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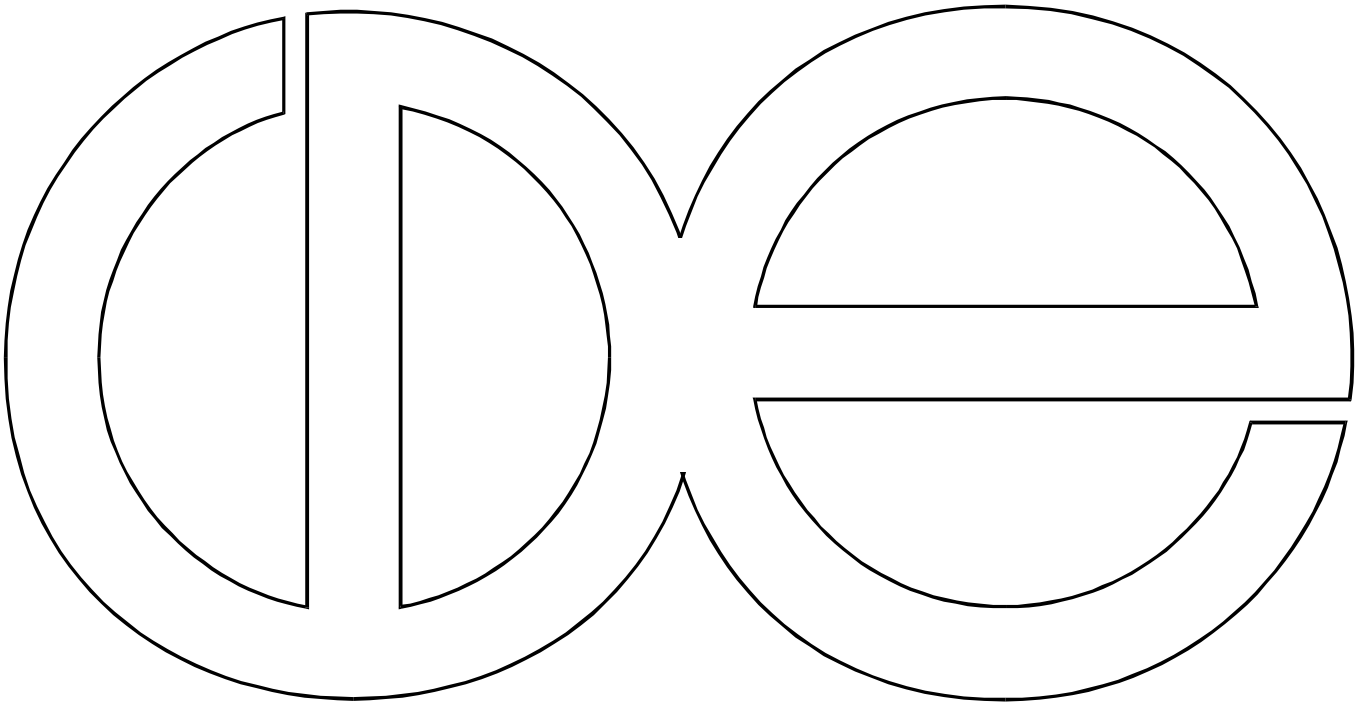

# Determinants of the Use of Public Services by Mexican Immigrants Traveling Alone And With Family Members[*]

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Recent legislation to further restrict the availability of public services to legal and illegal immigrants is one consequence of a longstanding academic and political debate about the strain immigrants put on the American economy. This debate has been played out most vociferously in California, but the trend has echoed in other states and at the national level. California's Proposition 187, which was supported by a majority of voters in all but two counties in 1994, denies access to education and non-emergency health care for illegal immigrants. Since then, other states have proposed similar measures, although none have passed. More recently, Congress approved a bill to restrict public assistance in the form of AFDC, SSI, and food stamps to legal immigrants. Although President Clinton has acted to reverse these measures, they have gained widespread approval among native-born taxpayers who feel that immigrants "have a penchant for welfare" (Tienda and Jensen 1986, 373). However, these public discussions have often neglected the composition of migration flows in terms of family status, although the public service use patterns of migrants traveling alone and with family members are very different.

In this paper, I argue that migrants from Mexico who travel with immediate family members to the United States are more likely to use public services than are migrants who travel alone. I hypothesize that this is true for two reasons: first, migrants who travel with family members are more likely to settle in the United States or to stay for an extended period, and these migrants will use public services like health care and schooling in the process of household formation. Second, household members may have more access to information about state and federal public assistance programs including unemployment insurance, AFDC, SSI, and food stamps as a result of participating in broader social networks than do single migrants. Therefore, although single migrants may qualify for some forms of public assistance, migrants in a family household are the more likely users of these services.

The distinction between single migrants and family migrants from Mexico is important to make, because this division highlights two different processes at work. Single migrants are more likely to travel to the United States on a temporary, perhaps cyclical basis to provide remittances and to return with savings to their home community (Massey et al. 1987). This group composes the majority of Mexican migration flows to the United States annually (Wall Street Journal 1997). The relative availability of public services may "have little effect on migration decisions" (Public Policy Institute of California report, cited in Wall Street Journal 1997) for this population, which is attracted to short-term labor opportunities in the United States. On the other hand, migrants who travel with family members have longer spells in the United States. Although they also continue to send remittances and to invest in their home communities (Durand, Parrado, and Massey 1996), these long-term residents may become materially and socially invested in the United States over time. This investment occurs as a result of participating in social networks and job networks, paying taxes, and being involved in local institutions like schools and community centers. I contend that each type of migrant has a different relationship to the state, and that immigrants engaged in the pattern of household-building, while drawing more on state resources in the short term, might have positive future outcomes for the state which have not been adequately investigated. Therefore, I ask how much household composition and length of stay influence the use of public services and contributions to the federal tax system to support those services.

**Literature review**

The debate about whether migrants pay their "fair share" to live in the United States and use public services is carried out on several dimensions. Even the concept of "fair share" has a variety of definitions. Some research asks whether more migrants pay taxes than use public

services (Passel and Clark 1994, Tienda and Jensen 1986; Simon 1984). Other researchers discuss "fair share" in terms of whether individual migrants pay more in taxes than they receive through services and cash payments (Borjas 1994, 1990). Still others ask whether migrants and natives make comparable payments and use of services (Simon 1996, Clark 1994, Muller and Espenshade 1985). Finally, some researchers are concerned with the distribution of migrants in the United States, noting that states with larger migrant populations experience strong pressures on state and county resources without adequate federal compensation (Smith and Tarallo 1995, Weintraub 1984).

