

THE LABOR MARKET EXPERIENCE OF U.S. IMMIGRANTS:
OCCUPATIONAL MATCH AND MOBILITY

By

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Abstract

This paper examines the determinants of occupational match and mobility using data from the 2003 *New Immigrant Survey*. Using logit and multinomial logit regressions, the following patterns are uncovered: First, the probability of having the same last foreign and first U.S. occupation decreases with foreign education because the probability of occupational downgrades increases with foreign education. Second, employment-based immigrants have a higher probability of obtaining the same first U.S. occupation as their last foreign occupation while other immigrant types have higher probabilities of both upward and downward occupational mobility between these two occupations. Third, the probability of remaining in the same first U.S. occupation diminishes with U.S. education and proficiency in English—these factors increase one's chances of moving up the occupational scale. Finally, admission class continues to be an important determinant of immigrants' occupational mobility beyond their first U.S. jobs. In particular, those admitted under the diversity program are less likely to move up the occupational scale compared to those admitted based on employment.

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1. INTRODUCTION AND BACKGROUND

The recent failed attempt to overhaul the U.S. immigration system included a proposal to move away from a family-based system to an employment-based system (New York Times, 2007). Family reunification has been the hallmark of U.S. immigration policy since the Immigration Act of 1965.¹ A point system similar to Canada's was talked about. Essentially, Canada's point system is based on skills (see e.g., Green, 1999). Implicit in the arguments against the current system is that non-employment-based immigrants do not necessarily have the skills and credentials to be successful in the U.S. labor market.

According to Jasso et al. (2005) between 1996 and 2000, only 5.5-8.2% of immigrants admitted to legal permanent residence are based on employment. Thus, it is not surprising that a large number of legal immigrants experience occupational downgrading. For example, Akresk (2006) finds that about 50% of the surveyed immigrants admitted into permanent resident status in 1996 experienced occupational downgrading; that is, their first U.S. job is of a lower occupational index than their last job in their country of origin. For the most part, the reason for occupational downward mobility is incomplete transferability of skills and credentials. Problems associated with the transferability of skills and credentials among the non-employment-based immigrants may be more serious. This strengthens arguments favoring a change to an employment-based system.

Initial occupational downgrading is probably acceptable if over time immigrants are able to move to occupations commensurate with their skills and credentials. Indeed, there is evidence that over time immigrants regain their occupational status. For example, although immigrant-spouses of U.S. citizens have lower initial occupational attainments compared with employment-based immigrants, they have higher rates of occupational upgrading leading to a narrowing of the

¹ See Martin and Midgley (2006) for a summary of changes to U.S. immigration policy.

initial occupational attainment gap (see e.g., Jasso and Rosenzweig, 1995). A related literature also finds evidence that although family-based immigrants have lower initial earnings compared with employment-based immigrants, they achieve faster earnings growth (see e.g., Duleep and Regets, 1996).² These examples call into question the presumption that non-employment-based immigrants would be unsuccessful in their economic lives in the United States.

The recent availability of the 2003 cohort of immigrants from the *New Immigrant Survey* (NIS) allows a reexamination of the above issues using better data.³ Until the NIS, available data sets do not include the admission class of the foreign born in the United States. Thus, prior literature has relied on the use of aggregate admission class information to study whether immigrants' economic experience in the United States vary according to their admission class. For example, Duleep and Regets (1996) match aggregate admission class information (e.g., percentage of employment-based immigrants from each origin country) with individual level data (e.g., earnings, education, and experience) to study the earnings differential between employment- and family-based immigrants.

In addition to the availability of an immigrant's admission class, another advantage of the NIS data is that it includes the pre-immigration experiences of the immigrants—for the purpose of this paper, questions pertaining to immigrants' last foreign occupation are useful. The NIS also asks questions related to immigrants' first and current U.S. occupations. Thus, important questions related to immigrants' economic assimilation experiences in the United States can be studied. Central to this economic assimilation path is immigrants' success in obtaining U.S.

² Also see Borjas (2006), Smith (2006), and Card (2005) for recent contributions on the assimilation of the children of immigrants.

³ This cohort consists of individuals admitted to legal permanent residence in May to November of 2003. First round interviews were conducted between June 2003 and June 2004. The adult sample has 8,573 completed interviews. The NIS survey design defined four strata of adult immigrants: spouses of U.S. citizens (16.5%), employment principals (16.5%), diversity principals (13.5%), and other immigrants (53.5%). As Jasso et al. (2005) note, spouses of U.S. citizens are under-sampled at half its actual share of 27.2%-33.3% in the 1996-2000 period while employment and diversity principals are oversampled two to three times their actual shares in the 1996-2000 period since there is much interest in these immigrant types. Round 2 interview of this cohort is scheduled for 2007.

occupations that are comparable (i.e., same or better) to their last foreign occupations; and, whether this success probability improves with time in the United States. This is crucial as 88% of the adult NIS respondents report intending to live in the United States for the rest of their lives.

The paper's main contribution is to study the assimilation path of a single cohort of immigrants into the U.S. labor market. In particular, the paper studies the determinants of a match between recent immigrants' last foreign occupation and first U.S. occupation (first-stage occupational match regression); and, as an extension, the determinants of mobility in these two occupations (first-stage occupational mobility regression). The paper also considers the determinants of a match (and mobility) between recent immigrants' first U.S. occupation and current U.S. occupation (second-stage occupational match and mobility regressions). Prior studies have not asked these questions using a single immigrant cohort.

Key findings of the paper are as follows. First, the probability of having the same last foreign and first U.S. occupation decreases with education earned outside the United States. This is because the probability of downward occupational mobility increases with foreign education, all other factors held constant. To the extent that this is because of incorrect perceptions by U.S. employers about the quality of foreign education, how to better market their formal credentials to U.S. employers ought to be one of the issues immigrant groups must address.

Second, not surprisingly, employment-based immigrants have a higher probability of obtaining the same first U.S. occupation as their last foreign occupation. This is because other immigrant types have higher probabilities of both upward and downward occupational mobility. This implies that immigrants admitted under the family-preference scheme do not only experience occupational downward mobility, some do experience occupational upgrades, contrary to the notion that this group will not be (initially) successful in the U.S. labor market.

Third, the probability of remaining in the same first U.S. occupation diminishes with education earned in the United States. This is because investments in U.S. education boosts one's credentials and expands one's work options. This also is a signal which U.S. employers recognize, understand, and value. Fourth, proficiency in English increases immigrants' chances of experiencing occupational upward mobility from their first U.S. occupations. Thus, obtaining more U.S. education and being proficient in English are two actions immigrants can take to improve their chances of moving up the occupational scale, regardless of the immigration policy environment.

Fifth, admission class continues to be an important determinant in immigrants' occupational mobility beyond their first U.S. jobs. Those admitted under the diversity program are less likely to move up the occupational scale compared to those admitted based on employment. This indicates that the economic assimilation process for this immigrant group may take longer.

Finally, immigrant women whose first U.S. job is in sales, office, and service occupations tend to remain in these occupations while men that start out in sales and office occupations are less likely to move up but more likely to move down the occupational scale, even after controlling for education, years of U.S. residence, and other factors. Perhaps these merely reflect the occupations men and women traditionally enter. These occupations are dominated by women. Thus, women tend to remain in these occupations while men tend not to remain in these occupations.

The rest of the paper is structured as follows. In the next section, the data and econometric models used are discussed in detail. The results are discussed in Section 3. The last section contains some concluding remarks.

