



WORKING PAPER
2016:45

Do Immigrants Contribute to Public Goods? Recent Evidence from the U.S.

Una Okonkwo Osili

Working Papers Series from Swedish Entrepreneurship Forum

In 2009 Swedish Entrepreneurship Forum started publishing a new series of Working Papers. These are available for download on www.entreprenorskapsforum.se, and are part of our ambition to make quality research available to a wider audience, not only within the academic world.

Scholars from different disciplines are invited to publish academic work with the common denominator that the work has policy relevance within the field of entrepreneurship, innovation and SMEs.

The working papers published in this series have all been discussed at academic seminars at the research institution of the author.

ABOUT SWEDISH ENTREPRENEURSHIP FORUM

Swedish Entrepreneurship Forum is the leading Swedish network organization for generating and transferring policy relevant research in the field of entrepreneurship and small enterprise development.

Swedish Entrepreneurship Forum is a network organization with the aim

- to serve as a bridge between the small business research community and all agents active in development of new and small enterprises.
- to initiate and disseminate research relevant to policy in the fields of entrepreneurship, innovation and SME.
- to offer entrepreneurship researchers a forum for idea sharing, to build national and international networks in the field and to bridge the gap between research and practical application.

Find out more on www.entreprenorskapsforum.se

Do Immigrants Contribute to Public Goods?
Recent Evidence from the U.S.

January 2017

Una Okonkwo Osili¹

¹ Contact Information: Professor of Economics, Indiana University – Purdue University Indianapolis, Indianapolis, IN 46202; phone: (317) 278-8908, email: uosili@iupui.edu. Xiao Han and Wondimu Manalew provided excellent research assistance.

Abstract

Are immigrants a burden on U.S. and European host societies, because they receive benefits but do not contribute to the provision of public goods and services? In this paper, we investigate differences between immigrants and natives in voluntary contributions to the provision of public goods. Our empirical analysis is based on new U.S. data from the Panel Study of Income Dynamics (PSID). We do not find evidence that immigrants free ride more than similar native-born households. Results from the Panel Study of Income Dynamics suggest that immigrants increase their monetary and time contributions to the provision of local public goods as length of stay increases. Immigrants are also less likely to receive assistance from charitable organizations compared to similar natives. Finally, children of immigrants are not significantly different from those of third or higher generations in their likelihood of contributing money and time to the provision of public goods.

I. Introduction

The rise of the foreign-born population in the U.S. has fueled significant academic and policy debate. Recent public opinion polls show widespread concern about how immigration will impact housing, health care, schooling and local public good provision in the U.S. and Europe (Pew Research Center, 2015). An extensive body of research examines the impact of immigration on wages, fiscal burdens and use of welfare programs (Borjas and Hilton, 1996; Cortes, 2008; Dustmann and Frattini, 2014; Hu, 1998; Fix and Passel, 2002; Neidell and Walffogel, 2009). However, very little is known about immigrants' private contributions to public good provision. Beyond the relevance of this question to current policy debates, the extent to which households differ in their willingness to contribute to the private provision of public goods including contributions to education, disaster relief, arts and culture, the environment and other causes is of fundamental interest to social scientists (Andreoni and Bernheim, 2009; List, 2011; Werful, 2016).²

Are the foreign-born a burden on host societies because they receive benefits from, but do not contribute to the private provision of public goods and services? This question

² To date, much of the existing literature on contributions to public goods has emphasized the role of gender. For example, Andreoni, Brown, and Rischall (2003) find strong evidence that men and women have different preferences towards charitable contributions.

has particular relevance in the U.S. and European countries because immigrants and their children will significantly influence population growth trends now and in the future. Over the past decade, immigrants accounted for 47 percent of the increase in the workforce in the United States and 70 percent in Europe (OECD, 2012). Moreover, an estimated 88 percent of the future population growth in the U.S., through 2065, is linked to immigrants and their children.³

An important goal of the paper is to investigate whether immigrants contribute the provision of public goods or the extent to which they free ride more than natives – defining a *free rider* as a household that enjoys benefits from the voluntary contributions of others, but does not contribute to the provision of those benefits. We expand the literature – and examine the impact of immigration on the private contributions to public good provision. Based on recent figures, over 80 percent of U.S. households gave money or volunteered time to charitable causes, and total monetary contributions amounted to more than 370 billion dollars, nearly 2.2 percent of GDP (*Giving USA, 2016*). For European countries, about 44 percent of households donated to charitable causes – although there is considerable variation across countries, the total amount contributed was about 22.4 billion euros in 2015.⁴ Moreover, privately provided public goods play a central role in the U.S.. Within education, social welfare, arts and culture, the environment and disaster relief, the importance of private provision of public goods is well documented.

The empirical analysis is based on newly available U.S. data on private contributions from the Philanthropy Panel Study (PPS), a module in the Panel Study of Income Dynamics (PSID). These data represent the largest one-time study of monetary and time contributions towards public good provision in the United States. We also examine unique information on the receipt of benefits from government and non-government sources. Taken together, these data sources provide a unique opportunity to examine whether immigrants and native-born households differ in their likelihood of privately contributing towards public good provision.

³ Pew Hispanic 2015. “Chapter 2: Immigration’s Impact on Past and Future U.S. Population Change”. Pew Research Center, Sep 28 2015

⁴ *An Overview of Philanthropy in Europe* Observatoire de la Fondation de France/CERPhi April 2015

We do not find evidence that immigrants free ride more than natives. First, immigrant status has no statistically significant impact on the likelihood of monetary contributions to public good provision. Second, immigrants are less likely to receive assistance from government and non-government sources when other variables are held constant. Our results are robust to the inclusion of wealth and alternative income measures. We also examine the behavior of second-generation immigrants to study the long-term impact of immigration, and find no significant differences between the children of immigrants and similar native households in their voluntary contributions.

The remainder of the paper is organized as follows: Section II provides some background to this study, Section III presents an overview of the econometric methods used in this paper, Section IV describes the data, Section V discusses results, and Section VI presents our conclusions.

II. A MODEL OF THE PRIVATE CONTRIBUTIONS DECISION

The starting point for our analysis is a model of the household's (whether immigrant or native) decision to contribute to public good provision. Our goal is to better understand how and why the foreign-born households may differ from the native-born in their willingness to contribute to the private provision of public goods. Important studies of voluntary contribution behavior suggest that households contribute money and time because they care about the provision of a public good - for example, education, health care, services for the needy, "warm glow" considerations (Andreoni, 1989, 1990), social approval, status and other benefits received (DellaVigna, List and Malmendier, 2012; Kumru and Vesterlund, 2010; Scharf and Smith, 2016; Saditov, 2016). By allowing the "warm-glow" motive to influence the transfer decision, we can study how the donor benefits from the act of giving itself (Andreoni, 1989).

We consider two main channels through which the immigrant status may affect voluntary contributions. The first channel that we explore is that resource constraints differ across immigrant and native-born households, inducing differences in voluntary

contributions to public goods. In particular, we assume that immigrants have lower initial wealth holdings and lower wage rates, compared to the native-born. We examine the impact of lower initial wealth holdings and wage rates of immigrant households on their voluntary contributions compared to similar native-born households.⁵

A second channel that we examine is the extent to which private transfers to family members influence contributions to public goods. While private transfers to extended family have attracted considerable interest, they have yet to be formally incorporated in studies of contributions to public goods (Becker, 1974). Several researchers have noted the importance of private transfer networks and co-residence among immigrant households (Van Hook and Glick, 2007). If extended family resources are lower for immigrant households, this may induce greater participation in private transfer networks for immigrants, and perhaps lower public good contributions, leading immigrant households to free ride on the voluntary contributions of the native-born.