The debate about migrants' use of public services becomes further fragmented as a result of separate discussions about legal and illegal immigrants and about burdens on state and federal resources. In discussions limited to the impact of *legal* immigrants, Borjas (1994, 1990, Borjas and Bronars 1990) argues that legal immigrants to the United States arrive with increasingly lower skills, and thus qualify to take advantage of more welfare programs than older immigrant cohorts. He contends that the diminishing skill level of the average immigrant is the result of a greater proportion of immigrants since the 1950's coming from countries with low average levels of education and industrial structures that equip workers with skills that are not useful in the American labor market (Borjas 1990, 123-125). In terms of family migration from Mexico, Borjas and Bronars (1990) find that married immigrants earn higher wages than unmarried immigrants to the United States, but that in the process of chain migration, the immigrants who follow have lower earnings. This pattern is observed because income inequality in the United States is less than in Mexico, so less skilled immigrants can still earn more than they would if they stayed in their home community or migrated internally (Borjas and Bronars 1990, 24).

In contrast, Simon (1996) argues that overall average public expenditures are similar for

immigrants and natives, and have not changed dramatically since the 1970's. He responds to Clark's 1994 study that found that recent cohorts might have a higher propensity for receiving welfare and Medicaid than natives with the suggestion that higher usage rates are concentrated among the immigrant elderly and refugees. He remarks that payments for specific means-tested services to immigrants may be higher than in the general population, but,

> The slightly greater expenditures per immigrant in the narrowly defined welfare programs are more than offset by other categories of government spending [including schooling, Medicare, Social Security, and unemployment compensation]--indeed, are dwarfed by them; therefore the welfare programs, taken in isolation, do not deserve attention in assessing the economic costs of immigration to the government (Simon 1996, 106).

The discussion above has been limited to the use of federal welfare programs by legal immigrants. Illegal immigrants use public assistance programs much less frequently, whether because of ineligibility, lack of knowledge about transfer payments (Muller and Espenshade 1985), or use of informal kin networks in place of public institutions (Tienda and Jensen 1986). Muller and Espenshade (1985) find that usage rates in households headed by illegal immigrants are much lower than in all other households in Los Angeles County. More broadly, Tienda and Jensen (1986) find that usage rates of AFDC, SSI, and general assistance by immigrants irrespective of legal status is less than that for their racial and ethnic U.S.-born counterparts, with knowledge of English and schooling having further attenuating effects. Recently arrived immigrants from all areas except Asia (in the 1975-1980 cohorts) were significantly less likely to use services than were older immigrant cohorts or native-born families. This finding, however, may not hold up over the long term; other work has found that the propensity to use services increases over time among all cohorts (Simon 1996, Borjas 1994).

Who pays for public services, and how much? While most researchers agree that

immigrants pay more in taxes than they receive as direct payments or services from the federal government, there is less agreement about the surplus they produce. Passel and Clark (1994) demonstrate that immigrants pay $70 billion in taxes annually but take out only $43 billion through services such as welfare and education, creating a net surplus of $27 billion (cited in Borjas 1994, 1703). Borjas (1994) says that this measure of government expenditures on immigrants is inadequate because it does not include the marginal costs of providing other public services like roads and public transportation to immigrants. When these expenses are deducted from tax payments, immigrants have a deficit to the federal government (Borjas 1994, 1707).

On the other hand, Simon (1984) argues that immigrants provide a one-time windfall to the receiving country, because most immigrants are young when they enter and pay into the social security system when they join the labor force. By the time they begin to collect social security payments, their children are in the labor force and indirectly support them through their taxes. In the meantime, he argues, immigrants and natives alike pay more into the federal tax system than they take out for social services. Simon's assertions rest on the assumption that legal immigrants on average earn the same wages as natives after four years. This assumption about wage parity has been challenged in recent years, and Simon (1996) has modified his argument to incorporate the effects of the changes in the composition of migrant cohorts documented by Borjas. He states that the balance of immigrants' contributions may have increased since the 1970's, although "the ratio of taxes paid by the average immigrant relative to those paid by natives may have declined (Simon 1996, 108)."

Focusing only on inputs and costs to federally funded public assistance programs neglects another important area of public expenditures. State and municipal revenue largely finance public education and health care. In states and counties where a large share of the immigrant population

resides, pressure on fiscal resources increases relative to non-immigrant receiving areas. The INS estimated in March 1997 that there are 5 million illegal immigrants in the United States, close to pre-IRCA levels, and 40 percent of those immigrants reside in California, representing six percent of the state's population. Texas, New York, Illinois, and Florida receive most of the remaining 3 million immigrants. This clustering of immigrants in urban areas in a few states leads critics of current immigration policy to complain that states are expected to provide public services without adequate compensation from taxpayers or from the federal government.

Previous research corroborates this perspective. Muller and Espenshade (1985) find that immigrant-headed households in Los Angeles County run a large deficit against state and local budgets relative to households headed by U.S.-born residents. This is the result of two phenomena: First, immigrant households on average have lower earnings than native households, and therefore pay less in income tax and sales tax and are less likely to pay property tax; second, immigrant households have more children in school than the average household (Muller and Espenshade 1985, 129). The authors also find that illegal aliens use public health services slightly more than other residents (Muller and Espenshade 1985, 136). Weintraub (1984) reports similar findings in Texas, where local governments spend more on education, corrections, social services, and health for illegal immigrants than they receive from that population in taxes.

**The Role of the Household**

Although much of the literature reviewed in the last section implicitly incorporates the presence of other family members to predict use of AFDC and schools, the authors do not explicitly consider the role of household members in predicting tax contributions or rates of use of other services. Bringing the household into relief may highlight important ways in which immigrants behave when they are joined by family compared to when they are alone. For

instance, children might either be dependents or low wage earners whose demands exceed household income, thus pushing the family to use public services. On the other hand, if the migrant's spouse is also on the trip, s/he may earn a second wage or provide child care so that the migrant can work more, thus increasing tax contributions.

These hypothetical examples suggest ways in which household composition and the roles and responsibilities of household members determine the need for services and the means to pay for them through taxes. However, the migrant household also may be better equipped to take advantage of services that would also be desirable to single migrants because of greater access to information, a household division of labor that gives individuals more time to seek out services, and shared concern for the well-being of household members. To support this argument, I draw on two strands of research that consider the effect of living in a married-couple household compared to being single. The first strand addresses the relationship between marriage and well-being; the second focuses on the nature of family unit migration.

Demographers and sociologists have identified a generally positive relationship between marriage and well-being, particularly for men. Waite (1995) argues that in terms of health, married people benefit from the presence of someone who monitors health and health-related behaviors and encourages self-regulation. Married people also have a network of help and support through a shared extended family. In his research on the relationship between marital status and mortality, Rogers (1995) also finds that marriage is beneficial to men in lower socioeconomic status categories because they are less likely than single men to engage in risk-taking behavior which may be associated with deaths by accident, suicide, homicide, and cirrhosis. These studies are generalizable to the U.S. population, and the authors do not say explicitly that the samples include documented and undocumented immigrants. Therefore, it is not clear that the

presence of a spouse provides similar health benefits to migrants, but these findings make it worth asking if migrants who travel with a spouse are more likely to seek medical care than are migrants who travel alone.

