The Professional Mobility of FSU Immigrants in Israel, 1990-2010

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Introduction

Generally, new immigrants at the beginning of their absorption in a new country go through a stage of downward mobility (relative to their status in country of origin), caused by their lack of language skills and work experience in their new home. However, in the next stage (with acquisition of new language and professional training), the process of upward mobility begins (U-imaged trend), including transition from blue-collar to white-collar jobs (Borjas 2006; Papademetriou et al 2009; Cohen and Eckstein 2002). The pace of this process depends on many factors, such as the general economic situation in the country, government policies regarding new immigrants, including training and benefits in addition to the demographic structure of the immigrant population (including gender, age and family status), the country where they received their education, the field(s) in which they were trained, their ethno-cultural traditions, and their individual motivation to preserve or improve their social status (Semyonov et al. 2009). Usually, for younger immigrants, the stage of upward mobility begins with first generation, while for older and some middle-aged immigrants upward mobility proves difficult to achieve, and may occur only in the second generation (Papademetriou et al. 2009).

Given this general framework, the emigration from FSU to Israel has two important features influencing its professional mobility. On the one hand, the pre-emigration social profile of FSU Jews featured a relatively high percentage of persons with academic and post-secondary education and white-collar workers. These Jewish immigrants (although there

is some percentage of non-Jewish family members among them) appear advantaged in terms of their prior training and they also exhibit higher motivation to restore their social status (Kuznets 1972; DellaPergola 2012). On the other hand, acceptance of new immigrants in Israel is selective by ethnic origin (according to the Law of Return, Israel admits any Jewish immigrant or person related to a Jew by family connection), but not by socio-economic characteristics, unlike immigration to the US, Canada, and other countries (Chiswick and Wenz 2005; Semyonov et al. 2009). Moreover, instead of "government" selection, there is a self-selection of potential immigrants, often not "positive." Therefore, the basic educational and socio-economic status (abroad) of immigrants to Israel was usually lower than that of Jewish immigrants to western countries (DellaPergola 1986; 2012), although it was still higher when compared to that of the Jewish population in Israel as a whole. These aspects must be taken into account in any analysis of socio-professional mobility of FSU immigrants in Israel.

Many of the immigrants from the former Soviet Union (FSU) who arrived in Israel from 1989 onward possessed high academic achievements and professional backgrounds, yet they frequently encountered serious problems when attempting to find suitable employment in Israel.

This inability to transfer human capital directly from one society to another probably stemmed from several factors. Some of the immigrants arrived in Israel at relatively advanced ages, which made them less attractive to employers. Others faced difficulties due to their poor command of Hebrew and English, or inadequate computer skills (although that was true only at the beginning of the FSU migration wave). Perhaps just as important, as newcomers they initially lacked personal connections in Israel, which put them at a social disadvantage. Furthermore, immigrants who encountered difficulties finding work or who had heard of such difficulties through the experience of friends and acquaintances sometimes did not attempt to find work in their previous field, nor did they seek training or Hebrew-language studies. Rather, many opted for unskilled work, which was more readily available. This bred a vicious cycle: Their lack of on-the-job practice in speaking Hebrew (in most cases they were working with fellow immigrants) and lack of time to look for another job perpetuated their lower employment status.

The incompatibility of the immigrants' professional backgrounds with the demands of the labor market in Israel is often noted as an objective factor, taking into account the general socioeconomic situation in Israel. Yet, important as this may be, its impact should not be overgeneralized. It is worth considering the special conditions obtaining in Israel, which influenced employment in the higher professional grades after the mid-1980s. In Israel, a large proportion of the positions requiring higher education were historically concentrated in the public sector and were state-funded (science, education, health, central and local government). However, at the time the FSU migration wave began, following attempts to halt inflation, the Israeli government followed a policy of curbing the expansion of the public sector. That reduced employment opportunities and increased competition in these fields among non-immigrants as well as immigrants.

Another problem has been the increased cost of housing, particularly in the central parts of the country, which tended to force immigrants toward more peripheral areas. There, the chances of finding high-salaried work were rather low.

Finally, the policy of steadily reducing unemployment benefits must also be taken into account. The policy was aimed at encouraging the unemployed to find work, which (it was believed) would also enable the reduction of Israel's dependence on foreign workers in such sectors as construction and agricultural labor. Yet, the new guidelines for unemployment benefits limited the flexibility of individuals who might have continued looking for work commensurate with their skills and training. Consequently, many immigrants who were not self-sufficient did not have the time to look for work in their own professions, and thus were apt to take whatever was available, which was often unskilled labor.

There were, however, some circumstances that impacted favorably on the professional integration of FSU immigrants. First, concomitant with their arrival, there was a hi-tech boom in Israel (particularly computers, Internet, and cellular communications) and many immigrants, after appropriate training, found work in that field. Second, the magnitude of the migration wave generated a new demand for Russian-speaking employees in a range of fields (including highly skilled work in health, education, banking, tourism, etc.). During the years that followed this trend continued with the creation of companies aimed

specifically at Russian speakers. In addition, partnerships were formed between companies in Israel and the CIS, which required employees conversant in current affairs in both Israel and the CIS countries. Third, the age structure of the FSU immigrants was relatively young (the median age of FSU immigrants from 1990 was about 34).[1] This contributed to the success with which many immigrants learned Hebrew, underwent vocational training, and eventually managed to find suitable employment. Furthermore, in the twenty years following the start of the mass immigration, the younger generation has replaced the older generation. Older immigrants (most of whom did not work in their own professions) are reaching retirement age and are being replaced by the younger generation, who have served in the IDF and studied at colleges and universities in Israel.

Thus, notwithstanding all the above-mentioned difficulties, a significant proportion of the FSU immigrants have indeed managed to find themselves in positions that are entirely or at least partially commensurate with their high levels of education.

