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**Ethnicity and Mixed Ethnicity:  
Educational Gaps among Israeli-born Jews**

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## **Abstract**

This paper analyzes gaps in the college graduation rates of third-generation Ashkenazim and Mizrahim (the two major ethnic groups among Israeli Jews), in comparison to the same gaps among members of the second generation. The empirical analyses have been performed using a special file of the 1995 Israeli census which matched records of respondents to their parents in the 1983 Census, thereby allowing identification of the ethnicity of the third generation for a representative sample of men and women, 25-34 years of age in 1995, as well as the identification of persons of mixed ethnicity. The results suggest that the gaps between the two major ethnic groups are not smaller in the third generation than in the second generation. Persons of mixed ethnicity – of both the second and third generations – are located about midway between the two ethnic groups with respect to their college graduation rates. Much of the ethnic-based gap in college graduation is due to differences in family background, especially among women. The same pattern of results is observed among persons of mixed ethnicity: holding parental characteristics constant, women of mixed ethnicity are as likely as Ashkenazi women to be college graduates, while among men, the chances of college graduation depend on the mother's ethnic origin. We discuss the implications of these results for the future of ethnic-based stratification in Israel.

## **Introduction**

Israeli Jewish society is characterized by an ethnic cleavage between Jews who immigrated to Israel from Europe and America (henceforth, Ashkenazim), and those from Asia and Africa (henceforth, Mizrahim). There are persisting socioeconomic gaps between Ashkenazim, who have achieved high levels of education and earnings, and their Mizrahi counterparts, who have never caught up with them or with native-born Israelis. Moreover, the gaps between the two immigrant groups with respect to the main socioeconomic measures, college graduation and earnings, seem to be as persistent among the immigrants' offspring (henceforth, second-generation immigrants) as among the immigrants themselves.

Ethnic origin is defined by the Israeli Central Bureau of Statistics (CBS) strictly by one's country of birth, and for the Israeli-born, by father's country of birth. Consequently, members of the third generation (Israeli-born with Israeli-born fathers) – close to one third of the Jewish population in 2002 – are defined in official statistics as being of “Israeli origin” (Cohen 2002). The reliance on parents' country of birth as the sole indicator of ethnicity, together with the decision to trace it back only one generation, results in the elimination of ancestry and ethnicity from official statistics within two generations, or about fifty years. Moreover, relying on the country of birth of one parent only (usually the father) dictates a binary ethnic classification, whereas increasing numbers of Israeli-born Jews are of mixed ethnicity (i.e., one of their parents is Ashkenazi and the other Mizrahi). Eliminating ethnic groupings (and with them ethnic gaps) and adopting an unequivocal "Israeli" identity have been central goals of the Israeli melting pot. However, this kind of administrative “Israelization” limits the ability of researchers to test whether or not the socioeconomic gaps in the third generation have indeed disappeared, or at least narrowed.

Fortunately, the Israeli Central Bureau of Statistics (CBS) recently created a file that enables the identification of the ethnic origin of third-generation Israelis. This paper utilizes this data set to describe and analyze the relative size of ethnic groups and the schooling levels among all Israeli-born Jews, according to their ethnic origin.

Specifically, the paper presents analyses of the gaps in schooling levels between third-generation Ashkenazim and Mizrahim in Israel, in comparison to the gaps among members of the second generation. In addition, unlike previous research, which was forced to classify all Israeli-born Jews as of either one or the other ethnic origin, our data enable us to study a third group of Israeli-Jews,<sup>1</sup> those of mixed ethnic origin. The paper is organized as follows: the first section briefly reviews the literature regarding the development of ethnic gaps in Israel. The second section presents the data and measures used in the analyses. The third section presents descriptive statistics regarding the gaps in college graduation between the three ethnic groups, by generation, gender and age groups, as well as the relative size of the three ethnic groups. The fourth section presents multivariate analyses aimed at understanding the factors contributing to gaps in educational attainment between the ethnic groups. The final section discusses the results and their implications for ethnic stratification in Israel.

### **1. The Ethnic Cleavage in Israeli-Jewish Society**

In May 1948, the newly established state of Israel had a population of about 650,000 Jews, mostly foreign-born Ashkenazim. During the next three-and-a-half years, this relatively small Jewish population base actively attracted nearly 700,000 Jewish immigrants. About half the immigrants were survivors of the Jewish Holocaust in Europe. The other half of this immigration wave, known as the "mass migration," consisted of Jewish residents of Arab countries in Asia (the majority) and North Africa. Following a short-lived decline in 1952-1953, immigration continued, albeit at a slower pace. During the next 25 years an additional 800,000 Jews immigrated to Israel. About 45 percent of them came from Europe, America and Australia, and 55 percent from Arab countries in Asia and especially North Africa.

The social, economic, and cultural assimilation of most Ashkenazi immigrants in Israeli society was rapid and complete. By 1975, their schooling, occupations and earnings were

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<sup>1</sup> Israeli Arabs are not considered in this paper because they are neither immigrants nor the children of immigrants. Moreover, since the number of Arab-Jewish marriages is very small, there are virtually no persons of mixed Arab/Jewish ethnicity in Israel.

no different than those of native-born Israelis or of veteran immigrants who arrived in Israel during the pre-state period (Boyd, Featherman and Matras 1980). By contrast, Mizrahi immigrants had failed to achieve parity with the native population. Thus, while in other migration societies (U.S.A., Canada, and Australia) the earnings differences between most immigrant groups and natives of similar characteristics disappeared after 11-14 years (Chiswick 1978), Mizrahi immigrants, both those who arrived during the mass migration (1948-51) and those who arrived in later waves, have failed to close the socioeconomic gaps between them and the other groups – Ashkenazi immigrants and native Israelis.

Bad as the experience of first-generation Mizrahi immigrants was, it could be explained by the relatively low level of economic development of the countries of origin from which they came (Semyonov and Lerenthal 1991). But the persistence of socioeconomic gaps among the Israeli-born children of these immigrants (i.e. the second generation) is more difficult to explain. It is beyond the scope of this paper to review all the studies providing macro-sociological explanations for the persistence of the ethnic cleavage in the second generation (e.g., Spilerman and Habib 1976; Smootha 1978; Ben Refael 1982; Swirski 1990; Khazzoom 2003). More important for our purpose are the empirical findings of studies tracing and documenting developments in socioeconomic gaps across time and generations (e.g., Peres 1971; Smootha and Kraus 1985; Nahon 1987; Semyonov and Lerenthal 1991; Haberfeld 1992; Mark 1994, 1996; Cohen and Haberfeld 1998; Yaish 2001; Friedlander, Okun, Eizenbach and Elmakias 2002; Yaar 2002).

Despite the many differences between these empirical studies regarding methodology, measures of socioeconomic success, data sets, and the researchers' discipline, there is a consensus that in many spheres of life (labor force participation, marriage patterns, fertility rates, political representation, and rates of high school graduation) the ethnic gap narrowed significantly or disappeared in the second generation. However, the few studies that focused on college graduation rates and labor market earnings – arguably the two most important indicators for social standing in contemporary Israel – found that the gaps between the Israeli-born of Mizrahi and Ashkenazi origin had not been attenuated, as

compared to the differences found among their Mizrahi and Ashkenazi parents. Put differently, despite expectations that the gaps would narrow over time and between generations, college graduation rates and earnings gaps within the second generation are no smaller than the gaps observed in the first generation, nor have these gaps been appreciably attenuated over time within members of the second generation (Mark 1994, 1996; Cohen and Haberfeld 1998).

Little research has been conducted on the third generation, and even less on persons of mixed ethnicity. Two recent studies on the third generation (Dahan, Mironichev, Dvir, and Shye 2002; Friedlander et al. 2002) limited their focus to gaps in educational levels, and especially to differences in high school matriculation (but not to college graduation). They reached conflicting conclusions. The results of Friedlander et al. (2002) suggest that in the third generation, Mizrahim completely closed the ethnic gaps in matriculation diplomas and entrance to academic education (but not graduation) with Ashkenazim. By contrast, Dahan et al. (2002) report no improvements in the ethnic gaps between second- and third-generation persons in obtaining matriculation diplomas. While Friedlander et al. (2002) did not study persons of mixed ethnicity, Dahan et al. (2002) found such persons to have higher matriculation rates than Mizrahim, but lower than Ashkenazim. Given the conflicting results regarding ethnic gaps in the third generation (to which we will later return), a new study is in order.

