Ethnicity and Labour Market Performance among Recent Immigrants from the Former Soviet Union to Israel

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The study is designed to examine the effect of ethnic origin on the economic performance of immigrants from the former Soviet Union in the Israeli labour market, as measured by (1) labour-force participation; (2) occupational mobility; and (3) earnings. We differentiate between two distinct groups of immigrants: those who came from Asia and those who came from European republics of the former Soviet Union. All immigrants arrived in Israel during the last quarter of 1990. Data on these immigrants were obtained from a longitudinal special survey conducted by the Israeli Central Bureau of Statistics in 1992, 1993, and 1994. The results show that gender and ethnicity are major determinants of immigrants' assimilation into the Israeli labour market. The effect of ethnic origin is evident in all measures of economic performance among women, and in earnings among men. Other things being equal, Asian women are less likely than European women to participate in the labour force, to work in high-status occupations, and to earn as much as European women do. Asian men earn less than equally qualified European men. These findings are discussed in light of theoretical models of immigrants' assimilation and ethnic-based stratification.

Introduction

Sociological and economic theories suggest that when immigrants arrive at the host country, they face considerable hardship. They are not familiar with the new labour market, they do not have command of the language, their skills are not always transferable to the local jobs, and they lack personal ties. As a result, they are likely to take the least desirable low-paying jobs. With the passage of time, however, members of most immigrant groups experience economic assimilation as manifested by upward economic mobility. They acquire language and cultural skills, they gain better knowledge of the labour market and better access to information, networks, and opportunities. Indeed, after a certain period of time in the host country, many immigrants experience perfect economic assimilation, meaning that they obtain labour-market outcomes similar to those available to native-born workers with comparable schooling and other measured characteristics (e.g. Borjas and Tienda, 1993; Chiswick, 1978; Raijman and Semyonov, 1995). Sometimes, immigrants succeed in the new labour market even better than native-born residents of the host country with similar attributes (Carliner, 1980; Chiswick, 1979; Borjas, 1990).

However, not all immigrant groups are equally successful in assimilating in the labour market of the host country (Borjas, 1994; Niedret and Farely, 1985). In the United States, for example, immigrants born in Europe do much better economically than those born in Mexico (Borjas, 1982; Borjas and Tienda, 1993; Portes and Rumbaut, 1990). The former group actually overtakes native-born Americans after less than 15 years, while members of the

latter group never catch up with natives. Likewise, in Australia, immigrants from the Mediterranean countries are at an economic disadvantage in comparison to other European immigrants (Jones, 1992; Evans and Kelly, 1991). In Canada too, immigrants of Southern European origin are characterized by the lowest levels of socioeconomic outcomes (Boyd, Featherman, and Matras, 1980; Chiswick and Miller, 1988). Finally, in Israel, immigrants of European or American origin are found to be more successful than immigrants of Asian or North African origin in the attainment of labour-market outcomes (e.g. Boyd, Featherman, and Matras, 1980; Haberfeld, 1993; Semyonov, 1997; Semyonov and Lerenthal, 1991).

It thus seems that ethnicity plays a major role in the assimilation of immigrants into the host country. What is it in ethnicity that affects assimilation? Surely, part of the ethnicity effect reflects different levels of labour-market discrimination in the host country. That is, some immigrant groups are more discriminated against than others. There are several theories attempting to explain the presence of market discrimination on the basis of ethnicity, gender, and race (for a recent review of these theories, see Darity and Mason, 1998). These theories can explain the continuing *lower* standing of certain immigrant groups (e.g. Mexicans in the USA, and immigrants from Asia and Africa in Israel) compared with the relative success of other immigrant groups (e.g. European immigrants in the USA and Israel).

Discrimination, however, can only provide a partial explanation for differential levels of assimilation. Discrimination *per se* cannot explain the observation that some immigrant groups do even *better* than native-born workers with similar measured characteristics. What can then explain this success of some ethnic groups? The theory of immigration suggests that processes of positive self-selection in the country of origin must be at work. If immigrants earn more than natives of the same schooling, age, and other measured characteristics do then they must have an advantage in other unmeasured traits that determine income. Unmeasured variables such as motivation, risk taking, ambition, or quality of education are used to explain the fast assimilation of certain groups of immigrants (Chiswick, 1979). For example, it is quite possible that while two ethnic groups of immigrants with the same average years of schooling arrive at the host country, the assimilation rate of one group is faster because its schooling quality is higher than that of the other group. Thus, assimilation of immigrants in the labour market is affected both by measured and unmeasured attributes or correlates of ethnicity. The unmeasured correlates of ethnicity are divided into two distinct types. The first pertains to market discrimination against certain ethnic groups, which tends to lower their average earnings. The second includes unmeasured, income-enhancing traits that tend to raise the average earnings of members of those groups who possess them.

