Economic Performance and Human Capital Eligibility Requirements of Immigrants Admitted Through the Diversity Immigrant Visa Program

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This paper focuses on the economic performance of immigrants admitted through the diversity immigrant visa program otherwise known as the DV lottery. The question of interest is: does the human capital eligibility requirement improve the economic performance of diversity immigrants compared to immigrants in other admission categories? Using the first round of the New Immigrant Survey, the results indicate that diversity immigrants were less likely to be home owners than immigrants admitted as spouse of U.S. citizens. In addition, diversity immigrants were less likely to work for pay than immigrants admitted through the employment admission category.

Keywords: diversity visa lottery, immigration, economic performance

INTRODUCTION

There are pathways for immigrants to acquire legal permanent residence in the United States. Currently there are eight pathways, otherwise known as eligibility categories, in which the foreign-born may become legal permanent residents (frequently referred to as obtaining a green card). Individuals can obtain a green card through family, employment, refugee or asylee status, as a special immigrant, for human trafficking and crime victims, victims of abuse, through registry and through "other categories" (U.S. Citizenship and Immigration Services (USCISa), 2018). The immigration pathway titled "other categories" includes several programs. One of these programs is the Diversity Immigrant Visa Program (otherwise known as the Green Card Lottery or DV lottery). The Diversity Immigrant Visa Program was established by Congress specifically to diversify the stream of immigrants with respect to national origins, that is, admitting individuals who are from countries with low rates of immigration (USCISb, 2018). Qualified immigrants apply and are chosen to obtain a green card by lottery.

Apart from diversifying the stream of immigrants with respect to national origins, the DV lottery recipients' economic performance in the U.S. is of interest to policy makers because with the exception of the employment category, the diversity immigrants are the only group of immigrants that have a labor force skill criteria as a part of their eligibility requirements for obtaining legal permanent residence in the United States. Hence, the question of interest is: does the human capital eligibility requirement improve

the economic performance of diversity immigrants compared to immigrants in other admission categories where human capital is not a part of the eligibility requirements to obtain legal residency in the United States? Kremer (2011) argues that compared to other legal residents, DV lottery immigrants were slightly less likely be employed and their educational attainment was insignificant in affecting their employment status. Similarly, Akresh (2006) found that compared to other legal residents, DV lottery immigrants were more likely not to see an improvement in their occupational status between their first US job and their current job.

In this study, we examine the employment status of DV lottery immigrants and expand the literature by providing empirical analysis on their home ownership propensity which is commonly used as an economic performance indicator. We use data from The New Immigrant Survey (NIS). The NIS is a nationally representative multi-cohort longitudinal study of newly admitted legal immigrants and their children to the United States. The sample is based on nationally representative samples of the administrative records, compiled by the U.S. Immigration and Naturalization Service (INS). Results from logistic regressions indicate that diversity immigrants are less likely to work for pay than immigrants admitted through the employment category. Also, diversity immigrants are less likely to own a home in the U.S. than immigrants admitted as spouse of U.S. citizens.

The rest of the paper is structured as follows. Section II provides the institutional details about the diversity immigrant program; Section III discusses our data, methodology and provides the relevant comparisons and results. Section IV concludes the paper.