Since the influx of immigrants began, many studies on their absorption in Israel (including employment) have been published.[2] These studies gathered a great volume of information concerning the trends and factors that contributed to the status of FSU immigrants, including data regarding their professional employment. However, some of these studies relate to a specific point in time or to a relatively short period, which does not allow for the monitoring of trends over an extended period, while others are based on samples that are not large enough to enable in-depth analysis.

The goal of this study, therefore, was to analyze trends of professional mobility in Israel among FSU immigrants, particularly among those with higher education, and the main factors that have affected this process over the past two decades (based on national data from the Central Bureau of Statistics [CBS]). Professional mobility among the FSU immigrant population was analyzed in terms of two aspects: 1. Changes in the occupational composition of all employed FSU immigrants; 2. Changes

[1] Sources: CBS 2004: table 31; CBS 2009: table 17; Tolts 2011, table 4.

[2] See e.g.: Naveh et al. 1995; Cohen and Eckstein 2002; Eckstein et al. 2006; King and Wolde-Tsadick 2006; Leshem 2009 (Hebrew).

in the percentage of those employed in professional[3] positions among immigrants with a higher education.[4]

Particular attention was paid to the professional mobility of the immigrant population over time, distinguishing between the impact of the number of years in Israel and the impact of the year of immigration. The first reflects the changes that the immigrant him/herself has undergone pursuant to his/her experience of life in Israel, such as Hebrew study, vocational training, active job search, etc., while the second has more to do with objective factors that prevailed in Israel at one time or another, such as the economy (recession or boom), job availability, government employment policy, etc. For example, five years after their arrival (i.e., in 2005) the professional employment status of the immigrants who had arrived in 2000 was not the same as that of the 1990 immigrants in 1995 (despite the equal number of years they had spent living in the country). When studies are conducted at a specific point in time, it is impossible to separate these two factors, and therefore data covering a relatively long period are required.

In addition to the year of arrival, the number of years spent in Israel, and the level of education, I also examined gender, age, place of residence in Israel, family status, occupational status of spouse, region of origin (European or Asian republic), and religious-ethnic identity (Jewish or non-Jewish). Where possible, I also took accounts of immigrants'

[3] The group of *professionals* included the following: 1. Those in academic and scientific positions: life sciences, exact sciences (mathematics, physics, chemistry, biology, etc.), engineers and architects, physicians and dentists, pharmacists, veterinarians, jurists, social and human scientists (economists, sociologists, psychologists, etc.), university/college lecturers; 2. Those in the liberal and technical professions: technicians, programmers, accountants, paramedical professionals (paramedics, nurses, lab technicians, etc.), schoolteachers and preschool teachers, journalists, those in the fields of the arts, culture, and sport; 3. Managers (in all fields).

[4] For the purposes of this article, higher education indicates a degree (bachelor's, master's, or doctorate) from an academic institution in Israel or abroad (university, institute, academic college). It does not include graduates of post-high-school institutions (technical colleges, teacher training colleges, nursing school, seminars, non-academic colleges) who do not have academic degrees, or persons who studied at academic institutions but did not complete their studies or earn degrees.

command of Hebrew or English, vocational training courses, and occupation in country of origin or (optionally) field and country of education received. In addition, I compared the professional status of the FSU immigrants with the total Jewish population in Israel and with the FSU immigrants in the United States.

Study Population and Data

The study population consisted of FSU immigrants who arrived in Israel during and after 1990 and were working in Israel for some time in a given year (even if not for the entire year). The analysis did not include groups that were not in the labor force: pensioners, students and schoolchildren, homemakers, people with disabilities who had not worked for an entire year, and immigrants who never worked in Israel. Within this population, I made a particular distinction for immigrants with higher education, since this is the largest and most skilled group within the population of FSU immigrants.

The main source of information for our analysis was the CBS's quarterly Labor Force Survey. Each respondent participated in the survey for 1.5 years (during the first, second, fifth, and sixth quarter) and some new participants replace previous respondents during every quarter. Every year, this survey covers some 100,000 persons aged fifteen and over from all social strata in Israel, of whom some 12,500 are FSU immigrants who had arrived during or after 1990 according to the 2010 survey. This survey includes socio-demographic information about the respondents (gender, age, Jewish/non-Jewish, country of origin of the respondents and their parents, date of immigration, family composition, education, place of residence) and about their current employment (or, for the unemployed, last employment in Israel), such as economic sector, occupation, work hours, etc. Also included in the survey are spouses' occupations, and in the case of the unemployed, information about job hunting.

The advantages of using the Labor Force Survey were as follows: the large sample (which reduces the possibility of sampling error to a minimum); the possibility of monitoring changes in professional status over an extended period (albeit at the group rather than at the individual level); the large amount of information about every respondent; and, in

our case, the possibility of comparing the data on FSU immigrants with other population groups in Israel.

However, for our purposes, the Labor Force Survey also had its drawbacks. For example, data on academic degrees appear only in the 2001 survey and later. The data in the earlier surveys relate only to the number of years of schooling and the type of school last attended (but not completion of studies), making it impossible to obtain an accurate picture of the respondents' level and type of education. This is particularly important, since we were primarily interested in the professional mobility of immigrants with higher education.

For this reason, I also used data from Israel's 1995 census (*Census of Population and Housing, 1995*), which includes data on individuals' academic degrees, employment, and other socio-demographic characteristics of interest to us. Combining the data from the 1995 census with the Labor Force Survey from 2001 onward made it possible to monitor changes over a relatively long period in the professional employment of the immigrants with higher education, with a cross-section of characteristics (gender, age, year of immigration, academic degree, family status, republic of origin, place of residence in Israel, Jewish/non-Jewish).