Not only is the impact of ethnicity on economic assimilation of immigrants rather complicated, it is additionally difficult to separate the net effect of ethnicity from other important determinants of economic success. First, all immigrants coming from the same country of origin are assumed to have similar skills and an identical cultural background. This assumption, however, does not hold true in all situations, especially in cases of immigrants from multi-ethnic societies. For example, large variations in skills were found between Arab and Jewish immigrants from Israel to the United States (Cohen, 1996; Cohen and Tyree, 1994), or among Jewish ethnic groups in Israel (Semyonov and Lerenthal, 1991). Thus, we have to make a clear distinction between ethnicity and country of origin because they are not necessarily identical. Second, it is impossible, in many cases, to separate the effect of ethnicity from the cohort effect (Borjas, 1990) because immigrants of the same ethnic origin tend to arrive at the country of destination at the same time. As a result, there is hardly any variation in time of arrival among immigrants of the same ethnicity coming from the same source country (Haberfeld, 1993).

One way to overcome these problems and to estimate the net effect of ethnicity on economic assimilation is to examine two groups of immigrants arriving in a host country at the same time, and from the same country, but from two different ethnic backgrounds. By doing this, we are able to control for three inter-dependent main effects: the length of time which immigrants spent in their new country of residence (the 'years since migration' effect); the time period at which they arrived in their place of destination (the 'cohort' effect); and the time

period in which the data used to estimate immigrants' assimilation empirically were collected (the 'period' effect). Usually, it is impossible to control for all three effects in one model due to a problem of over-identification because some effects are perfect functions of the others (Borjas 1992; 1990). As a result, researchers often have to give up the idea of deriving unbiased estimates of ethnic effects on the economic success of immigrants.

The recent wave of Jewish immigrants from the former Soviet Union to Israel provides us with a unique opportunity for estimating the unbiased net effect of ethnicity on immigrants' economic assimilation. This migration wave contains two different ethnic groups. One group of immigrants arrived from the European republics of the former Soviet Union, while the other came from its Asian republics. The Asian republics are less urban, less developed, and more traditional than the European republics (Smith, 1996). These unique circumstances allow us to test for an ethnic effect in a natural-experiment environment, as immigrants from the two ethnic origins arrived in Israel from the same country (the former Soviet Union) at the same time.

Jewish Migration and Ethnicity in Israel

The Jewish population of Israel is characterized by an ethnic cleavage between two major groups: those of European and American origin (known as 'Westerners'), and those of Asian and of African origin (known as 'Easterners'). There are persisting socioeconomic gaps between Western and Eastern Jewish immigrants in Israel. The latter group is subordinate to the former in every aspect of socioeconomic status including education, income, and wealth (Boyd, Featherman, and Matras, 1980; Haberfeld, 1993; Semyonov, Lewin-Epstein, and Spilerman, 1996). Moreover, these gaps seem to persist and are evident among second-generation immigrants as well (Cohen and Haberfeld, 1998; Haberfeld, 1993).

The ethnic cleavage developed following the influx of immigrants to Israel after its establishment in May 1948. At that time there were about 600 000 Jews in the newly established state of Israel, mostly foreign born and of European origin. Between 1949 and 1952 this population doubled as a result of a policy of actively attracting similar numbers of immigrants, mainly European survivors of the Jewish Holocaust, and Jewish residents of Arab countries in Asia and North Africa. Between 1953 and 1970, an additional 660 000 Jews immigrated to Israel, 45 per cent of them of European and American origin, and the others of Asian and African origin. During the 1970s, approximately 310 000 Jews arrived in Israel. About one half of them came from the Soviet Union, and 87 per cent were of European or American origin. Between 1980 and 1988 the flow of immigrants declined and only 130 000 immigrants (74 per cent of them from Europe and America) arrived in Israel (Israel, 1995).

The winter of 1989 was a turning point in the immigration flow to Israel. Since the downfall of the former Soviet Union, a mass of immigrants have arrived from both the European and Asian Soviet republics to Israel. Between the beginning of 1989 and the end of 1992 more than 400 000 immigrants, most of them from European republics, settled in Israel, increasing the size of the Israeli population by approximately 10 per cent.

The former Soviet Union was divided into eight Asian republics, six European republics, and one republic (Russia) which had territories in both Asia and Europe. The European republics are more developed than those located in Asia in terms of industrialization, urbanization, and economic development (Smith, 1996). Slow urbanization processes combined with economies that are based on agriculture helped to maintain traditional ways of life in the Asian republics.[1] When compared to European Jews, Asian Jews had lived in smaller communities, in more traditional and less developed areas, and were characterized by lower levels of education and a younger age (Altschuler, 1980).

