazi immigrants (excluding the USSR immigrants) 11-25 years of tenure in Israel 7.Ashkenazi immigrants (excluding the USSR immigrants) immigrated before 1970 8.Second generation of Israeli born Jews of Sephardim origin 9. Second or third generation of Israeli born Jews of Ashkenazi origin 10.The Israeli Arabs .	1.The immigrants from the FSU with 1-8 years of tenure in Israel 1.The immigrants from the FSU with 9-11 years of tenure in Israel 2.Sephardic immigrants with 1-15 years of tenure in Israel (immigrated in 1985 or thereafter)[xiv] 3.Sephardic immigrants with 16-30 years of tenure in Israel 4.Sephardic immigrants immigrated before 1970 5.Ashkenazi immigrants (excluding the USSR immigrants) 1-8 years of tenure in Israel (immigrated in 1985 or thereafter) 6.Ashkenazi immigrants (excluding the USSR immigrants) 9-15 years of tenure in Israel 7.Ashkenazi immigrants (excluding the USSR immigrants) 16-30 years of tenure in Israel 8.Ashkenazi immigrants (excluding the USSR immigrants) immigrated before 1970 9.Second generation of Israeli born Jews of Sephardim origin 10. Second or third generation of Israeli born Jews of Ashkenazi origin 11.The Israeli Arabs .

Table A.1: Economic outcomes of the immigrants of the 1970s (estimated parameters of the ethnicity variables from the income regression calculated using the 1983 Population Census data)

	Model 1 Gross ethnic gaps		Model 2 Net ethnic wage gaps	
	B	Std. Error	B	Std. Error
Intercept				
Ethnic group (Israeli born of Ashkenazi origin ref. category)	**10.3**	0.00	**9.75**	0.01
USSR immigrants 1-8 year of tenure	**-0.25**	0.01	**-0.22**	0.01
USSR immigrants 9-15 year of tenure	**-0.17**	0.01	**-0.11**	0.01
Ashkenazim immigrants 1-8 years of tenure	**-0.18**	0.02	**-0.26**	0.01
Ashkenazim immigrants 9-13 year of tenure	**-0.03**	0.01	**-0.10**	0.01
Ashkenazim immigrants immigrated before 1970	**0.03**	0.01	**0.02**	0.01
Sephardic immigrants 1-8 years of tenure	**-0.35**	0.02	**-0.27**	0.02
Sephardic immigrants 9-13 years of tenure	**-0.22**	0.02	**-0.10**	0.01
Sephardic immigrants immigrated before 1970	**-0.23**	0.01	**-0.09**	0.01
Israeli born second generation Sephardic origin	**-0.30**	0.01	**-0.04**	0.01
Arabs	**-0.48**	0.01	**-0.31**	0.01

N=128,976

Table A.2: Economic outcomes of the immigrants of the 1990s (unstandardized estimated parameters, statistically significant estimates are in bold of the ethnicity variables from the income regression calculated using the 2000 Income Survey data)

	Model 1 Gross ethnic gaps		Model 2 Net ethnic wage gaps	
	B	Std. Error	B	Std. Error
Intercept				
Ethnic group (Israeli born of Ashkenazi origin ref. category)	**8.86**	0.00	**8.61**	
FSU immigrants 1-8 year of tenure	**-0.81**	0.01	**-0.61**	0.01
FSU immigrants 9-12 year of tenure	**-0.41**	0.01	**-0.40**	0.01
USSR immigrants of the 1970s	**-0.21**	0.01	**-0.12**	0.01
Ashkenazim immigrants 1-8 years of tenure	**-0.59**	0.02	**-0.42**	0.01
Ashkenazim immigrants 9-15 year of tenure	**-0.56**	0.02	**-0.36**	0.02
Ashkenazim immigrants 16-30	0.01	0.01	**-0.07**	0.01
Ashkenazim immigrants immigrated before 1970	**0.16**	0.01	**0.07**	0.01
Sephardic immigrants 1-15 years of tenure	**-0.77**	0.02	**-0.57**	0.02
Sephardic immigrants 16-30 years of tenure	**-0.48**	0.02	**-0.26**	0.01
Sephardic immigrants immigrated before 1970	**-0.22**	0.01	-0.01	0.01
Israeli born second generation Sephardic origin	**-0.27**	0.01	**-0.06**	0.00
Arabs	**-0.49**	0.01	**-0.25**	0.01

N=11,856

Table A.3: Economic outcomes of the immigrants in the 1995s (unstandardized estimated parameters statistically significant estimates are in bold, of the ethnicity variables from the income regression calculated using the 1995 Population Census data)