Moreover, while a high school matriculation diploma (the main educational measure of both studies) is an important element in the Israeli educational system, serving as a prerequisite for university or college entrance, academic education is perhaps even more important for an individual's socioeconomic standing. High school matriculation does not guarantee entrance to the most sought after majors and universities, which lead to prestigious and high earnings occupations. In the labor market, the critical certificate for success has increasingly become a university degree (B.A or its equivalent) rather than high school matriculation, or other post-secondary education. The economic returns of university degrees have increased sharply in the past three decades (Dahan 2001), and by 1995 the average earnings of Israeli-born, Jewish high-school graduates, 25-54 years of

age, was only about two thirds of the average earnings of their college graduate counterparts (our analysis of the 1995 census). This being the case, the present study focuses on ethnic gaps in university graduation between Mizrahim and Ashkenazim of both the second and third generations, as well as between these two ethnic groups and the growing group of persons of mixed ethnic origin.

## **2. Data and Measures**

Our analyses are based on the matched 1983-1995 intergenerational census file that includes data for individuals (and their household members) who were in the 20 percent demographic samples of both the 1983 and 1995 censuses. This special data set is a representative sample of approximately 4 percent of the Israeli population in both census years (the probability of being included in both census samples), and it enables us to identify the ethnic origin of members of the second and third generations who resided in their parents' households in 1983. For third-generation Jews (Israeli-born, to Israeli-born parents) who resided in their parents' households in 1983, it is possible to classify the respondent's ethnicity – Ashkenazi, Mizrahi, or someone of mixed ethnicity – according to the grandfather's country of birth (obtained from the 1983 records).<sup>2</sup>

Since the matched file includes this information only for persons residing in their parents' households in 1983, the sample of respondents over 34 years old in 1995 is relatively small, and is unlikely to be representative of all the Israeli-born over 34 years of age. Consequently, we limit the analyses to Israeli-born who were 25-34 years of age in 1995

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<sup>2</sup> There are minor differences in parents' country of birth (and hence in the ethnic classification of respondents), depending on whether the information is obtained from the respondents' records in 1995 regarding their parents, or from parents' self-reports in 1983. Most of the differences are in fathers' country of birth. This is most likely due to the respondents' reporting country of birth for biological fathers, while the 1983 self-reports include information about the actual adult men who lived in the 1983 households. In cases of second marriages, the ethnicity of biological fathers (who normally leave the household) could be different from that of stepparents who moved in with the mother by 1983. We relied on the parents' self-reports, obtained from the 1983 records, for we trust this information more than the children's reports. However, with one minor exception (discussed in note # 9), the results are appreciably the same whether the parents' continent of birth is obtained from the respondents' reports in 1995 or from the parents' self-reports in 1983.

and who resided with both parents in 1983, when they were 13 to 22 years of age.<sup>3</sup> The total sample size is 10,706 individuals of the second and third generations. Since most Jews in Israel serve in the military for two or three years between the ages of 18 and 21, during which they are considered to reside in their parents' households by the CBS, the fact that the sample includes only persons residing with their parents in 1983 is not a problem for its representativeness. We also compared the marginal distributions of some characteristics of our sample (education, occupation, and earnings) by age groups to the same characteristics among the Israeli-born of the same age groups, drawn from the 1995 census and the 1995 income survey, regardless of their place of residence in 1983. The differences between the matched file and the two other samples (not shown) are very small. It thus appears that the matched file is adequate for generalizing the results to the population of Israeli-born Jews, 25-34 years of age.

Figure 1 presents the most detailed classification possible for the ethnic origin of the sample members. It includes 24 cells, representing all possible combinations of parental continent of birth, and for parents born in Israel, their fathers' continent of birth as well. In addition to parental continent of birth, each cell includes the number of respondents and the percentage of respondents with at least a B.A. degree. We classified the 24 combinations to three ethnic categories – Ashkenazim (on the right side), Mizrahim (on the left side), and mixed origin (in the middle) – based on the parents' and grandfathers' country of birth. Ashkenazim are those with at least one parent or grandparent who was born in Europe or America (E-A), and not even one parent or grandparent who was born in Asia or Africa. Similarly, Mizrahim are those with at least one parent or grandparent who was born in Asia or Africa (A-A), and none who was born in Europe or America; persons of mixed origin have at least one parent or grandparent of each ethnic origin. The 24 combinations are also classified by generation, according to parents' country of birth. Members of the second generation are defined as such if at least one of their

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<sup>3</sup> The results are unchanged if persons who resided with only one parent in 1983 are included in the analysis (and hence their ethnic origin is determined according to only one parent or grandparent).



parents was born abroad.<sup>4</sup> Members of the third generation are defined as such if both their parents were born in Israel, and at least one grandparent was born abroad.<sup>5</sup>

<Figure 1 about here>

This classification differs from most existing classifications (e.g. Cohen and Haberfeld 1998; Friedlander et al. 2002) as it relies on both parents, thereby allowing for mixed ethnic origin. Given the relatively high occurrence of interethnic marriage among Israeli Jews (Shavit and Stier 1997; Okun 2001), the proportion of persons of mixed origin, which is already appreciable (about 14 percent of the sample), is expected to grow in the future. The proportion of third-generation Jews (about 11 percent in the sample), as we will show later, is likely to increase even faster. Evidently, in the coming years the state of the ethnic cleavage among Israeli Jews will increasingly be determined by the socioeconomic achievements of members of the third generation and those of mixed ethnicity. The above classification enables us to analyze their socioeconomic achievements.

Our main measure of educational attainment is a dummy variable coded "1" if a respondent has at least a first college or university degree (usually B.A.).<sup>6</sup> The independent variables for explaining differences in educational levels are respondent's age and parental characteristics drawn from the 1983 records, at the time respondents were living in their parents' households. These include father's and mother's years of schooling, a dummy variable for each parent coded "1" if they held at least a college degree, number of children (i.e., respondent's number of siblings), father's and mother's occupation measured by dummy variables coded "1" if they held a professional technical or managerial (PTM) occupation, and (ln) family income.

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<sup>4</sup> We also estimated some of the models separating members of the second generation, both of whose parents were born abroad, from those having one parent who was born abroad and one in Israel. The results were appreciably the same.

<sup>5</sup> We excluded the few cases belonging to the fourth generation (both grandparents born in Israel). Their college graduation rates (25 percent) are similar to those of mixed ethnicity.

<sup>6</sup> The results are appreciably the same when "years of schooling" is the educational measure (Appendix A).

### 3. Descriptive Results

Figure 2 presents the percentage of respondents with at least a college degree among the three ethnic groups by generation, age group, and gender. Not surprisingly, college graduation rates increase with age, reflecting the fact that a substantial share of Israeli students graduates from college in their late 20s and early 30s (Cohen and Haberfeld 1998).<sup>7</sup> In addition, in both age groups, there are gender gaps. Women are more likely than men to be college graduates, and the gender gap widens in the third generation.

Turning to the ethnic gaps, which are the focus of our analysis, the results regarding the second generation confirm what we know from numerous previous studies: Ashkenazim are about three times as likely as Mizrahim to be college graduates. Specifically, 33 and 40 percent of Ashkenazi men and women are college graduates, compared to 10 and 13 percent among Mizrahi men and women, respectively. College graduation levels among third-generation men are slightly higher (31 percent among Ashkenazim and 10 among Mizrahim), while among women the rates increased appreciably in the third generation (47 percent among Ashkenazim and 20 percent among Mizrahim). The outstanding question, however, is whether the ethnic gaps have narrowed appreciably over the generations. Clearly, the answer to this question is negative. The ethnic gaps in college graduation rates among men and women of the third generation are about as wide as the gaps in the second generation: an absolute difference of 21-23 percentage points among men, and, 27 points among women.

<Figure 2 about here>

Persons of mixed ethnicity are located about midway between the two ethnic groups. This finding is robust. It is observed in both age groups, and in both genders and both generations. Moreover, the same pattern of results is evidenced when the measure of educational attainment used is mean years of schooling (see Appendix A) rather than the percentage of college graduates.

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<sup>7</sup> The proportions of those 25-29 years of age with less than a B.A. degree, who were still studying towards their B.A degree in 1995 and are thus expected to have graduated in the late 1990s, are appreciably higher among Ashkenazim (25%) than among Mizrahim (14%), and the results do not differ by generation.

In sum, Figure 2 suggests that the ethnic hierarchy in Israel is rather rigid and does not change much from generation to generation. That persons of mixed ethnicity are consistently located between the two major Jewish ethnic groups is perhaps another indication of the rigidity of the ethnic-based hierarchy among Israeli Jews, where Ashkenazim are at the top, followed by persons who are only partly Ashkenazi, and those with no Ashkenazi ancestry are at the bottom. However, since college graduation rates of persons of mixed ethnicity are almost twice as high as the rates among Mizrahim, the relative size of this group appears to be the key to mitigating ethnic-based stratification in Israel. Below we provide estimates of the relative size of the three ethnic groups of the second and third generations in the near future.