THE DIVERSITY PROGRAM INSTITUTIONAL DETAILS

The green card eligibility category called "Green Card through Other Categories" include numerous programs. One of these programs is the Diversity Immigrant Visa Program. The congressionally mandated Diversity Immigrant Visa Program is administered by the Department of State (DOS) and conducted based on United States law, specifically Section 203(c) of the Immigration and Nationality Act (INA). The Diversity Immigrant Visa Program makes 55,000 permanent residence visas available annually, 5,000 of these visas are reserved for applicants under the Nicaraguan Adjustment and Central American Relief Act (NACARA) program. To determine who obtains one of the 50,000 visas, the U.S. Department of State (DOS) holds a lottery each year to randomly select individuals who meet strict eligibility requirements from countries with low rates of immigration to the United States (USCISb, 2018). There are two eligibility requirements for the diversity visa program. First, an applicant must be a native of a qualifying country. Countries that have sent a total of more than 50,000 immigrants to the United States in the previous five years are ineligible to apply for the annual diversity lottery. Thus, the list of countries whose natives are not eligible may change from one year to the next. Second, to enter the diversity visa program you must meet either the education or work experience requirement. That is, an applicant must have at least a high school education or its equivalent of two years of work experience within the past five years in an occupation requiring at least two years of training or experience. A high school education or its equivalent is defined as successful completion of a 12-year course of elementary and secondary education in the United States or successful completion of a 12-year course of elementary and secondary education comparable to a high school education in the United States. The U.S. Department of Labor's "O*Net Online" database is used to determine qualifying diversity visa occupations. An applicant must have, within the past five years, two years of experience in an occupation that is designated as Job Zone 4 or 5, classified in a Specific Vocational Preparation (SVP) range of 7.0 or higher.

An applicant must apply through the U.S. DOS during the online entry registration period, which typically runs from October to November of each year. An individual applying may be in the United States or in another country and the entry may be submitted from the United States or from abroad. An applicant for a diversity visa may prepare and submit their own entry or have someone submit the entry on their behalf. There are no costs or fees to register for the diversity visa program. During the registration period an applicant is allowed only one entry and individuals for whom more than one entry

is submitted will be disqualified. Individuals may apply for the program once each year during the registration period. A husband and a wife may each submit one entry if each meets the eligibility requirements. If either is selected, the other is entitled to apply as a derivative dependent. An applicant must list their spouse and all living unmarried children under 21 years of age, regardless of whether or not they are living with you or intend to accompany or follow to join you should you immigrate to the United States. Each year, millions of people apply for the program during the registration period.

A computer-generated, random drawing chooses selectees for the diversity visas. The visas are distributed among six geographic regions (Africa, Asia, Europe, North America, Oceania, and South America, Central America and the Caribbean). Within each region; no single country may receive more than seven percent of the diversity visas in any one year. If an immigrant has been selected for further processing in the Diversity Immigrant Program, he or she will be contacted and upon request by the Kentucky Consular Center (the office that administers the program) the immigrant needs to complete the immigrant visa application, submit required documents and forms, pay required fees, complete a medical examination and be interviewed by a consular officer at the U.S. embassy or consulate to demonstrate that he or she is qualified for a diversity visa.

DATA, METHODOLOGY, AND RESULTS

The data for this study comes from the NIS-2003, a panel survey of a nationally representative sample of legal immigrants to the United States. This stratified random sample of U.S. immigrants who became permanent residents between May and November of 2003 was drawn from the administrative records of the U.S. Immigration and Naturalization Service (Jasso et al., 2005). The sample of legal immigrants consists of both new-arrival immigrants and adjustee immigrants. New-arrival immigrants are immigrants are immigrants who are already in the U.S. with a temporary nonimmigrant visa (or in some cases are in the U.S. illegally) and adjust to lawful permanent residence (Jasso et al., 2005). In this survey, adults and children were sampled; however, the analysis is restricted to the adult sample. Specifically, we focus on respondents age 18 and older at admission to permanent residence. The adult sample was stratified to over-sample employment-based and diversity immigrants and under-sample spouses of U.S. citizens. The NIS-2003 survey interviews were conducted as soon as possible after legal permanent residency was

granted and the immigrants were interviewed in the language of their choice. Sixty percent of the interviews were administered by telephone and the others were administered in-person. The adult sample had a survey response rate of 69 percent. For more information on response rates, sampling design and sampling weights, see Jasso et al. (2005). Of particular interest to this study, the data contains socioeconomic and demographic characteristics such as gender, age, marital status, education, health status, country of birth, English ability, employment status, home ownership, eligibility categories referred to as class of admission and the adjustment status of the immigrants. The adjustment status of immigrants classify immigrants as either new-arrival immigrants or adjustee immigrants. A list of the variables and their definitions are depicted in Table 1.