The literature on the assimilation of immigrating Jews from the former Soviet Union has grown substantially during the last decade (for a review of these studies, see Sikron and Leshem, 1997). However, as far as we know, the effect of ethnic origin on their performance in the labour market has not been studied yet. In fact, there is no distinction in official statistics between the two groups, and all immigrants from the former Soviet Union are considered to be Europeans. The purpose of this study

is to examine the net effect of ethnic origin on modes of labour-market assimilation.[2] Specifically, we analyse the effect of ethnic origin among immigrants from the former Soviet Union on three outcomes:

1. labour force participation;
2. occupational mobility; and
3. earnings.

Such analyses are particularly important because they avoid interrelations that are usually present in other studies of immigrants' assimilation, namely interrelations between ethnicity, country of origin, and cohort effects. Judging by Israel's past history with Eastern immigrants, we expect the ethnic origin of immigrants from the former Soviet Union (i.e. Asians vs. Europeans) to exert a significant effect on their modes of incorporation into the Israeli labour market. Specifically, we expect that immigrants from European republics will be more successful in their incorporation into the Israeli labour market than immigrants from the Asian republics.

Methods

The data used in this study were obtained from a longitudinal special survey conducted by the Israeli Central Bureau of Statistics among recent immigrants from the former Soviet Union. The special survey was designed to examine the labour-market assimilation of these immigrants. A sample of approximately 3300 people was selected from the population of about 65 400 immigrants arriving from the republics of the former Soviet Union to Israel during the last quarter of 1990. Participants were interviewed by experienced interviewers three times: in 1992, in 1993, and in 1994. The response rate was 87 per cent, leaving us with approximately 2850 respondents. They were asked detailed information about their demographic and social characteristics, as well as about their labour-market characteristics in both the former Soviet Union and Israel.

Our focal year for the present study is 1994 – the latest interview available. In that year, respondents had been in their new country for some three years. In addition, we used some data collected in the 1992 wave that were not available in 1994, concerning, for example, occupation prior to migration. We limited the analyses to individuals who were 24–65 years old in 1990, and who provided full information on the relevant variables in both 1990 and 1994.

The sample was first divided on the basis of gender, and then into European and Asian immigrants on the basis of respondents' republic of birth. Europeans were defined as those born in Belarus, Estonia, Latvia, Lithuania, Moldova, Russia, or Ukraine. Asians were defined as those immigrants who were born in Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenstan, or Uzbekistan. Taken together, these selection procedures and divisions yielded four sub-samples of immigrants: 738 European women, 196 Asian women, 626 European men, and 179 Asian men.

Four dependent variables were used in the analyses to capture various aspects of economic performance:

1. Labour-force participation (LFP) – a dummy variable coded as '1' if the respondent was in the economically active labour force (employed or unemployed) in 1994; '0' if s/he was not in the labour force.
2. Occupational socio-economic status (OCC) in 1994 – coded according to Tyree's 100-point socio-economic scale for occupations in Israel (Tyree, 1981).
3. Occupational mobility (COST) – the first difference between occupational status in the former Soviet Union (1990)[3] and in Israel (1994).
4. Earnings (EARNINGS) – the natural logarithm of the respondent's monthly earnings in 1994 (in New Israeli Shekels).

The set of independent variables included in the analyses includes:

- European ethnicity (a dummy variable coded as '1' if place of birth is one of the European republics; '0' if place of birth is one of Asian republics);
- Two variables measuring formal education: schooling (in years of formal schooling), and the possession of an academic degree (15 years or more of schooling);[4]
- Age (in years);
- Marital status (a dummy variable coded '1' if the respondent is married; '0' otherwise);
- Knowledge of Hebrew (a dummy variable coded '1' if the respondent speaks Hebrew; '0' if not); and
- Number of hours worked (per week).

In addition, three dummy variables distinguished among three major occupational

categories: professional, technical, or managerial occupations (PTM), and clerical or sales occupations (CS), while blue-collar and service occupations were used as the omitted category.[5]

The models that were estimated to study the net effects of ethnicity on labour-market performance were examined separately for men and women. It appears that immigrant men and women behave differently in the labour market. Evidence from the United States (Sullivan, 1984; Chiswick and Sullivan, 1995), Canada (Boyd, 1984; Beach and Worswick, 1993), and Israel (Raijman and Semyonov, 1997; Semyonov, 1997) clearly show that women immigrants, especially recent immigrants, face greater difficulties than men during the assimilation process into the new labour market.

Results

Asian Versus European Immigrants – Descriptive Statistics

Table 1 presents the descriptive statistics for salaried immigrants – broken down by the four origin-gender groups. Generally speaking, the data reveal considerable differences between immigrants arriving from the Asian republics (hereafter Asians) and immigrants arriving from the European republics (hereafter Europeans) of the former Soviet Union, and between immigrant men and women.