Figure 3 presents the distribution of the three ethnic groups for persons 12-34 years of age in 1995, by age groups and generation.<sup>8</sup> Ashkenazim (of both generations) account for about one-third of the Israeli-born in all age groups, while the proportion of Mizrahim declines from 59 to 46 percent between the older and youngest cohorts. This being the case, the proportion of persons of mixed ethnicity, which is about 11 percent among the Israeli-born of the oldest age group, increases to about 21 percent among the youngest age group. The proportion of third-generation Israeli Jews (of the three ethnic groups) has increased from about 8 percent of the oldest group to about 38 percent among the youngest age group. Specifically, in 1995 third-generation Israelis are about one-half of Israeli-born Ashkenazim, and about one-third of both Israeli-born Mizrahim and persons of mixed ethnicity, 12-14 years of age. The respective proportions of third-generation Israelis among persons 30-34 years old in 1995 are about one-fifth among Ashkenazim, 3 percent among Mizrahim, and 10 percent among persons of mixed ethnicity. Evidently, the fastest growing group among Israeli-born Jews, at least until 1983, is third-generation Israelis, irrespective of their ethnicity, rather than those of mixed ethnicity.

<Figure 3 here>

These changes do not bode well for the attenuation of the ethnic gap in the coming years. Since ethnic gaps in college graduation rates are as high in the third generation as in the

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<sup>8</sup> The matched file includes information on all the children who resided in their parents' households in 1983, hence the youngest children in 1995 are 12 years old.

second generation, the sharp increase in the proportion of the third generation among Mizrahim and Ashkenazim of the youngest age groups is not likely to appreciably narrow the gaps in educational attainment between the two ethnic groups when they reach college graduation age. Likewise, the popular belief that in the near future the majority of Israeli-born adults will be persons of mixed ethnicity is not supported by the data. Rather, by 2010, 5 of every 10 Israeli-born, 27-29 years of age (12-14 in 1995), will be (low education) Mizrahim, 3 will be (high education) Ashkenazim, and only 2 will be persons of mixed ethnicity, with relatively high educational levels, but not as high as that of Ashkenazim. The above conclusion, however, is limited to those born before 1983. Since the proportion of ethnically intermarried couples increased from about 14% in the 1950s and early 1960s to about 28% in the early 1990s (Okun 2001), the proportion of persons of mixed ethnicity is likely to be higher among those born in the late 1980s and 1990s.

The difference between the ethnic groups is not limited to average educational levels. It is also observed in the variance within the groups. Both Ashkenazim and Mizrahim are more homogeneous with respect to their educational attainments than persons of mixed ethnicity. The ranges of college graduation rates among the eight Ashkenazi and eight Mizrahi cells (Figure 1) are of lesser extent than the range among the eight cells of those of mixed ethnicity. Moreover, the educational differences between the cells of those of mixed ethnicity follow a consistent pattern: college graduation rates are appreciably higher in cells where the mother (or her father) is Ashkenazi and the father (or his father) is Mizrahi than in cells where the father is Ashkenazi and the mother is Mizrahi.<sup>9</sup> Several processes could be responsible for this pattern, whereby the children of Ashkenazi mothers, regardless of the father's origin, appear to be as likely as Ashkenazim to be college graduates. First, since mothers normally spend more time with their children than fathers, this result may reflect the higher educational levels of Ashkenazi as opposed to Mizrahi mothers. Another version of this explanation is also possible. Ashkenazi women may possess higher levels of cultural and/or financial capital than Mizrahi women of the same educational levels. Such characteristics, which are not measured in our data, may

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<sup>9</sup> If, however, the parents' country of birth is obtained from the 1995 records, the differences in college graduation rates between second-generation persons of mixed ethnicity with Ashkenazi and Mizrahi mothers are smaller and not statistically significant.

enhance children's education in the case of Ashkenazi women, regardless of the father's ethnic origin. Finally, an alternative explanation, not mutually exclusive, is that selectivity in marriage markets accounts for this result. Specifically, Ashkenazi women who marry (down) Mizrahi men may select men whose observed (e.g. education) and unobserved characteristics (e.g. financial and/or cultural capital) are more conducive to their children's education than the characteristics of other Mizrahi men, who are not as successful in the marriage market.

Figure 4 provides some support for the assortative mating hypothesis. In addition to respondents' educational levels, it presents the educational levels of respondents' parents for 8 cells (also presented in Figure 1). The middle cells, in both the second and third generations, are of persons of mixed ethnicity, and the corner cells are for Ashkenazim (right side) and Mizrahim (left side). Educational homogamy among parents is present among families in which the father is Mizrahi and the mother is Ashkenazi, but not vice versa. Specifically, in both the second and third generations, Mizrahi fathers who are married to Ashkenazi women are more likely to be college graduates (5.1 and 9.0 percent in the second and third generations, respectively) than Mizrahi men who marry women of their own ethnic group (1.3 and 2.5 percent, respectively). By contrast, Ashkenazi mothers who marry Mizrahim have college graduation rates (6.1 and 10.3 percent) that are relatively high, although not as high as the rates among Ashkenazi women marrying within their own group (7.0 and 16.6 percent in the second and third generations, respectively). The same pattern of results appears (data not shown) when the educational measures of the parents are high-school graduation rates or years of schooling.

The educational levels of parents in the second type of families of mixed ethnicity, where the mother is Mizrahi and the father is Ashkenazi, are rather different. Here Ashkenazi fathers of both the second and third generations exhibit low graduation rates (10.2 and 10.8 percent, respectively) relative to their coethnics marrying homogamously (13.7 and 29.4 percent). Their (Mizrahi) wives have college graduation rates (1.1. and 1.2 percent in the second and third generations, respectively) which are either similar or only slightly higher than the rates among their coethnics marrying homogamously (0.2 and 1.2

percent, respectively). This being the case, it is not surprising that offspring of Ashkenazi mothers and Mizrahi fathers (defined as Mizrahim in the traditional CBS binary ethnic classification) are more likely to be college graduates (25.0 and 35.9 percent in the second and third generations, respectively) than their counterparts born to Ashkenazi fathers and Mizrahi mothers (defined as Ashkenazim in binary ethnic classification) (14.7 and 24.1 percent, respectively).<sup>10</sup>

<Figure 4 here>

Altogether, Figure 4 tells us something about patterns of inter-ethnic marriage – (“exchange” unions) which were widespread in Israel of the 1950s and 1960s (but less so among recent marriage cohorts [Okun 2001]), as well as in other societies (Merton 1941). Men of the dominant ethnic group (Ashkenazim) prefer to marry women of their own ethnicity. Those who are less successful in their educational attainment are less desirable to prospective wives of the dominant group, and are thus “forced” to marry women of the subordinate group (Mizrahim), who are only slightly more educated than other women of the subordinate group. By contrast, successful men of the subordinate ethnic group tend to marry (up) women of the dominant ethnicity, who are willing to do so, since the educational level of the prospective husband is appreciably higher than that of other men of the subordinate group. Consequently, the offspring of such families are more similar to the offspring of the dominant group, at least with respect to their educational levels, while the offspring of the other type of mixed marriages are more similar to offspring of families belonging to the subordinate ethnic group.

Thus, much of the advantage of the offspring of mixed families with Ashkenazi mothers is due to the higher educational levels of Ashkenazi mothers (compared to Mizrahi mothers), as well as to marriage market processes matching them with relatively high education (Mizrahi) men (compared to the lower relative education of Ashkenazi men married to Mizrahi women). In the next section we will test the empirical status of the third explanation, namely, that Ashkenazi mothers, and possibly the men they marry,

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<sup>10</sup> Evidently, classifying children's ethnicity according to father's continent of birth, results in an underestimation of the ethnic gaps (compared to classifying them according to both parents or even according to only mother's country of birth).

possess, in addition to higher educational levels, some unobserved traits which enhance children's education.

#### **4. Multivariate analysis**

In Israel, as in other countries, children's educational attainment is known to be affected by parental characteristics (Shavit and Pierce 1991; Dahan et al. 2002; Adler, Lewin Epstein and Shavit Forthcoming; Friedlander et al. 2002). The primary question we would like to answer in this section is whether persons of Mizrahi and mixed ethnic origin are less likely to be college graduates than Ashkenazim of similar measured parental characteristics. To this end we have estimated logistic regressions where the dependent variable is whether respondents have at least a college degree. The independent variables are the respondents' age and number of siblings, parental characteristics (father's and mother's education and occupation as well as family income), and the six combinations of ethnic origin and generation: second-generation Ashkenazim (the benchmark group, omitted from all regressions), second-generation Mizrahim, third-generation Mizrahim, second-generation mixed, third-generation mixed, and third-generation Ashkenazim.

<Table 1 here>

Columns 1-3 of Table 1 present the results for the entire sample. Evidently, parental background has a large effect on the probabilities of college graduation among children. Specifically, the higher the father's and mother's education, occupation and income, and the lower the number of siblings, the more likely the children are to be college graduates. These effects of parental background are consistent with the results of previous research in Israel and in other countries.