	Model 1 Net ethnic gaps		Model 2 Gross ethnic gaps	
	B	Std. Error	B	Std. Error
Intercept				
Ethnic group (Israeli born of Ashkenazi origin ref. category)	**8.38**	0.00	**7.98**	0.00
FSU immigrants 1-6 year of tenure	**-0.58**	**0.00**	**-0.56**	**0.00**
Ashkenazim immigrants 1-10 years of tenure	**-0.14**	**0.01**	**-0.22**	**0.01**
Ashkenazim immigrants 11-25 year of tenure	**0.02**	**0.00**	**-0.03**	**0.00**
Ashkenazim immigrants before the 1970s	**-0.32**	**0.01**	**-0.34**	**0.00**
Sephardic immigrants 1-10 years of tenure	**-0.52**	**0.01**	**-0.27**	**0.01**
Sephardic immigrants 11-20 years of tenure	**-0.25**	**0.00**	**-0.06**	**0.00**
Sephardic immigrants immigrated before 1970	**-0.65**	**0.01**	**-0.42**	**0.01**
Israeli born second generation Sephardic origin	**-0.27**	**0.00**	**-0.04**	**0.00**
Arabs	**-0.46**	**0.00**	**-0.26**	**0.00**

N=178,430

Table A.4: Occupational outcomes of the immigrants of the 1970s. Dependent variable: probability of being in particular occupation destination. (log odd ratios of the ethnicity variables; statistically significant estimates are in bold; reference occupational category – skilled blue collar occupations); calculated using the 1983 Population Census data.

	Academic, professional occupations		Associated professional, technical occupations		Managerial		Clerical occupations		Sales, Services		Unskilled	
	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error
Intercept	**-2.82**	0.05	**-1.00**	0.03	**-0.49**	0.04	**0.05**	0.03	**-1.01**	0.04	**-2.96**	0.08
Ethnic group (Israeli born of Ashkenazi origin ref. category)												
USSR immigrants 1-8 year of tenure	**-1.05**	0.08	**-1.37**	0.07	**-3.46**	0.2	**-1.57**	0.07	**-1.78**	0.13	**1.15**	0.1
USSR immigrants 9-12 year of tenure	**-0.66**	0.07	**-1.03**	0.06	**-2.16**	0.11	**-1.10**	0.05	**-1.08**	0.09	**0.94**	0.09
Ashkenazim immigrants 1-8 years of tenure	**-0.77**	0.08	**-0.87**	0.08	**-1.59**	0.12	**-0.55**	0.08	**-0.23**	0.1	**0.65**	0.19
Ashkenazim immigrants 9-15 year of tenure	**-0.68**	0.08	**-0.93**	0.07	**-1.25**	0.1	**-0.59**	0.07	**-0.36**	0.1	**0.55**	0.16
Ashkenazim immigrants immigrated before 1970	0.00	0.04	**-0.08**	0.03	**-0.24**	0.04	**-0.10**	0.03	-0.06	0.04	**0.18**	0.08
Sephardic immigrants 1-8 years of tenure	**-0.72**	0.05	**-0.43**	0.03	**-0.73**	0.04	**-0.50**	0.03	**-0.76**	0.04	**0.25**	0.07
Sephardic immigrants 9-15 years of tenure	**-0.83**	0.12	**-0.98**	0.09	**-1.34**	0.13	**-0.35**	0.07	**-0.24**	0.09	**0.96**	0.11
Sephardic immigrants immigrated before 1970	**-1.28**	0.14	**-1.13**	0.12	**-1.60**	0.17	**-0.47**	0.09	**-0.47**	0.14	**1.12**	0.14
Israeli born second generation Sephardic origin	**-0.55**	0.06	**-0.41**	0.04	**-0.80**	0.05	**-0.13**	0.03	**-0.43**	0.05	0.12	0.08
Arabs	**-0.49**	0.07	**0.13**	0.05	**-2.14**	0.11	**-0.98**	0.05	**-0.47**	0.06	**1.14**	0.07

N=128,976

Table A.5: Occupational outcomes of the immigrants in 1995. Dependent variable: probability of being in particular occupation destination. (log odd ratios of the ethnicity variables; statistically significant estimates are in bold; reference occupational category – skilled blue collar occupations); calculated using the 1995 Population Census data.