2. EMPIRICAL METHODOLOGY

2a. Data

This paper uses NIS-2003 cohort data. This cohort consists of immigrants admitted to legal permanent residence between May and November of 2003. The adult sample (18 years old or older) has 8,573 completed interviews. To study the determinants of an occupational match and mobility between an immigrant's last foreign occupation and first U.S. occupation, all respondents with non-missing occupational codes for both jobs are collected. Observations with incomplete information are excluded bringing the sample respectively down to 2,632 for the match regression and 2,472 individuals for the mobility regression.⁴

The determinants of an occupational match and mobility between an immigrant's first U.S. occupation and current U.S. occupation are also studied. All respondents with non-missing codes for these occupations are retained. Exclusion of observations with other missing information trimmed the samples to 3,842 for the match regression and 3,741 for the mobility regression.⁵

It is generally believed that the labor market experiences of women differ from those of men. Indeed, Wald tests on the occupational match regressions indicate that separate regressions are needed for men and women. Thus, all regressions are done separately for men and women.

2b. First-stage occupational match and mobility

The NIS collects an individual's occupation using the *2002 Census Classified Index for Occupations*. This covers about 506 occupations (e.g., chief executives, ship engineers, etc.). If a person reports the same last foreign and first U.S. occupations, then an occupational match is

⁴ Of the 8,573 respondents, 5,065 individuals report having worked before coming to the United States. Of these, 3,334 individuals report having worked in the United States since moving to the United States to live. Information on the last foreign occupation and first U.S. occupation are available for 3,279 immigrants.

⁵ A total of 4,925 individuals reports having worked since coming to the United States to live. Of these, 4,656 individuals report currently working. Information on the first and current U.S. occupations is available for 4,581 immigrants.

said to have occurred. Nearly 15% (12%) of the male (female) immigrants experience an occupational match (see Table 1).⁶ Since the dependent variable takes on either one (match) or zero (non-match), the model estimated is:

$$E[y | x] = 0 * [1 - F(\beta'x)] + 1 * [F(\beta'x)] = F(\beta'x). \quad (1)$$

The logistic distribution is used so the probability of an occupational match is:

$$\Pr(Y = 1) = \frac{e^{\beta'x}}{1 + e^{\beta'x}}, \quad (2)$$

where the matrix \mathbf{x} includes an immigrant's years of foreign schooling, years of foreign experience (linear and square terms), English speaking ability, and two sets of dummy variables capturing an immigrant's region of origin and class of admission. Occupation characteristics are also controlled using an occupational desirability index and a set of occupational dummy variables. The specification used is adopted from Akresh (2006) and Chiswick and Miller (2007a).

Table 1 near here

The task of choosing what measure to base the occupational mobility indices on is not easy. An upward movement in the occupational scale is viewed by most (if not all) people to be desirable. This is because occupations higher up the occupational scale are more prestigious. The literature has associated two factors with occupational prestige—income and education (see e.g., Duncan, 1961). Thus, occupational mobility may be based on either variable. Following Akresh (2006) this paper uses education levels to derive occupational indices. This choice is partly motivated by Duncan's (1961) argument that education, occupation, and income are sequentially related.⁷ “[E]ducation may be considered in large measure as a preparation for the pursuit of an

⁶ Percentage rates in this section adjust for the sampling weights and stratification used by the NIS, see footnote 3 for details.

⁷ In addition, occupational indices based on income would be “noisier” because variation in income levels across countries by definition are larger (even at purchasing power levels) than those for education. For example, using available data from the World Bank (2005), the coefficient of variation of GDP per capita in 2003 (in 2000 PPP

occupation, or as the acquisition of qualifications for an occupation. ... [I]ncome received from an occupational pursuit accrues subsequent to the entry into, and identification with, that occupation.” (p. 116) Thus, one’s education determines one’s occupation; and, one’s occupation partly determines one’s income. Viewed in this way, the occupational indices are then based on “causes” rather than “outcomes.”

Akresk (2006) proposes three occupational indices (Occindex) based on immigrants’ total education levels. For each occupation j , the mean education level of all immigrants i holding this occupation in their last foreign job (eq. (3a)), first U.S. job (eq. (3b)), and the average of these two indices (eq. (3c)) are obtained. Occupation j ’s indices are calculated as follows:

$$Occindex1_j = \bar{E}_j^* = \frac{1}{n} \sum_{i=1}^n E_{i,j}^*, \quad (3a)$$

$$Occindex2_j = \bar{E}_j = \frac{1}{n} \sum_{i=1}^n E_{i,j}, \quad (3b)$$

$$Occindex3_j = \frac{1}{2} (\bar{E}_j^* + \bar{E}_j). \quad (3c)$$

These indices are calculated for each immigrant’s last foreign and first U.S. occupations. Then equation (3c) is used to find the difference between the first U.S. occupation’s average index and last foreign occupation’s average index.⁸ A positive (negative) difference indicates upward (downward) occupational mobility. As will be shown in the next section, results based on this occupational mobility measure, for the most part, are consistent with those found in occupational match regressions. From Table 1, note that based on the average index (eq. (3c)), about 28% (23%) of the male (female) immigrants experienced occupational upward mobility but more than half, 56% (65%) of the men (women), experienced occupational downgrades.

terms) is 112% (for 158 countries) while the coefficient of variation of literacy rate in 2000 is 25% (for 114 countries). From Barro and Lee’s (1993) data, the coefficient of variation for the average years of total schooling of the total population is 59% in 1985 (for 106 countries).

⁸ Appendix Table A contains the top and bottom ten average occupational indices.

The multinomial logit model is used to estimate the occupational mobility regression since there are three outcomes: upward mobility, no change (base outcome), or downward mobility. In this case, the probability of an outcome j is:

$$\Pr(Y = k) = \frac{e^{\beta_k x}}{\sum_{k=0}^2 e^{\beta_k x}}, \quad (4)$$

where \mathbf{x} is as defined above.

Years of foreign schooling and years of foreign experience (linear and square terms) are included to study whether credentials, training, and skills obtained abroad are transferable to the U.S. labor market.⁹ Past studies show incomplete foreign credentials and skills transferability into the U.S. labor market.¹⁰ For example, Chiswick (1978) finds that foreign-born male workers earn less than the native born initially, over time the gap narrows, and eventually foreign-born workers earn more. However, Chiswick and Miller (2007a) find that an immigrant’s pre-immigration work experience contributes negatively to occupational status in the United States. Both men and women, on average, have nearly 13 years of foreign schooling and 10-11 years of foreign work experience, see Table 1.

One of the most important factors in the economic assimilation of immigrants is fluency in the host country language.¹¹ There are a number of variables in the NIS measuring an immigrant’s English speaking ability; for example, one question asks “How well would you say you speak English?” Response choices range from ‘Very well’ to ‘Not at all.’ Using the 1996 pilot cohort of the NIS, Akresh (2006) finds that English speaking ability is correlated with immigrants’ occupational mobility. However, the use of this variable may be problematic since it

⁹ Although total years of U.S. schooling is known, it is not included in the first-stage regressions because it cannot be precisely estimated how many years of these are obtained before the first U.S. occupation.

¹⁰ A similar observation is made Friedberg (2000) using Israeli data.

¹¹ See Chiswick and Miller (2007b) and Akresh (2006) for recent contributions using U.S. data. Also see Dustmann and Fabbri (2003), Dustmann and van Soest (2002), Shields and Price (2001), and Chiswick and Miller (1995) for studies using non-U.S. data.

is not clear that an immigrant's current (at the time of the interview) English speaking ability is at the same level as when she obtained her first U.S. job. That is, it is not clear whether this skill was obtained before or after the first U.S. job. An exogenous measure available from the NIS is whether the immigrant reports speaking English at home when age ten. Those that did are presumed to be proficient in English (see Chiswick and Miller, 1995). However, this measure has its own limitations (e.g., not all English speakers at the time when the first U.S. job was obtained necessarily spoke English when young) but is used despite these limitations since it is a clear exogenous variable. About 8-10% of the sample report speaking English at home when young.