The effects of ethnicity, however, are still considerable and statistically significant among persons of the same age and parental educational level (column 2). These effects do not diminish much when parental occupation and income are also held constant (column 3). Indeed, the probabilities of obtaining a college degree increase along the ethnic hierarchy in the expected direction, from Mizrahim, through persons of mixed ethnicity, to Ashkenazim. The odds of second- and third-generation Mizrahim being college graduates

are only 0.648 and 0.556, respectively, relative to the benchmark group – second-generation Ashkenazim of equal measured characteristics (column 3). The odds for persons of mixed ethnicity are higher (0.712 for the second generation and not significantly different from 1.0 for the third generation), while the odds of third-generation Ashkenazim being college graduates are similar to those of their second-generation counterparts.

The results, however, differ by gender. Among women, the direct effect of ethnicity on education has virtually disappeared in the third generation. Family background rather than ethnicity governs daughters' college education (column 9). Among men, by contrast, Mizrahi ethnicity depresses college graduation rates in the third generation no less than in the second generation (column 6). Consequently, the claim that ethnicity no longer plays an independent role in college graduation in the third generation has received support in our data for women, but not for men. Two processes might explain, at least in part, this gender-based difference among third-generation Mizrahim. First, as shown in Figure 2, the proportion of third generation Mizrahi women who are college graduates is relatively high. This, however, is in part because a disproportionate share of Mizrahi women graduated from teachers' colleges while (college graduate) Ashkenazi men and women, as well as second generation Mizrahi women graduated from Israel's major universities. Specifically, about 10 and 13 percent, respectively, of second-generation Ashkenazi and Mizrahi, college-graduate women, are elementary school teachers (data not shown).<sup>11</sup> In the third generation the respective proportion among Ashkenazi women dropped to about 7 percent, while it increased to about 19 percent among Mizrahi women (only about 1 percent of Mizrahi and Ashkenazi men of either generation graduated from teachers' colleges). Hence, the relative success of third-generation Mizrahi women to be college graduates is in part due to the rise in the proportion of them who graduated from teachers' colleges. The second process that may be the explanation for the relative success of third-generation Mizrahi women is that the

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<sup>11</sup> The census makes no distinction between teachers' colleges and other institutions of higher education. However, since most elementary school-teachers are graduates of teachers' colleges, we can use this occupation as a proxy for attending a teacher's college rather than a university.



ethnic gap in high school track (vocational vs. academic) is smaller among women than among men (Adler et al. Forthcoming).

The results regarding persons of mixed origin are also gender-specific. Among women of the same family background, persons of mixed ethnicity of both the second and third generations are as likely as Ashkenazim to be college graduates (column 9). Among men, however, only the third generation has achieved parity with Ashkenazim, while the chances that persons of mixed origin of the second generation shall be college graduates are no greater than those of second generation Mizrahim (column 6).

Bearing in mind that the college graduation rates of persons of mixed ethnicity are higher if their mother (rather than their father) is of Ashkenazi origin (Figure 4), we now turn to a more detailed analysis of the determinant of college graduation among second-generation persons of mixed ethnicity, relative to the same benchmark group of second-generation Ashkenazim. In the second generation, there are two types of persons of mixed ethnicity. In the first type, the father is Ashkenazi and the mother, Mizrahi. In the second type, the mother is Ashkenazi and the father, Mizrahi.<sup>12</sup>

<Table 2 here>

When mother's characteristics are included (column 2), there are no differences in the odds of college graduation between offspring with Mizrahi or Ashkenazi mothers, but both types of persons are less likely to be college graduates than second-generation Ashkenazim. In column 3, when father's characteristics are added, the results suggest that persons with Ashkenazi mothers are as likely as second-generation Ashkenazim to be college graduates, but if the mother is Mizrahi, the chances are only about 2/3 those of the benchmark group. These results, however, differ by gender.

Among women, mother's measured characteristics explain the entire difference between daughters with Mizrahi and Ashkenazi mothers (column 8). In fact, among women with the same measured mother's characteristics, mixed ethnicity is not a disadvantage,

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<sup>12</sup> Third-generation persons of mixed ethnicity are excluded from Table 2, because the number of cases by gender in each type is too small (about 20-25).

regardless of the ethnicity of the mother. This is not the case among men. Mother's characteristics do not explain the entire difference between children of Ashkenazi and Mizrahi mothers, and both types of men are less likely to be college graduates than second-generation Ashkenazim. When father's characteristics are added (column 6), the chances of men with Ashkenazi mothers being college graduates are higher than the chances of those with Mizrahi mothers (the difference is statistically significant at the .1 level), although not as high as those of the benchmark group.

Taken together, these results lend further support to the hypothesis that the higher educational attainment of children of mixed ethnicity with a mother of Ashkenazi origin is largely due to the mothers' education and to the observed characteristics of the (Mizrahi) men they married. The second hypothesis, namely, that unobserved characteristics of Ashkenazi women and their Mizrahi husbands also enhance children's education, receives only partial support, since the differences between the ethnic coefficients are statistically significant only among sons.

## **5. Discussion**

Most European and Asian immigrant groups in the U.S.A. closed (or at least substantially narrowed) the educational gaps with natives within two or three generations (Alba 1990). This has not been the case in Israel. The educational gaps among the third generation are as large as among the second generation, while persons of mixed ethnicity increasingly become more similar to Ashkenazim.

To be sure, much of the advantage of Ashkenazim is rooted in their more advantageous family background. However, even among persons of similar family background, whose parents have the same educational level, occupation and income, with the same number of siblings, the ethnic ratios in college graduation rates (Mizrahim to Ashkenazim) are still substantial: about three-to-four among the second generation, while the results of the third generation differ by gender: about equal among women, but less than one-to-two among men. Evidently, in the third generation ethnicity is more important for men's educational attainment than for women's. In fact, among men, third-generation Mizrahim

are doing worse than second-generation Mizrahim of the same measured family background.<sup>13</sup>

One of the most important findings reported above – that the gaps between Mizrahim and Ashkenazim are as large in the third generation as in the second generation – is inconsistent with the results reported by Friedlander et al. (2002: Table 2). There are some important differences between our study and Friedlander's, especially in the definition of ethnic categories (three vs. two) and in the educational measures (completion vs. entry to academic education), which could potentially explain the different results regarding the third generation. The differences in the data sources used by the two studies may also contribute to the different results regarding the third generation.<sup>14</sup>

We wish to stress, however, that our results are consistent with the results of Dahan et al. (2002), which are based on a more reliable data set and larger sample size than used by either Friedlander et al. (2002) or ourselves. Both Friedlander et al. (2002) and we relied on data sources where records from two censuses were matched by the Israeli CBS (and in the case of Friedlander et al. by other agencies as well) and are thus subject to non-negligible errors in the matching process. By contrast, the findings of Dahan et al. (2002) are based on a simpler and larger data set (the 20 percent 1995 census, including some 12,000 third-generation Israeli-born) that required no matching, and thus the likelihood of errors is lower.<sup>15</sup> Thus, to the extent that the findings of Dahan et al. (2002) are correct –

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<sup>13</sup> We checked for gender differences in the country of birth of grandfathers of third-generation Mizrahim. The results suggest that nearly half of the grandfathers of third-generation Mizrahim were born in Yemen. However, since this pattern was found among both gender groups, Yemenite origin cannot be invoked to explain the lower educational achievements of third-generation Mizrahi men.

<sup>14</sup> While Friedlander et al. (2002) also used the intergenerational matched file that we used, their Table 2, where their results (regarding the third generation) are inconsistent with ours, is based on different data. The difference lies in the linking procedure. The procedure used to create the data analyzed by Friedlander et al. used information obtained from the Ministry of Interior to link respondents in 1995 to their parents' households in 1983, in cases where the respondent did not live in his/her parents' households in 1983 (Okun, personal communication).

<sup>15</sup> Dahan et al. (2002) focused on high-school matriculation rates among young adults, aged 18-21 in 1995, who lived in their parents' households in that year. Hence, the parents' and grandparents' country of birth were obtained from the parents' records. Evidently, this data set is inappropriate

namely, that the gaps in high school matriculation in the third generation are as large as in the second generation – it is all the more likely that ethnic gaps in college graduation rates are also as large in the third generation as in the second, for in Israel, a matriculation diploma is a prerequisite for entry to academic education.

In Israel, as in other countries, college graduation is the main determinant of occupational status and earnings. Consequently, our results suggest that the ethnic cleavage is unlikely to disappear among members of the third generation. Rather, the ethnic-based educational gaps among those 25-34 years of age in 1995 have already produced earnings gaps that are similar to the gaps among second generation Israelis (Appendix B). These ethnic-based earnings gaps are likely to widen as members of the third generation gain labor market experience. Moreover, educational differences among the youngest members of the third generation (12-14 in 1995) are likely to develop by 2010, when they will be 27-29 years of age. If this indeed occurs, ethnic differences in earnings will last at least until this cohort exits the labor market, sometime between 2040 and 2050.