This conceptual framework also allows us to study the extent to which differences between immigrant and native households are likely to persist over time.⁶ First, the conceptual framework predicts that the immigrant-native gap in monetary and time contributions will decline with U.S. experience. Within the framework, recent immigrants give lower levels of money and time toward the private provision of public goods, compared to the native-born, due to their relatively low initial wealth holdings and incomes. However, immigrant households tend to increase their monetary and time contributions over time. Moreover, the immigrant-native gap in monetary (time) contributions diminishes over time, if the immigrant household's marginal utility in the “warm-glow” effect is relatively constant compared to the marginal utility obtained from aggregate monetary (time) contributions, and may also depend on the household's risk preferences. The model also predicts that immigrant-native differences in private transfers will also tend to diminish over time.

⁵ Researchers have documented that immigrants have substantially lower wealth levels (See Amuedo-Dorantes and Pozo, 2002; Hao, 2004, Cobb-Clark and Hildebrand, 2006).

⁶ To conserve space, we present the detailed theoretical model and analysis in a mathematical appendix. This is available upon request.

III. OVERVIEW OF DATA SOURCES ON VOLUNTARY CONTRIBUTIONS

Contributions to Public Goods: Evidence from the PSID

The main data set used in this study is a new philanthropy supplement to the Panel Study of Income Dynamics (PSID). The PSID is unique in several dimensions. Importantly, the data set provides information on monetary and time contributions for nationally representative samples of U.S. households. In addition, the PSID is the world's longest running household panel survey, and includes a refresher sample of recent U.S. immigrants that was added in 1997, to ensure the PSID's accurate representation of the U.S. population. We study both detailed information about households' voluntary contributions to public goods and their receipt of benefits.⁷ The PSID also contains information about households' private transfers to extended families, providing us with a comprehensive picture of households' monetary contribution behaviors. The PSID identifies not only whether the head of each household was born outside the United States, but also whether the head's parents were born outside the United States. This allows us to define those households whose heads were born outside the U.S. as immigrant households, and all other households as native-born households.

We define second-generation households as native-born households in which at least one of the head's parents was born outside the U.S., while all other native-born households defined as third-or-higher-generation households. By identifying second-generation household status, we are able to examine the long-term impact of immigration. In the PSID, we exploit unusually detailed information on income and wealth, by using the longitudinal data on annual family income to construct a measure of permanent income. We define a household's permanent income as its average annual income in the last three waves of PSID data and include income data from 2009, 2011 and 2013. The measure of permanent income accurately captures a household's economic position, and permanent

⁷ The PSID philanthropy module is the only data set on giving comparable to the IRS taxpayer data in coverage. However, we should note that the IRS taxpayer database provides a more accurate picture of charitable giving at and above the 90th percentile of charitable giving. The IRS tax data is less suitable for this study because information of immigrant status and experience is not recorded, and immigrants may be less likely to itemize their deductions.

income has been shown to have a larger effect on transfer behavior than transitory income (Auten, Holger-Sieg, and Clotfelter, 2002).

Because of our interest in the private provision of public goods, we focus mainly on three classes of voluntary contributions: monetary contributions, time contributions, and private transfers. Monetary contributions include donations of money, assets, or property with a combined value of more than 25 dollars to religious or charitable organizations in the survey period.⁸ Time contributions are volunteer activities (i.e., spending time doing unpaid work) through charitable organizations in the survey period. Private transfers are monetary transfers to anyone who was not living within the household at the time of the survey, including, money given to parents and other transfers to non-household members.⁹ All voluntary contribution decisions are measured at the household level. With the rich information available in the PSID, we are able to construct a dichotomous variable for each class of voluntary contributions to measure the incidence of contributions, as well as a continuous variable to capture the level of contributions.

To obtain a comprehensive picture of households' benefits received, we also study benefits received by each household from non-government and government sources. Non-government benefits are defined to include help or support received from non-government sources, including churches, places of worship, or a community group. In the PSID, households were asked whether they received assistance in the past two years from non-government sources in the form of housing, child care, transportation, clothing, health care, and job training. The PSID provides information on whether each household received assistance from means-tested government programs, including welfare programs, General

⁸ Our key dependent variable on monetary contributions was constructed using the following questions, which was posed to PSID survey respondents: During the year 2012, did you or anyone in your family donate money, assets, or property with a combined value of more than \$25 to religious or charitable organizations? The most recent comprehensive information on volunteering was in 2005, as the volunteering questions are not available in every wave.

⁹ In 2015, U.S. immigrants sent \$68.3 billion to their origin families in Latin America and the Caribbean, according to the Inter-American Development Bank (IADB). According to the World Bank, global remittances amounted to \$580 billion in 2014.

Assistance programs, Supplemental Security Income (SSI), Medicaid, Food Stamps, and free or reduced prices on school breakfast and lunch, as well as the dollar amount of the received government assistance. This information provides comparison across the two data sources.¹⁰

The Basic Trends: The Immigrant-Native Differences without Controlling for Household Characteristics

Mean Differences in Contribution and Receipt Behaviors by Immigrant Status

Table 1 provides descriptive statistics. From Table 1, over 62 (32) percent of U.S. households report voluntary contributions of money (time). In contrast, only 13 percent report private transfers to non-household members. We also have an in-depth view of the receipt of benefits. About nine percent of all households report that they receive assistance from non- government sources. In contrast, a larger fraction, 12 percent of households report the receipt of government benefits.

We note some interesting average differences by nativity status. We find that immigrant households are less likely to contribute money and time to charitable organizations, compared to native-born households, and among those that contribute, their average monetary and time contributions tend to be lower. From row 1, the proportion of immigrant households who contribute money towards public goods is 14 percent lower, compared to native-born households. Similarly, the proportion of immigrant households that contribute time is about 17 percentage points lower, compared to native-born households. About 16 percent of immigrant households report sending private transfers to non-household members, compared to 12 percent of native-born households. The immigrant-native gap in the incidence of private transfers is much smaller, at eight percentage points.

We also examine the immigrant-native gap in the level of voluntary contributions (and not just the incidence of contributions). The level of monetary (time) contributions of immigrant households is about 890 dollars (1 hour) lower on average compared to native-

¹⁰ The receipt of benefits from government sources tends to be underreported in several household surveys. Meyer et al (2009) estimate that as many as half of the dollars received through Food Stamps, Temporary Assistance for Needy Families (TANF) and Workers' Compensation.

born households. Conditional on participating in private transfer networks, however, immigrant households also have lower mean levels of private transfers compared to their native-born counterparts. The mean private transfer to non-household members for immigrant households is 4,714 dollars, compared to 5,542 dollars for native-born households.

An important issue that has been raised within recent debates on immigration policy is that immigrants may receive benefits from non-government sources—health care, education and other social services—but do not contribute to the provision of these services. The data available in the PSID covers benefits received over a two-year period. About nine percent of our sample reports receiving assistance from non-government sources. Although access to government assistance tends to be more restricted for some U.S. immigrants, we can examine whether immigrants and natives differ in their receipt of assistance from non-government sources.