Three dummy variables are introduced to control for an immigrant's region of origin: Asia; Europe, Canada, and Oceania; and, the Americas (except Canada); all other regions serve as the base region. As Akresh (2006) points out, "[i]ndividuals from countries that are more economically, culturally, and linguistically similar to the U.S. will likely experience greater skill transferability..." (p. 858). Thus, immigrants from Europe, Canada, and Oceania are expected to experience either a higher probability of an occupational match or upward mobility. The region of origin breakdown of the samples used also appears in Table 1.

Five classes of admission (or, visa class) are considered—employment principal; spouses of U.S. citizens, permanent residents, and employment principals; family preference; diversity principals and their spouses; and, all other types of immigrants (e.g., refugees and asylum seekers). The main reason for immigration also colors an immigrant's labor market experience. The probability of an occupational match is expected to be highest among employment principals and lowest among refugees, asylum seekers, and others since the former (latter) are the most (least) prepared to enter the U.S. labor market.

Indeed, a cursory look at the NIS-2003 data used suggests that admission class does matter. A comparison of immigrants' last foreign occupation with their first U.S. occupation indicates a match rate of 40% (45%) for male (female) employment-based immigrants. For men, the match rate for the other visa classes ranges from 7% (diversity) to 13% (family preference); for women, the match rate ranges from 7% (family preference) to 10% (for all other immigrants). For the first-stage mobility sample, close to a third of the employment-based immigrants experience occupational upgrading; a similar percentage experience occupational downgrading. For the other admission classes, much larger percentages experience occupational downgrades—among male (female) spouse immigrants, 57% (67%) experience downward mobility. Similar rates are observed for family-preference-based immigrants. Occupational downgrades for diversity-based immigrants are much higher at 75% while the rates are 61% (men) and 69% (women) for all other immigrants.¹²

In addition to individual characteristics, occupation characteristics are also controlled using an occupational desirability index and a broad set of occupational dummy variables. Mean annual wages is used as an indicator of occupational desirability.¹³ This is adopted from Chiswick and Miller (2007a) who use mean wages to measure “goodness” of occupations. Immigrants are expected to remain or move to more desirable occupations, all else equal.

Occupational match and mobility may also vary across broad occupational groups. Five broad occupational group dummies are defined: management, professional, and related occupations (MGTPROF); service occupations (SERV); sales and office occupations (SALEOFF); construction, extraction, maintenance, and farming, fishing, and forestry occupations (CONFFF); production and transportation and material moving occupations

¹² Detailed breakdowns are available upon request.

¹³ Mean annual wages are from the Bureau of Labor Statistics (BLS), Department of Labor. The data are obtained from the 2002 Occupational Employment Statistics (OES) Survey which uses the *Standard Occupational Codes* (SOC). These codes are matched to their corresponding *Census Classified Index for Occupations*. Average values are used when multiple SOC codes correspond to one Census occupation code.

(PRODTRAN, base category).¹⁴ These occupational dummies are based on immigrants' first U.S. occupation as they are intended to capture (non-person specific) skill transferability in the U.S. labor market. Skill transferability varies across occupations—for example, licenses are required in some jobs (e.g., doctors) but not in others (e.g., sales clerk). If one's first U.S. occupation is in the management, professional, and related occupations, then one is more likely to have had the same last foreign occupation or to have moved up (indicative of having at least a minimum qualification to enter the U.S. labor market). Thus, among all occupational groups, the probability of an occupational match (or upward mobility) is expected to be highest among immigrants in the management, professional, and related occupations. Table 1 also details the broad occupational breakdown of the immigrant samples.

2c. Second-stage occupational match and mobility

For the models in this section, the sample consists of immigrants who report at least one U.S. job. Close to 41% (46%) of the male (female) immigrants are currently in the same occupations as their first U.S. occupations, see Table 2. Equations (3a) to (3c) now tabulate the mean total education levels of all immigrants holding occupation j in their first U.S. job (eq. (3a)), current U.S. job (eq. (3b)), and the average of these two measures (eq. (3c)).¹⁵ Using the average index, more than a third (close to a fifth) of the immigrants experienced occupational upgrades (downgrades) between their first U.S. and current U.S. occupation. The specification used is similar to the first-stage regressions with these three differences: years of schooling in the United States is included; time in the United States (linear and square terms) replaces foreign

¹⁴ Limitations in the data preclude the use of detailed occupational sub-groups with region-of-origin and class-of-admission dummy variables. MGTPROF includes Management; Business and Financial Operations; Computer and Mathematical; Architecture and Engineering; Life, Physical, and Social Services; Community and Social Services; Legal; Education, Training, and Library; Arts, Design, Entertainment, Sports, and Media; Healthcare Practitioners and Technical. SERV includes Healthcare Support; Protective Services; Food Preparation and Serving Related; Building and Grounds Cleaning and Maintenance; Personal Care and Service. SALEOFF includes Sales and Related Occupations; Office and Administrative Support. CONFFF includes Construction and Extraction; Installation, repair, and Maintenance; Farming, Forestry, and Fishing. PRODTRAN includes Production and transportation and material moving occupations.

¹⁵ The top and bottom ten average occupational indices are listed in Appendix Table B.

experience; and, current English-speaking ability replaces speaking English at home when age ten.

Table 2 near here

An immigrant's ability to remain in the same occupation or move to a different one once in the United States is partly determined by credentials obtained in the United States. On average, our sample of immigrants have one year of U.S. education. Immigrants are more likely to have moved from their first U.S. occupation (or experienced upward mobility), the higher the investments made on human capital formation in the United States. However, if these investments are in-progress, then it is possible that immigrants will remain in the same first U.S. occupation than to have moved to a different occupation as more U.S.-specific credentials are obtained.

Time in the United States is preferred to U.S. work experience alone as this not only capture U.S. work experience but also potential work-related networks immigrants may have established since moving to the United States. The average length of stay for men (women) is eight (seven) years.¹⁶ The probability of staying in the same first U.S. occupation is expected to decline up to a point with time in the United States. Knowledge about the U.S. labor market and/or the number of network links established increase with time; these provide more opportunities for immigrants leading to lower probabilities of remaining in the same occupation. However, the probability of moving to a new occupation becomes harder beyond some point; so, the probability of remaining in the same occupation beyond a certain point increases with time in the United States. These suggest an inverted-U relationship between time in the United States and the probability of upward occupational mobility.

¹⁶ This is based on the first reported move to live in the United States.

Following common practice, a dummy variable is used to represent current English speaking ability. If an immigrant reports a speaking ability of ‘Very well’ or ‘Well’ then this dummy variable equals one. From Table 2, we see that more than half of our samples report being proficient in speaking English.

3. ANALYSIS OF RESULTS

Table 3 contains the results for the first-stage occupational match regressions.¹⁷ The F-statistics are statistically significant at the 1% level. The ‘fit’ of the model is quite good—at least 80% of the outcomes are correctly predicted. The model predicts an occupational match probability rate of 0.12 (0.08) for an “average” male (female) immigrant. For both men and women, the negative and statistically significant coefficients for the foreign schooling variable indicate that more educated immigrants are less likely to have the same occupation in the United States, all other variables controlled for. Literally interpreted, each additional year of foreign education decreases the odds of an occupational match by 6% (15%) for men (women), all else equal.¹⁸ This is consistent with the notion that education quality is lower in a large number of immigrant source countries (see e.g., Bratsberg and Terrell, 2002).

Table 3 near here

As the results show, foreign experience, English speaking ability, and region of origin, are statistically insignificant. U.S. employers may find it hard to value foreign experience because of the heterogeneity in the characteristics of the labor markets of the immigrant source

¹⁷ All regression estimates account for the sampling weights and stratification used by the NIS. As a robust check, all models are re-estimated using a common sample. The results are qualitative similar to those presented in this section.