It seems that European men have somewhat higher levels of human capital than Asian men do. They have more education, and they are older. Asian men, however, are more likely to participate in the labour force and to work longer hours. In addition, Asian men are more likely to master the Hebrew language. Finally, European men have slightly higher levels of occupational status and earnings than Asian men do. The differences in occupational status can be attributed to a higher proportion of people with academic degrees among the Europeans than among Asians. However, the difference in earnings becomes more pronounced when considering the fact that Asian men work longer hours than do Europeans.

Not surprisingly, men are more likely than women to participate in the labour force. Among those in the labour force, the market situation of women is much worse than that of their male counterparts. Their inferiority is manifested, primarily,

Table 1. *Means and standard deviations (in parentheses) for salaried workers, 24–65 years old, by ethnic origin and gender, 1994*

	Men		Women	
	Europe	**Asia**	**Europe**	**Asia**
Labour-force participation (%)	86.4	89.9	71.3	66.3
Occupational status	40.0	37.0	38.1	32.8
	(21.4)	(20.2)	(21.0	(20.0)
Professional, technical, and managerial (%)	25.0	17.0	27.4	17.3
Clerical and sales (%)	4.8	5.2	17.9	16.0
Earnings	2756.6	2660.7	1875.8	1799.1
	(1236.8)	(1000.4)	(1042.9)	(1075.4)
Hours of work	50.9	53.9	39.8	42.5
	(12.2)	(12.1)	(13.0)	(14.8)
Years of schooling	14.5	13.4	14.3	14.7
	(2.8)	(3.1)	(2.4)	(2.8)
Academic degree (%)	58.1	45.2	56.9	50.0
Age	43.3	39.9	40.8	39.1
	(9.9)	(8.9)	(8.6)	(8.0)
Married (%)	92.4	91.8	85.3	82.7
Speaks Hebrew (%)	58.7	64.9	74.9	76.0
N	460	134	334	75

by women's low earnings despite their high level of human capital and high-status occupations. In part, this is because men work longer hours than do women.

European women are somewhat older than Asians and are more likely to be married. Schooling is a particularly interesting variable because Asian salaried women have, on average, a higher schooling level than that of all the other groups, including European men. This result, combined with their lower rate of labour-force participation, is probably a reflection of a more intensive process of positive self-selection into the labour market among Asian women who are coming from a traditional setting than among other groups of immigrants from the former Soviet Union.[6] Finally, European women hold higher status occupations and earn more than do Asian women, despite the longer working hours of the latter group.

Determinants of Labour-Force Participation

In this section of the analysis we examine the effect of the independent variables on the likelihood of joining the economically active labour force. The model used was an individual-level (ungrouped) logit regression. The model predicts, for each observation i, the probability that $Y=1$ (that is, that i participates in the labour force) as indicated by the following equation:

$$P_{i(\mathrm{LFP})} = 1/1 + \mathrm{e}^{-x_i\beta} \qquad (1)$$

where x_i denotes a vector of explanatory variables and β is a vector of coefficients, including a constant term. P ranges from 0 to 1. The vector of explanatory variables includes schooling, an academic degree, age, being married, knowledge of Hebrew, and ethnic origin. The model was estimated for the entire sample (with gender-origin indicators), and separately for men and for women. The results of these analyses are displayed in Table 2.

The findings revealed by the analysis underscore an interesting interaction among labour-force participation, ethnicity, and gender. First, the likelihood of female immigrants from the former Soviet Union joining the labour force is much lower than that of male immigrants with equivalent qualifications (column 1). Second, ethnicity exerts a significant effect on labour-force participation only among women. More specifically, women of European origin are more likely to join the labour force than Asian women. In addition, younger, married immigrants, and those who speak Hebrew were more likely to join the labour force than older, unmarried immigrants who do not yet speak Hebrew. These results were found both among men (column 2) and among women (column 3).[7]

Table 2. *Coefficients of the determinants of joining the labour force: results of a logit analysis (S.E. in parentheses), 1994*

	Entire sample	Men	Women
Years of schooling	0.083*	0.036	0.112*
	(0.034)	(0.052)	(0.046)
Academic degree	−0.37	0.050	−0.562*
	(0.210)	(0.378)	(0.255)
Age	−0.108*	−0.121*	−0.108*
	(0.008)	(0.015)	(0.010)
Married	0.942*	2.026*	0.698*
	(0.192)	(0.427)	(0.211)
Speaks Hebrew	0.942*	1.220*	0.868*
	(0.179)	(0.344)	(0.218)
Europe	–	0.267	0.781*
		(0.344)	(0.227)
Origin × gender[a]:			
Asian woman	−1.876*		
	(0.253)		
European woman	−1.128*		
	(0.178)		
Asian man	−0.164		
	(0.328)		
Constant	5.144	4.985	3.119
Pearson χ^{2}[b]	613.6	181.3	365.0
d.f.	1715	790	921

[a]The omitted category is a European man.
[b]The Pearson χ^2 statistic is not distributed as chi square because it is derived from individual (ungrouped) data. As a result, a test of goodness-of-fit cannot be performed.
*$p < 0.05$.