	Academic, professional occupations		Associated professional, technical occupations		Managerial		Clerical occupations		Sales, Services		Unskilled	
	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error
Intercept	**0.56**	0.02	**1.86**	0.01	**0.72**	0.02	**3.41**	0.01	**2.18**	0.01	**-0.24**	0.02
Ethnic group (Israeli born of Ashkenazi origin ref. category)												
FSU immigrants 1-6 year of tenure	**-4.04**	0.02	**-3.24**	0.02	**-6.17**	0.04	**-3.48**	0.02	**-1.8**	0.01	**0.54**	0.02
Ashkenazim immigrants 1-10 years of tenure	**-2.03**	0.03	**-1.50**	0.03	**-3.05**	0.05	**-1.69**	0.03	**-0.95**	0.03	**0.73**	0.03
Ashkenazim immigrants 11-25 year of tenure	**-0.90**	0.08	**-0.76**	0.08	**-1.89**	0.11	**-0.67**	0.08	**-0.52**	0.08	**0.19**	0.12
Ashkenazim immigrants before the 1970s	**-0.65**	0.02	**-0.50**	0.01	**-1.02**	0.02	**-0.59**	0.01	**-0.53**	0.01	**-0.14**	0.02
Sephardic immigrants 1-10 years of tenure	**-1.98**	0.07	**-1.50**	0.06	**-3.38**	0.15	**-1.61**	0.05	**-0.93**	0.05	**0.63**	0.04
Sephardic immigrants 11-25 years of tenure	**-2.05**	0.12	**-1.70**	0.10	**-2.99**	0.21	**-1.64**	0.08	**-1.32**	0.07	**-0.00**	0.06
Sephardic immigrants immigrated before 1970	**-0.85**	0.02	**-0.49**	0.01	**-0.97**	0.02	**-0.58**	0.01	**-0.34**	0.01	**0.23**	0.02
Israeli born second generation Sephardic origin	**-0.83**	0.01	**-0.57**	0.01	**-0.82**	0.02	**-0.40**	0.01	**-0.38**	0.01	**0.22**	0.02
Arabs	**-1.23**	0.02	**-0.85**	0.02	**-2.41**	0.03	**-1.57**	0.02	**-1.20**	0.02	**0.35**	0.02

N=178,430

Table A.6: Occupational outcomes of the immigrants of the 1990s in 2000. Dependent variable: probability of being in particular occupation destination. (log odd ratios of the ethnicity variables; statistically significant estimates are in bold, ; reference occupational category – skilled blue collar occupations); calculated using the 2000 Income Survey.

	Academic, professional occupations		Associated professional, technical occupations		Managerial		Clerical occupations		Sales, Services		Unskilled	
	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error
	-0.73	0.07	**0.79**	0.05	**0.38**	0.05	**2.47**	0.04	**1.52**	0.04	**-0.58**	0.05
Ethnic group (Israeli born of Ashkenazi origin ref. category)												
FSU immigrants 1-8 year of tenure	**-3.32**	0.05	**-3.08**	0.05	**-5.26**	0.14	**-3.21**	0.05	**-1.60**	0.05	**-0.01**	0.04
FSU immigrants 9-12 year of tenure	**-1.63**	0.06	**-1.34**	0.06	**-3.12**	0.09	**-1.64**	0.06	**-0.85**	0.06	**0.77**	0.05
USSR immigrants of the 1970s	**-0.83**	0.08	**-0.51**	0.07	**-1.55**	0.1	**-0.87**	0.07	**-0.49**	0.07	**-0.13**	0.08
Ashkenazim immigrants 1-8 years of tenure	**-2.54**	0.09	**-2.07**	0.09	**-2.69**	0.12	**-2.82**	0.1	**-1.00**	0.08	**-0.25**	0.08
Ashkenazim immigrants 9-15 year of tenure	**-1.96**	0.14	**-1.88**	0.13	**-2.77**	0.21	**-2.51**	0.15	**-0.58**	0.11	**0.39**	0.11
Ashkenazim immigrants 16-30	**-0.31**	0.11	**-0.28**	0.11	**-0.66**	0.11	**-0.48**	0.11	**-0.5**	0.12	**0.05**	0.12
Ashkenazim immigrants immigrated before 1970	**0.66**	0.09	**0.67**	0.09	**0.33**	0.09	**0.60**	0.09	**0.36**	0.09	**0.60**	0.09
Sephardic immigrants 1-15 years of tenure	**-2.33**	0.15	**-3.22**	0.20	**-3.14**	0.24	**-2.64**	0.15	**0.20**	0.09	**-0.65**	0.11
Sephardic immigrants 16-30 years of tenure	**-1.07**	0.13	**-1.06**	0.11	**-1.59**	0.15	**-0.83**	0.1	**-0.60**	0.1	**-0.1**	0.09
Sephardic immigrants immigrated before 1970	**-0.67**	0.07	-0.08	0.06	**-0.65**	0.06	**-0.31**	0.05	**-0.10**	0.05	**0.11**	0.05
Israeli born second generation Sephardic origin	**-0.95**	0.05	**-0.60**	0.04	**-0.96**	0.05	**-0.47**	0.04	**-0.39**	0.04	**-0.08**	0.04
Arabs	**-1.06**	0.07	**-0.48**	0.06	**-1.81**	0.08	**-1.24**	0.06	**-0.92**	0.05	**0.33**	0.05