However, since both the above publications include the entire population of Israel and not just immigrants, and although both contain information about the respondents' occupations in Israel, they lack information about immigrants' former occupations in their countries of origin. Consequently, they did not provide enough data for an analysis of the percentage of those working in their professions by *specific* field (e.g., engineers, physicians, teachers, etc.). I therefore used an additional source of information—the annual reports by the Ministry of Immigrant Absorption and the CBS on the occupational composition of immigrants in their countries of origin. Until 1999, these reports were published by the CBS in its *Immigration to Israel* series; since 2000, they have appeared as special publications. Comparing these data with those in the Labor Force Survey (as noted, at group, not individual level) allowed me to assess the level of occupational employment of immigrants in Israel by specific occupational groups.

For the purpose of the required analysis, I also took data from the Social Surveys conducted by the CBS since 2002 among the Israeli population (aged twenty and over), which cover a broad range of items,

including ones that are not contained in the Labor Force Survey. For example, these surveys include command of Hebrew and English, completion of vocational courses, and field of higher education (enabling an estimate of those employed in particular occupations). However, the sample size of the Social Surveys is much smaller. For example, in 2010, it comprised just 7,500 out of the total population of Israel, of whom about 1,000 were FSU immigrants who arrived in or after 1990. Bearing in mind that we are interested in immigrants with higher education who are working in Israel, the sample size becomes even smaller (some 300 individuals only), increasing the possibility of sampling error. I therefore used the Social Surveys only for those aspects that could not be analyzed using the Labor Force Survey (and in such cases, in order to reduce the sampling error, I used an average for several years).

Finally, in order to compare the professional status of FSU immigrants in Israel and those living in the United States, I used the National Jewish Population Survey (NJPS) conducted in the United States in 2000-2001.

Changes in the Professional Composition of FSU Immigrants in Israel

Data from the Ministry of Immigrant Absorption and the CBS on the professional composition of FSU immigrants in their countries of origin indicate that about a third of them had held scientific and academic positions, while another third were employed in liberal and technical professions (Table 1). Note the almost total absence of managers among the immigrants (while the percentage of managers among Soviet Jewry in the 1989 census was over 10%).[5] This is not only because fewer managers immigrated to Israel, but also because those who actually held managerial positions in the FSU registered their profession according to their qualifications (i.e., "engineer" rather than "manager," "teacher" rather than "school principal," etc.). One in six immigrants was a skilled worker in industry. The percentage of clerical workers, sales and service staff, and unskilled workers among the immigrants was rather low (Table 1).

[5] Source: CIS Statistical Committee, 1989, t. 36ba.

Table 1. Occupational Structure of FSU Immigrants (1990+) Abroad and in Israel, All Israeli Jews, and FSU Jewish Immigrants in USA (Percentage of all Employed)

	FSU Immigrants (1990+):					
	Abroad[a] (last 2 years before aliyah)	in Israel[b]:			All Israeli Jews (2010)[b]	FSU Jewish immigrants in USA (2000/1)[c]
		1991	2000	2010		
Total employed	**100**	**100**	**100**	**100**	**100**	**100**
Scientific & academic professions	**31.7**	**9.1**	**8.8**	**10.6**	**12.6**	**25.0**
Thereof: Natural sciences	1.6	0.5	0.7	1.2	1.4	2.8
Engineers & architects	19.2	4.4	3.9	4.8	3.5	10.1
Physicians & pharmacists	4.6	2.0	2.6	2.5	1.9	4.8
Human & social sciences	5.5	1.7	1.3	1.8	5.0	6.0
Lecturers in higher education	0.7	0.5	0.3	0.3	0.8	1.3
Liberal & technical professions	**33.2**	**9.5**	**14.5**	**14.4**	**18.3**	**30.1**
Thereof : Technicians & programmers	15.5	4.6	6.5	6.2	5.5	12.8
Teachers[d] & tutors	9.5	1.1	3.3	3.0	8.4	5.3
Literature & art workers	3.7	0.6	1.6	1.3	2.4	2.9
Nurses & paramedics	4.5	3.2	3.1	3.9	2.0	9.1
Managers	0.3	0.0	1.4	2.0	7.5	6.1
Clerical workers	5.0	3.4	9.7	12.6	17.7	3.7
Sales & service workers	7.3	10.0	18.3	22.7	21.7	19.8
Skilled industry workers	16.0	40.8	29.0	23.1	14.7	15.3
Unskilled workers	6.5	27.2	18.3	14.6	7.5	0.0

[a] According to data from the Israeli CBS and Ministry of Immigrant Absorption.

[b] According to Labor Force Surveys of Israeli CBS for corresponding years.

[c] Jewish immigrants from FSU 1990 and later, according to National Jewish Population Survey, 2000-2001.

[d] According to the Standard Classification of Occupations of the Israeli CBS (1994), teachers in primary schools are included in the liberal and technical professions, while teachers at intermediate and secondary schools—in scientific and academic professions. However, in the data about the occupations of the FSU immigrants abroad, all schoolteachers are included in liberal and technical professions. For occupations in Israel, we therefore included all schoolteachers in this group.

In Israel, there was a dramatic decline in the occupational status of FSU immigrants (as noted at the outset). For example, in 1991, the total rate of employment in scientific and academic professions and in liberal and technical professions among FSU immigrants was one-third of the rate in their country of origin, whereas the percentage of skilled workers in industry and construction more than doubled, and the percentage of unskilled workers quadrupled (Table 1).

Later on, the situation changed considerably. In the course of two decades (1991–2010), the percentage of unskilled workers among all employed FSU immigrants declined from 27% to 15% and that of skilled workers in industry and construction from 41% to 23% (albeit in 2010, these two percentages remained higher among employed immigrants than among the total Jewish population of Israel). At the same time, there was an increase in the percentages of those working in sales and services (from 10% to 23%), clerical work (from 3% to 13%), liberal and technical professions (from 10% to 14%), and scientific and academic professions (from 9% to 11%). Note that in 2010 the overall percentage of those working in scientific and academic professions and in liberal and technical professions among FSU immigrants was lower than among total Jews employed in Israel (Table 1). In certain professions (engineers, physicians, technicians, programmers, and nurses), the percentage among the immigrants was higher (Table 1). About 2% of the FSU immigrants employed in 2010 (compared with 7.5% in the total Israeli Jewish population) held managerial positions.