To be sure, these projections are based on the assumption that the gaps in college graduation rates of future birth cohorts of the third generation will remain appreciably stable. Although this assumption has proved correct in the past – gaps in college graduation between successive cohorts of second-generation Israelis have not narrowed much between 1975 and 1995 – this may not be the case with the third generation. Recent developments in Israel's higher education system may help younger and future cohorts of third-generation Mizrahim to narrow the college gap with their Ashkenazi counterparts. Specifically, the establishment of new private, and especially public, colleges in peripheral areas enables a greater proportion of Israelis to obtain higher education. Indeed, there is evidence that the proportion of Mizrahim in these newly created, albeit lower-status, colleges is higher than their share in Israel's major universities (Aaylon and Yogev 2002).

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for estimating college graduation rates among older persons (25-34, the age group used by both Friedlander et al. [2002] and ourselves) because most persons of this age group do not reside in their parents' households.

Unfortunately, there is no readily available data on the economic returns of the degrees obtained in such colleges. A reasonable assumption is that in the coming years distinctions between types of colleges and universities will be established and institutionalized, and Mizrahim will disproportionately graduate from colleges and majors leading to lower earnings. This pattern has already begun among Mizrahi women of the third generation, who tend to flock in increasing numbers to teachers' colleges, while their Ashkenazi counterparts attend major universities. Given the relatively low wages of graduates of teachers' colleges (who are mostly elementary school-teachers), ethnic differences in earnings among women of the third generation are expected to be no less than among men.

Although differences between Mizrahim and Ashkenazim of either generation may not significantly narrow over time, one aim of the Israeli melting pot has been to reduce the proportion of these two ethnic groups and supplant them with persons of mixed ethnicity (of unequivocal "Israeli origin," to use the CBS terminology), of relatively high educational levels. This has indeed occurred to some extent, but not fast enough to diminish the ethnic-based stratification system within three generations. As late as 2010, only about one-fifth of Israeli-born Jews, 27-29 years of age, will be of mixed ethnicity. Nearly half the Israeli-born of this age group will be Mizrahim with relatively low educational levels, who are likely to experience growing economic gaps with their (higher education) non-Mizrahi counterparts during their working careers.

## References

- Adler, Irit, Noah Lewin Epstein, and Yossi Shavit. Forthcoming. "Ethnic stratification and place of residence in Israel: a truism revisited." *Research in Social Stratification and Mobility*.
- Alba, Richard. 1990. *Ethnic identity: the transformation of white America*. New Haven: Yale University Press.
- Ayalon, Hanna, and Abraham Yogev. 2002. "Social Implications of the expansion of higher education in Israel." Research Report submitted to the Chief Scientist of the Ministry of Education (Hebrew).
- Ben Rafael, Eli. 1982. *The Emergence of Ethnicity: Cultural Groups and Social Conflict in Israel*, Westport, CT: Greenwood Press.
- Boyd, Monica, David Featherman, and Judah Matras. 1980. "Status attainment of immigrant and immigrant origin categories in the US, Canada, and Israel," *Comparative Social Research*. 3: 199-228.
- Cohen, Yinon. 2002. "From Haven to Heaven: Changes in Immigration Patterns to Israel." Pp. 36-56 in Levy D. and Y. Weiss (eds.) *Citizenship and Identity: Germany and Israel in Comparative Perspective*. New York: Berghahn Books.
- Cohen, Yinon, and Yitchak Haberfeld. 1998. "Second Generation Jewish Immigrants in Israel: Have the Ethnic Gaps in Schooling and Earnings Declined?" *Ethnic and Racial Studies* 21: 507-528.
- Dahan, Momi. 2001. "The rise in economic inequality." In Ben Bassat, A. (ed.) *The Israeli Economy, 1985-1998: From Government Intervention to Market Economics*. Tel-Aviv: Am Oved Publishers, pp. 610-656. (Hebrew).
- Dahan, Momi, Natalie Mironichev, Eyal Dvir, and Shmuel Shye. 2002. "Have the educational gaps narrowed?" *Economic Quarterly* 49: 159-188. (Hebrew)
- Chiswick, Barry. 1978. "The effects of Americanization on the earnings of foreign-born men," *Journal of Political Economy* 86: 897-921.
- Friedlander, Dov, Barbara Okun, Zvi Eisenbach, and Lilach Elmakias. 2002. "Immigration, social change, and assimilation: educational attainment among birth cohorts of Jewish ethnic groups in Israel." *Population Studies* 56: 135-150.
- Haberfeld, Yitchak. 1992. "Immigration and ethnic origin: the effect of demographic attributes on earnings of Israeli men and women," *International Migration Review* 27: 286-305.
- Khzzoom, Aziza. 2003. "The great chain of Orientalism: Jewish Identity, Stigma Management and Ethnic Exclusion in Israel." *American Sociological Review* 68: 481-510.
- Mark Nili. 1996. "The contribution of education to earnings differentials among ethnic groups in Israel," *Israel Social Science Research* 11: 47-86.
- Merton, Robert. 1941. "Intermarriage and social structure." *Psychiatry* 4: 361-374.

Nahon, Yaakov. 1987. *Education Levels and Employment Opportunities: The Ethnic Dimension*, Jerusalem: Jerusalem Institute for the Study of Israel (Hebrew).

Okun, Barbara. 2001. "The effects of ethnicity and educational attainment on Jewish marriage patterns: changes in Israel, 1957-1995," *Population Studies* 55: 49-64.

Peres, Yochanan. 1971. "Ethnic relations in Israel," *American Journal of Sociology* 76: 1021-1047.

Semyonov, Moshe, and Tamar Lerenthal. 1991. "Country of origin, gender, and the attainment of economic status: a study of stratification in the Jewish population in Israel," *Research in Social Stratification and Mobility* 10: 325-343.

Shavit, Yossi. 1984. "Tracking and ethnicity in Israeli secondary education," *American Sociological Review* 49: 210-220.

Shavit, Yossi, and J.L. Pierce. 1991. "Sibship size and educational attainment in nuclear and extended families: Arabs and Jews in Israel." *American Sociological Review* 56: 321-330.

Shavit, Yossi, and Haya Stier. 1997. "Ethnicity and education in patterns of marriage in Israel: changes over time," *Megamot* 2: 207-225. (Hebrew)

Smootha, Sami. 1978. *Israel, Pluralism, and Conflict*. Berkeley: U.C. Press.

Smootha, Sami, and Vered Kraus. 1985. "Ethnicity as a factor in status attainment in Israel," *Research in Social Stratification and Mobility* 4: 151-175.

Spilerman, Symour, and Jack Habib. 1976. "Development towns in Israel: the role of community in creating ethnic disparities in labor force characteristics," *American Journal of Sociology* 81: 781-812.

Swirski, Shlomo. 1990. *Politics and education in Israel*. NY: Falmer Press, 1999.

Yaar, Ephraim. 2002. "Continuity and Change in Israeli Society: a test of the Melting Pot. Paper presented at the Conference on Nation Building of the Israeli Society, Jerusalem: Van Leer Institute (Hebrew).

Yaish, Meir. 2001. "Class Structure in A Deeply Divided Society. Class and Ethnic Inequality in Israel," *British Journal of Sociology* 52: 409-39.

Table 1. Odds ratios from logistic regressions of the probabilities of attaining at least a B.A. degree: second- and third-generation Jews, 25-34 years old, 1995.

	All 1	All 2	All 3	Men 4	Men 5	Men 6	Women 7	Women 8	Women 9
<b>Ethnic origin<sup>a</sup></b>									
II gen. Mizrahim	0.222***	0.650***	0.648***	0.214***	0.680***	0.634***	0.223***	0.642***	0.683***
III gen. Mizrahim	0.307***	0.504***	0.556***	0.230***	0.345***	0.367***	0.372***	0.655*	0.770
II gen. mix	0.500***	0.738***	0.712***	0.396***	0.607***	0.588***	0.598***	0.891	0.867
III gen. mix.	0.748*	0.855	0.781	0.692	0.882	0.735	0.752	0.856	0.813
III gen. Ashk	1.147*	0.899	0.904	0.927	0.843	0.793	1.347***	0.991	1.066
<b>Parental chars:</b>									
Father's B.A.		1.333***	1.069		1.233	0.971		1.417***	1.140
Mother's B.A.		1.372***	1.247		1.377*	1.278		1.414**	1.199
Father's yrs of educ.		1.060***	1.051***		1.063***	1.046***		1.060***	1.060***
Mother's yrs of edu.		1.119***	1.108***		1.116***	1.122***		1.118***	1.098***
Age		1.095***	1.093***		1.146***	1.149***		1.043***	1.039**
Men		0.632***	0.626***						
N. of siblings		0.859***	0.865***		0.844***	0.868***		0.869***	0.865***
Father in PTM <sup>b</sup>			1.297***			1.217*			1.369***
Mother in PTM <sup>b</sup>			1.132			1.044			1.218*
Family income			1.230***			1.325***			1.162***
-2 log likelihood	10,120	8,941	6,667	4,710	4,199	3,106	5,322	4,791	3,527
Chi-square	844.6***	1622.0***	13391.9***	378.2***	726.3***	623.1***	488.7***	869.1***	707.7***
No. of Cases	10,706	10,249	7,413	5,446	5,235	3,740	5,260	5,089	3,673

<sup>a</sup>Omitted category: II generation Ashkenazim

<sup>b</sup>The omitted category include parents in occupations other than professional, technical and managerial, as well as those not in the labor force. We have also estimated these models excluding persons out of the labor force, and the results (not shown) were appreciably the same.