Health care is not the only public service migrant households might be more likely to use compared to single migrants. Where women are present, there is evidence that households have access to more information about other services as well. In her study of long-term immigrants to California from Mexico, Hondagneu-Sotelo (1994) finds that in households that travel together, women often have decision-making power in the family. Also, they are accustomed to responsibilities ranging beyond the domestic sphere as a result of working as wage-earners in Mexico or acting as household head while their spouse was absent. In addition, women who travel with their spouse and children may be more likely to have kin in the destination area who orient the family to services when they arrive. Finally, Hondagneu-Sotelo notes that women play a vital role as households become familiar with U.S. institutions, either through direct contact or through obtaining information from relatives, friends, and social workers. Women in her sample used this knowledge to obtain AFDC, Women, Infants, and Children (WIC) payments, Supplemental Security Income, and unemployment compensation for the household. Although these findings support the argument that couples or two-parent households are more likely to know how to obtain services, Hondagneu-Sotelo does not find that the immigrants in her sample have a strong propensity to use public assistance programs, even after more than ten years in the United States.

The literature cited in this section suggests that the debate about public service use might be more clearly delineated if household structure in the United States were taken into account. To this end, a recent paper by Donato and Massey (1995) includes information about the presence

of family members in an analysis of service usage and tax contributions by Mexican migrants. Using data from migrant households in 21 Mexican communities, the authors obtain the log odds of using medical services, schools, unemployment compensation, AFDC, and food stamps. In addition, they estimate the log odds of paying social security tax and other federal taxes.

The authors find that, "[T]he social ties of migrants appear to pose the greatest threat to worsen the fiscal pressures facing local economies and state budgets" (Donato and Massey 1995, no page number [page 21 of text]). The presence of household members is not uniform, however. While the presence of a spouse or U.S.-born children increases the odds of using medical and welfare services, only the presence of children increases the odds of using food stamps. The presence of children *lowers* the odds of paying federal taxes, while the presence of a spouse *raises* the odds. As other studies have demonstrated, the probability of using a service increases with time for all migrants; however, Donato and Massey find that the probability of paying federal taxes increases as well.

Other consistently significant variables in their models include knowledge of English and time period of the migrant's trip. Legal status is significant only in models predicting use of medical services and tax payments. Occupation predicts only tax contributions, with migrants in unskilled labor, service, and agriculture all having higher odds of payment compared to skilled labor.

In this paper, I offer some modifications to Donato and Massey's analysis using an updated version of the same longitudinal data set with approximately 300 additional cases from 18 new communities. I have made three main alterations. First, I evaluate the independent effect of permanent settlement in the United States against the effect of moving with family members. The purpose is to determine how much service use is influenced by the needs of family members who

are present and by the information nodes they access in order to obtain services, compared to the effect of becoming invested in institutions over time in the process of resettlement. Second, I only include households with children in models estimating the odds of using schools and collecting AFDC and food stamps. The presence of children is a necessary condition for the first two events to occur, and is very common in the third case; consequently, in the models presented by Donato and Massey (1995), the presence of children was highly significant. I want to find out what other factors are important, given that children are in the household. Finally, I test the explanatory power of wages as an alternative measure of labor force attachment in place of occupational categories. Occupations can provide valuable information about stability of employment, health risks, social networks, and proximity to service providers. However, wages might indicate more directly whether migrants are able to cover minimal expenses for services like health care or schools. If this is true, wages might be a better indicator of service use than occupations in some models.

**Data and Methods**

I use logistic regression models to predict the log odds of Mexican immigrants using public services when traveling with a spouse or children compared to when traveling alone. I also look at the independent effect of permanent residence. I use data from the Mexican Migration Project, a longitudinal study which has surveyed 150-200 randomly sampled households in each of 39 communities in western Mexico in ten waves since 1982. The communities are in areas with a tradition of sending migrants to the United States (Massey and Parrado 1994). Surveys are administered in December and January, when migrants return for the Christmas holidays and annual fiestas.

The sample also includes households in the United States in areas at the end of each wave

of data collection in Mexico. Respondents provide information about where community members had permanently settled in the United States, and interviewers visit those areas the following summer. They use snowball sampling methods to collect a sample of about 20 households in the American community in order to have a partial control for biases stemming from selective permanent migration (Donato and Massey 1995).

The response rate for the Mexican sample is relatively high. The lowest response rate is 85 percent (rural community in Michoacan, surveyed in 1989), and the highest response rate is 100 percent (two rural communities in San Luis Potosi, surveyed in 1995). In 31 of the 36 communities for which response rates are reported, the response rate is above 90 percent. Communities in metropolitan and urban areas have similar response rates to those in rural communities and towns. There are no reported response rates for the households interviewed in the United States because the data were collected with snowball sampling techniques. (For complete sample information, see Appendix A).

The representativeness of these data for discussions about U.S.-directed migrant flows from Mexico may be limited by the location of the communities sampled. The communities lie in western and central Mexico. Migrants in other regions might be motivated systematically by different push and pull factors, they may select other destinations than those in the sample, or they might be less likely to travel with family members, depending on the social and kin arrangements in the sending community and differences in the costs and time invested in travel to the United States. Massey and Parrado (1994) argue that the sample is designed to be representative of Mexico in general because the communities selected include a range of populations, economic bases, and ethnic compositions. The communities are not focused exclusively on migration as an economic strategy, but rather represent the national spectrum in terms of industry type, economic

growth, and local employment opportunities.

The snowball sampling techniques used in the United States pose problems for the representativeness of the sample in terms of the resettled Mexican-origin population. First, the number of U.S. households from a single Mexican community as a proportion of the sample of that community is not necessarily equal to the proportion of households from that community actually living in the United States. Second, permanent migrants who settled in California appear to be overrepresented among the U.S. communities that were included in the sample.

The Mexican Migration Project survey collects information on social, demographic, and economic variables about household members, whether or not the household head has migrated. In households where the head has migrated, a separate survey about all of his/her border crossings to the United States is administered. Data on the first and last trip regarding legal status, length of stay, state, occupation, wage, and year is included. The survey also asks for social and economic information about the last trip made, including whether the migrant was accompanied by a spouse or children and whether s/he paid social security tax and/or other federal taxes. Finally, for purposes of this analysis, the migrant is also asked if s/he used public services on any visit (doctor, hospital, schools, unemployment compensation, welfare, and food stamps). The data on taxes and services provide the dependent variables in these analyses. I interpret these data to pertain to the entire household. That is, if a migrant who traveled with family members reports that he visited a doctor in the United States, the visit might have been made for the respondent, for his/her spouse, or for children in the household.