¹⁸ It should be pointed out that the odds ratios do not represent relative risks of an occupational match. To determine relative risks, the underlying probabilities need to be calculated. As Menard (2002, p. 57) points out, “I have repeatedly seen the mistake of equating *odds ratio* (a ratio of two odds) with a *risk ratio* (a ratio of two probabilities), sometimes with the justification that the two are “approximately” equal under certain fairly restrictive conditions (a base rate less than .10). In general, the use of an odds ratio to “represent” a risk ratio will overstate the strength of the relationship.”

countries. Speaking English when young may be a poor choice of host country language ability. However, qualitatively similar results are obtained when an alternative exogenous language ability variable was considered.¹⁹ This increases confidence on the results presented here. Another reason why this variable is found to be insignificant is related to observations made by Chiswick and Miller (2007b) that occupations vary in their English proficiency requirements. Since the model also includes occupational group dummy variables, the English proficiency variable really captures the importance of language proficiency within each occupational group—the results indicate no within-group variation in the importance of English proficiency in the occupational match regressions. The region-of-origin dummy variables may have been too broad to capture any significant differences among immigrants from different source countries.

Class of admission does matter. The base category is admission based on employment. Since all four class-of-admission dummies are negative and statistically significant at the 5% level, the results suggest that the odds of an occupational match are lower for other admission classes compared with admission based on employment. These are not surprising results. What is intriguing is the fact that in probability terms, compared with employed-based immigrants, men and women with “average” characteristics who enter under the family-preference scheme have only a 0.07-0.08 lower probability of an occupational match.

Among immigrant men, the probability of staying in the same occupation is associated with this occupation’s desirability: mean annual wages (proxy for occupational desirability) is positive and statistically significant at the 1% level. The odds of an occupational match increase with wages. In particular, the odds increase by 1% when annual wages is a thousand dollars

¹⁹ The NIS also asked “In the year before leaving your last foreign residence to come to the United States to live, how often did you listen to U.S. radio broadcasts?” An alternative dummy variable was created based on this question. When a respondent reports listening to these broadcasts at least once a week, this variable is equal to one. Nearly 37% (31%) of the respondents who spoke (did not speak) English at age ten reported to listening to these broadcasts. For the most part, all first-stage regression results are qualitatively similar when this variable replaces speaking English at home at age ten.

higher. With the exception of the management, professional and related occupations dummy variable in the female regression, all occupational dummy variables are statistically insignificant. This means that for immigrant men, there is no evidence that the probability of obtaining the same first U.S. occupation as his last foreign occupation differs across occupational groups. The positive coefficient of the management, professional and related occupations dummy variable in the female regression suggests that women in these occupations have as much as five times higher odds of an occupational match compared with those in the production and transportation and material moving occupations (base occupations).

The multinomial logit results of the first-stage occupational mobility model appear in Table 4A (men) and Table 4B (women). The F-statistics are statistically significant at the 1% level indicative of the usefulness of the model. The model predicts an occupational match probability rate of 0.14 (men) and 0.09 (women); an upward mobility rate of 0.28 (0.21); and, a downward mobility rate of 0.58 (0.70).

The results reveal additional insights. First, foreign schooling is positive and statistically significant in the downward mobility regressions only. This means that the negative coefficients found in the match regressions can mostly be attributed to a higher probability of an occupational downgrade for the more educated, all else equal.²⁰ That is, more educated immigrants are less likely to have the same occupation in the United States and they experience higher odds of occupational downward mobility. The odds are higher for women (but the difference in the coefficient estimates is not statistically significant). These are indicative of the incomplete transfer of foreign credentials into the U.S. labor market. This finding is not consistent with those

²⁰ Since the base outcome in the multinomial logit regressions is no occupational change, the odds (or probabilities) of an upward or downward mobility mentioned in this section are relative to that of remaining in the same occupation.

in Akresh (2006).²¹ The author finds that more foreign education leads to a lower probability of an occupational downgrade, all else equal. Since Akresh (2006) uses a different cohort (NIS-1996 Pilot), the differential findings perhaps suggest that there have been changes since the mid-1990s in how the U.S. labor market value education acquired abroad.

To what extent is the incomplete transfer of foreign credentials into the U.S. labor market a reflection of the lower quality of education in the immigrant source countries? A more definitive answer to this question is warranted. It is possible that U.S. employers are misreading the value of education earned outside the United States; if so, then this clearly is an inefficient way to use some of the human capital in the United States.

Tables 4A and 4B near here

The square term for foreign experience is statistically significant at the 5% level in the female downward mobility regression. This suggests a U-shaped relationship between the probability of moving down the occupational scale and foreign experience level. The odds of moving down at first decreases and then increases beyond some level of foreign experience. Skills earned early in one's career tend to be more general (thus, transferable); the U.S. labor market seems to be valuing these skills for women but not for men—some foreign work experience lowers an immigrant woman's probability of an occupational downgrade. As in the first-stage match regressions, the variables capturing English speaking ability and region of origin are statistically insignificant.

The reason why the odds of an occupational match are lower for the other admission classes compared with admission based on employment is because these groups experience higher probabilities of both upward and downward occupational mobility. Almost all the class-

²¹ Although it is consistent with the anecdotal evidence presented by Akresh (2006) "that immigrants who come to the U.S. often have qualifications and experience that suit them for higher-skilled jobs than what they end up doing once they arrive." (p. 854)

of-admission dummy variables are statistically significant at the 5% level in both immigrant men and women regressions.

The odds of moving up the occupational scale (relative to staying in the same occupation) are two to three times higher for men and three to five times higher for women. Interestingly, for both men and women the odds of occupational upward mobility is highest for those admitted under the family-preference scheme, contra the popular notion that this group only experiences occupational downgrades. In probability terms (marginal effects), compared to employment-based immigrants, family-based immigrants have a 0.10 higher probability of experiencing occupational upgrades.

Compared to employment-based immigrants, the odds of an occupational downgrade for men are two (family preference) to five (diversity) times higher; for women, the odds increases by a factor of three for all other immigrants. Finally, the results suggest that women have higher odds of moving up than moving down regardless of their admission class—the odds of moving up are higher than those for moving down for each admission class. For men, the evidence is mixed.

The occupation desirability index is negative when statistically significant. This suggests that the odds of having experienced upward or downward mobility decreases with an occupation's desirability. The former suggests that immigrants tend to stay in desirable occupations; thus, have lower odds of having moved up. The latter suggests that immigrants in more desirable occupations have lower odds of having moved down the occupational scale. Finally, women in management, professional, and related occupations have lower odds of having moved down the occupational scale.

A number of interesting results can be gleaned from the results of the second-stage match and mobility regressions. Roughly 68% of the outcomes in both male and female second-stage

match regressions are correctly predicted by the model, see Table 5. The F-statistics are statistically significant at the 1% level. The probability of staying in the same first U.S. occupation is predicted by the model to be 0.39 (0.45) for “average” immigrant men (women). The probability of staying in the same first U.S. occupation decreases as immigrants obtain more education in the United States. For each year of U.S. education, the odds of an occupational match decrease by 7% (10%) for immigrant men (women). For men, foreign education matters as well; each year of foreign education is associated with a 5% decline in the odds of staying in the same first U.S. occupation.

Table 5 near here

Years of residence in the United States is related to an immigrant’s ability to change occupations. The positive and statistically significant coefficients for the square term of the variable suggest that the probability of staying in the same first U.S. occupation at first decreases then increases for both male and female immigrants. This is an intuitively appealing result as knowledge about the U.S. labor market and/or the number of networks established increase over time—these provide more opportunities for immigrants. Thus, the probability of remaining in the same occupation decreases. These effects, however, reverse beyond some threshold level of residence.