In the PSID, households were also asked the type of help received in the past two years from non-government sources including churches and community groups. For example, households provided information on assistance received in the form of housing, child care, transportation, clothing, health care, job training, and so on. A testable hypothesis is that immigrants may differ in their likelihood of receiving assistance from non-government sources if they face restrictions in accessing government benefits, particularly at the federal level.¹¹

Based on the descriptive statistics, six percent of immigrant households report receiving assistance from non-government sources, while 15 percent report receiving assistance from (government) sources. In contrast, nine percent of native-born households report the receipt of assistance from non-government sources, while 12 percent report receiving assistance from government sources. Conditional on receiving government assistance, the average dollar amount of received government benefits is 311 dollars for

¹¹ We should note that the U.S. 1996 welfare reforms were designed to lower welfare participation for immigrants, and following welfare reform, access to major federal means-tested public assistance programs, including food stamps, AFDC, Supplemental Security Income (SSI), and Medicaid became more restricted for legal immigrants.

immigrant households, and 211 for native households.

B. Mean Differences in Contribution and Receipt Behaviors by Second Generation Status

We also investigate the long-term impact of immigration by studying the differences between second generation households and third-or-higher generation households. Second generation households are native-born households in which the household head has at least one foreign-born parent. In contrast, third-or-higher generation households refer to households where both parents were born in the U.S. We note that second-generation households make up 8.4 percent of the non-immigrant sample in the PSID.

Table 1 reports second generation and third-or-higher generation differences in contributions and receipt behaviors in the PSID. From Columns 4 and 5, the results from the PSID show some interesting patterns. Compared with third or-higher generation households, second generation households have similar contribution rates of money (time) to charitable organizations compared to third-or-higher generation households. However, while the levels of monetary contributions for second generation households are about 800 dollars lower on average, their average time contributions are about 30 hours higher compared to their third or higher generation counterparts.

C. Household Characteristics

From Appendix Table 1, we find that immigrant households comprise about 10 percent of the PSID sample.¹² The PSID provides information about household characteristics that influence contributions of money and time to public good provision. We use permanent income to capture a household's economic position, as this factor has proven to have a larger effect on transfer behavior than transitory income (Auten, Holger-Sieg, & Clotfelter, 2002)¹³. The empirical literature on voluntary contributions emphasizes the effect of tax incentives on voluntary contributions. In particular, higher marginal tax rates should lower the price of

¹² Immigrant households refer to a household where either the head or spouse was born outside the United States.

¹³ Our measure of permanent income is based on average family income from three most recent waves of the PSID.

monetary contributions. In particular, a higher tax rate tends to provide a more favorable environment for charitable giving, because it provides households with a larger charitable deduction, and a lower price of giving. The price of monetary contributions is calculated by one minus the marginal tax rate for itemizers; and is unity for non-itemizers. We calculate the marginal tax rate for itemizers using TAXSIM version 9 (Feenberg and Coutts, 1993)¹⁴.

Appendix Table 1 also shows important differences in income for immigrant and native-born households. Mean permanent household income is lower among immigrant households compared to natives (\$75,473 versus \$85,542). Immigrant households also tend to be larger than native households. However, even after adjusting for differences in household size, we still find lower per-capita permanent household income for the immigrant sample. About 39 percent of the immigrant sample was born in Central or South America. We also find that the heads of immigrant households tend to be older, more likely to be married, non-white and tend to have lower levels of education.

Appendix Table 1 reports the average household characteristics for the second generation and third-or-higher generation households in the PSID. Interestingly, second-generation households have higher mean levels of education, income, and wealth compared to third-or-higher generations, although education and income are not statistically significant. In addition, the extended family's educational attainment varies by second generation status, with 66 percent of second generation household heads reporting that their fathers had an incomplete high school education, compared with 31 percent of third-or-higher generation households.

IV. EMPIRICAL SPECIFICATION

We observe three classes of voluntary contributions of a household in the PSID:

¹⁴ Total family income can contain negative values. The number of households with negative numbers for those variables is relatively small, and we replace these negative values with missing values. The 18 input variables used to calculate the price of giving include tax year (2013), marital status, number of children in the family unit, number of taxpayers (head and wife) over 65 years of age, labor income of the head, labor income of the wife, dividend income of head and wife, property income, pension income, gross social security income, transfer income, rent paid, property taxes paid, itemized deductions (charitable deduction and medical deduction), child care expense, and unemployment compensation.

monetary contributions, time contributions, and private transfers. A household's participation in each activity is measured by two variables: the first is a dummy variable indicating whether the household participated in that activity in the last year, while the second is a continuous variable that measures the extent of its participation. Consistent with the literature, we observe a large proportion of households who do not contribute money and time to charitable organizations and/or who do not participate in private transfer networks. In addition, a household's decisions to contribute money and time to a charitable organization will tend to be affected by the same unobserved household characteristics. Given these features, a trivariate Probit model appears well-suited to the investigation of the voluntary contribution decisions, and we use a multivariate Tobit model to study the incidence of contributions and contribution levels. This approach allows us to account for the correlation in the contribution decisions that cannot be explained by the observed household characteristics.

The Multivariate probit Model

The multivariate probit model is specified as follows:

The Multivariate probit Model

The multivariate probit model is specified as follows:

$$Y_i = \alpha_0 + \alpha_1 I_i + \alpha_2 X_i + e_i.$$

Index $i = 1, 2, \dots, N$ identifies each household. $Y_i = (Y_{1,i}, Y_{2,i}, \dots, Y_{K,i})$ is a vector of latent variables, with $Y_{k,i}$ for Activity k . I_i is a dummy variable indicating whether i is foreign-born. X_i is a vector of $M - 1$ covariates including other household characteristics, and $\alpha_0, \alpha_1, \alpha_2$ is a $K \times (M - 1)$ matrix with each row being a vector of $M - 1$ coefficients. We assume that e_i is a $K \times 1$ vector of error terms which follows a multivariate normal distribution

We assume that e_i is a $K \times 1$ vector of error terms which follows a multivariate normal distribution

V. RESULTS AND DISCUSSION

The Impact of Immigrant Status on Voluntary Contributions and Benefits

i. Monetary Contributions

The first part of Table 2 (Panel A) presents results from a Trivariate probit model. Our main dependent variables are (i) whether a household contributed money, time, private transfers in the survey period and (ii) the log total amount (measured in U.S. dollars or hours) contributed during the survey period. We report marginal effects (calculated at the variable means) for our Trivariate probit estimates.¹⁵ The estimates in Table 2 include controls for socio-demographic variables, the price of giving, and log permanent income.

We turn to discuss results from our baseline model of the impact of immigrant status on voluntary contributions. From Column 1, we find that the estimated impact of immigrant status on the incidence of monetary contributions is close to zero and statistically insignificant. Our main specification on contribution levels (Column 2), shows that immigrant status does not have a statistically significant effect on the levels of monetary contribution.

ii. Private Transfers

As discussed in the preceding section, monetary contributions to formal organizations may not fully capture monetary contributions. In particular, households provide voluntary contributions, not only through non-profit organizations, but also through private transfer networks to non-household members. In Table 2, we present results for

¹⁵ The control variables in our analysis are age, age squared, education, gender, marital status, nonwhite, Catholic, family size, log permanent income, unemployment and region dummies. For dichotomous variables, the results represent the change in the probability and the level of contributions associated with a change in the indicator variable from zero to one.

private transfers to non-household members based on a Trivariate probit and Tobit model. The key dependent variables are defined as follows: (i) whether an individual gave a private transfer to a non-household member in the survey period and (ii) the total amount (measured in U.S. dollars) transferred during the survey period. We define private transfers as transfers to family, friends, and neighbors living outside the household (excluding transfers to children and alimony payments).