This analysis is based on responses by the 1023 migrants who made only one trip to the United States (total sample size=3346). It is necessary to limit the sample to migrants who have made only one trip, because the information about social services does not specify on which trip

the services were used, and information about the presence of children and spouses is only available for the most recent trip. Therefore, to be certain that a migrant was accompanied by others or not on the occasion that he reports using a public service, I include only the trip on which s/he was explicitly asked if anyone was with her/him. To the extent that migrants who have made only one trip to the United States are different from other migrants, whether because they settled in the United States on that trip or because the trip was not regarded as a success by the migrant or household, the predicted probabilities of service usage for this subsample will be different from those for the sample as a whole. Table 1 provides descriptive characteristics of the subsample and the sample as a whole.

This analysis includes eight sets of regressions. Six refer to use of a public service and two refer to whether the immigrant paid taxes. In each case, the dependent variable is a dichotomous outcome. The outcome is expressed as a function of the following variables:

*Legal status:* A three-level categorical variable, coded 0 if the migrant has no legitimate papers or is working for wages while holding a tourist visa. The variable is coded 1 if the migrant holds a green card, if s/he was granted amnesty under the Immigration Reform and Control Act of 1986, if s/he holds a tourist visa and does not report working for wages, or if s/he is a citizen of the United States. The variable is coded 2 if the migrant worked as a bracero between 1942 and 1964. Prior literature suggests that legal immigrants are more likely to use services than illegal immigrants, with the exception of health care. This may be because legal immigrants are entitled to public services like means-tested transfers after five years, because they are more knowledgeable about how to receive services, or because they have less fear about interacting with government employees.

*Wages:* I use a seven-level categorical variable to test the effect of wages on the log odds of using

services.[1] I hypothesize that migrants with low or moderate wages will have higher odds of using services like health care and schools than will migrants with no income if they obtain information about how to use these services through work connections. They may also be better equipped to pay for services. I expect workers with higher wages will be slightly less likely than those with lower wages to use public health care because their employers may provide health benefits, or their occupation may pose fewer health risks than lower-paying occupations. Therefore, I expect the probability of using health services to be a quadratic function of wages, with an inverted U-shaped curve peaking at around $10 an hour and then declining. The wage variable may be less satisfying in models where the dependent variable is use of a means-tested transfer program because eligibility for these programs is determined by income, and above a certain threshold, wages will perfectly predict failure to use the service.

*Length of stay:* I use a continuous variable measuring length of stay in months. Prior literature reports that the likelihood of using services increases with length of stay.

*Human capital:* I use a five-level categorical variable for knowledge of English[2] and a continuous variable for education. Knowledge of English may lead to obtaining a better-paying job, a job with benefits, or a job with lower health risks than jobs available to immigrants who do not speak English. In addition, studies have shown that knowledge of English makes it easier for migrants to find out where to apply for services and to complete necessary paperwork (Massey et al. 1987). The education variable may have similar effects for finding work and for obtaining services.

*Period:* Because there is some debate about whether more recent migrants are more likely to use

[1]The wage variable is coded 0=no wages; 1=<$4.25/hour; 2=$4.25-5.99/hour; 3=$6-9.99/hour; 4=$10-19.99/hour; 5=$20+/hour; 6=missing information. Wages are adjusted to 1994 dollars using the Consumer Price Index.

[2]English variable is coded 0=no English; 1=doesn't speak but understands some English; 2=doesn't speak but understands English well; 3=speaks and understands some English; 4=speaks and understands English well.

public services than earlier cohorts of migrants, a series of period variables is included.[3]

*Sex:* Coded 0 if the migrant is male, 1 if the migrant is female.

*Place:* This variable is a proxy for whether the migrant has permanently settled in the United States or is a temporary migrant. The variable is coded 0 if the migrant was interviewed in his home community in Mexico. It is coded 1 if the immigrant was included in a snowball sample in a U.S. community. The variable is intended to control for differences in service use by temporary and permanent migrants.

*Social connections:* There are two dummy variables indicating whether the migrant was accompanied by a spouse or by children. This tests the hypothesis that having social connections in the destination area makes a migrant more likely to use a social service.

With two exceptions, missing values are not included in these variables. In the wage variable, missing values are assigned to a separate category. In the variable measuring knowledge of English, missing values are assigned to category 1, the category closest to the mean of .832.

**Descriptive Statistics**

More than three quarters of the sample is composed of illegal immigrants (77.6 percent; see Table 1). Braceros make up 10.7 percent of the sample, and legal immigrants make up the remaining 11.3 percent. Most immigrants are male and travel alone. Only about 15 percent of migrants report being

[3]I code two period variables for use in different models. In the models for health care, schooling, unemployment compensation, and taxes, I use **period1**. This variable roughly divides migrants into categories bounded by the end of the bracero program (coded 0; year<=1964); changes in policy in 1976 which put limits on immigration from the Western Hemisphere (coded 1; year=1965-1976); and the passage of the Immigration Reform and Control Act (coded 2 if year=1977-1986; coded 3 if year=1987-1994). The sample size was not large enough to include migrants who traveled for the first time since the passage of the 1990 Immigration Act.
In the models for AFDC and food stamps, I exclude migrants who traveled to the United States before 1964. This is because means-tested public transfers were a much smaller part of the federal budget prior to 1960, and the programs were intended for different purposes. In the 1960's, movements for social change drew attention to the U.S. poverty level and to the limitations of means-tested programs. Benefits were expanded and increased between 1960 and 1976. In 1976, with the end of an economic boom and a rise in the number of single mothers on welfare, benefits were retracted (Ellwood 1988, 26-43). **Period2** is coded 0 if year=1964-1976, 1 if year=1977-1986, and 2 if year=1987-1994. Sources used to develop this coding include Donato and Massey (1995), Donato (1994), Espenshade (1994), and Ellwood (1988).

accompanied by a spouse, and 23 percent report traveling with children. If it is true that traveling with a family member increases the likelihood of using services, these data would suggest that a relatively few number of migrants are in that position. The average adjusted wage for migrants is $7.78 per hour, about 50 percent higher than the minimum wage in 1994. In this subsample, the largest share of migrants made their single trip to the United States between 1977 and 1986, a time when U.S. immigration policy became more restrictive and individuals not falling into selected preference categories were denied visas (Donato 1994). Also in this period, public assistance programs began to contract for the first time after they had been widely expanded in the 1960's (Ellwood 1988). The average length of stay in the United States is 39 months. In terms of human capital, the average migrant has 5.12 years of education and speaks no English but understands some. Eleven percent of migrants were settled in the United States at the time of interview.