Male	1 if yes; 0 otherwise	
Age	Number of years since birth	
Years of Education	Total years of education	
Years of U.S. Education	Total years of U.S. education	
Speaks English Very Well	Self-reported English-speaking ability	
Married	1 if yes; 0 otherwise	
Any Kids in the Household	1 if yes; 0 otherwise	
under Eighteen		
Health Excellent or Very Good	Self-reported Health status	
Duration in the U.S.	The amount of time residing in the U.S.	
Adjustment Status		
Adjustee	1 if adjust status in the U.S.; 0 if new-arrival	
Class of Admission		
Spouse of U.S. Citizen	Acquire legal permanent resident status by being the spouse of a U.S. citizen	
Employment	Acquire legal permanent resident status through employment.	
Diversity	Acquire legal permanent resident status through diversity visa lottery.	
Other	Acquire legal permanent resident status through various	
	immigration programs.	
Home Ownership	Owns home in U.S.	
Works for Pay	Respondent works for pay	
Country of Birth	Respondent's country of birth	

TABLE 1VARIABLE DEFINITIONS

The sample utilized in the analysis has 3514 respondents with complete data on the variables. Descriptive statistics are presented in Table 2 and adjusted using sampling weights. Adjustee immigrants account for approximately 58 percent of the sample. Regardless of an immigrant's adjustment status, there are several routes an immigrant can take to become a permanent resident of the United States. The NIS-2003 categorizes the class of admission to the U.S. as spouse of US citizen, employment principal, diversity principal and other. The largest category was other, which accounted for 64 percent of the sample, followed by spouse of U.S. citizen, which accounted for 24 percent of the sample. The employment principal and diversity principal categories accounted for 8 and 4 percent of the sample respectively. There were more females than males and 66 percent of the respondents were married. The mean age of immigrants were 39 years, however, the sample contains immigrants between 18 and 94 years of age.

Variables	Mean	Standard Errors
Male (%)	0.458	0.010
Age	39.155	0.264
Years of Education	11.907	0.087
Years of U.S. Education	0.830	0.047
Speaks English Very Well (%)	0.191	0.008
Married (%)	0.655	0.009
Any Kids in the Household under Eighteen	0.464	0.010
(%)		
Health Excellent or Very Good (%)	0.613	0.009
Duration in the U.S. (days)	2163.238	45.698
Adjustment Status		
Adjustee (%)	0.582	0.009
Class of Admission		
Spouse of U.S. Citizen (%)	0.242	0.010
Employment (%)	0.076	0.003
Diversity (%)	0.043	0.002
Other (%)	0.638	0.010
Home Ownership (%)	0.224	0.008
Works for Pay (%)	0.586	0.010
Sample Size	3514	

TABLE 2 MEAN AND STANDARD ERRORS FOR VARIABLES ASSOCIATED WITH EMPLOYMENT STATUS AND HOME OWNERSHIP

Notes: Summary Statistics using sampling weights.

On average immigrants in the sample had 12 total years of schooling and approximately 1 year of schooling in the U.S. Nineteen percent of the immigrants self-reported their English speaking ability as very well (the highest ability response option). Similarly, the health of the immigrant was self-reported and 61 percent of the sample reported having excellent or very good health. Respondents who worked for pay accounted for 59 percent of the sample. Less than a quarter of the immigrants owned their homes (22%). Twenty one countries of birth are represented in our sample and majority of the immigrants came from Mexico and India, Mexico accounted for 24 percent of the sample are Canada, Peoples Republic of China, Columbia, Cuba, Dominican Republic, El Salvador, Ethiopia, Guatemala, Haiti, India, Jamaica, Korea, Mexico, Nigeria, Peru, Philippines, Poland, Russia, Ukraine, United Kingdom and Vietnam.