The English proficiency dummy variable is statistically significant at the 1% level only in the regression for men. Controlling for all other factors, the odds of remaining in the same occupation decrease by 38% if one is proficient in English. For an “average” male immigrant who is proficient in English, this translates to a 0.12 lower probability of remaining in the same occupation. As in the first-stage match regressions, the dummy variables capturing region of origin are statistically insignificant in both male and female immigrant regressions with one exception. Immigrant men from the Americas (excluding Canada) have lower odds of staying in

the same first U.S. occupation. Except for one admission class dummy variable, all admission class dummy variables are statistically insignificant in the second-stage match regressions. This means that there is no evidence that visa class matters in whether an immigrant stays in the same first U.S. occupation.

The occupation desirability index is positive in both regressions. Immigrants are less likely to leave an occupation, the more desirable the occupation. Finally, controlling for all other factors, women in service occupations and sales and office occupations have higher odds of remaining in these occupations compared to those in production and transportation and material moving occupations (base occupations).

Results pertaining to mobility between immigrants' first and current U.S. occupations appear in Table 6A (men) and Table 6B (women). The probability of moving up, staying, or moving down the occupational scale is predicted to be 0.36, 0.43, and 0.21 respectively for men and 0.32, 0.49, and 0.19 for women. Unless otherwise stated, all results here are similar to those found in the occupational match regressions.

The probability of moving up the occupational scale increases as more U.S. education is obtained. For men (women), the odds of an upward movement increase by 9% (15%) for each year of U.S. education. This demonstrates that investment in education enhances an immigrant's ability to move up the occupational scale. Education acquired outside the United States also contributes to immigrants' upward occupational mobility; foreign education also lessens female immigrants' downward occupational mobility. These, in conjunction with the first-stage regression results, suggest that although the U.S. labor market does not appear to value immigrants' foreign education initially, eventually it does. However, one needs to view this result with some caution as the variable is not significant in the match regression.

Tables 6A and 6B near here

An inverted-U relationship between years of residence in the United States and the probability of moving up and down the occupational scale is observed. The odds of moving up or down at first rises and then drops beyond some point. These results are consistent with those found in the match regressions. The probability of moving up the occupational scale increases with time as immigrants learn more about opportunities in the United States; beyond some point, the probability of moving up eventually decreases. There are, however, immigrants who experience the opposite situation. Adjusting to the U.S. labor market is hard for this group; thus, the probability of an occupational downgrade increases with time in the United States. Eventually, this effect also reverses.

English speaking ability matters in only in occupational upward mobility. The odds of an occupational upgrade almost double for anyone who is proficient in English, all other factors held constant. For “average” immigrant men (women), those who are proficient in English have a 0.11 (0.12) higher probability of moving up the occupational scale. This is consistent with Chiswick and Miller’s (2007a) finding that occupational attainment increases with proficiency in English. Men from the Americas (except Canada) have a higher probability of moving down the occupational scale, all else equal. The odds of moving down are twice that of men from all other regions of the world (base region).

Admission class was found to be inconsequential in determining whether immigrants stay in their first U.S. occupation. However, some admission types matter in the occupational mobility of immigrants from their first to current U.S. occupations. In particular, men and women who enter under the diversity program are less likely to move up compared to those admitted based on employment. This is because they tend to remain in the same occupation. Cautious interpretation of these results is needed as they differ from those in the second-stage match regressions.

The more desirable the occupation an immigrant starts out with, the lower the probability this person moves up the occupational scale—the coefficient of the occupational desirability index is negative and significant statistically at the 1% level. Compared with men in production and transportation and material moving occupations, those that start out in sales and office occupations are less (more) likely to move up (down) the occupational scale. Women that start out in these occupations also are less likely to move up even after controlling for education, years of U.S. residence, and other factors. A similar result is also observed for women in service occupations (e.g., food preparation and serving related). These results, in conjunction with the significance of the dummy variables for these two broad occupational groups in the match regression, signify that women that start out in sales, office, and service occupations tend to remain in these occupations. Finally, those whose first U.S. occupations are in management, professional, and related occupations are less likely to move up the occupational scale. And, women in these occupations are also more likely to move down the occupational scale.

The adjustment process for this cohort of immigrants will continue as close to a third of the sample do not intend to remain in their current jobs. Of those who report currently looking for another job, more than half report that they are looking for a different kind of work than what they currently hold.²² Whether satisfied or dissatisfied with their current circumstances, these clearly signal immigrants' drive for further improvement.

4. CONCLUSION

The foreign-born population of the United States in 2003 was 11.7% of the total population, up from a rate of 6.2% in 1980. However, this is still lower than 14.8%, the rate in 1910 (see Larsen, 2004; Bureau of the Census, 1993). Thus, the current rate is but a return to the

²² The NIS also asks “Are you currently looking for another job?” For those who responded ‘yes’ to the previous question, the NIS also asks “Are you looking for the same kind of work you’re doing now, or something different?”

historical rate experienced by the United States at the turn of the last century. The economic assimilation of the immigrant population has been a major academic and policy concern. This paper contributes to these discussions by analyzing the determinants of an occupational match and mobility between immigrants' last foreign and first U.S. occupations and between immigrants' first and current U.S. occupations.

Findings related to what the immigrants themselves can do to increase their chances of economic success in the United States regardless of the immigration policy environment are as follows: To the extent that the positive association between foreign education and the probability of downward occupational mobility is due to incorrect perceptions by U.S. employers about the quality of education earned abroad, immigrants can take actions (e.g., increase visibility in professional organizations) to correct these misperceptions. Also, since the probability of remaining in the same first U.S. occupation diminishes (or, the probability of moving up increases) with education earned in the United States and with English proficiency, it is incumbent upon immigrants to invest in U.S. education or learn the host-country language to boost one's skills and credentials and expand one's work possibilities.

Contrary to the belief that immigrants admitted under the family-preference scheme will not be successful in the U.S. labor market, this paper finds evidence that this group also experiences upward mobility between their last foreign and first U.S. occupations. However, this does not mean that recent proposals calling for immigration rules that emphasize work skills (e.g., English speaking ability) and education are not without merit as immigrants' occupational mobility beyond their first U.S. occupations do increase with education levels and English proficiency.

Creating a point system based partly on education earned outside the United States is not easy—it requires having accurate information on foreign education quality. From the first-stage

occupational mobility regressions, there is evidence that regardless of an immigrant's class of admission, the probability of an occupational downgrade increases with education earned outside the United States. This seems to suggest that the U.S. labor market "penalizes" the highly foreign-educated. Is this merely an indicator of the (inferior) quality of foreign education correctly perceived by U.S. employers? Or, is it due to misperceptions by U.S. employers about the quality of foreign education? If the latter, then a point system based partly on a factor (foreign education quality) that employers do not understand would be highly suspect.

This paper studied only one aspect of the assimilation of immigrants. A comparably important element is immigrants' social assimilation into U.S. society through participation in business or professional organizations, charitable organizations, or political groups. Clearly, the assimilation process is multi-dimensional. And, gains from immigration are not purely economic. The social, in conjunction with the economic, assimilation of immigrants has not received the attention that it deserves. At present, the NIS asks questions related to immigrants' social and political participation while still living outside the United States. For example, 6% (26%) of the adult NIS respondents report giving money, time, or goods to business or professional (charitable) organizations. About 16% report having talked to someone about local or national problems; and, 8% report having gone to meetings, rallies, speeches, or dinners in support of political candidates while still living outside the United States. It would be interesting to note whether and how these activities have changed since moving to the United States to live.

Unfortunately, questions related to these activities while living in the United States will not be asked in the second round of interviews scheduled for 2007. Otherwise, one can ask whether and how interdependent the economic and social assimilation processes are. Using non-U.S. data, Dustmann (1996) observes that economic and social assimilation are parallel processes. By now, immigrants' economic assimilation into the U.S. economy is well-

understood. Immigrants' social assimilation and their contributions to broader society need to be better understood as well. More importantly, changes to immigration rules without regard for these other dimensions would be incomplete.