Starting at the mean, we find that immigrants are three percentage points more likely to provide private transfers to non-household members compared to similar natives. The amount contributed to private transfer networks is also significantly higher among immigrant households. We find that the level of private transfers is 22 percent higher for immigrant households, and statistically significant. In contrast to our results on charitable giving, immigrants appear more likely than similar native-born household to engage in private transfer networks, even after we have controlled for economic and demographic variables.

iii Time Contributions

The main findings on time contributions towards public good provision are also summarized in Table 2. From Columns 1 and 2, the dependent variables are an indicator variable that captures (i) whether or not the household head or wife volunteered and (ii) the total hours volunteered during the survey year. The results on time contributions provides a more comprehensive view of households' contributions towards public good provision, because time contributions are often closely linked with the private provision of local public goods.

From the results, we find that immigrants are significantly less likely to contribute time and have lower levels of annual time contributions, compared to their native-born counterparts. Specifically, immigrants are 9 percentage points less likely to contribute time, compared to a similar native-born household. The results also show that immigrants' time contributions are 73 percent lower than their native-born counterparts, and statistically significant.

iv. Receipt of Benefits

When we turn to investigate benefits received from non-government sources, we do not find any significant immigrant-native differences in the PSID. However, when we turn to examine government benefits, we find that immigrant households are five percentage points *less* likely to receive government benefits, and receive 36 percent lower levels of government benefits than similar native-born households. These differences are significant at one percent level of significance. These results are quite striking and consistent with some studies that have shown that, since the 1996 U.S. welfare reforms, immigrants are less likely to receive government benefits (Borjas, 2002; Fix, 2009; Kaushal and Kaestner, 2005).

B. The Impact of Duration Stay

A common theme within the literature on immigrant adaptation, is that as immigrants accumulate experience in their destination country, they acquire language skills, social norms, and processes of their host communities.¹⁶ A large number of studies investigate the extent to which immigrants' earnings, skill levels, and occupational attainment converges to the native born (Borjas & Friedburg, 2006; Borjas, 1994; Borjas, 1985; Chiswick, 1978).¹⁷

One key question in this paper, is how the voluntary contributions of immigrants evolve as immigrants accumulate U.S. experience, acquire language skills, information, social norms, and processes of their host communities. A main implication of the conceptual framework, is that for immigrant households, voluntary contributions of money and time will tend to increase and private transfers tend to decrease with U.S. experience. In other words, the model predicts that the immigrant-native gaps in voluntary contributions and private transfers will tend to diminish, if the differences are mainly driven by the initial gaps in household and extended family resources.¹⁸ However, if observed group differences are

¹⁶ We should note that there are some limitations because we rely on cross-sectional data on charitable giving. Ideally, longitudinal data would allow us to observe a given household over time, enabling us to separately identify the role of cohort or "time of arrival" effects and duration effects in the assimilation process.

¹⁷ Chiswick (1978) estimates that the wages of the foreign born converge to the native-born wages after 15 years. Borjas (1985) argues that the use of cross-sectional data may overstate the rate of wage assimilation.

¹⁸ A large number of studies investigate the extent to which immigrants' earnings, skill levels, and occupational attainment converge to the native born (Borjas and Friedburg, 2006; Borjas, 1994; Borjas, 1985; Chiswick, 1978). Chiswick (1978) estimates that the wages of the foreign born converge to the native-born wages after 15

due to differences in preferences, we would expect persistent differences in voluntary contributions over time.

In Table 3, we adopt a flexible specification by creating indicators that can reflect the length of stay in the U.S. for immigrants. This allows us to examine the impact of immigrants' duration of stay in the U.S. on monetary and time contributions, as well as participation in private transfer networks.

Consistent with our earlier results, Table 3 shows no significant difference in the likelihood of monetary contributions between immigrants and natives when we include controls for duration of stay. Interestingly, from Column 2, we do not find that recent immigrants—those who migrated to the U.S. within the past 20 years—have lower levels of monetary contributions (the omitted category is native households) than their counterparts. However, the results on the levels of monetary contributions suggest that as immigrants gain U.S. experience, the immigrant-native gap in monetary contributions tends to diminish.¹⁹

Table 3 also allows us to examine the effects of the duration of stay on private-transfer behavior by using a flexible specification. Our results indicate that immigrant participation in private transfer networks appears relatively persistent over time. Specifically, immigrants with less than 20 years of U.S. experiences are 9 percentage points more likely to contribute to private transfer networks, and their contribution levels are 55 percent higher, compared to the native born. Immigrants with 20-30 years of U.S. experience are 3 percentage points more likely to contribute to private transfer networks compared to the native born and their contribution levels are 40 percent higher, compared to the native born. However, immigrants with 30 years or more years of U.S. experience are not significantly different from natives in their incidence and levels of private transfers. Our results on private transfers present an interesting contrast to our results on monetary contributions; while the length of stay in the U.S. tends to *reduce* immigrant participation in private-transfer

years. Borjas (1985) argues that the use of cross-sectional data may overstate the rate of wage assimilation.

¹⁹ We also examine the inclusion of the immigrant's length of stay (in years) in the U.S. interacted with immigrant status (results not shown). The parameter on the duration of stay variable captures how an additional year in the U.S. affects the immigrant's likelihood of giving. From our results, an additional year in the U.S. has a positive effect on charitable giving.

networks, it is shown to have a less significant impact within the context of monetary contributions.

Table 3 also allows us to examine how duration of stay affects time contributions using a flexible specification. Our results here suggest that immigrant participation in volunteer activity is less influenced by duration of U.S. experience. Specifically, immigrants with 20 years or less of U.S. experience are 13 percentage points less likely to volunteer time –and their levels of volunteering are 78 percent lower compared to similar native-born households. Even immigrants with more than 30 years of U.S. experience, are 11 percentage points less likely to volunteer –and their levels of volunteering are 53 percent lower, compared to similar native-born households. In contrast, our results for monetary contributions suggested that even recent immigrants did not have significantly lower levels of monetary contributions to natives.

C. Household Characteristics

The full regression results for contributions and the receipt of assistance are shown in Appendix Tables 2-4 (available on request). We first discuss the impact of household characteristics, other than immigrant status, including the price of giving, permanent income, and other household variables on monetary contributions towards public good provision. Consistent with other studies on monetary contributions, we find that there are significant life-cycle effects. Both the incidence and levels of monetary contributions increase with age, but eventually decline among older households. Male-headed households are about four percentage points less likely to give to monetary contributions; the level of contributions is also significantly lower for male-headed households. Educational attainment, being married, and household size are positively associated with both the incidence and levels of monetary contributions. In particular, an additional year of education increases the likelihood of monetary contributions giving by about three percentage points. Unemployed individuals are 13 percentage points less likely to give monetary contributions.

We also draw on the literature on voluntary contributions, which emphasizes the impact of the price of giving and of income on monetary contributions. Because income and the price of giving are measured in logs, we can interpret the coefficients on these variables as elasticities. Clotfelter's (1985) review of the literature points to a highly price-

elastic term, implying that the tax deduction stimulates more in monetary contributions towards the provision of public goods than its costs, in terms of foregone tax revenues to the government.

We study private transfers because monetary contributions towards public good provision, through non-qualified non-profit organizations, may not capture all of the household's contribution behavior. We find that the price of monetary contributions has a positive, but insignificant, effect on the likelihood and the level of private transfers (suggesting that private transfers and monetary contributions are less likely to be strong substitutes). Household permanent income has a positive and significant impact on the incidence and level of private transfers. Interestingly, we find that marital status, educational attainment, and gender do not have a statistically significant impact on the incidence or levels of private transfers.