It is important to recall that this subsample is composed of migrants who made only one trip to the United States, and who may differ substantially from repeat migrants. Table 1 compares these two groups on the independent variables used in the models that follow. All information pertains to the migrant's most recent trip. These data suggest that more repeat migrants traveled legally on their last trip, and the largest share made that trip in the last period considered (1987-1994). A larger percentage of migrants were male in the full sample. The distribution of wages is similar, although slightly fewer repeat migrants reported earning no wages (6.4 percent compared to 8.31 percent for one-time migrants). More repeat migrants than one-time migrants traveled with a spouse or children, and the average length of stay was about 8.3 months shorter. More repeat migrants know English, although they have fewer years of education. Finally, more repeat migrants than one-time migrants were settled in the United States at the time of interview.

Table 2 shows that for all social services, use increases with the length of time an immigrant is

in the United States. This effect is especially strong for unemployment compensation. A majority of immigrants with a spouse and/or children used medical services, and nearly half of those with children enrolled their children in school. For all social services, the percentages are much lower for people who did not travel with a spouse or child. Immigrants with family members are more likely to use a specific service than are immigrants overall for the first five years in the United States. However, immigrants with family members are also more likely to pay social security and other federal taxes than are immigrants overall for the first five years. Finally, this table shows that a larger percentage of immigrants who have settled in the United States have used services and paid taxes than have former migrants living in Mexico at the time of interview. The analyses that follow parcel out the independent effects of each of these factors that apparently contribute to increased rates of service use and tax payments.

**Use of Medical Service**

Table 3 shows the results of logistic regressions that estimate the probability of visiting a doctor or hospital in the United States. In both models, the presence of children or a spouse significantly increases the log odds compared to the absence of family members. For example, in the first model, where visit to a doctor is the dependent variable, $\beta$ (spouse)=1.191, s.d.=.365, exp($\beta$)=3.292, and $\beta$(children)=.799, s.d.=.369, exp($\beta$)=2.224. The coefficient for spouse in this model is interpreted to mean that the odds of an immigrant traveling with a spouse visiting a doctor are 3.292 times greater than for an immigrant without a spouse. Other coefficients may be similarly interpreted.

Length of stay also significantly increases the odds of visiting a doctor or hospital. Each month that a migrant is in the United States, his odds of visiting a doctor are 1.014 times higher than in the previous month ($\beta$(length of stay)=.014, s.d.=.388, exp ($\beta$)=1.014). The odds of visiting a hospital are

1.009 times higher each month (β(length of stay)=.009, s.d.=.002). Figure 1 shows the change in the probability of visiting a doctor over time. The probability rises steadily after the first 30 months in the United States. The x-axis is limited to 240 months (20 years) to show some level of detail in the change, although some migrants report being in the United States for much longer.

As prior research has shown, knowledge of English increases the odds of using a service. Three of the four levels of the English variable compared to neither speaking nor understanding English are significant at the .01 level.[4] The last category, which indicates proficiency with English, is insignificant (p(z)=.053) but close to a p-value of .05. The odds of obtaining medical services in this category might not be significantly greater than in the category for migrants who speak no English if proficient English speakers are employed in less hazardous occupations and require less medical care than people in occupations that require fewer English skills.

The wage variable is positive and significant at each of the six levels compared to non-wage earners in the Doctor model, and at three of the six levels in the Hospital model. (Interpreting the value of the coefficient for the sixth level, which includes missing values for migrants whose wages were not reported, is not straightforward.) This means that individuals who reported their wages have higher odds of using health care services than do migrants who were unemployed or out of the labor force on their trip to the United States. However, the quadratic curve (an inverted U) I expected did not appear. Individuals in the high-wage categories (more than $10/hour) were not less likely than people with low to moderate wages to use health care services. It is also worth noting that although the coefficients for the wage variable are significantly different from 0, wages do not have more

[4]All models include a flag for missing values that were included in the second level of the English language variable (75 cases). In the Doctor model, the flag (a dichotomous variable coded 1 if migrant's English skills were reported as unknown, coded 0 otherwise) is significant at the .05 level, suggesting that the English language variable used is biased. The flag was not significant in any other model, so I decided not to recode the English language variable.

explanatory power than other measures of labor force attachment like occupation.[5]

Interestingly, working in the United States as a bracero significantly increases the odds of visiting a hospital compared to traveling illegally, but other legal migrants are no more likely to visit a hospital than illegal migrants. Possibly bracero work caused more health problems than other occupations, or supervisors in agriculture required workers to have medical check-ups.

For both visits to a doctor and to a hospital, the coefficient for the third level of the period variable (1977-1986) is significant compared to migrants who traveled before 1965. The coefficient for the most recent period is not significant, suggesting that demand for health care has declined, despite concerns in state governments that demand for services by illegal immigrants is rising.

Table 4 reveals an interesting finding related to family connections and resident status for medical services. The table shows selected coefficients from logistic regressions that predict the probability of service usage and tax payment with variables for family connections excluded in the first model and included in the second model. In the models for visits to a doctor and to a hospital, the "place" variable is significant when family connection variables are not included and becomes insignificant when they are included. As I described above, the place variable is a proxy for whether a migrant is permanently resettled in the United States or has his home based in his community of origin. A positive, significant coefficient means that people residing permanently in the United States have higher odds than temporary migrants of using a service. For example, in the Doctor model without family connections variables, the place coefficient is 1.238 and is significant at the .01 level (s.d.=.368, $\exp(\beta)=3.449$). When family connections variables are included in the model, the effect of the place variable is washed out. A likelihood-ratio test (LR row) shows that the fuller model is significantly

[5]In models that are not reported here, I used a coding scheme for occupations similar to that used by Donato and Massey (1995). The explanatory power of models including occupation in place of wages was comparable to models using wages, according to the pseudo-$R^2$ reported by Stata. I did not have any success with models

different from the model in which family members are excluded. This suggests that in terms of health care, permanent settlement does not in itself lead to connections to institutions and knowledge about how to use them; rather, traveling with family members, as many permanent settlers do, increases the capacity to obtain services, and perhaps increases the need to use these services as well.

**Collecting unemployment insurance**

The first model in table 5 estimates the probability of receiving unemployment compensation. Legal status, length of stay, presence of a spouse, and knowledge of English have a significant, positive effect. Legal migrants might be more likely to use unemployment insurance than illegal migrants for at least two reasons: first, they may have fewer reservations about approaching a government office to file for unemployment, and they may have more proof that they were employed and laid off than would a temporary migrant; second, temporary migrants may dominate in occupations that require seasonal labor and may plan to return to their home communities at the end of the season, while legal migrants may be employed year-round and may not have the same strategies to deal with unemployment. One might also expect the period variable to be significant if changes in unemployment benefits that have followed trends in the American economy affected immigrants. However, this does not appear to be the case.