\* p < .10

\*\* P < .05

\*\*\* P < .01



Table 2. Odds ratios from logistic regressions of the probabilities of attaining at least a B.A. degree: Second-generation Jews of mixed ethnicity, 25-34 years old, 1995.

	All	All	All	Men	Men	Men	Women	Women	Women
	1	2	3	4	5	6	7	8	9
<b>Ethnic Origin<sup>a</sup></b>									
II gen. Mizrahi Moth.	0.463***	0.732**	0.657***	0.294***	0.476***	0.424***	0.662***	1.075	0.972
II gen. Ashknzi Moth.	0.728***	0.777*	0.825	0.594***	0.663**	0.683*	0.880	0.913	1.008
Age		1.073***	1.072***		1.128***	1.146***		1.006	0.997
Men		0.650***	0.673***						
<b>Mother's chars.:</b>									
Mother's B.A.		1.574**	1.556*		1.473	1.506		1.637	1.551
Mother's yrs of educ.		1.201***	1.156***		1.205***	1.171***		1.209***	1.155***
Mother in PTM <sup>b</sup>		1.006	0.879		0.975	0.824		1.012	0.894
N. of siblings		0.915**	0.891**		0.943	0.936		0.899*	0.865**
<b>Father's chars.:</b>									
Father's B.A.			0.764			0.754			0.763
Father's yrs of educ.			1.074***			1.076**			1.080***
Father in PTM <sup>b</sup>			1.256*			1.074			1.482**
Family income			1.326***			1.373***			1.268**
-2 log likelihood	3,034	2,698	2,035	1,469	1,303	998	1,539	1,368	1,012
Chi-squared	55.4***	287.7***	282.3***	62.3***	168.3***	156.3***	8.5**	128.5***	133.3***
No. of Cases	2,614	2,512	1,900	1,374	1,320	1,001	1,240	1,192	999

<sup>a</sup>Relative to II generation Ashkenazim.

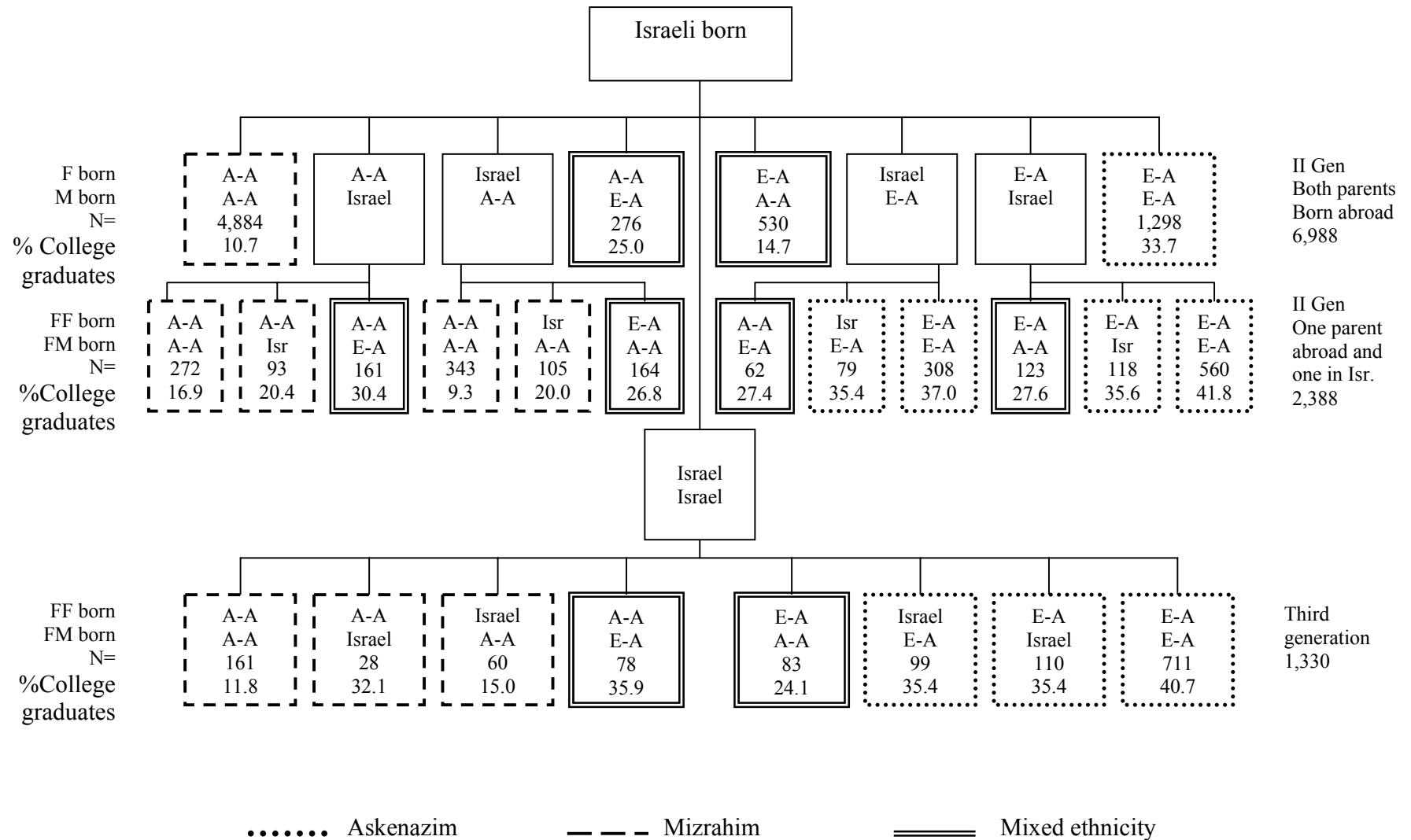
<sup>b</sup>The omitted category include p parents in occupations other than professional, technical and managerial, as well as those not in the labor force. We have also estimated these models excluding persons out of the labor force, and the results (not shown) were appreciably the same.