We compare results on time contributions towards public good provision. Male-headed and non-white households are less likely to contribute time. Being an unemployed individual reduces the likelihood of time contributions. Households with higher levels of income and educational attainment are more likely to contribute time and make larger time contributions. In addition, income has a larger impact on monetary contributions than on time contributions. From the PSID, the price of giving also has a negative impact on time contributions (although the measured elasticity is much lower than observed for monetary contributions).

Finally, we also discuss on the receipt of assistance from non-government sources. Consistent with existing studies, we find that households with higher levels of education and income are less likely to report receiving assistance from non-government sources. Household size and age are positively associated with the receipt of assistance.

D. The Long-Term Impact of Immigration on Transfer Behavior

Recent policy debates on U.S. immigration policy have increasingly focused on the children of immigrants and their economic progress. To study the long-term impacts of immigration, we estimate the same multivariate Probit and Tobit regressions as specified in the empirical section, but restrict the sample to native-born households, only replacing the immigrant status indicator with a second-generation status indicator, which equals one for second-generation households, and zero for third-or-higher generation households. We exclude all immigrant households in this stage of the analysis.

In this section, we examine voluntary contributions to public goods by examining second-generation immigrants. From a policy viewpoint, it would be useful to consider how children of immigrants compare to third-or-higher generations in their willingness to contribute to public goods. We define second-generation immigrants as a household where the head has at least one foreign-born parent. In our data, we observe that second-generation households comprise nearly 8.4 percent of the sample.

We first discuss results on monetary contributions. From Table 4, Panel A, we do not find any significant differences between second-generation immigrants and natives in the likelihood of contributing money or time. Furthermore, based on our Tobit specification, we do not find any significant differences in the level of contributions.

We also examine how being a second-generation immigrant affects participation in private transfer networks. This situation is of particular interest because researchers have considered whether private transfer behavior, among the second generation, would be of reduced importance. From Table 4, we show that second generation households are three percentage points more likely to participate in private transfer networks, compared to third or higher generations. Also, the results suggest that the levels of private transfers are 32 percent higher for second-generation households compared to third-or-higher generations.

From Table 4, we also examine differences in time contributions for second-generation households compared to other native households. We do not find any significant

differences. These results suggest that children of immigrants do not tend to free ride in their monetary and time contributions, compared to third-or-higher generation households.

Finally, Table 4 presents the results on the receipt of benefits from non- government and government sources. We do not find any significant differences between second-generation and third-or-higher generation households.

E. Robustness and Specification Checks

In this section, we address a key empirical concern that immigrant households may differ systematically from their native-born counterparts along observed and unobserved dimensions, and this has implications for voluntary contributions. In particular, unmeasured income and wealth, language proficiency, social networks, and other factors may influence the number of requests that immigrant households receive from charitable organizations to contribute money or volunteer their time. These factors may also influence their ability to access benefits from government and non-government sources.

I. Unobserved Group Differences in Contributions: Low Income Households

We take several steps to address this concern. First, we examine only low income households, and define this subsample to include only households whose permanent income is at or below the 40th percentile level. From our data, low income households are more homogenous in their economic circumstances than the full sample.²⁰ We then re-estimate our Trivariate probit and Tobit regressions focusing only on households whose permanent income falls in the lowest 40th percentile bracket and examine immigrant- native differences in contributions and benefits for the low income subsample. The results from the low income sample are reported on Table 5. Interestingly, from Table 5, when we examine low income households only, we do not find significant immigrant-native differences in monetary or time contributions. Consistent with the baseline results, we still find a higher likelihood of private transfers for immigrant households, compared to their native counterparts. The results suggest that among households below 40 percentile of income,

²⁰ We should note however that although the low income sample is more homogenous in their observed income and wealth measures, the immigrant-native differences in some other household characteristics are more significant in the low income sample.

immigrants are less likely to receive benefits, and report lower levels of benefits received from government sources.

From Column 2, we also note that second generation households are not significantly different from third-or-higher generations in their contribution or receipt behaviors. The exception here is that second generation households are more likely to participate in private transfer networks, compared to third-or-higher generations.

II. Unobserved Group Differences in Contributions: Propensity Score Matching

The results from the low-income sub sample suggest an important role for unobserved characteristics in explaining immigrant-native difference. In this section, we use propensity score matching methods to further address concerns about immigrant-native differences. We note that the matching approach allows us to assess the role of omitted variable bias and to control for potentially important characteristics that are unobserved in our analysis and correlated with immigrant status and contributions behavior. Given the goal of estimating group differences, we need to ensure that immigrants and native-born households overlap in their background characteristics sufficiently to carry out meaningful comparisons. Propensity score-matching methods (Rosenbaum and Rubin, 1983) allow us to estimate differences in voluntary contributions between immigrant households and native households, who share the same household characteristics.

Table 6 presents propensity score matching results. The overall picture that emerges from the propensity score results, is that matching reduces the differences between immigrant households and their native-born counterparts, and that differences in voluntary contributions and benefits received are not statistically significant after matching. Thus, any significant differences (mainly in time contributions) observed in the full sample (reported in Table 1) may be due to immigrant-native differences in observable household characteristics. It is interesting to note that, if we only consider native-born households who are similar to immigrant households, the average differences in all contributions and receipt of benefits tend to disappear. However, we do find some significant differences for second generation households when examine the propensity matching results in Table 6.

III. Type of Voluntary Contributions: Religious versus Secular Contributions

Finally, we have presented key results on immigrant-native gaps in voluntary contributions in aggregate terms. However, one concern that remains is that the voluntary contributions differ (for example, to religious versus secular organizations) and this may have different implications for the provision of public goods in a given community. The results presented thus far relate to overall contribution decisions, but do not provide insights into the extent to which households contribute to different types of charitable organizations. Another source of heterogeneity is how households differ in their choices of charitable activity.

To provide additional insights, we classify monetary and time contributions into two broad categories, religious and secular, in order to better understand immigrant-native differences in voluntary contributions by types of contributions. We define monetary (time) contributions made to religious organizations as *religious* monetary (time) contributions. In contrast, monetary (time) contributions to non-religious organizations are defined as *secular* monetary (time) contributions. This distinction may be of significant interest because religious and secular contributions often vary in the extent to which they are used to provide goods and services that benefit the general public. Secular contributions often provide funding for public goods, such as education, health care, environmental protection, arts, and aid for the needy. In contrast, religious contributions may be used to finance "club goods," or mainly goods and services that mainly benefit members of specific religious organizations or congregations, when compared to contributions made to secular organizations (Biddle, 1992). To investigate the immigrant-native (second-higher generation) differences in religious and secular monetary (time) contributions respectively, we use a similar approach.

From Table 7, Column 1, we do not find significant differences between similar immigrant and native-born households, in the likelihood of contributing money (or the level of monetary contributions) to religious organizations. In general, we do find that the immigrant-native gap in the level of monetary contributions is larger for secular contributions, compared to that observed for religious contributions in the PSID. Interestingly, we find similar results for time contributions. In general, the immigrant-native gap in the levels of time contributions is larger for secular contributions. Specifically, time contributions to

religious organizations are 37 percent lower for immigrant households compared to native-born households. In contrast, time contributions to secular organizations are 61 percent lower for immigrant households compared to native-born households.

Table 7, Column 2, also allows results on second generation households. We do not find any significant differences in the incidence or level of secular contributions for second generation households compared to third-or-higher households. However, we find *lower* levels of religious contributions of money and time for second generation households, compared to third or higher generation households. The results also suggest that the gaps between second generation households and third-or-higher generations in religious contributions are larger for time, compared to monetary contributions.