The coefficient for length of stay is significant at the .01 level ($\beta$=.007, s.d.=.002, exp($\beta$)=1.007). As table 2 indicates, use of unemployment insurance increases dramatically after 5 years, when legal migrants are officially entitled to that public service.

The spouse coefficient ($\beta$=1.491, s.d.=.583, exp($\beta$)=4.441) has several possible interpretations. One explanation is that the spouse was unable to find steady employment while the head of household has a stable job. This seems unlikely, because an immigrant couple with access to a common pool of

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including both wages and occupation because of multicollinearity between the two variables.

resources and information would have similar employment prospects. Hondagneu-Sotelo's (1994) work on the gendered experience of migration offers another interpretation. Women who migrate with their husbands frequently have wage labor experience and social networks they employ to get across the border and to find work and housing. In addition, women frequently have more social contacts in the neighborhood and at local schools because of their roles as caretakers of children. These factors may lead women to have more knowledge about the social services that are available and about the application process. Therefore, the level of unemployment for migrants who are traveling alone may be equal to that for migrants traveling with spouses, but those with spouses are more likely to go through the application process. Figure 2 indicates that migrants traveling with a spouse or with children and a spouse have a much higher mean probability of collecting unemployment insurance compared to migrants traveling alone or with children only.

The effect of the place variable in this model is similar to that in the models for health services (see table 4). When variables for family connections are excluded, permanent settlement in the United States is significant at the .05 level ($\beta$=.884, exp($\beta$)=2.42). When variables for the presence of spouse and children are included, however, the place variable becomes insignificant. This suggests again that permanent settlement does not predict service use as strongly as variables indicating the process of household-building in the United States. This is especially interesting, given that length of stay is strongly significant. This implies that household members become increasingly knowledgeable about services over time.

This model uses a restricted wage variable from which people who do not report earning any income are excluded. The comparison category is migrants who earned less than $4.25 an hour. Four of the five categories shown have a negative coefficient, meaning people in higher wage categories are less likely to use unemployment insurance, but none of these categories are significant. There are some

potential explanations for why these coefficients are not significant. Possibly low-wage jobs and higher wage jobs are equally stable, or illegal migrants who do not file for unemployment are evenly dispersed throughout the wage distribution. To understand the relationship between wages and use of unemployment insurance among migrants requires further research.

**Schools and Means-Tested Services**

The next three models I discuss are based on a subsample of the sample used in previous models. Only migrants traveling with children are included. Use of schools and receipt of AFDC requires the presence of children, so to include a variable for children in a model based on the full sample is redundant. The models presented here consider the effect of all other variables, conditional on the presence of children. I include a model for food stamps in this section because the number of migrants who report collecting food stamps is too small in the full sample (47 out of 928 who responded, or 5 percent) but the number is adequate in the restricted sample (29 out of 165 who responded, or 17.6 percent) for a logistic regression. Total sample size in this subsample is 240.

**Schools**

The predictive power of the models in this section is much weaker than in the models described above. This may be the result of reduced sample size (n=148 in the school model due to missing values on the dependent variable) or the result of inadequate measures used in the equations.

The second model in table 5 estimates the probability of enrolling a child in school. Only length of stay is significant at the .01 level ($\beta$=.009, exp($\beta$)=1.009. The presence of a spouse, legal status, and human capital variables are not significant. This is surprising, given the effect that knowledge of English and social connections had in other models. Table 2 shows that nearly half of migrants with children enroll their children in school. It is possible that the migrants who use schools compose a heterogeneous group and none of the variables included here adequately identifies a single

characteristic that increases the odds of using schools.

**Collecting Welfare**

The first model in table 6 estimates the probability of collecting welfare. The survey question used to gather data for this variable asks, "Have you received welfare from the government?" (Mexican Migration Project 1994, my translation) This could include AFDC, Supplemental Security Income, or general assistance. However, "welfare" is understood to be synonymous with AFDC in popular terms, so I only include households with children present in this model.

I exclude 32 individuals who traveled to the United States before 1964 for reasons explained in the section on data and methods. Combined with the number of missing values on the dependent variable in this model, this reduces the sample size to 137 from 240. Again, the predictive power of this model is not satisfying.[6] Only length of stay and presence of a spouse are significant at the .10 level. A possible explanation is that most migrants in the sample are male, and most migrants who travel with their children also travel with their spouse. Two-parent households are less likely to qualify for AFDC than are single-parent female-headed households in general. If this also holds true for migrants, household composition may exclude most families from receiving AFDC.

**Collecting Food Stamps**

The second model in Table 6 estimates the probability of collecting food stamps. The explanatory power of this model is better than the AFDC model, although many of the same criteria are required for both public assistance programs. Being a legal immigrant compared to being in the United States illegally is negative and significant at the .10 level. This finding is surprising, given that food stamps are officially available only to legal immigrants after five years in the United States. Length of stay is also

[6]The probability obtained for a chi-square of 21.44 with 18 degrees of freedom is .2578. This means that the coefficients in the model are not significantly different from 0. In other words, we cannot reject the possibility that none of these variables is associated with the use of AFDC.

significant at the .10 level, but positive, again suggesting that individuals become more familiar with available services over time. The coefficient for traveling between 1977 and 1986 compared to traveling between 1965 and 1976 is positive and significant at the .05 level. This is another surprising finding, given that benefits were curtailed in this period. The coefficient for understanding English well compared to speaking no English was also positive and significant at the .01 level, suggesting that understanding English well is more important than speaking some English in the process of applying for food stamps.

It is interesting to note that in these models, length of stay is significant but not as strong as in other models. Previous research has found that immigrants become more likely to use public assistance over time, but the effect of time shown here is not as strong as for other public services. This suggests that the costs of providing public services to immigrants may fall more heavily on state and local resources that fund health care, for example, because rates of use for those services are more likely to increase over time.

**Paying Taxes**

The models in table 7 estimate the probability of paying social security tax and other federal taxes. In each model, the dependent variable is a binary variable coded 1 if the migrant reports paying the tax at all. There is no information provided about the *amount* of tax payments in a given year. These models include migrants who traveled before 1965 but exclude migrants who reported no earnings in the United States.

Figure 3 show that the probability of paying social security tax is at or above .50 even for migrants who report staying for a short time. Probabilities rise and approach 1.0 with length of stay. The trend is similar for paying other taxes. This suggests that most migrants are contributing revenue to the government, although in absolute terms the amount might be quite low if migrants are in low-

paying jobs. Coefficients for the length of stay in each model are positive and significant.

In the first model, the odds of paying social security tax as a bracero are significantly greater than the odds for an illegal migrant ($\beta$=1.40, s.d.=.372, exp($\beta$)=4.06). Other legal migrants are no more likely than illegal migrants to pay. However, the coefficients for each of the levels of the period variable in the post-bracero period compared to the period before 1965 are also positive and significant. This might result from the fact that the pre-1965 period include data on migrants who earned wages before the Social Security Act was passed in 1935 and who would not have paid social security taxes.