A comparison of the professional composition of FSU immigrants in Israel and that of FSU Jewish immigrants in the United States in 2000 (data from the Labor Force Survey and NJPS) indicates that about a quarter of the Jewish immigrants in the USA were employed in scientific and academic professions—three times more than among FSU immigrants in Israel in the same year (see Table 1). The percentage of those employed in liberal and technical professions (particularly technicians/programmers and paramedical professionals) among the Jewish immigrants to the USA was twice as high as among FSU immigrants in Israel. The percentages of those working in services and sales among those in the USA and in Israel in 2000 were similar, while the percentage of skilled labor in industry and construction in the USA was half as

high as in Israel (15% and 29%, respectively). Moreover, there were no unskilled workers among the Jewish immigrants to the United States (at least not among those interviewed), compared with 18% among the FSU immigrants in Israel in the same year. Two reasons can be given for this: 1. The higher level of education among those in the USA (65% of the Jewish immigrants to America from the FSU in 2000 had a higher education, compared with 38% of the FSU immigrants to Israel); 2. There is a much greater likelihood of finding work in one's profession in a large country such as the United States.

Professional Mobility in Israel of FSU Immigrants with Higher Education and Its Main Factors

Note that the data in Table 1 include the total population of employed FSU immigrants, regardless of their level of education. In principle, immigrants cannot hold positions in Israel if they do not meet the required educational criteria. We therefore now examine the changes in the percentage of FSU immigrants employed in scientific, academic, liberal, technical, and managerial positions (hereafter, the professionals) among employed immigrants with higher education (Table 2).[6] We see that from 1995–2010, the percentage increased from 40% to 50%; in other words, half of the employed FSU immigrants with higher education were already working in professions more or less commensurate with their levels of education. However, this percentage is still lower than that for the total college-educated Jewish population, 73% of whom were working in appropriate professions.

We now turn to the main factors that have affected the professional employment of FSU immigrants with a higher education.

[6] Although this is not an altogether accurate percentage of those working in their professions (e.g., it includes former university lecturers working as high-school teachers, former engineers who have become computer technicians, etc.), such a change in professional status is logical for newcomers to a country, unlike situations in which such lecturers or engineers are forced to seek employment as security guards or simple factory workers, reflecting an absolute loss of professional status.

Table 2. Percentage of FSU Immigrants (1990+) Employed as Professionals[a] and All Israeli Jews with Higher Education, by Academic Degree

	FSU Immigrants in Israel (1990+)[b]				All Israeli Jews (2010)[c]
	1995	2001	2005	2010	
Higher Education total	**40.2**	**43.4**	**44.8**	**49.6**	**72.8**
Thereof:					
First degree (BA, BEd, BSc, etc.)	24.6	31.1	35.9	41.1	68.3
Second degree (MA, MSc, etc.)	43.0	48.2	49.6	55.2	78.0
Third degree (PhD, etc.)	76.1	83.4	77.4	87.7	96.0

[a] Employed in scientific, academic, liberal, technical, and managerial professions.

[b] Data for 1995—according to the population census; for 2001-2010—according to Labor Force Surveys for corresponding years.

[c] According to Labor Force Survey, 2010.

Academic Degree

The data on the percentage of immigrants employed as professionals, according to their academic degree (Table 2), reveal three trends: 1. The higher the degree, the greater the percentage of immigrants employed in professional positions. 2. Among the immigrants with any given degree, there is a steady increase in the percentage of those employed in professional positions. 3. Despite that increase, in 2010 the percentage of immigrants with any given degree who were employed in professional positions was lower than the percentage of those with the same degree in the total Jewish population of Israel. For example, among the immigrants with a bachelor's degree, 41% were working as professionals, compared with 68% of the total Jewish population of Israel; among those with a master's degree, 55% vs. 78%, respectively; among those with a doctorate, 88% vs. 96%, respectively.

Occupation in the Country of Origin and Field of Higher Education

As noted above, neither the Israeli population census nor the Labor Force Surveys included information about respondents' occupations in their countries of origin. It is possible to estimate the situation based on the percentage of those employed in each professional group in the country

of origin (with data from the Ministry of Immigrant Absorption and the CBS)[7] and in Israel (Labor Force Survey). However, this comparison does not take further education and professional training in Israel into account. We calculated the professional employment index (see Table 3) for certain scientific, academic, liberal, and technical professions as the percentage of FSU immigrants employed in these professions in Israel in 2010, divided by the percentage of those employed in the same profession in their country of origin. This index shows that those who managed best in Israel were nurses and para-medical workers (87%) and those in the natural and exact sciences (75%). Less successful (according to this index) were physicians (54%),[8] although some of them were able to find work in para-medical professions. Less than half of the technicians and lecturers in higher education and post-secondary institutes, and about a third of teachers (including preschool teachers), artists and performers, social scientists, and those in the humanities were working in their professions (according to this index). The lowest percentage (25%) was found among the most common profession among Soviet Jewry: engineers. However, some engineers had been able to find work as technicians and programmers.[9]

Another source of information was the CBS Social Surveys for 2007–2010, which contain data on employment in Israel as well as the field of higher education (acquired in Israel and abroad). In the latter case, the surveys also indicate employment in the country of origin. We took the average data for 4 years in order to reduce possible sampling errors. These data show a similar—albeit not identical—picture to that presented above (see Table 3).