VI. CONCLUSIONS

Are immigrants a net burden on host societies, because they receive benefits but do not contribute to the provision of public goods and services? Questions like these have shaped public debate on immigration policy in the United States and Europe, and have fueled an extensive body of research in this area. Moreover, the U.S. relies on private contributions towards public good provision in education, health care, and social services, perhaps more than any other industrialized country. To our knowledge, ours is one of the first studies to examine the immigrant-native differences in voluntary contributions for a representative sample of U.S. households.

We find that while immigrant households appear to have lower average rates of participation and levels of monetary and time contributions, most of these differences are not statistically significant after controlling for permanent income and other household variables. From our results, immigrants tend to adapt relatively quickly to U.S. institutions. We find that only immigrant-native gaps in time contributions tend to persist over time. Our results for second-generation households (children of immigrants) suggest that immigration is less likely to have a long-term negative effect on voluntary contributions of money and time towards the provision of public goods.

Taken together, our results suggest that immigrants and their children are less likely to be a net burden because they tend to contribute towards the provision of public goods (and are less likely to receive assistance compared to similar natives as time spent in the U.S. increases). Our results on immigrant-native differences in voluntary contributions behavior can also shed light on the impact of immigration on social norms and institutions. Beyond their role in the private provision of public goods, voluntary contributions of money and time have emerged in the recent literature as key indicators of “social capital”—defined as trust, norms, and networks that spillover to the market and state, and can improve the efficiency of society by facilitating cooperative outcomes.

Selected References

Amuedo-Dorantes, C. and Pozo, S. (2002). "Precautionary Savings by Young Immigrants and Young Natives," *Southern Economic Journal*, 69(1):48-71.

Andreoni, James. (1989). "Giving with Impure Altruism: Applications to Charity and Ricardian Equivalence." *Journal of Political Economy*, 97, 1989, 1447-1458.

Andreoni, James, Brown, Eleanor and Rischall, Isaac. (2003). "Charitable Giving by Married Couples: Who Decides and Why Does It Matter?" *Journal of Human Resources*, Vol. 38, No. 1 (winter, 2003), pp. 111-133.

Auten, Gerald, Holder Sieg, and Charles Clotfelter. (2002). "Charitable Giving, Income and Taxes: An Analysis of Panel Data," *American Economic Review*, 92(1): 371-382.

Becker, G. (1974). "A Theory of Social Interactions," *The Journal of Political Economy*, 82 (6):1063-1093.

Bergstrom, T., Blume, L. and Varian, H. (1986). "On the Private Provision of Public Goods," *Journal of Public Economics* 29(1):25-49.

Bollinger, C. and Hagstrom, P. (2008). "Food Stamp Program Participation of Refugees and Immigrants," *Southern Economic Journal* 74(3): 665-693.

Borjas, George J. (1994). "The Economics of Immigration," *Journal of Economic Literature*, 32(4): 1667-1717.

Borjas, George J. (1985). "Assimilation, Changes in Cohort Quality, and the Earnings of Immigrants," *Journal of Labor Economics*, 3(4): 463-489.

Borjas, George J. and Hilton, Lynette. (1996). "Immigration and the Welfare State: Immigrant Participation in Means-Tested Entitlement Programs," *Quarterly Journal of Economics*, Vol.

111, No. 2, pp. 575-604.

Borjas, George J. and Friedberg, Rachel M. (2006). "The Immigrant Earnings Turnaround of the 1990s." manuscript.<http://www.ruf.rice.edu/~econ/seminars/06Empirical/FRIEDBERG.pdf>.

Chiswick, Barry R. (1978). "The Effect of Americanization on the Earnings of Foreign-born Men," *Journal of Political Economy*, 86(5): 897-921.

Clotfelter, Charles T. (1985). *Federal Tax Policy and Charitable Giving*. Chicago, IL and London: The University of Chicago Press.

Cobb-Clark, D. and Hildebrand, V. (2006). "The Wealth and Asset Holdings of U.S.-Born and Foreign-Born Households: Evidence from SIPP Data," *Review of Income and Wealth*, 52(1):17-42.

Cortes, P. (2008) [The Effect of Low-Skilled Immigration on U.S. Prices: Evidence from CPI Data](#)
Journal of Political Economy 116:3, 381-422

Council on Foundations and Association of Black Foundation Executives. (1993). *Donors of Color: A New Promising Frontier for Community Foundations*. Washington D.C.

Dustmann, C. and Frattini, T. (2014), The Fiscal Effects of Immigration to the UK. *Econ J*, 124: F593–F643. doi:10.1111/eoj.12181

Feenberg, Daniel and Elisabeth Coutts. (1993). "An Introduction to the TAXSIM Model," *Journal of Policy Analysis and Management*, 12(1): 189-94.

Fix, M. and Passel, J. (2002). "The Scope and Impact of Welfare Reform's Immigrant Provisions," Washington, DC: Urban Institute. <http://www.urban.org>

Giving USA Foundation (2016). Giving USA 2016: The Annual Report on Philanthropy for the Year 2015.

Hao, L. (2004). "Wealth of Immigrant and Native-born Americans," *International Migration Review*, 38(2): 518-546.

Jens, M. & Jeffrey S. Passel (2014). "Immigrants in Western states most likely to benefit from Obama's executive action," Pew Research Center, from <http://www.pewresearch.org/fact-tank/2015/09/24/what-americans-europeans-think-of-immigrants>.

Jens, M. Krogstad (2015). "What Americans, Europeans think of immigrants," Pew Research Center, from <http://www.pewresearch.org/fact-tank/2015/09/24/what-americans-europeans-think-of-immigrants>.

Joseph, J. A. (1995). *Remaking America: How Benevolent Traditions of Many Cultures Are Transforming Our National Life*. San Francisco, CA: Jossey-Bass.

Kaushal, N. and Kaestner, R. (2005). "Welfare Reform and Health Insurance of Immigrants," *Health Services Research*, 40(3): 697-722.

Neidell, M. and Waldfogel, J. (2009). "Program Participation of Immigrant Children: Evidence from the Local Availability of Head Start," *Economics of Education Review*, 28: 704- O'Neill,

Michael and William L. Roberts. (2000). *Giving and Volunteering in California*. San Francisco: Institute for Nonprofit Organization Management, College of Professional Studies, University of San Francisco.

Robert, R. (1984). A Positive Model of Private Charity and Public Transfers, *Journal of Political Economy* 92(1):136-148.

Rosenbaum, P. and Rubin, D. (1983). "The Central Role of the Propensity Score in Observational Studies for Causal Effects," *Biometrika*, 70: 41-55.

Samuelson, P. (1954). "The Pure Theory of Public Expenditure," *The Review of Economics and Statistics*, 36(4):387-389.

Van Hook, J. and Glick, J. (2007). "Immigration and Living Arrangements: Moving Beyond Economic Need versus Acculturation," *Demography*, 44(2):225-249

Warr, P. (1982). "Pareto Optimal Redistribution and Private Charity," *Journal of Public Economics*, 19(1):131-138.