Appendix Table A. Top and Bottom Ten Occupational Indices, Average of the Last Foreign and First U.S. Occupations' Indices

Census Code	Occupation	Occupation Index
<i>Top 10 Occupation Indices</i>		
1700	Astronomers and physicists	24.00
2850	Writers and authors	22.00
1650	Medical scientists	21.32
2330	Special education teachers	21.00
1910	Biological technicians	20.50
2840	Technical writers	20.25
1760	Physical scientists, all other	20.23
1320	Aerospace engineers	20.13
1610	Biological scientists	20.04
1840	Urban and regional planners	20.00
<i>Bottom 10 Occupation Indices</i>		
4230	Maids and housekeeping cleaners	8.61
8310	Pressers, textile, garment, and related materials	8.57
4140	Dishwashers	8.46
6040	Graders and sorters, agricultural products	7.92
8460	Textile, apparel, and furnishings workers, all other	7.83
8300	Laundry and dry-cleaning workers	7.48
210	Farmers and ranchers	7.00
4060	Counter attendants, cafeteria, food concession, and coffee shop	6.71
6050	Other agricultural workers	6.50
9720	Refuse and recyclable material collectors	6.50
8860	Cleaning, washing, and metal pickling equip. operators and tenders	5.00
6510	Roofers	5.00

Notes: Author's calculations.

Appendix Table B. Top and Bottom Ten Occupational Indices, Average of the First and Current U.S. Occupations' Indices

Census Code	Occupation	Occupation Index
<i>Top 10 Occupation Indices</i>		
1610	Biological scientists	22.48
1910	Biological technicians	22.25
1820	Psychologists	21.50
1760	Physical scientists, all other	21.03
1700	Astronomers and physicists	21.00
3060	Physicians and surgeons	20.84
1650	Medical scientists	20.72
2200	Postsecondary teachers	20.65
100	Administrative services managers	20.50
2330	Special education teachers	20.50
<i>Bottom 10 Occupation Indices</i>		
8400	Textile cutting machine setters, operators, and tenders	8.83
8320	Sewing machine operators	8.82
8450	Upholsters	8.75
4250	Grounds maintenance workers	8.68
8650	Crushing, grinding, polishing, mixing, and blending workers	8.13
210	Farmers and ranchers	7.10
6050	Other agricultural workers	7.04
9720	Refuse and recyclable material collectors	6.50
8860	Cleaning, washing, and metal pickling equip. operators and tenders	6.00
6840	Mining machine operators	5.25

Notes: Author's calculations.

References

- Akresk, I.R. 2006. "Occupational Mobility Among Legal Immigrants to the United States," *International Migration Review*, 40: 854-884.
- Barro, R.J. and J.W. Lee. 1993. "International Comparisons of Educational Attainment," NBER Working Paper No. 4349.
- Borjas, G.J. 2006. "Making it in America: Social Mobility in the Immigrant Population," NBER Working Paper No. 12088.
- Bratsberg, B. and D. Terrell. 2002. "School Quality and Returns to Education of U.S. Immigrants," *Economic Inquiry*, 40: 177-198.
- Card, D. 2005. "Is the New Immigration Really So Bad?," *The Economic Journal*, 115: F300-F323.
- Chiswick, B.R. and P.W. Miller. 2007a. "Earnings and Occupational Attainment: Immigrants and the Native Born," IZA Discussion Paper No. 2676.
- Chiswick, B.R. and P.W. Miller. 2007b. "Occupational Language Requirements and the Value of English in the U.S. Labor Market," IZA Discussion Paper No. 2664.
- Chiswick, B.R. and P.W. Miller. 1995. "The Endogeneity Between Language and Earnings: International Analyses," *Journal of Labor Economics*, 13: 246-288.
- Chiswick, B.R. 1978. "The Effect of Americanization on the Earnings of Foreign-born Men," *Journal of Political Economy*, 86: 897-921.
- Duleep, H.O. and M.C. Regets. 1996. "Admission Criteria and Immigrant Earnings Profile," *International Migration Review*, 30: 571-590.
- Duncan, O.D. 1961. "A Socioeconomic Index for All Occupations," In *Occupations and Social Status*. A.J. Reiss, Jr.. New York, NY: Free Press of Glencoe.
- Dustmann, C. and F. Fabbri. 2003. "Language Proficiency and Labour Market Performance of Immigrants in the UK," *The Economic Journal*, 113: 695-717.
- Dustmann, C. and van Soest, A. 2002. "Language and the Earnings of Immigrants," *Industrial and Labor Relations Review*, 55: 473-492.
- Dustmann, C. 1996. "The Social Assimilation of Immigrants," *Journal of Population Economics*, 9: 37-54.
- Friedberg, R.M. 2000. "You Can't Take It with You? Immigrant Assimilation and the Portability of Human Capital," *Journal of Labor Economics*, 18: 221-251.
- Green, D.A. 1999. "Immigrant Occupational Attainment: Assimilation and Mobility over Time," *Journal of Labor Economics*, 17: 49-79.
- Jasso, G., D.S. Massey, M.R. Rosenzweig and J.P. Smith. 2005. "The U.S. New Immigrant Survey: Overview and Preliminary Results Based on the New-Immigrant Cohorts of 1996 and 2003." In *Longitudinal Surveys and Cross-Cultural Survey Design*. Ed. B. Morgan and B. Nicholson. UK Immigration Research and Statistics Service.
- Jasso, G. and M.R. Rosenzweig. 1995. "Do Immigrants Screened for Skills Do Better than Family Reunification Immigrants?," *International Migration Review*, 29: 85-111.
- Larsen, L.J. 2004. *The Foreign-Born Population in the United States: 2003. Current Population Reports*, P20-551, Washington, D.C.: Bureau of the Census.
- Martin, P. and E. Midgley. 2006. "Immigration: Shaping and Reshaping America, Revised and Updated Second Edition" *Population Bulletin*, 61: 3-28.
- Menard, S. 2002. "Applied Logistic Regression Analysis, Second Edition. Thousand Oaks, CA: Sage Publications.
- New York Times. 2007. Immigration Bill Provisions Gain Wide Support in Poll. May 25.

- Shields, M.A. and S.W. Price. 2001. "Language Fluency and Immigrant Employment Prospects: Evidence from Britain's Ethnic Minorities," *Applied Economics Letters*, 8: 741-745.
- Smith, J.P. 2006. "Immigrants and the Labor Market," *Journal of Labor Economics*, 24: 203-233.
- U.S. Bureau of the Census. 1993. *We, the American Foreign Born*. Washington, D.C.: Bureau of the Census.
- World Bank. 2005. *2005 World Development Indicators CD-Rom*. Washington, D.C.: The World Bank.