Among the FSU immigrants with a higher education who arrived in or after 1990, the highest percentage of those employed as professionals was among those with medical or para-medical training (86%-88%). This was followed by mathematicians and computer experts (76%) and then by scientists in physics, chemistry, and biology (54%). According to the Social Surveys, about half of the immigrant engineers, architects and teachers were working as professionals, as were about a third of those

[7] These data were published in the annual *Immigration to Israel* until 1999. Since then they have appeared as special publications of the CBS.

[8] On the employment of physicians from the FSU, see also Nirel 1999.

[9] On the employment of immigrant engineers, see also Naveh 1999.

Table 3. Percentage of FSU Immigrants (1990+) Employed as Professionals,[a] by Occupation Abroad and Field and Country of Education Received[b]

Fields of Specialization:	By occupation abroad — index (2010)[b]	By field of education (2007-2010)[c]	Thereof: by country of education received:[d]	
			in Israel	Abroad
Medicine and pharmacy	54.3	85.7	88.2	86.2
Paramedical professions	86.7	88.1	95.5	79.0
Mathematics and computers	75.0	76.1	94.7	72.0
Natural sciences [e]		54.0	90.3	43.8
Engineering and architecture	25.0	47.5	80.5	44.0
Technical professions	40.0	...	...	...
Primary and secondary education	31.6	41.7	76.0	34.6
Higher education	40.6	...	...	...
Humanities and social sciences[f]	33.3	33.2	59.3	23.3

[a] Employed in scientific, academic, liberal, technical, and managerial professions.

[b] Ratio between percentages of FSU immigrants employed in this profession in Israel (according to Labor Force Survey, 2010) and abroad (according to Ministry of Absorption and CBS Data).

[c] According to Social Surveys of Israeli CBS (average for 2007-2010); persons aged 20+ who received higher education (abroad or in Israel).

[d] Meaning for highest degree received (first, second, or third).

[e] Physics, chemistry, biology, and related fields.

[f] Including law, literature, and arts.

specializing in the human and social sciences. The differences between information from the Social Surveys and the Ministry of Immigrant Absorption and the CBS on employment in the country of origin could have to do with the fact that the data from the Social Surveys include only those with a higher education (and not non-academic post-secondary education) and also take into account education acquired in Israel. The two sources may also classify the professions slightly differently.

Data from the Social Surveys of 2007-2010 also show considerable differences in the percentage of immigrants working as professionals, depending on whether they received their higher education abroad or in Israel. Usually, those who arrived at younger ages were most likely to have received their training in Israel. Thus, 76% of FSU immigrants

who received their last academic degree in Israel were employed as professionals (even slightly more than among the entire Israeli Jewish population), whereas only 43% of those who received their last degree abroad were similarly employed. Similar differences were also seen in certain fields (see Table 3). For example, 90% of immigrants who graduated from faculties of natural sciences in Israel were employed as professionals, compared with only 44% among graduates of the same faculties abroad; faculties of education—76% versus 35%; humanities and social sciences—59% versus 23% respectively. Only for medical and pharmacy faculties was the difference between immigrants' received degrees in Israel and abroad not significant (see Table 3).

Gender and Age

As shown in Table 4, the percentage of immigrants with a higher education working as professionals had been greater among the men than among the women, but by 2010 this difference had declined. This indicates more rapid progress among the female immigrants with a higher education than among the men. Two trends emerge (see Table 4): 1. From 1995–2010, there was an increase in the percentage of immigrants with higher education employed as professionals in all age groups. 2. Among the younger groups, the percentages were higher. Thus, in 2010, almost two-thirds of the immigrants with a higher education aged 25–34 were employed as professionals: many of these had arrived in Israel as children or teenagers and obtained their higher education in this country, while among those in the 55–64 age group, only 38% were employed as professionals, but in this group too, the percentage had increased since 1995.

Year of Immigration and Duration

As noted, an analysis of data over a relatively long period makes it possible to distinguish between the impact of the year of immigration and the impact of the number of years spent living in the country. Indeed, the analysis shows that both factors affected the professional employment of the immigrants. On the one hand, those who arrived in Israel earlier managed better than those who came later (even after the same number of years spent living in the country). This could have to do with budgetary cuts in science and education as well as the tightening of conditions for unemployment benefits (which meant that the later arrivals had less time

Table 4. Percentage of FSU Immigrants with Higher Education, 1990+ Employed as Professionals[a] by Gender, Age, Year of Immigration, District of Residence, Ethnic-Religious Group, and Republics of Origin[b]

	1995	2001	2005	2010
Gender:				
Males	43.1	46.5	48.1	51.7
Females	37.5	40.8	42.0	48.0
Age:				
25-34	44.3	52.9	56.8	62.0
35-44	44.0	47.3	49.7	53.1
45-54	36.2	40.8	42.3	51.4
55-64	28.9	29.7	33.0	38.0
Year of Immigration:				
1990-1991	44.6	54.1	56.0	58.8
1992-1995	28.8	42.2	41.8	52.6
1996-1999	...	26.1	36.1	41.4
2000+	...	13.9	26.1	30.9
District of Residence:				
Jerusalem, Judea & Samaria	48.1	56.2	49.5	56.1
Tel Aviv & Central	40.7	42.1	45.7	51.8
Haifa & Northern	39.5	41.0	44.1	47.4
Southern	36.6	42.7	41.3	44.7
Ethnic-Religious Group:				
Jews	41.1	46.1	46.8	52.1
Others	32.2	24.8	31.8	32.2
Republics of Origin:				
European Republics[c]	41.0	44.1	46.0	49.8
Asian Republics[d]	34.3	38.2	35.5	47.8

[a] Employed in scientific, academic, liberal, technical, and managerial professions.

[b] Data for 1995—according to population census; for 2001-2010—according to Labor Force Surveys for corresponding years.

[c] Russian Federation, Ukraine, Belarus, Moldova, Lithuania, Latvia, and Estonia.