Determinants of Occupational Assimilation

Two types of model were estimated in order to examine the ethnic effect on occupational assimilation. In the first model, occupational status in Israel (in 1994) is taken as a function of schooling, holding

an academic degree, age, being married, speaking Hebrew, and European origin. The model was estimated first for the entire sample, and then separately for men and women, as follows:

$$OCC_i = X_i'B \quad (2)$$

where OCC_i is the 1994 occupational status of the ith person, X_i is the vector of independent variables, and B is a vector of their coefficients (including the intercept). The coefficients of these models, as estimated by an OLS regression procedure, are presented in Table 3.

The findings revealed by the regression analysis demonstrate that women, regardless of origin, are likely to hold occupations of lower socioeconomic status in comparison to both European and Asian men of equal qualifications. When separate analyses were performed for men and women we found that European women held higher-status occupations than similar Asian women. However, differences between European and Asian men were not statistically significant. In addition, it is important to note that higher levels of schooling, knowledge of Hebrew, and young age exert significant positive effects on the occupational socio-economic status of immigrants in 1994.

The second type model focuses on the loss of occupational status (or rate of downward occupational mobility) suffered by recent immigrants in the transition from the former Soviet Union to Israel. The dependent variable in this case is the relative cost in terms of loss of occupational status:

$$Cost_i = (OCC_{it0} - OCC_{it1})/OCC_{it0} \quad (3)$$

where OCC_{it0} is the occupational status of immigrant i in the former Soviet Union prior to migration, and OCC_{it1} is the immigrant's occupational status in Israel, approximately 39 months after arrival. The estimated OLS equation for this model is specified as follows:

$$Cost_i = X_i'B \quad (4)$$

where X is the vector of determinants, and B is a vector of their coefficients. Table 4 describes the mean changes in the immigrants' occupational status over time.

The findings revealed by the analysis indicate that the highest loss in terms of socio-economic status was experienced by women. Asian women suffered an average 27.4-point decline in their occupational status, and European women suffered an average 24.9-point decline in the transition from the former Soviet Union to Israel. These figures are translated into 41 per cent and 35 per cent relative reductions (see equation (3)) in the occupational status of

Table 3. *Coefficients of the determinants of occupational status in 1994: results of an OLS analysis (S.E. in parentheses)*

	Entire sample	Men	Women
Years of schooling	1.40*	1.32*	1.30*
	(0.289)	(0.394)	(0.434)
Academic degree	11.57*	14.13*	9.41*
	(1.526)	(2.235)	(2.093)
Age	−0.30*	−0.29*	−0.32*
	(0.065)	(0.088)	(0.096)
Married	−0.94	0.678	−1.88
	(1.646)	(2.775)	(2.059)
Speaks Hebrew	8.05*	6.02*	10.95*
	(1.350)	(1.775)	(2.088)
Europe	–	1.11	4.03*
		(1.845)	(1.985)
Origin × gender[a]:			
Asian woman	−8.25*		
	(2.000)		
European woman	−4.39*		
	(1.252)		
Asian man	−1.68		
	(1.831)		
Constant	23.8	21.32	17.57
N	1318	670	648
R^2	0.235	0.250	0.216

[a]The omitted category is a European man.
*$p < 0.05$.

Table 4. *Means and standard deviations (in parentheses) of changes in occupational status for salaried workers, 24–65 years old, by gender and ethnic origin*

	Men		Women	
	Europe	Asia	Europe	Asia
Absolute cost	14.00	19.35	27.42	24.87
$t_0 - t_1^a$	(24.86)	(24.09)	(22.40)	(23.42)
Relative cost	0.16	0.26	0.41	0.35
$t_0 - t_1/t_0$	(0.470)	(0.382)	(0.319)	(0.348)

[a]t_0=occupational status in the former Soviet Union.
t_1=occupational status in Israel, 1994.

Asian and European women respectively. The decline in men's occupational status was somewhat less pronounced but still substantial. European men lost, on average, 19.4 status points and Asian men lost 14.0 status points in the transition from the former Soviet Union (t_0) to Israel (t_1). These absolute losses represent an approximate one-quarter reduction in the relative occupational status of European men, and a 16 per cent reduction in the relative status of Asian men. In sum, all groups suffered considerable losses in their occupational status when migrating from the former Soviet Union to Israel. The smallest relative decline between t_0 and t_1 was experienced by Asian men (16 per cent), and the highest decline was suffered by Asian women (41 per cent).

In Table 5 we examine the impact of the social and demographic characteristics of immigrants on their relative loss in occupational status between t_0 (while still in the Soviet Union) and t_1 (in 1994) according to the model specified in equation (4).