All of the wage categories compared to migrants earning less than $4.25 an hour are positive and significant with the exception of the highest wage category ($20/hour or more). A possible interpretation of this trend is that low-wage earners worked under the table and were not included on employee rolls that would have required the employer to make social security payments on the migrants' behalf. Alternatively, earnings might not have been great enough to reach the threshold for withholding taxes.

The coefficient for presence of a spouse is positive and significant at the .05 level, but the presence of children in the household has no significant effect. The initial probability of paying social security is higher for migrants traveling with a spouse compared to the migrant population in general, but probabilities for the two groups become similar over time. Because social security taxes are withheld from an employee's paycheck, the probability of making tax payments is a result of the job one has, rather than a household decision. Therefore, it is unlikely that spouses encourage making tax contributions; instead, the presence of a spouse might increase a migrant's chances of obtaining steady employment, and paying social security taxes would be an indicator of this.

The second model estimates the probability of paying other federal taxes. The results are

similar to those in the model for social security taxes, but the coefficient for the most recent period (1987-1994) compared to the period prior to 1965 is not as strongly significant (p=.082) as in the social security model. Given that the coefficient for length of stay is also highly significant, it is possible that migrants who entered the United States recently will begin paying taxes at some point in the future.

**Discussion**

This paper has three main findings: first, presence of family members strongly influences use of some services and the propensity to pay taxes, although the effect is not uniform; second, although permanent settlement apparently determines use of some services when migrants' family status is not considered, models that incorporate the presence of a spouse or children reduce the effect of settlement; third, the probability of service use and tax contributions generally increases with length of stay, although again, the effect is not uniform. I will discuss these findings in more detail below. First, however, a discussion of the limitations to this analysis is in order.

In this paper, I have interpreted the effect of length of stay to mean that migrants become more likely to use services the longer they are in the United States. A competing explanation is that migrants who begin to use services early on find it easier to stay in the country longer than do migrants who do not use services. Because the data set used here does not include information about the timing of service use, it is not possible to determine the direction of causality between service use and length of stay. This issue deserves attention and requires more detailed data collection.

Another potential problem is that the subsample used in the models presented here includes only migrants who have made one trip to the United States. This limits the generalizability of the findings. The probabilities obtained might have been very different if repeat migrants had been included. This would be true if migrants who made only one trip are clustered at the extremes,

including only people who were very successful (and either settled in the United States or returned to Mexico with adequate savings for an intended investment or project) or people who fared poorly in the United States and were discouraged from returning by their experience.

Another limitation for the generalizability of these findings exists. The snowball sample collected in the United States may be biased, particularly because the survey respondents were clustered in California communities. If the rates of service use are higher in the areas where immigrants were surveyed than they are in the general population of settled immigrants, estimates of the effect of permanent settlement will be upwardly biased.

**Conclusion**

The main findings in this paper support the chief finding made by Donato and Massey (1995): Family connections in the United States have a strong positive effect on the probability of using social services and paying social security and income taxes. This effect is not consistent, however. The presence of a spouse or children sharply increases the odds of visiting a doctor or hospital. This could be the result of increased need for services as well as increased knowledge about how to obtain health care as a result of broader social networks established by various household members. In contrast, only the spouse is the only family connection with a positive effect in models where unemployment insurance and tax payments are the dependent variables. This suggests that the spouse has a unique role in increasing a migrant's attachment to the labor force and to the federal tax system. One explanation is that the spouse's kin and social networks are useful in obtaining regular employment where the migrant's earnings are reported to the government. Should the migrant lose her/his job, there is a greater chance of obtaining unemployment insurance if the worker can demonstrate that s/he was steadily employed in the previous year.

The weak effect of the presence of a spouse in models for food stamps and AFDC

demonstrates that two-parent households are not much more likely than single-parent headed households to collect public assistance. This reflects the general pattern of welfare use, suggesting that two-parent households may not qualify for payments if the household income level is too high. However, the coefficient for presence of a spouse in the AFDC model is significant at the .10 level, providing weak support for the idea that women in a two-parent household are more likely to have information about how to use services than would men in a single-parent household. The weak explanatory power of the models for AFDC, food stamps, and schools once the presence of children is accounted for implies that we need to continue looking for consistently strong indicators of propensity to use these services.

The second conclusion from this analysis is that although permanent settlement apparently determines use of some services when migrants' family status is not considered, models that incorporate the presence of a spouse or children reduce the effect of settling permanently in the United States. This finding suggests that there are three separate processes occurring in the migrant household over time. First, the demand for services increases with more people in the household. Second, individuals in the household cultivate social networks and information resources that foster integration into the public service system. Third, the process of long-term settlement makes households more invested in living in the United States and increases general knowledge about using services. Although settlement in itself may lead to increased service use over time, the presence of family members accelerates this process.

Finally, the probability of service use and tax contributions generally increases with time although again, the effect is not uniform. Use of public assistance does not change much over time, but for most other services and for tax payments, length of stay has a large effect. This finding supports previous research that argues migrants do not have a great propensity to use means-tested

public transfer programs, although I have not offered a comparison to native-born service users in this paper. The cost of service use appears to fall more heavily on state and local governments for migrants using health care and schools over time. This finding suggests that further research on the community-level impact of immigration, including information about tax fiscal contributions through state income tax, property tax, and sales tax is required in order to understand how the process of immigrant household-building influences local economies.

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Table 1: Descriptive statistics on migrants to the United States:
Migrant household heads from 39 Mexican communities

| | Subsample of migrants who made only one trip (n=1023) | | Full sample (for comparison) (n=3346) | |
|---|---|---|---|---|
| Variable | n | percent in subsample | n | percent in sample |
| Legal Status | | | | |
| Legal | 115 | 11.3 | 993 | 29.75 |
| Illegal | 794 | 78.0 | 1985 | 64.01 |
| Bracero | 109 | 10.71 | 360 | 10.78 |
| (unknown) | (5) | | (8) | |
| Family Connections | | | | |
| Spouse present | 145 | 15.47 | 620 | 19.55 |
| (unknown) | (86) | | (175) | |
| Children present | 240 | 23.46 | 783 | 24.29 |
| (unknown) | (76) | | (123) | |
| Place of interview | | | | |
| Mexico | 902 | 88.17 | 2830 | 84.58 |
| United States | 121 | 11.83 | 516 | 15.42 |
| Wages | | | | |
| None | 85 | 8.31 | 214 | 6.40 |
| <$4.25/hr | 154 | 15.05 | 424 | 12.68 |
| <$6/hr | 190 | 18.57 | 665 | 19.88 |
| <$10/hr | 177 | 17.30 | 748 | 22.36 |
| <$20/hr | 100 | 9.78 | 371 | 11.09 |
| $20/hr or more | 44 | 4.30 | 184 | 5.50 |
| Missing | 273 | 26.69 | 739 | 22.09 |
| | | (mean=7.78, s.d.=10.03) | | |
| Length of stay | | | | |
| 12 months or less | 666 | 65.10 | 2338 | 69.87 |
| 13 to 24 months | 105 | 10.26 | 321 | 9.59 |
| 25 to 60 months | 89 | 8.70 | 273 | 8.16 |
| 60 to 120 months | 60 | 5.87 | 168 | 5.02 |
| more than 10 years | 103 | 10.07 | 246 | 7.35 |
| | | (mean=39.37 mos., s.d.=78.04) | | (mean=30.96 mos., s.d.=65.94) |