N=11,856

Notes

[i] When comparing between the labour market performance of immigrants from two different waves of the Soviet immigration, it is not appropriate to conduct a direct comparison in patterns of the labour market performance and outcomes between the former and the latter. Indeed, the supra-individual settings in terms of differences in the educational composition of the population or occupational structure of the labour market between the 1970s and 1990s are far too big. However, the relative economic and occupational standing of new immigrants compared with other ethnic groups in respective time points that relative standings with be net of the impact of the supra-individual level characteristics which are the same for the group of interest and the benchmark ethnic groups. Therefore it would be possible to conduct a meaningful comparison between the relative occupational standing of immigrants of 1970s and 1990s.

[ii] Only Spain has a similar share of NSE in the public sector - 15.5%.

[iii] Sephardic Jews – Jews of Eastern Origin, The majority of Jews who immigrated to Israel from the Middle East and North African countries are of this ethnic origin.

[iv] Ashkenazim Jews – Jews of Western Origin. The majority of Jews who immigrated to Israel from Eastern and Western Europe, North and South American continents, Australia and New Zeeland are of that ethnic origin.

[v] Additionally, new immigrants up to 30 year old who wanted to study in higher educational institution within one or two years after arrival in Israel were exempted from tuition fee. The government also offered a limited support to immigrant scientists to find employment; for example a program of fixed term grants allowed academic institutions to employ immigrant-scientists for up to three years, during which immigrants were supposed to find permanent employment.

[vi] See also appendix 2 where an additional hypothesis are presented along with the results of the data analyses.

[vii] A main reason for that was that once Soviet authorities were allowing emigration people never knew for how long the authorities were prepared to tolerate it; fearing that the opportunity would end at any moment a majority of those who had an intention to leave the USSR would not have taken any risk in delaying the emigration and leave as soon as possible).

[viii] Although at a first glance the latter measurement of the educational attainment is less precise than the type of the last educational certificate, it seems that the type of last educational institution attended is a more useful tool in making comparisons between the educational attainment of immigrants from the (former) USSR and those who obtained their educational qualifications in Israel. Indeed, there are differences between higher education qualification systems in the USSR and Israel; thus, the length of a standard course in a higher educational institution in the USSR used to be five years and those who completed the course successfully were obtaining diplomas of higher education in a particular profession. The latter used to be the first academic degree in the USSR. In Israel the standard length of the university course which leads to the first academic degree is three years and then another two years of study allows to complete a post-graduate course and to receive the second academic degree (usually M.A. or M.Sc. or their analogue). Therefore, the majority of immigrants from the USSR who had a diploma of higher education were given a certificate that automatically translated their educational level into the “second academic degree” according to the Israeli system of the educational qualifications. The Censuses data reflects that “translated” educational level of the USSR (FSU) immigrants and this is the reason why the USSR (FSU) immigrants have the highest proportion of people with post graduate academic degrees compared to all other ethnic groups in Israel. However, there was no obligation on behalf of Israeli employers to recognize the translated academic degrees that were obtained in the (former) USSR and in fact, this mass translation of the educational level of the FSU immigrants in the 1990s as a “second academic degree” has led to a significant devaluation of the educational credentials of the immigrants (see also Raijman and Semyonov 1997, 1998). For this reason using the type of last educational institution attended rather than the type of the highest educational certificate as a comparable measure of educational attainment among the USSR (FSU) immigrants and the Israeli born for study of sources of immigrant socio-economic disadvantage seems to be more justified. In the remainder of this paper the type of the last educational institution attended is used as a measure of educational attainment.

[ix] During the 1970s and 1980s the Israeli economy suffered from hyperinflation and the currency was “shekel”; it was converted to the New Israeli Shekel (NIS) at a rate of 1:1000 in 1985

[x] I use the Kraus prestige score (Kraus 1976) which is based on the 1972 three-digit standard occupational codes in Israel and revised for the 1995 three-digit standard occupational codes in Israel, and ranges from 0-100.

[xi] In fact an additional analyses show that the net occupational gaps fro the FSU immigrants in 200 with 9-11 year of tenure in Israeli were rather similar to those of the immigrants fro mother origin who arrived during the same period and spend a comparable amount of time in Israel.

[xii] This is a very small occupational category in 1983. On average about 4 per cent of working population had unskilled occupations (see also table 6.4.a earlier)

[xiii] This is a very small occupational category in 1983. On average about 4 per cent of working population had unskilled occupations (see also table 6.4.a earlier)

[xiv] The number of Sephardic immigrants immigrated after 1985 was too small to subdivide the by sub-populations.