Ordered logistic regression models with clustering on the immigrants' countries of birth provides the empirical estimates on the economic performance of diversity visa immigrants relative to other immigrants in different admission classes. We employ the following models:

 $WorksforPay_i = \beta_0 + \beta_1 X_i + \beta_2 Spouse of USCitizen_i + \beta_3 Employment_i + \beta_4 Other_i + \varepsilon_i \dots (1)$

 $HomeOwner_{i} = \beta_{0} + \beta_{1}X_{i} + \beta_{2}SpouseofUSCitizen_{i} + \beta_{3}Employment_{i} + \beta_{4}Other_{i} + \varepsilon_{i} \dots$ (2)

where X_i is a vector of demographic characteristics, an indicator of adjustment of status and the length of time an immigrant has resided in the U.S. The demographic characteristics includes gender, age, marital status, education, health status, English speaking ability and children under 18 years of age in the

household. To facilitate the comparison of immigrants in the class of admissions, the indicator variable representing the diversity visa immigrants is classified as the omitted category. *SpouseofUSCitizen, Employment,* and *Other* are dummy variables indicating the remainder categories in the class of admissions. The findings from the models represented in equations (1) and (2) in the form of odd ratios are represented in Table 3. On average, diversity visa immigrants were less likely to work for pay than employment-based immigrants. This result confirms our expectations as employment-based immigrants have more human capital skills that are demanded in the U.S. labor market and tend to have a job in the U.S. prior to being granted permanent residency status (Akresh 2006, Chiswick 1978). In relation to employment attainment, there were no statistically significant relationships found for the comparisons between diversity visa immigrants and immigrants admitted as spouses of U.S. citizens and through other pathways. With regard to home ownership, diversity visa immigrants were less likely to own their homes in the U.S. than immigrants admitted through employment and other pathways.

A number of other control variables were also associated with immigrants' employment and home ownership status. Being a male immigrant, years of total education, having excellent or very good health, duration in the U.S., and being an adjustee were positively related to an immigrant working for pay while, the age of an immigrant and having some education acquired in the U.S. is negatively related to an immigrant working for pay. Total years of education, speaking the English language very well, being married, having children in the household under eighteen years of age, duration in the U.S., and being an adjustee increases the likelihood of an immigrant owning a home in the U.S. In contrast, males and immigrants with U.S. education are less likely to own a home in the U.S.

TABLE 3 ODDS RATIOS FROM LOGISTIC REGRESSIONS PREDICTING EMPLOYMENT STATUS AND HOME OWNERSHIP OF DIVERSITY IMMIGRANTS

	Dependent Variables	
Independent Variables	Work for Pay	Home Ownership
Male	3.194***	0.868*
Age Years of Education	0.969*** 1.035***	0.994 1.064**
Years of U.S. Education Speaks English Very Well Married	0.921*** 1.209 0.848	0.914*** 1.446*** 3.082***
Any Kids in the Household under Eighteen Health Excellent or Very Good	1.167 1.237**	1.246*** 1.160
Duration in the U.S. Adjustment Status	1.000***	1.000***
Adjustee Class of Admission	2.315***	3.466***
Spouse of U.S. Citizen	0.794	2.409*
Employment Other	7.479*** 0.905	2.330 2.187

Notes: Regression analysis using sampling weights and clustering on country of birth.

Omitted category for adjustment status is new-arrival immigrants.

*Significant at 10%, **Significant at 5%, ***Significant at 1%

Omitted category for class of admission is diversity visa immigrants.

CONCLUDING REMARKS

This study compares the economic performance of immigrants in different class of admissions assigned by the U.S. Citizenship and Immigration Services. These class of admissions indicate immigrants' routes to acquiring legal permanent residence in the United States. In particular, our paper extends the literature by examining the economic performance of diversity visa immigrants with respect to employment and home ownership status. The results from ordered logistic regression models indicate that diversity visa immigrants were less likely to work for pay than employment-based immigrants. Immigrants admitted through employment preferences tended to have the highest levels of education and labor market attachment. One supporting evidence for this observation according to Hayes (2008) is that more than 70 percent of employment-based immigrants have earned at least a bachelor degree. The results also indicate that there is no statistically significant difference in terms of employment between diversity visa immigrants admitted as spouses of U.S. citizens and immigrants admitted through various programs classified as "Other" in this analysis. Compared to immigrants admitted as spouses of U.S. citizens, diversity visa immigrants had a lower probability of owning a home in the U.S. Employment-based immigrants admitted through other programs did not have a lower or higher probability of owning a home in the U.S. than diversity visa immigrants.

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