[d] Georgia, Armenia, Azerbaijan, Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan, and Turkmenistan.

to look for work in their professions). Yet, it could also be that the earlier arrivals (primarily 1990–1991) were more motivated to find work in their professions. Other than that, the mass immigration of the early 1990s increased competition in the labor market, although at the same time it led to economic growth, which in turn increased the number of jobs in general, particularly for those with higher education. Nevertheless, the impact of the number of years in Israel per se cannot be ignored, because in each wave of immigration, the percentage of immigrants with higher education employed as professionals has increased (Table 4).

Place of Residence

Comparison of the percentage of FSU immigrants with higher education employed as professionals by place of residence in Israel reveals that it is highest in the Jerusalem district (here including the West Bank areas of Judea and Samaria)—56% in 2010—even though the percentage of immigrants living in this area was not so high (approximately 7%). This has to do with the fact that Jerusalem is the home of many government, scientific, academic, and cultural institutions, while the possibilities of finding non-professional/unskilled work are limited. As a result, the first immigrants to settle in Jerusalem and its vicinity (among those of working age) were those who expected to find work in their professions and who were highly motivated. Next highest is Tel-Aviv and the Central district (52%), followed by Haifa and the North (47%), and last, the Southern district (45%). The percentages in all the districts increased between 1995 and 2010 (Table 4).

Jewish/Non-Jewish

It is noteworthy that the percentage of FSU immigrants with higher education employed as professionals was greater among those who defined themselves as Jewish than it was among those who defined themselves otherwise. Moreover, the gap between Jews and non-Jews rose to 20% in 2010 (see Table 4). This can be partially explained by the fact that the percentage of Jews was higher in the earlier waves of immigration,[10]

[10] According to CBS data, over 90% of those who immigrated from the FSU in 1990–1991 were Jewish according to Jewish law; 80% in 1992–1995; 57% in 1996–1999; less than half of those who arrived in 2000 and later were Jewish according to Jewish law. (CBS 2004; Tolts 2011, table 11).

which managed better professionally in Israel. On the other hand, among the FSU immigrants, Jews were on average not as young as the "others" (since there were more mixed marriages among younger age groups). At first sight, this should have had the opposite effect (because younger immigrants usually manage better).

However, the multivariate analysis shows that being Jewish has a separate positive impact on professional mobility (see below). This may not necessarily indicate discrimination against non-Jewish immigrants. One alternative explanation may lie in the socially accepted Jewish motivation to gravitate toward liberal, scientific, and academic professions. Another line of explanation might indicate a higher propensity or determination among the Jewish immigrants to remain permanently in Israel, which caused them to make greater efforts to find work in their fields. It is also possible that FSU immigrants who employed as professionals more often reported themselves as Jews (even if not registered as Jews by the Ministry of Interior).[11]

Republic of Origin

The percentage of FSU immigrants with higher education employed as professionals is greater among those from the European republics than among those from the Caucasus and Asian Republics, although in 2010 this difference declined significantly. However, in the fifteen years 1995–2010, the percentage rose in both groups (Table 4). Unfortunately, the Labor Force Survey does not identify the republics of origin specifically.

Family Status and Employment of Spouse

A comparison of the percentage of immigrants with higher education who are employed in professional positions, both married and unmarried, reveals different trends among men and women (Table 5). Among married men, the percentage of those employed as professionals in 2010 was slightly lower than among unmarried men (51% versus 53%

[11] It must be stated that the question about religion in the Labor Force Survey is based not on official data, but on self-reporting. As a result, the percentage of non-Jews among FSU immigrants reported by *LFS* 2010 is only half of the number given by Census 2008 (based on official data of religion): 14% versus 28% respectively.

respectively), whereas the opposite was true for women—the percentage was higher among those who were married than those who were not (49% versus 45% respectively). It may be speculated that married men felt the need to provide for their families and were, therefore, under social pressure to take any job, while married women sometimes could continue seeking work in their professions while their husbands maintained a secure income. It is also possible that married men are somewhat older than unmarried men, and that they experienced more difficulties in professional employment, while for married women their spouse's support predominates over age factor.[12] Nevertheless, the difference between married and unmarried immigrants (both men and women) was not particularly high (Table 5).

The picture changes, however, when we take into account not only marital status, but also the occupation of the spouse in Israel (using data from the 1995 Census and the Labor Force Surveys from 2001 onwards). Among both men and women there were distinct differences between those whose spouses were also employed as professionals and those whose spouses were employed in other occupations or were not working at all (Table 5). For example, among immigrant men with higher education whose spouses were employed as professionals, some two-thirds (64%) were also employed as such, compared with only 44% of those whose wives were not working as professionals or were not working at all. A similar trend was found among married women, depending on the work of their spouses (65% versus 39% respectively).

This indicates that the professional integration of married FSU immigrants is family-based. This could be partially explained by the fact that both spouses may generally belong to the same or similar age group, have the same (or equivalent) level of education, came to Israel at the same time (unless they met in Israel), and live in the same locality. In other words, the factors that affect one spouse generally will also affect the other. However, the multivariate analysis (see below) shows that the employment of the respondents' spouses affects the employment of the respondents themselves over and above the other factors noted. First, when one spouse finds work in his/her profession, he/she can continue

[12] Separate regressions for men and women (controlling by age) show slight positive impact or marital status (married or unmarried) on professional employment for both sexes.

to support the other for a certain amount of time, allowing the latter to find professional work or to study rather than to take any job. Second, the first to find work can take advantage of contacts through colleagues to help find suitable employment for the other. Third, moral support and personal example are very important to successful employment. In this context, note that the professional employment status of those whose spouses are not employed in their professions (or are not employed at all) is even worse than those who are not married, particularly among the men (see Table 5).