Table 1. Descriptive Statistics, First-Stage Match and Mobility Regressions

Variables	Match				Mobility			
	Men		Women		Men		Women	
	Mean	Std Err.	Mean	Std Err.	Mean	Std Err.	Mean	Std Err.
Proportion matching	0.148	0.010	0.119	0.010	-	-	-	-
Proportion up	-	-	-	-	0.275	0.014	0.226	0.016
Proportion no change	-	-	-	-	0.162	0.011	0.124	0.011
Proportion down	-	-	-	-	0.563	0.015	0.649	0.018
Foreign schooling	12.863	0.123	13.173	0.151	12.901	0.130	13.187	0.153
Foreign experience	11.319	0.276	9.975	0.328	11.229	0.291	9.938	0.333
English proficiency	0.084	0.009	0.103	0.011	0.081	0.009	0.102	0.011
Asia	0.252	0.011	0.309	0.017	0.255	0.012	0.310	0.017
Europe, Canada, Oceania	0.215	0.012	0.211	0.015	0.212	0.013	0.203	0.015
Americas	0.384	0.015	0.404	0.019	0.386	0.015	0.411	0.019
Spouses	0.353	0.006	0.547	0.009	0.353	0.006	0.554	0.009
Family-preference	0.102	0.008	0.073	0.008	0.098	0.008	0.072	0.008
Diversity	0.121	0.005	0.068	0.004	0.118	0.005	0.066	0.004
Refugees, others	0.284	0.009	0.226	0.010	0.283	0.010	0.222	0.011
Desirability index	33.587	0.529	26.458	0.548	34.146	0.568	26.289	0.549
MGTPROF	0.214	0.011	0.176	0.013	0.226	0.011	0.176	0.013
SERV	0.243	0.013	0.448	0.019	0.237	0.014	0.456	0.019
SALEOFF	0.137	0.010	0.214	0.016	0.136	0.011	0.217	0.016
CONFFF	0.206	0.013	0.015	0.004	0.209	0.013	0.015	0.004
n	1,634		998		1,519		953	

Source: Author's calculations. These values adjust for the sampling weights and stratification used by the *New Immigrant Survey*.

Table 2. Descriptive Statistics, Second-Stage Match and Mobility Regressions

Variables	Match				Mobility			
	Men		Women		Men		Women	
	Mean	Std Err.	Mean	Std Err.	Mean	Std Err.	Mean	Std Err.
Proportion matching	0.411	0.012	0.463	0.015	-	-	-	-
Proportion up	-	-	-	-	0.375	0.013	0.340	0.015
Proportion no change	-	-	-	-	0.429	0.013	0.472	0.015
Production down	-	-	-	-	0.196	0.010	0.188	0.012
Foreign schooling	11.991	0.113	12.038	0.132	12.005	0.115	12.042	0.131
U.S. schooling	1.069	0.066	1.045	0.075	1.056	0.067	1.010	0.073
U.S. residence	8.213	0.172	7.397	0.183	8.101	0.174	7.344	0.183
English proficiency	0.584	0.012	0.585	0.014	0.579	0.012	0.579	0.014
Asia	0.243	0.010	0.293	0.013	0.247	0.010	0.296	0.014
Europe, Canada, Oceania	0.170	0.009	0.187	0.011	0.171	0.010	0.185	0.011
Americas	0.456	0.012	0.445	0.015	0.450	0.013	0.445	0.015
Spouses	0.356	0.005	0.469	0.007	0.347	0.005	0.468	0.007
Family-preference	0.110	0.007	0.099	0.007	0.110	0.007	0.100	0.007
Diversity	0.102	0.004	0.071	0.004	0.105	0.004	0.070	0.004
Refugees, others	0.304	0.008	0.286	0.009	0.308	0.008	0.287	0.009
Desirability index	31.888	0.399	25.143	0.368	31.947	0.412	25.089	0.369
MGTPROF	0.192	0.009	0.149	0.010	0.194	0.009	0.149	0.010
SERV	0.272	0.011	0.460	0.015	0.270	0.012	0.462	0.015
SALEOFF	0.148	0.009	0.232	0.013	0.150	0.009	0.228	0.013
CONFFF	0.202	0.011	0.019	0.004	0.199	0.011	0.018	0.004
n	2,307		1,535		2,232		1,509	

See notes in Table 1.

Table 3. First-Stage Match Regression Results

Variables	Men			Women		
	Coeff.	Std. Err.	Odds	Coeff.	Std. Err.	Odds
Foreign schooling	-0.066 ^{b/}	0.026	0.936	-0.158 ^{a/}	0.040	0.854
Foreign experience	-0.006	0.025	0.994	0.069 ^{c/}	0.040	1.072
For. Exper. Square	0.000	0.001	1.000	-0.002 ^{c/}	0.001	0.998
English proficiency	0.371	0.277	1.449	-0.190	0.308	0.827
Asia	0.037	0.334	1.037	-0.197	0.581	0.821
Europe, Canada, Oceania	-0.030	0.349	0.970	-0.183	0.555	0.833
Americas	-0.537	0.372	0.585	-0.620	0.592	0.538
Spouses	-0.952 ^{a/}	0.248	0.386	-1.376 ^{a/}	0.278	0.253
Family-preference	-1.025 ^{a/}	0.392	0.359	-1.483 ^{b/}	0.615	0.227
Diversity	-1.456 ^{a/}	0.329	0.233	-1.188 ^{b/}	0.496	0.305
Refugees, others	-1.108 ^{a/}	0.263	0.330	-1.301 ^{c/}	0.396	0.272
Desirability index	0.026 ^{a/}	0.006	1.026	0.010	0.008	1.010
MGTPROF	0.320	0.433	1.377	1.559 ^{a/}	0.511	4.753
SERV	0.023	0.361	1.024	-0.522	0.421	0.594
SALEOFF	0.290	0.375	1.336	0.470	0.462	1.601
CONFFF	0.394	0.348	1.483	-0.186	0.791	0.830
Constant	-1.180 ^{b/}	0.547		0.607	0.798	
n	1,634			998		
F-statistic	13.63 ^{a/}			11.27 ^{a/}		
Percent Correct	80.72			86.07		
Predicted Match	0.116			0.080		

Notes: ^{a/ b/ c/} statistically significant at the 1%, 5%, and 10% level. Regression estimates account for the sampling weights and stratification used by the NIS.

Table 4A. First-Stage Mobility Regression Results, Men

	Upward mobility			Downward mobility		
	Coeff.	Std. Err.	Relative Odds	Coeff.	Std. Err.	Relative Odds
Foreign schooling	-0.042	0.031	0.959	0.140 ^{a/}	0.030	1.150
Foreign experience	-0.009	0.028	0.992	0.017	0.028	1.017
For. Exper. Square	0.000	0.001	1.000	0.000	0.001	1.000
English proficiency	-0.566 ^{c/}	0.325	0.568	-0.386	0.321	0.680
Asia	-0.114	0.372	0.892	0.175	0.367	1.191
Europe, Canada, Oceania	0.166	0.380	1.181	-0.006	0.378	0.994
Americas	0.453	0.414	1.573	0.734 ^{c/}	0.395	2.083
Spouses	0.772 ^{a/}	0.271	2.164	0.971 ^{a/}	0.278	2.640
Family-preference	1.144 ^{b/}	0.449	3.138	0.759 ^{c/}	0.430	2.137
Diversity	1.018 ^{a/}	0.385	2.768	1.568 ^{a/}	0.353	4.796
Refugees, others	1.065 ^{a/}	0.306	2.901	1.048 ^{a/}	0.290	2.853
Desirability index	-0.012 ^{b/}	0.005	0.988	-0.050 ^{a/}	0.010	0.951
MGTPROF	0.579	0.467	1.784	-0.404	0.506	0.668
SERV	-0.250	0.411	0.779	0.029	0.373	1.029
SALEOFF	0.255	0.424	1.291	-0.492	0.395	0.611
CONFFF	-0.421	0.395	0.656	-0.117	0.365	0.890
Constant	0.871	0.628		0.187	0.620	
n	1,519					
F (32, 1484)	9.75 ^{a/}					
Predicted up	0.279					
Predicted no change	0.144					
Predicted down	0.577					

See notes in Table 3.