\* P < .10

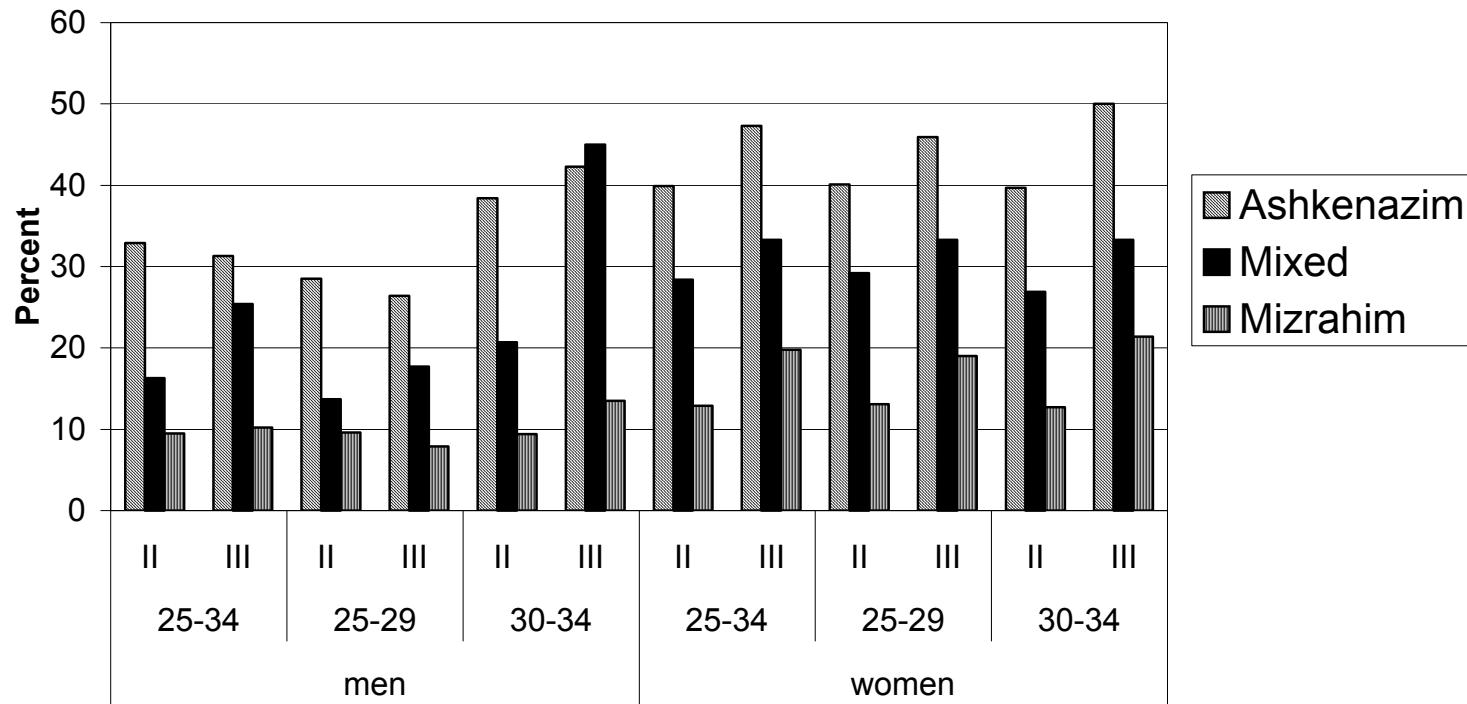
\*\* P < .05

\*\*\* P < .01

Figure 1. Second- and third-generation Israeli born Jews, 25-34 years old in 1995 (N=10,706).



**Figure 2 . Percent with at least a College Degree: Israeli-born Jews by gender, age, ethnicity, and generation**



Number of observations for third-generation persons of mixed origin, 30-34 years old, is less than 30 in each gender group.

Figure 3. Relative size of ethnic groups by age and generations: Israeli-born Jews, 12-34 years old.

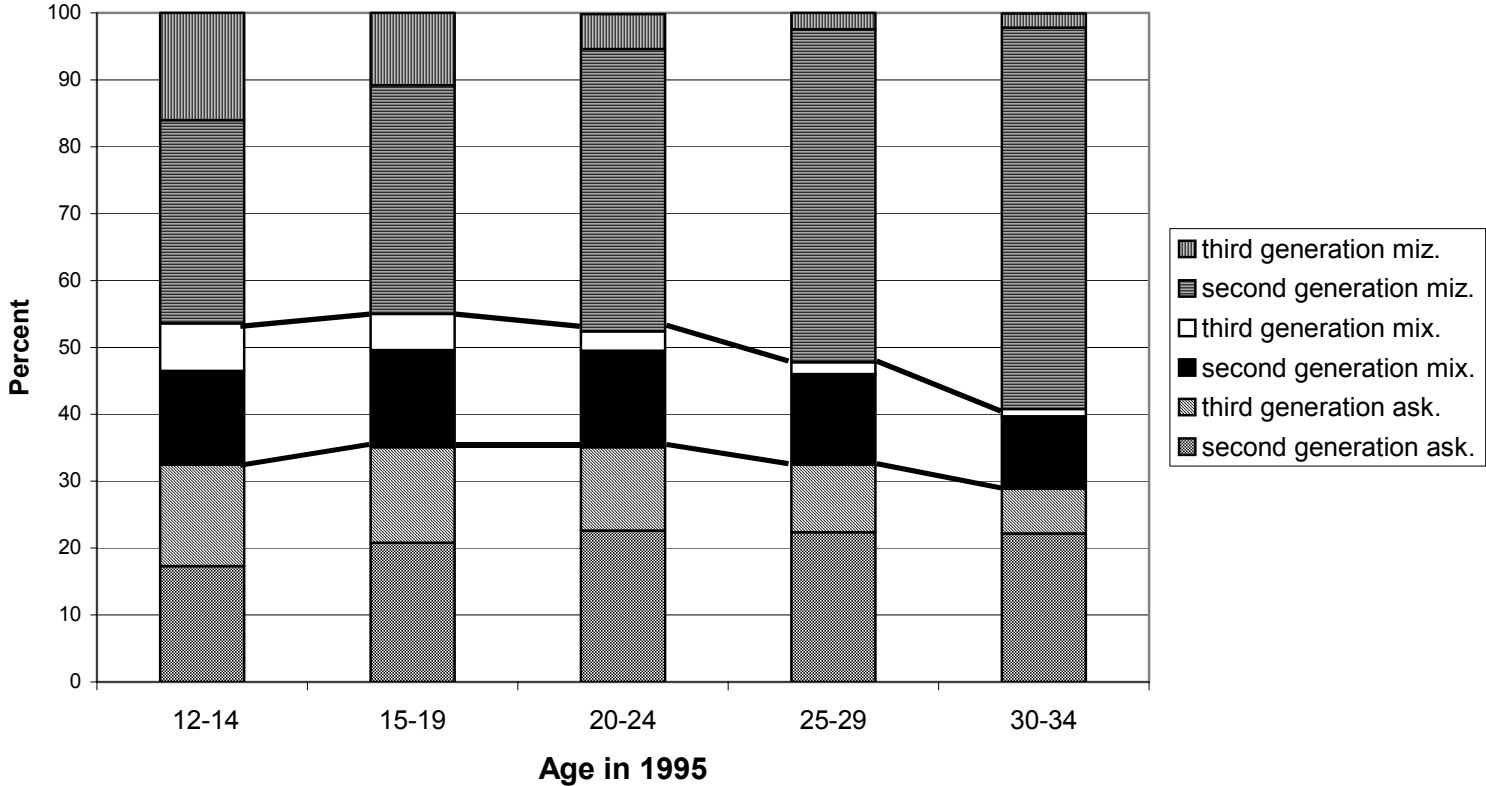
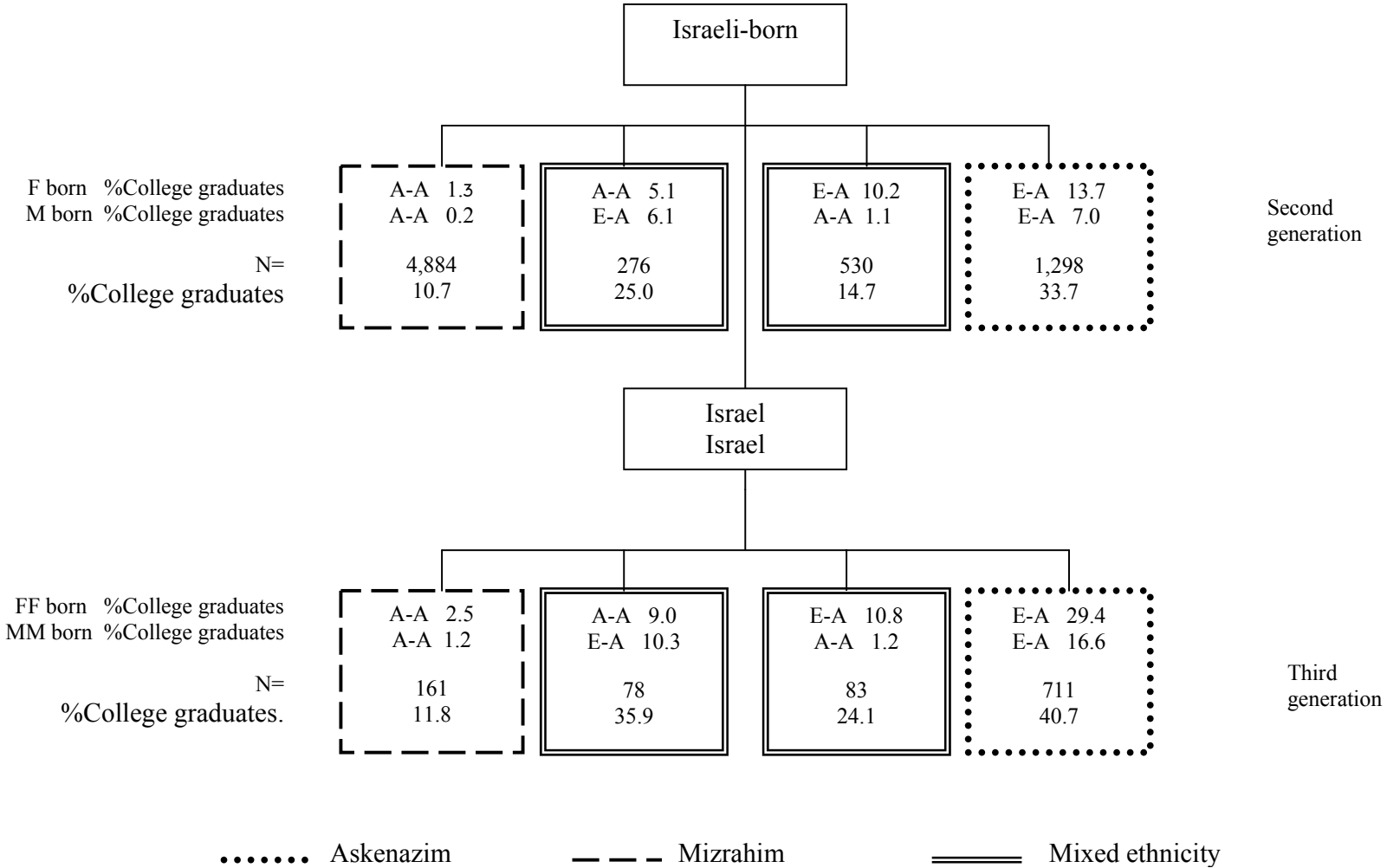
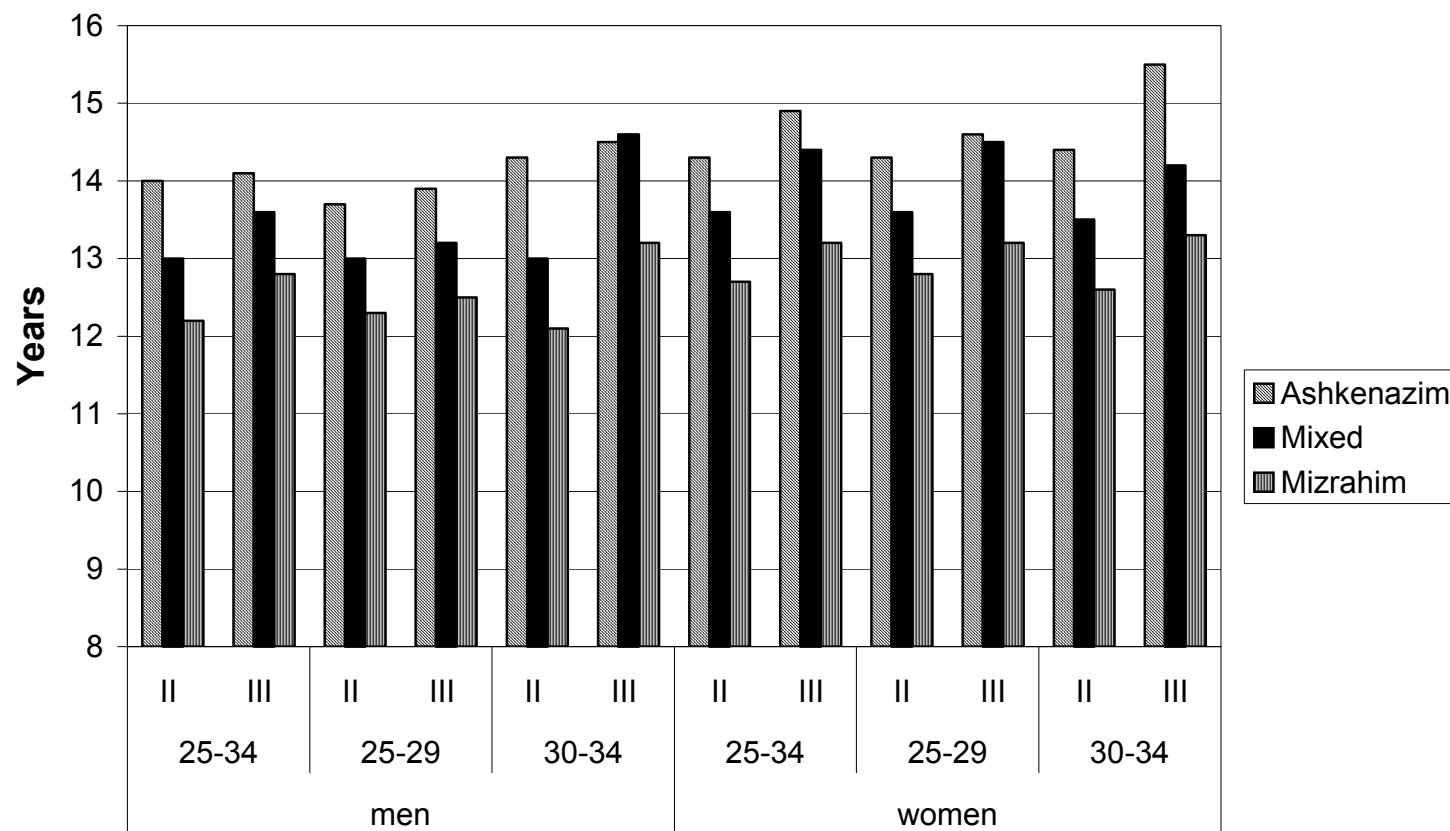