Table 5. Percentage of FSU Immigrants with Higher Education, 1990+ Employed as Professionals[a] by Gender, Marital Status, and Spouse's Occupation[b]

	1995	2001	2005	2010
Males:				
Unmarried	47.3	49.6	49.1	52.7
Married	42.5	45.9	47.9	51.4
Thereof by spouse's occupation:				
Not working or non-professional	36.0	34.8	38.3	44.0
Professional	60.6	66.9	63.5	64.2
Females:				
Unmarried	37.0	35.4	38.2	45.4
Married	37.6	42.9	43.7	49.3
Thereof by spouse's occupation:				
Not working or non-professional	29.3	32.1	33.6	39.1
Professional	53.5	59.8	61.3	64.9

[a] Employed in scientific, academic, liberal, technical, and managerial professions.

[b] Data for 1995—according to population census; for 2001-2010—according to Labor Force Surveys for corresponding years.

Proficiency in Hebrew and English and Vocational Training

Unfortunately, the Labor Force Surveys do not include data on language skills and professional courses and we therefore had to use the Social Surveys. The Social Surveys present three aspects of language ability: speaking, reading, and writing. We chose reading ability, because the ability to read English and Hebrew (above all to read professional

literature) largely reflects the respondents' readiness to work in their profession.

According to the averaged data from the Social Surveys for 2003–2006 and 2007–2010, among FSU immigrants with higher education who could read Hebrew "very well," about three-quarters were employed as professionals, compared with only 7% of those who could not read Hebrew at all (Table 6).

Table 6. Percentage of FSU Immigrants 1990+ Aged 20+ with Higher Education Employed as Professionals[a] by Ability to Read Hebrew and English[b]

	Hebrew		English
Ability to read:	**2003-2006**	**2007-2010**	**2003-2006**
Very well	71.7	74.9	72.4
Well	56.3	60.1	64.5
Average	38.5	44.1	48.6
Weak	22.3	25.1	34.9
Not at all	6.7	6.9	21.0

[a] Employed in scientific, academic, liberal, technical and managerial professions.

[b] According to Social Surveys of Israeli CBS (average for 2003-2006 and 2007-2010); data for English not available after 2006.

Only the Social Surveys for 2003–2006 include data concerning the respondents' command of English. Here, too, there was a statistically significant correlation between the ability to read English and professional employment among those with higher education, albeit slightly lower than in the case of Hebrew. Among those who could read English "very well," 72% were employed as professionals, while among those who could not read English at all, only 21% were employed as professionals (see Table 6). It is logical to assume that there is a strong correlation between the ability to read English and Hebrew and the age of the respondents, and in the case of Hebrew, the number of years spent living in Israel. However, the examination of the "net impact" of the command of the languages on professional employment in Israel (i.e., controlling for age and years in Israel) based on the Social Surveys was problematic, due to the relatively small sample size. In addition, "reverse correlation" should also be taken into account—it is possible that those

immigrants with higher education who were working in their profession had improved their Hebrew and English at their workplace.

As the Social Survey data for 2007–2010 show, among FSU immigrants who had completed vocational training courses, the percentage of those employed as professionals was slightly higher than those who had not completed such courses (53% versus 47% respectively). Although the difference was not particularly great, it is significantly greater for men and for those who arrived in Israel after 1996 (Table 7), indicating that the courses had a considerable impact on the immigrants' professional employment.

Table 7. Percentage of FSU Immigrants 1990+ Aged 20+ with Higher Education Employed as Professionals[a] by Gender, Year of Immigration, and Vocational Training Courses[b]

	2007-2010	
	Studied	**Did not study**
Total Immigrants	52.6	46.8
Gender:		
Males	58.7	48.8
Females	48.5	45.1
Year of immigration:		
1990-1995	57.3	54.7
1996 and later	42.8	35.9

[a] Employed in scientific, academic, liberal, technical, and managerial professions.

[b] According to Social Surveys of Israeli CBS (average for 2007-2010).

Professional Mobility in Israel among FSU Immigrants with Higher Education: Multivariate Analysis

Since various factors affecting the professional mobility of FSU immigrants are mutually dependent, in order to measure the impact of each of them more accurately, we conducted a logistic regression multivariate analysis (Table 8).

The source of the data was the Labor Force Surveys for 2001–2010 (surveys for earlier years do not include all the necessary information).

Table 8. Main Determinants of Employment as Professionals[a] in Israel for FSU Immigrants, 1990+, Aged 25-64 with Higher Education (Results of Logistic Regression)[b]

	Odds' Ratio	S.E.
Gender (vs. Males):		
Females	0.88*	0.004
Age (vs. 25-34):		
35-44	0.43*	0.005
45-54	0.27*	0.005
55-64	0.16*	0.006
Year of Immigration (vs. 1990-1991):		
1992-1995	0.86*	0.005
1996-1999	0.68*	0.006
2000 +	0.59*	0.009
Years in Israel (vs. 2 years or less):		
3-5 years	1.94*	0.016
6-9 years	3.27*	0.015
10-14 years	4.82*	0.016
15 years and more	6.70*	0.016
Academic Degree (vs. first degree—BA, BEd, BSc):		
Second degree (MA, MSc)	2.21*	0.004
Third degree (PhD)	14.79*	0.014
District of Residence (vs. Tel-Aviv & Central):		
Jerusalem, Judea & Samaria	1.20*	0.006
Haifa & Northern	0.85*	0.004
Southern	0.89*	0.005
Marital Status/Spouse's Occupation (vs. unmarried):		
Married and spouse employed as Professional	1.76*	0.005
Married and spouse employed in other occupation/ not employed	0.84*	0.005
Ethnic-Religious Group (vs. Non-Jews):		
Jews	1.33*	0.006
Republics of Origin (vs. European Republics[c]):		
Asian Republics[d]	0.83*	0.006
Goodness of Fit (Cox & Shnell R Square), %	**18.1**	

* $P<0.01$

[a] Employed in scientific, academic, liberal, technical, and managerial professions.

[b] Data of Labor Force Surveys for 2001-2010.