Table 4B. First-Stage Mobility Regression Results, Women

	Upward mobility			Downward mobility		
	Coeff.	Std. Err.	Relative Odds	Coeff.	Std. Err.	Relative Odds
Foreign schooling	0.014	0.046	1.014	0.278 ^{a/}	0.047	1.320
Foreign experience	-0.060	0.043	0.942	-0.076 ^{c/}	0.042	0.927
For. Exper. Square	0.002	0.001	1.002	0.003 ^{b/}	0.001	1.003
English proficiency	0.520	0.339	1.682	-0.140	0.377	0.870
Asia	-0.291	0.642	0.748	0.553	0.610	1.739
Europe, Canada, Oceania	0.031	0.616	1.031	0.249	0.583	1.283
Americas	0.169	0.643	1.184	0.984	0.611	2.675
Spouses	1.482 ^{a/}	0.329	4.402	1.033 ^{a/}	0.346	2.810
Family-preference	1.672 ^{b/}	0.665	5.322	1.225 ^{c/}	0.685	3.403
Diversity	0.943 ^{c/}	0.565	2.567	1.012 ^{c/}	0.543	2.750
Refugees, others	1.313 ^{a/}	0.457	3.719	0.979 ^{b/}	0.434	2.661
Desirability index	0.009	0.009	1.009	-0.061 ^{a/}	0.016	0.941
MGTPROF	-0.018	0.606	0.982	-1.847 ^{a/}	0.642	0.158
SERV	0.737	0.492	2.089	0.328	0.440	1.389
SALEOFF	0.698	0.555	2.010	-0.885 ^{c/}	0.508	0.413
CONFFF	-0.026	1.109	0.975	0.500	0.802	1.649
Constant	-1.216	0.901		-0.967	0.882	
n	953					
F (32, 918)	7.82 ^{a/}					
Predicted up	0.211					
Predicted no change	0.093					
Predicted down	0.696					

See notes in Table 3.

Table 5. Second-Stage Match Regression Results

Variables	Men			Women		
	Coeff.	Std. Err.	Odds	Coeff.	Std. Err.	Odds
Foreign schooling	-0.056 ^{a/}	0.018	0.945	0.006	0.020	1.006
U.S. schooling	-0.072 ^{b/}	0.031	0.931	-0.111 ^{a/}	0.041	0.895
U.S. residence	-0.182 ^{a/}	0.025	0.834	-0.197 ^{a/}	0.028	0.821
U.S. residence square	0.003 ^{a/}	0.001	1.003	0.005 ^{a/}	0.001	1.005
English proficiency	-0.484 ^{a/}	0.142	0.616	-0.258	0.177	0.773
Asia	0.294	0.202	1.341	0.203	0.272	1.225
Europe, Canada, Oceania	0.006	0.205	1.006	-0.219	0.272	0.803
Americas	-0.482 ^{b/}	0.215	0.618	-0.237	0.275	0.789
Spouses	-0.071	0.188	0.931	0.010	0.213	1.010
Family-preference	0.032	0.250	1.032	0.532 ^{c/}	0.282	1.702
Diversity	0.081	0.229	1.084	0.759 ^{b/}	0.299	2.136
Refugees, others	-0.328 ^{c/}	0.193	0.720	0.351	0.241	1.421
Desirability index	0.016 ^{a/}	0.005	1.016	0.032 ^{a/}	0.010	1.033
MGTPROF	0.419	0.285	1.520	0.315	0.377	1.370
SERV	0.234	0.177	1.263	0.800 ^{a/}	0.198	2.225
SALEOFF	0.193	0.203	1.213	0.608 ^{b/}	0.237	1.836
CONFFF	0.366 ^{c/}	0.198	1.442	0.929 ^{c/}	0.545	2.532
Constant	1.173 ^{a/}	0.398		-0.543	0.515	
n	2,307			1,535		
F-statistic	18.90 ^{a/}			11.80 ^{a/}		
Percent Correct	68.01			68.60		
Predicted Match	0.386			0.454		

See notes in Table 3.

Table 6A. Second-Stage Mobility Regression Results, Men

	Upward mobility			Downward mobility		
	Coeff.	Std. Err.	Relative Odds	Coeff.	Std. Err.	Relative Odds
Foreign schooling	0.070 ^{a/}	0.019	1.073	0.026	0.022	1.027
U.S. schooling	0.087 ^{b/}	0.034	1.091	0.056	0.038	1.058
U.S. residence	0.203 ^{a/}	0.029	1.225	0.141 ^{a/}	0.030	1.151
U.S. residence square	-0.004 ^{a/}	0.001	0.996	-0.003 ^{b/}	0.001	0.997
English proficiency	0.560 ^{a/}	0.161	1.751	0.227	0.189	1.254
Asia	-0.433 ^{c/}	0.243	0.649	-0.052	0.256	0.949
Europe, Canada, Oceania	-0.037	0.247	0.963	0.078	0.268	1.081
Americas	0.292	0.249	1.339	0.758 ^{a/}	0.282	2.134
Spouses	-0.199	0.223	0.819	0.160	0.240	1.174
Family-preference	-0.486 ^{c/}	0.288	0.615	0.274	0.317	1.315
Diversity	-0.583 ^{b/}	0.237	0.558	0.470	0.286	1.600
Refugees, others	-0.002	0.222	0.998	0.658 ^{a/}	0.250	1.930
Desirability index	-0.035 ^{a/}	0.009	0.966	-0.005	0.005	0.995
MGTPROF	-0.816 ^{b/}	0.391	0.442	0.488	0.336	1.629
SERV	-0.183	0.196	0.833	-0.440 ^{c/}	0.255	0.644
SALEOFF	-0.680 ^{a/}	0.236	0.507	0.587 ^{b/}	0.262	1.798
CONFFF	-0.229	0.225	0.795	-0.542 ^{b/}	0.268	0.582
Constant	-1.026 ^{b/}	0.488		-2.556 ^{a/}	0.502	
n	2,232					
F-statistic	12.19 ^{a/}					
Predicted up	0.360					
Predicted no change	0.432					
Predicted down	0.209					

See notes in Table 3.

Table 6B. Second-Stage Mobility Regression Results, Women

	Upward mobility			Downward mobility		
	Coeff.	Std. Err.	Relative Odds	Coeff.	Std. Err.	Relative Odds
Foreign schooling	0.049 ^{b/}	0.024	1.050	-0.095 ^{a/}	0.026	0.909
U.S. schooling	0.142 ^{a/}	0.043	1.152	0.032	0.049	1.032
U.S. residence	0.258 ^{a/}	0.036	1.295	0.120 ^{a/}	0.034	1.127
U.S. residence square	-0.007 ^{a/}	0.001	0.993	-0.003 ^{b/}	0.001	0.997
English proficiency	0.503 ^{b/}	0.200	1.654	-0.232	0.261	0.793
Asia	-0.082	0.317	0.921	0.153	0.407	0.858
Europe, Canada, Oceania	0.327	0.314	1.387	0.179	0.401	1.196
Americas	0.324	0.308	1.383	0.246	0.420	1.279
Spouses	-0.082	0.256	0.922	0.130	0.268	1.139
Family-preference	-0.607 ^{c/}	0.340	0.545	-0.454	0.368	0.635
Diversity	-1.075 ^{a/}	0.370	0.341	-0.402	0.389	0.669
Refugees, others	-0.482 ^{c/}	0.282	0.617	-0.121	0.318	0.886
Desirability index	-0.052 ^{a/}	0.017	0.949	-0.018 ^{b/}	0.009	0.983
MGTPROF	-1.179 ^{b/}	0.552	0.308	1.072 ^{b/}	0.434	2.920
SERV	-1.109 ^{a/}	0.225	0.330	-0.419	0.278	0.658
SALEOFF	-1.143 ^{a/}	0.268	0.319	0.323	0.332	1.381
CONFFF	-1.087 ^{c/}	0.580	0.337	-1.175	0.760	0.309
Constant	-0.274	0.700		0.076	0.635	
n	1,509					
F-statistic	8.24 ^{a/}					
Predicted up	0.318					
Predicted no change	0.490					
Predicted down	0.192					

See notes in Table 3.