Figure 4. Parents' education, second- and third-generation Israeli-born Jews

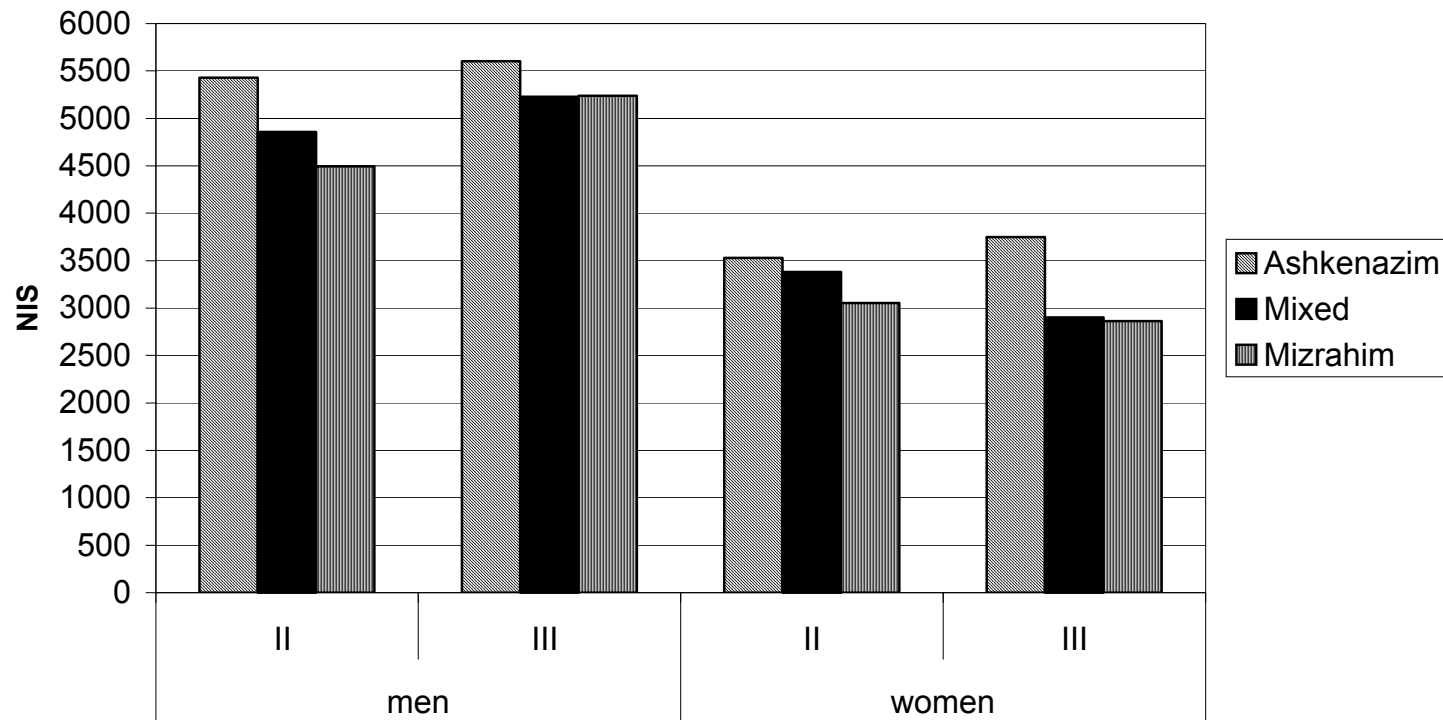


Appendix A: Mean years of schooling: Israeli-born Jews by gender, age, ethnicity and generation



Number of observations for third-generation persons of mixed origin, 30-34 years old, is less than 30 in each gender group.

**Appendix B. Mean monthly earnings: Israeli-born Jews, 25-34 years old by gender, ethnicity and generation**



Source: Analysis of the matched 1983-95 Israeli census for salaried workers, 24-35 years old. Persons who worked less than 20 hours or earned less than 1,000 NIS per month were excluded.