[c] Russian Federation, Ukraine, Belarus, Moldova, Lithuania, Latvia, and Estonia.

[d] Georgia, Armenia, Azerbaijan, Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan, and Turkmenistan.

We took as our study group FSU immigrants who had arrived in or after 1990 with higher education (a bachelor's degree or higher), aged 25–64, who were working during the study year (even if not for the entire year).

The dependent variable was the respondent's employment in a professional capacity, i.e., scientific, academic, liberal, technical, or managerial (1 = employed as a professional; 0 = employed in a non-professional position). The independent variables were gender, age, year of immigration, number of years in Israel, degree (bachelor's, master's, doctorate), district of residence, marital status, spouse's occupation, Jewish/non-Jewish, and republic of origin (European or Asian). Unfortunately, we were unable to include several factors noted earlier, such as command of Hebrew and English, participation in professional courses, and occupation in country of origin, country and field of study, since these data are not included in the Labor Force Survey.

The analysis reveals that the variable with the greatest impact on employment in Israel is having a doctorate. The probability of being engaged as a professional in Israel is fifteen times greater for immigrants with a PhD than for those who have bachelor's degrees and seven times greater than for those with master's degrees. In this context, note that immigrants with doctoral degrees received direct state support (through the Shapiro Fund and the KAMEA program for the absorption of new immigrant scientists), although only a small percentage of FSU immigrants with higher education hold doctorates (4%). Additionally, we note that holders of master's degrees are twice as likely as those with only first degrees to be employed in a professional capacity (Table 8).

Length of time spent living in Israel is another important factor. Controlling for other variables, the probability of being employed in one's profession is 6.7 times higher among immigrants who have been in the country for fifteen years than among those who arrived within the past two years. Age is also significant: if all other factors are equal, the probability of being employed as a professional for immigrants aged 25–34 is six times greater than for those aged 55–64 (Table 8).

As noted above, the professional employment of the respondents' spouses has a considerable impact on their own employment: the logistic regression shows that immigrants with higher education whose spouses are employed as professionals are themselves employed as professionals almost twice as often as those who are either not married, or whose spouses are employed as non-professionals or are not working at

all. Furthermore, the latter have a 16% lower chance of being employed in their professions in Israel than those who are not married (Table 8).

The regression also shows that the year of immigration (and not just the number of years in the country) has an independent effect. Those who arrived in 1990–1991 are 1.7 times more likely to be employed in their professions than those who arrived in or after 2000 (Table 8).

With regard to the place of residence, the probability of immigrants living in Jerusalem, Judea, and Samaria working as professionals is greater than for those in Tel-Aviv and the Central region, while the probability is even lower for those living in the north (including Haifa) and south of the country (Table 8).

Those who define themselves as Jewish have a 33% greater chance of working as professionals than those who do not, while immigrants from Asian republics have a 17% lower probability than those from European republics.

Finally, female immigrants with higher education (controlling for other factors) have a slightly lower chance of working in their professions than do men with the same level of education (Table 8).

Thus, the results of the multivariate analysis largely corroborate the conclusions we reached from our analysis of the impact of the professional employment of the immigrants with regard to each factor separately.

Conclusions

As the data reveal, the transition from the former Soviet Union to Israel saw a dramatic decline in the immigrants' socio-professional status due to a range of obstacles (poor Hebrew and English and poor computer skills, lack of social contacts, the concentration of professional jobs in the public sector and the impact of budget cutbacks, the cost of housing in the center of the country where most of the hi-tech companies and scientific organizations are based, and restrictions on unemployment benefits, which limited the possibility of prolonged job searches).

Nevertheless, in the twenty years since the start of the current wave of immigration from the former Soviet Union, the professional-employment status of the immigrants, particularly those with higher education, has improved considerably, even if it has not reached the level it was in their country of origin. In 2010, about half of the employed FSU

immigrants with higher education were working in professional positions, three-quarters of whom were immigrants who received their last academic degree in Israel. However, the percentage of FSU immigrants working as professionals in Israel is still lower than among the total Israeli population with the same academic qualifications (except those who received higher education in Israel). The percentage of those employed in suitable professions was highest among specialists in medical and paramedical fields, in life, natural, and exact sciences, and in computers. The situation was not as good for engineers, teachers, and human and social scientists.

The improvement in the professional employment status of immigrants is explained by three main factors: 1. Integration into Israel, the longer the immigrants have been in the country (including learning Hebrew and English, professional training, active job hunting, acquiring professional connections in Israel, etc.); 2. The rapid growth of hi-tech industries and the creation of jobs in the "Russian sector" itself; 3. The process of the changing of generations, as members of the older generation (most of whom did not find work in their professions) have retired and been replaced by the younger generation, who completed their education and military service in Israel.

Analysis shows that the factors associated with upward professional mobility among the immigrants are as follows: academic degree, command of Hebrew and English, occupation in country of origin (or academic discipline for those educated in Israel), length of time in Israel, and age. A very significant factor was the date of immigration (independent of the number of years in the country) and the professional employment of the spouse. Gender, place of residence in Israel, Jewish/non-Jewish, republic of origin, and professional training courses were found to have a lesser (but nonetheless significant) impact.

Despite the considerable achievements that FSU immigrants have made with regard to their professional employment, many challenges remain—above all, increasing funding for science, education, and health, which will generally increase the number of places of work in these fields (i.e., for immigrants as well as the general population); providing support for hi-tech enterprises (in the periphery as well as the center); reducing the cost of housing (particularly in the Jerusalem area, where there are many cultural, public, and scientific organizations); taking account of the level of education and professional skills of clients

of the employment service and other programs of this kind. Moreover, in light of the differences found in the professional employment of the *olim* in Israel and the Jewish immigrants in the United States, successful professional integration of *olim* (and not only those from the FSU) is particularly timely, above all to prevent a brain drain from Israel.

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Part D

Transnationalism