World Bank. (2015). Migration and Remittance Data.
www.worldbank.org/en/topic/migrationremittancesdiasporaissues/brief/migration-remittances-data

Table 1 Summary Statistics

PSID 2013		Full Sample	Immigrant	Native		Second generation	Third or higher generation	
Monetary Contributions	Incidence ^a	0.620	0.541	0.630	***	0.611	0.631	
	Level ^b	\$2,508	\$1,701	\$2,591	***	\$1,853	\$2,657	***
Private Transfers	Incidence ^c	0.125	0.160	0.121	***	0.130	0.120	
	Level	\$5,430	\$4,714	\$5,542		\$4,556	\$5,638	
Time Contributions ^f	Incidence ^d	0.323	0.165	0.344	***	0.319	0.346	
	Level	151.76	150.10	151.87		178.79	149.90	
Receipt of non-government benefit	Incidence ^e	0.086	0.064	0.089	***	0.091	0.089	
Receipt of government benefit	Incidence	0.121	0.145	0.118	**	0.114	0.119	
	level	\$221.54	\$310.85	\$210.83	**	\$171.54	\$214.44	
Observations		9673	1035	8638		726	7912	

Note: Summary statistics of each level variable are conditional means, given that the corresponding dummy variable is one. Both second generation and third or higher generation households are native-born households and are compared to immigrant households. Outliers are excluded in all three categories.

* Significant at the 0.1 level. ** Significant at the 0.05 level. *** Significant at the 0.01 level.

^a Proportion that gave to charitable organizations in the past year.

^b Conditional mean (dollars or hours).

^c Proportion that gave to private transfer network in the past year.

^d Proportion that volunteered in 2004.

^e Proportion that received benefit from nongovernmental sources in the past year.

^f sample size for Time contribution is smaller

Table 2 Impact of Immigration Status

	(1)			(2)		
	Marginal effect	Coefficient		Marginal effect	Coefficient	
Multivariate specification		Probit			Tobit	
A. VOLUNTARY CONTRIBUTIONS TO PUBLIC GOODS						
Monetary contributions	0.036	0.125 (0.087)		-0.175	-0.240 (0.239)	
private transfers	0.026	0.129 (0.046)	***	0.220	1.709 (0.578)	***
Time contributions	-0.090	-0.260 (0.092)	***	-0.732	-2.028 (0.517)	***
Observations		6,382			6,217	
B. RECEIPT OF BENEFITS						
Non-government benefit	0.014	0.031 (0.106)				
Government benefit	0.052	-0.477 (0.146)	***	-0.358	-3.106 (1.088)	***
Observations		8,560			8,560	

Notes: Columns (1) in panel A is estimated by trivariate probit regressions, column (2) in panel A is estimated by trivariate Tobit regressions, in Panel B (1) by bivariate probit regressions, and in Panel B (2) by univariate Tobit regressions. This table reports the coefficient and marginal effects of immigrant status on contributions and the receipt of benefits. Dependent variables in tobit regressions are measured as the natural logarithm of corresponding level variables plus one. Robust standard errors are shown in parentheses and are clustered at the state level. The baseline model includes immigrant, the natural logarithm of giving price, linear, quadratic age terms, male, married, years of education, head father's education, unemployment status, nonwhite, Catholic, family size, and the natural logarithm of permanent family income.

*** Significant at the 1 percent level. ** Significant at the 5 percent level. * Significant at the 10 percent

Table 3 The Impact of Duration of Stay on Contributions

	I. Incidence			II Levels		
		(1)			(2)	
	M.E.	Coef.		M.E.	Coef.	
A. VOLUNTARY CONTRIBUTIONS TO PUBLIC GOODS						
(a) Monetary Contributions						
Fewer than 20 years	0.032	0.090 (0.197)		-0.746	-0.106 (0.625)	
Between 20-30 years	-0.008	-0.069 (0.127)		-0.506	-0.719 (0.453)	
More than 30 years	-0.003	-0.017 (0.110)		-0.121	-0.172 (0.270)	
(b) Private Transfers						
Fewer than 20 years	0.085	0.341 (0.171)	**	0.547	4.300 (2.044)	**
Between 20-30 years	0.029	0.248 (0.140)	*	0.398	3.129 (1.665)	**
More than 30 years	0.006	0.019 (0.102)		0.014	0.111 (1.249)	
(c) Time Contributions						
Fewer than 20 years	-0.129	-0.371 (0.170)	**	-0.782	-2.322 (0.818)	***
Between 20-30 years	-0.139	-0.393 (0.183)	**	-0.590	-1.751 (0.866)	**
More than 30 years	-0.110	-0.298 (0.111)	***	-0.525	-1.560 (0.515)	***
Num. of Observations		6,175			6,159	
		(3)			(4)	
	M.E.	Coef.		M.E.	Coef.	
B. RECEIPT OF BENEFITS						
(d) Non-government Benefits						
Fewer than 20 years	0.000	-0.111 (0.211)				
Between 20-30 years	0.015	0.033 (0.161)				
More than 30 years	0.024	0.187 (0.134)				
(e) Government Benefits						
Fewer than 20 years	-0.054	-0.531 (0.205)	**	-0.437	-3.797 (1.687)	**
Between 20-30 years	-0.057	-0.527 (0.181)	***	-0.384	-3.334 (1.319)	**
More than 30 years	-0.026	-0.189 (0.112)	*	-0.150	-1.301 (0.787)	*
Num. of Observations		8,566			8,560	

* Significant at the 0.1 level. ** Significant at 0.05 level. *** Significant at 0.01 level. Robust standard errors are in parenthesis.

Column (1) in Panel A is estimated by a trivariate probit regression, and in Panel B estimated by a bivariate probit regression. Column (2) in Panel A is estimated by a trivariate Tobit regression, and in Panel B by a univariate Tobit regression. In all Tobit regressions, the dependent variables take the form of the logarithm of the corresponding level variables.

All regressions in the PSID include head's age, age square, gender, marital status, educational attainment, head father's education level, race, Catholic, family size, logarithm of household permanent income, employment status, and logarithm of the price of giving. All regressions in the CPS include age, age square, gender, marital status, education (category), race, family size, family income (category), and employment status.

Table 4 The Impact of Second Generation Status on Voluntary Contributions

	Marginal effect	Coefficient		Marginal effect	Coefficient	
Multivariate specification		Probit			Tobit	
Monetary contributions	0.008	0.011 (0.111)		-0.121	-0.169 (0.240)	
Private transfers	0.027	0.188 (0.088)	**	0.322	2.652 (1.179)	**
Time contributions	-0.026	-0.082 (0.074)		-0.145	-0.408 (0.348)	
Observations		5,526			5,511	
B. RECEIPT OF BENEFITS						
Non-government benefit	0.011	0.079 (0.080)				
Government benefit	-0.018	-0.148 (0.109)		-0.134	-1.174 (0.751)	
Observations		7,752			7,746	

Notes: This table reports the coefficient and marginal effects of second generation status on contributions and the receipt of benefits. Dependent variables in tobit regressions are measured as the natural logarithm of corresponding level variables plus one. Robust standard errors are shown in parentheses and are clustered at the state level. The baseline model includes immigrant, the natural logarithm of giving price, linear, quadratic age terms, male, married, years of education, head father's education, unemployment status, nonwhite, Catholic, family size, and the natural logarithm of permanent family income.