The results in column 1 indicate that the loss in occupational status experienced by both groups of women was considerably greater than that suffered by European men. Asian women experienced an average loss in occupational status of 11 per cent more, and European women lost, on average, 5 per cent more than the average loss of European men of equal characteristics. The loss for Asian women was found to be larger than that for European women, although at a significance level greater than 0.05 (column 3). The difference between Asian and European men in loss of occupational status was not statistically significant. In addition, the relative loss in occupational status tends to rise with age and among those who held high-status occupations (PTM and CS) in the country of origin. Schooling tends to lower the relative status loss among men, and knowledge of the Hebrew language tends to lower the relative status loss among women.

Table 5. *Coefficients of the determinants[a] of relative cost in occupational status between t_0 and t_1: results of an OLS analysis (S.E. in parentheses)*

	Entire sample	Men	Women
Years of schooling	−0.011*	−0.016*	−0.003
	(0.005)	(0.007)	(0.008)
Academic degree	−0.028	−0.052	−0.013
	(0.028)	(0.045)	(0.036)
Age	0.007*	0.007*	0.007*
	(0.001)	(0.002)	(0.002)
Married	0.016	−0.018	0.039
	(0.029)	(0.052)	(0.034)
Speaks Hebrew	−0.100*	−0.061	−0.159*
	(0.024)	(0.033)	(0.035)
Occupation at t_0[b]			
Professional, technical, and managerial	0.390*	0.417*	0.374*
	(0.029)	(0.039)	(0.046)
Clerical and sales	0.292*	0.287*	0.298*
	(0.041)	(0.071)	(0.055)
Europe	–	0.043	−0.062
		(0.034)	(0.033)
Origin × Gender[c]:			
Asian woman	0.110*		
	(0.037)		
European woman	0.048*		
	(0.023)		
Asian man	−0.036		
	(0.032)		
Constant	−0.060	−0.019	−0.055
N	1234	648	586
R^2	0.211	0.207	0.169

[a]Variables measured at t_1 (1994).
[b]The omitted category for occupational group in the former Soviet Union is blue-collar and services.
[c]The omitted category is a European man.
*$P < 0.05$.

Determinants of Earnings

In the final section of the analysis we examine whether ethnicity affects the earnings of immigrants. To this end we used a conventional OLS earnings model in which the natural logarithm of monthly earnings in 1994 serves as the dependent variable. The vector of determinants includes schooling, age, hours of work, and a set of dummy variables coded '1' if the respondent has an academic degree, is married, speaks Hebrew well, is employed in a PTM occupation or is employed in a CS occupation.[8] A variable usually included in such models – immigrants' length of time in Israel – was not included here since all respondents arrived in Israel during the same 3-month period in 1990. The model was estimated for the entire sample (with gender-origin indicators), and separately for men and women, as follows:

$$\ln(\text{EARNINGS})_i = X_i' B \quad (5)$$

where X_i is a vector of the above earnings determinants of the ith person, and B is a vector of their coefficients. The results of this analysis are presented in Table 6.

Not surprisingly, hours of work and being in a high-status occupation affect the earnings of both men and women. Young age and being married affect (positively) men's earnings only, while a good knowledge of Hebrew exerts a positive effect only on women's earnings. Schooling has no effect on the earnings of either men or women immigrants, mainly because of its high correlation with PTM occupations.

Table 6. *Coefficients of the determinants of monthly earnings in 1994: results of an OLS analysis (S.E. in parentheses)*

	Entire sample	Men	Women
Years of schooling	0.006	0.008	0.002
	(0.007)	(0.009)	(0.011)
Academic degree	−0.016	0.015	−0.031
	(0.038)	(0.053)	(0.052)
Age	−0.006*	−0.008*	−0.004
	(0.002)	(0.002)	(0.003)
Married	0.049	0.218*	−0.044
	(0.040)	(0.063)	(0.050)
Speaks Hebrew	0.100*	0.070	0.125*
	(0.033)	(0.040)	(0.053)
Hours of work	0.021*	0.015*	0.026*
	(0.001)	(0.001)	(0.001)
Occupation[a]:			
Professional, technical and managerial	0.366*	0.228*	0.500*
	(0.033)	(0.045)	(0.048)
Clerical and sales	0.051	−0.048	0.118
	(0.048)	(0.080)	(0.061)
Europe	–	0.095*	0.083
		(0.041)	(0.050)
Origin × Gender[b]:			
Asian woman	−0.366*		
	(0.051)		
European woman	−0.273*		
	(0.033)		
Asian man	−0.100*		
	(0.043)		
Constant	6.692	6.883	6.151
N	1131	590	541
R^2	0.511	0.283	0.547

[a]The omitted category for occupational group in Israel is blue-collar and services.
[b]The omitted category is a European man.
*$p < 0.05$.

Results regarding the effect of ethnicity (column 1) indicate that all three groups earn significantly less than European men do. Asian women earn, on average, 37 per cent less, European women 27 per cent less, and Asian men earn, on average, 10 per cent less than European men of equal measured qualifications. Although Asian women earn, on average, 8 per cent less than comparable European women (column 3), this difference is statistically significant ($p=0.10$) at a lower level than the conventional 0.05 level. In other words, when the social and demographic characteristics of immigrants are taken into account, both gender and ethnicity exert significant net effects on earnings of recent immigrants from the former Soviet Union. Even after controlling for differences in earnings determinants, the groups of women earn significantly less than the two groups of men (column 1),[9] and in both gender groups Asians earn less than Europeans.

Discussion

The main purpose of this study was to analyse the effect of ethnicity on labour-market performance. We focused on recent immigrants from the former Soviet Union, and evaluated their labour-market status and economic assimilation in 1994, three years after they had arrived in Israel. We distinguished between two ethnic groups of immigrants: those who arrived from the less developed Asian republics, and those arriving from the more developed European republics of the former Soviet Union. Since both groups arrived from the same country at the same time, we had a unique opportunity – rarely available in previous immigration studies – to disentangle the effect of ethnicity on economic progress from the effects of cohort, years since migration, and country of origin.

The descriptive statistics suggest that there are differences in the labour-market performance of the two ethnic groups. European-born men have higher levels of schooling, and slightly higher levels of occupational status and annual earnings than Asian-born men. Among immigrant women, those born in European republics are more likely

to join the labour force, to have an academic degree, and to achieve high-status occupations and a high level income than immigrant women who were born in the Asian republics. Asian women in the labour force, however, have more years of schooling than Europeans. Taken together, the pattern and direction of the results conform to the existing stratification in Israeli society: those who come from Europe do better than those who come from Asia. Interestingly, the ethnic socioeconomic gaps among recent immigrants from the former Soviet Union appear to be as small as the gaps observed during 1948–51 between immigrants arriving in Israel from Asia (especially Iraq) and Europe (survivors of the Jewish Holocaust) at that period (Nahon, 1987).

The multivariate analyses did not detect a simple main ethnic effect that cuts across both gender groups and the three outcome variables (labour-force participation, occupational status, and income). Rather, the results are gender-specific. Among men, the disadvantage of Asian origin is limited to earnings, but not to labour-force participation nor to occupational status and status loss. In other words, ethnicity does not affect participation and occupational status among demographically comparable men from Asia and Europe. However, immigrant men who were born in the Asian republics earn almost 10 per cent less than European men of the same schooling, occupation, age, and other measured characteristics. Following the theoretical discussion presented at the outset of the paper, we suggest that this earnings gap between European and Asian immigrant men is the result of unmeasured factors associated with ethnic origin. It is possible, for example, that the quality of schooling of Europeans and the extent of their skills transferability are higher than those of Asians due to the higher levels of industrialization, urbanization, and economic development of the European regions in the former Soviet Union.

Another possible factor that is associated with ethnicity and cannot be measured in conventional earnings models similar to the one estimated here is the factor of norms, values, and socialization. It is also possible that Europeans differ from Asians in the importance attached by them to labour-market success on the one hand, and to family life on the other. If Europeans value earnings and a labour-market career more than family life, and if Asians have the opposite value system, then this difference might lead to an earnings gap that cannot be detected by our model. More troubling, however, is the not unlikely possibility that Asian immigrant men suffer from labour-market discrimination in Israel. Previous studies have repeatedly detected patterns of labour-market discrimination against Israelis of Asian or African origin (e.g. Cohen and Haberfeld, 1998). Indeed, the possibility of discrimination against recent immigrants from the Asian republics cannot be disregarded and deserves further empirical investigation.

The effect of ethnicity on labour-market assimilation among women is more complex than among men, mainly because all women immigrants appear to be at a double disadvantage irrespective of ethnicity. Women immigrants in the Israeli labour market are penalized first for being immigrants and second for belonging to the subordinate gender group. Regardless of ethnicity and other variables, immigrant women are less likely than their male counterparts to join the labour force, to attain high-status occupations, and to achieve high earnings. In addition, the immigration process from the Soviet to the Israeli labour market resulted in much greater occupational loss among women than among men. Notwithstanding the role played by ethnicity in the labour-market performance of immigrants from the former Soviet Union, we wish to emphasize that gender-based inequalities in the assimilation process of these immigrants dwarf the ethnic-based inequalities. These gender-based differences are probably the result of persistent economic discrimination against women in the Israeli labour market which has not declined much during the past two decades (Haberfeld and Cohen, 1998; Haberfeld, 1993).