*** Significant at the 1 percent level. ** Significant at the 5 percent level. * Significant at the 10 percent

Table 5 Results from Low Income Households (Below 40 percentile of Income)

Dependent Variables	Key Independent Variables			
	Immigrant		Second Generation	
	M.E.	(1) Coef.	M.E.	(2) Coef.
I. RESULTS FROM LOW INCOME HOUSEHOLDS				
A. VOLUNTARY CONTRIBUTIONS TO PUBLIC GOODS				
(a) Incidence				
Monetary Contributions	0.040	0.119 (0.130)	-0.007	-0.023 (0.148)
Private Transfers	0.051	0.330 ** (0.129)	0.062	0.449 ** (0.196)
Time Contributions	-0.050	-0.182 (0.187)	-0.066	-0.214 (0.153)
(b) Levels				
Monetary Contributions (in \$)	0.085	0.170 (0.707)	0.091	0.176 (0.572)
Private Transfers (in \$)	0.351	4.238 ** (1.711)	0.506	6.481 ** (2.572)
Time Contributions (in hrs)	-0.252	-1.036 (1.014)	-0.271	-1.032 (0.669)
Num. of Observations		2,082		1,774
B. RECEIPT OF BENEFITS				
(c) Incidence				
Non-government Benefits (10 ⁻³)	0.045	0.130 (0.141)	0.003	0.005 (0.115)
Government Benefits	-0.119	-0.539 *** (0.171)	-0.014	-0.074 (0.137)
(d) Levels				
Government Benefits (in \$)	-0.883	-3.258 *** (1.137)	-0.159	-0.577 (0.755)
Num. of Observations		3,287		2,903

* Significant at the 0.1 level. ** Significant at 0.05 level. *** Significant at 0.01 level. Robust standard errors are in parenthesis.

Column (1) and (2) in Panel A (a) are estimated by trivariate probit regressions, in Panel A (b) by trivariate Tobit regressions, in Panel B (c) by bivariate probit regressions, in Panel B (d) by univariate Tobit regressions. In all Tobit regressions, the dependent variables take the form of the logarithm of the corresponding level variables.

Table 6 The Immigration Effect Estimated by the Difference-in-Means Based PSM Models

	I. Immigrant-Native Differences	II. Second-Higher Generation Differences	
	(1)	(2)	
A. VOLUNTARY CONTRIBUTIONS TO PUBLIC GOODS			
(a) Incidence			
Monetary Contributions	0.026 (0.074)	0.040 (0.023)	**
Private Transfers	0.056 (0.054)	0.034 (0.020)	**
Time Contributions	-0.071 (0.077)	-0.018 (0.026)	
(b) Levels			
Monetary Contributions (in \$)	-386.48 (740.36)	-785.04 (176.81)	***
Private Transfers (in \$)	317.59 (567.51)	60.10 (172.15)	
Time Contributions (in hrs)	-15.14 (26.33)	6.23 (11.24)	
Num. of Observations	6,175	6,175	
B. RECEIPT OF BENEFITS			
(a) Incidence			
Non-government Benefits	-0.024 (0.038)	-0.009 (0.012)	
Government Benefits	-0.006 (0.047)	-0.021 (0.014)	*
(b) Levels			
Government Benefits (in \$)	102.04 (202.67)	-0.249 (61.10)	
Num. of Observations	6,170	5,526	

* Significant at the 0.1 level. ** Significant at 0.05 level. *** Significant at 0.01 level. Robust standard errors are in parenthesis.

Households are matched by kernel matching algorithm with Gaussian kernel type and at 2% trimming level.

The propensity score specifications in the PSID include age, age², age³, male, marital status dummies, education level and its square, race dummies, religious belief dummies, family size and its square, head father's education levels, permanent income and its square, yearly income and its square, wealth, employment status dummies, the price of monetary contributions and its square. Marginal Effects are presented in the tables.

Table 7 RELIGIOUS VS. SECULAR VOLUNTARY CONTRIBUTIONS TO PUBLIC GOODS

Dependent Variables	Key Independent Variables					
	Immigrant			Second Generation		
	M.E.	(1) Coef.		M.E.	(3) Coef.	
I. RESULTS FROM LOW INCOME HOUSEHOLDS						
II. RELIGIOUS VS. SECULAR VOLUNTARY CONTRIBUTIONS TO PUBLIC GOODS						
A. MONETARY CONTRIBUTIONS						
(a) Incidence						
Religious Contributions	-0.017	-0.024 (0.085)		0.020	0.099 (0.078)	
Secular Contributions	-0.031	-0.174 *** (0.045)		0.033	0.066 (0.07)	
(b) Levels						
Religious Contributions (in \$)	-0.124	-0.312 (0.536)		-0.297	-0.753 (0.437)	*
Secular Contributions (in \$)	-0.379	-0.720 *** (0.203)		0.123	0.228 (0.264)	
Num. of Observations		8,566			7,752	
B. TIME CONTRIBUTIONS						
(c) Incidence						
Religious Contributions	-0.013	-0.366 *** (0.129)		0.034	-0.283 (0.096)	**
Secular Contributions	-0.067	-0.463 *** (0.069)		0.022	-0.042 (0.075)	
(d) Levels						
Religious Contributions (in hrs)	-0.373	-2.157 *** (0.800)		-0.288	-1.572 (0.563)	***
Secular Contributions (in hrs)	-0.607	-2.300 *** (0.353)		-0.041	-0.146 (0.346)	
Num. of Observations		6,205			5,544	

* Significant at the 0.1 level. ** Significant at 0.05 level. *** Significant at 0.01 level. Robust standard errors are in parenthesis.

Column (1) and (2) in Panel A (a) are estimated by bivariate probit regressions, in Panel A (b) by bivariate Tobit regressions, in Panel B (c) by bivariate probit regressions, in Panel B (d) by univariate Tobit regressions. In all Tobit regressions, the dependent variables take the form of the logarithm of the corresponding level variables.

Appendix Table 1: Sample Means of Households Characteristics

	Immigration status				generation		
	Total	Immigrant (10.7%)	Native (89.3%)		Second generation (8.4%)	Third or higher (91.6%)	
Age	46.09 (16.10)	48.66 (14.15)	45.78 (16.29)	***	45.56 (19.98)	45.80 (15.91)	
Male	0.47 (0.50)	0.45 (0.50)	0.47 (0.50)		0.41 (0.49)	0.48 (0.50)	***
Married	0.68 (0.47)	0.73 (0.45)	0.67 (0.47)	***	0.63 (0.48)	0.67 (0.47)	***
Family size	2.82 (1.43)	3.31 (1.66)	2.76 (1.39)	***	2.79 (1.50)	2.75 (1.38)	
Completed Education	13.74 (2.65)	12.07 (4.47)	13.94 (2.26)	***	13.98 (2.21)	13.93 (2.27)	
Black	0.08 (0.28)	0.08 (0.28)	0.08 (0.28)		0.04 (0.21)	0.09 (0.28)	***
Hispanic	0.11 (0.31)	0.55 (0.50)	0.05 (0.22)	***	0.33 (0.47)	0.03 (0.16)	***
Unemployed	0.05 (0.22)	0.05 (0.22)	0.05 (0.22)		0.07 (0.26)	0.05 (0.21)	***
Retired	0.13 (0.34)	0.11 (0.31)	0.14 (0.34)	***	0.16 (0.37)	0.14 (0.34)	*
Catholic	0.24 (0.42)	0.53 (0.50)	0.20 (0.40)	***	0.42 (0.49)	0.18 (0.39)	***
Total Family Income	88,408 (115,689)	77,412 (75,033)	89,725 (119,573)	***	95,176 (181,850)	89,225 (112,143)	
Permanent income	84,464 (90,380)	75,473 (72,199)	85,542 (92,263)	***	90,774 (145,175)	85,062 (85,787)	
Wealth	302,126 (982,122)	259,039 (1,239,283)	307,288 (946,592)		455,693 (1,380,822)	293,670 (895,167)	***
Observations	9673	1035	8638		726	7912	

Note: Standard deviation in parenthesis.

* Significant at the 0.1 level. ** Significant at the 0.05 level. *** Significant at the 0.01 level.



RESEARCH NETWORK DEBATE

SWEDISH ENTREPRENEURSHIP
FORUM

WWW.ENTREPRENORSKAPSFORUM.SE