While all immigrant women are at a double disadvantage, those born in the Asian republics appear to be at a triple disadvantage (Raijman and Semyonov, 1997) in all three measures of labour-market assimilation. Women who were born in the Asian republics are less likely to join the labour force than European women of the same demographic characteristics, probably because of 'tradition' which affects values and preferences regarding market work. Both theory and empirical studies suggest that women coming from less

developed, more traditional Asian republics have different preferences for market work and housework than women who grew up in the more developed, less traditional European republics of the former Soviet Union. This being the case, a higher proportion of less educated Asian women self-select themselves out of the Israeli labour market than Europeans of similar schooling levels. Consequently, the rate of participation among Asians is lower than among Europeans, and the average years of schooling among Asian women in the labour force is higher than the average among European women. Similar explanations for the entrance of highly qualified women into the labour market were addressed by Boserup (1970) for women in traditional societies, and by Semyonov and Lewin-Epstein (1994) for Arab women in Israel.

Although positive self-selection of Asian women into the labour force might be associated with their lower participation rates and higher levels of schooling, it cannot account for their occupational and earnings disadvantage when compared to European women.[10] Following the theoretical considerations presented in the introduction, and consistent with explanations regarding gaps between Asian and European immigrants, we suggest that part of the gap between them may be due to unmeasured determinants of earnings that are not included in the analysis (i.e. better quality and/or transferability of schooling obtained in European than in Asian republics of the former Soviet Union, and differences in norms, values, and socialization processes experienced by European and Asian women). The second possibility, which cannot be ruled out, is that of labour-market discrimination against Asian women immigrants. Previous studies (e.g. Raijman and Semyonov, 1997) have demonstrated the double disadvantage facing recent immigrants from Asia and North Africa in the Israeli labour market.

We have tried to illustrate the complexities associated with the attribute of ethnicity. Sociological theories and research tend to equate ethnicity of immigrants with their country of origin. This is often done due to lack of detailed data about the ethnicity of immigrants. Our study clearly shows that ethnicity is not always identical to country of origin, and that the two constructs are not interchangeable. Ethnicity was found to be linked to both measured and unmeasured differences among immigrants arriving in Israel from the same country and at the same time. While observed differences between ethnic groups of immigrants are easy to describe, unobserved differences require more research and different data from those available to us. Indeed, the differences associated with ethnicity exert a significant impact on the socio-economic success of immigrants in the host country.

Notes

1. In addition, most Jewish communities in the Asian republics avoided the destruction during World War II experienced by the European communities. This fact helped even more in preserving the traditional aspects of the Asian Jewish communities.
2. A key assumption in our study is that the reasons and motivation of the immigrants from the former Soviet Union to leave their home and migrate to Israel were similar among Asians and Europeans. Assuming that, we can compare the process of economic performance between the two groups.
3. Occupational status in the former Soviet Union was also coded according to Tyree's 100-point socio-economic scale for occupations in Israel (Tyree, 1981) because using the same coding scheme for occupational status both in the former Soviet Union and Israel enables us to calculate the occupational loss suffered by the immigrants. Furthermore, it has been demonstrated that occupational status across countries is very similar (Treiman, 1977).
4. A high-school diploma was granted in the former Soviet Union to students with 10–11 years of schooling. People with 4–5 years of post-high-school studies were eligible for a BA degree.
5. Since all respondents arrived in Israel during the last quarter of 1994, there is no need to control for variation in the time since their migration.
6. An indication of such an intensive self-selection process is the average years of schooling of all Asian women, including those outside the labour force. It was lower (13.7 years, data not shown) compared with the average of those in the labour force (14.7), while in the other three cases the mean schooling of the entire group was appreciably the same (13.6 for Asian men, 14.2 for European women, and 14.5 for European men) as the mean schooling of those in the labour force. European women, however, score higher on the second measure of education – the proportion having an academic degree.

7. Unfortunately, indicators of number and age of children were not included in the analyses due to the poor quality of these data. Such an omission might bias the above results, especially for women. Adding the immigrants' occupation in t_0 (i.e. their occupation in the Soviet Union) to the model (results are not shown) did not change greatly the patterns presented in Table 2.
8. It can be argued that incorporating occupational indicators into an earnings model might bias the results because women are not faced with the same occupational opportunities in the labour market as men. When an earnings model excluding occupational indicators was re-estimated, we obtained similar results. The main changes were that the human-capital variables (years of schooling and age) affected women's earnings significantly, and that speaking Hebrew was found to affect men's earnings in the equation omitting occupations.
9. The earnings gaps between the two groups of women and Asian men of equal qualifications are both significantly different from zero.
10. In order to test the empirical status of this claim, we re-estimated women's occupational status-attainment model (2) and added a correction for a possible bias resulting from a more intensive selection process of Asian women into the Israeli labour force (Heckman, 1980). The inverse Mills' ratio has a negative and insignificant coefficient. This result suggests that there is probably no positive self-selection of Asian women into the labour force. When the occupational status model was corrected for a possible selectivity bias, the premium in occupational status enjoyed by European women declined from four status points (Table 3, third column) to 2 status points, but remained significantly different from zero.

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