Table 1, Continued

| | Subsample of migrants who made only one trip (n=1023) | | Full sample (for comparison) (n=3346) | |
|---|---|---|---|---|
| Sex | | | | |
| Male | 948 | 92.67 | 3200 | 95.64 |
| Female | 75 | 7.33 | 146 | 4.36 |
| Knowledge of English* | | | | |
| Speaks no English | 612 | 59.82 | 1691 | 50.54 |
| Doesn't speak, but understands some English | 202 | 19.75 | 672 | 20.08 |
| Speaks and understands some English | 35 | 3.42 | 137 | 4.09 |
| Doesn't speak, but understands English well | 104 | 10.17 | 564 | 16.86 |
| Speaks and understands English well | 70 | 6.84 | 282 | 8.43 |
| Education | | | | |
| no education | 172 | 16.81 | 609 | 18.20 |
| 6 years or less | 585 | 57.18 | 2060 | 61.57 |
| 7 to 12 years | 198 | 19.35 | 527 | 15.75 |
| 13 to 16 years | 53 | 5.18 | 120 | 3.59 |
| more than 16 years | 15 | 1.47 | 28 | .84 |
| (missing) | | (mean=5.12, s.d.=4.34) | 2 | (mean=4.35, s.d.=3.95) |
| Period | | | | |
| <=1964 | 240 | 23.48 | 617 | 18.46 |
| 1965-1976 | 278 | 22.31 | 538 | 16.10 |
| 1977-1986 | 351 | 34.34 | 991 | 29.65 |
| 1986-1994 | 203 | 19.86 | 1196 | 35.79 |
| (missing) | (1) | | | (4) |

*The second category in the variable measuring knowledge of English includes 75 missing values.

Table 2: Percentage of migrants who used social services in the United States, by length of stay, family connections, and site of interview

| Service | Length of U.S. trip | | | | | Family Connections | | Site of Interview | |
|---|---|---|---|---|---|---|---|---|---|
| | <=1 yr | <=2 yrs | <=5 yrs | <=10 yrs | >10 yrs | Spouse | Children | Mexico | U.S. |
| **Medical** | | | | | | | | | |
| Doctor | 14.62 | 29.9 | 58.75 | 70.18 | 91.84 | 83.8 | 75.2 | 23.42 | 86.67 |
| Hospital | 9.08 | 25.77 | 42.5 | 63.16 | 84.69 | 76.76 | 70.9 | 16.98 | 79.17 |
| (N) | (595) | (97) | (80) | (57) | (98) | (142) | (165) | (807) | (120) |
| **Kids in school** | 2.97 | 7.22 | 11.11 | 23.21 | 59.79 | 41.55 | 47.9 | 6.09 | 47.01 |
| (N) | (607) | (97) | (81) | (56) | (97) | (142) | (167) | (821) | (117) |
| **Rec'd unemployment** | 1.51 | 3.19 | 5.0 | 21.05 | 42.27 | 24.82 | 21.5 | 3.86 | 31.67 |
| (N) | (596) | (94) | (80) | (57) | (97) | (141) | (163) | (804) | (120) |
| **Means-tested services** | | | | | | | | | |
| Welfare (N) | .5 (598) | 2.11 (95) | 5.0 (80) | 3.57 (56) | 18.37(98) | 14.8 (142) | 13.9 (165) | 1.73(807) | 12.5(120) |
| Food stamps (N) | 1.68 (597) | 6.25 (96) | 8.75 (80) | 3.51 (57) | 22.45(98) | 16.9 (142) | 17.6 (165) | 3.47(808) | 15.83(120) |
| **Taxes paid** | | | | | | | | | |
| Soc. Security (N) | 60.9 (432) | 67.95(78) | 76.8 (69) | 76.60(47) | 89.77(88) | 88.3 (120) | 81.8 (121) | 57.27(695) | 81.13(106) |
| Other fed taxes (N) | 55.2 (424) | 59.21(76) | 69.1 (68) | 72.34(47) | 87.36(87) | 89.1 (119) | 83.5 (121) | 51.10(683) | 82.08(106) |

Table 3. Logistic regressions estimating the log odds of using health care services while residing in the United States for migrants from 39 Mexican communities

| | Doctor | | | Hospital | | |
|---|---|---|---|---|---|---|
| Variable | B | SE | exp(B) | B | SE | exp(B) |
| **Legal Status** | | | | | | |
| Illegal | --- | --- | --- | --- | --- | --- |
| Legal | 0.120 | 0.394 | 1.127 | -0.004 | 0.393 | 0.995 |
| Bracero | 0.854 | 0.486 | 2.348 | 1.177* | 0.537 | 3.246 |
| **Period** | | | | | | |
| Before 1965 | --- | --- | --- | --- | --- | --- |
| 1965-1976 | 0.800 | 0.429 | 2.225 | 1.116* | 0.462 | 3.053 |
| 1977-1986 | 0.82* | 0.407 | 2.266 | 0.803 | 0.455 | 2.233 |
| 1987-1994 | 0.720 | 0.451 | 2.058 | 0.474 | 0.516 | 1.607 |
| **Wages** | | | | | | |
| None | --- | --- | --- | --- | --- | --- |
| <$4.25/hr | 1.58** | 0.556 | 4.840 | 1.344* | 0.560 | 3.834 |
| <$6/hr | 1.71** | 0.565 | 5.518 | 1.217* | 0.575 | 3.378 |
| <$10/hr | 1.51** | 0.559 | 4.534 | 0.927 | 0.563 | 2.526 |
| <$20/hr | 1.85** | 0.603 | 6.348 | 1.491* | 0.602 | 4.442 |
| >=$20/hr | 1.88* | 0.769 | 6.584 | 1.477 | 0.766 | 4.378 |
| missing | 1.26* | 0.554 | 3.523 | 0.932 | 0.559 | 2.539 |
| **Female** | 1.31** | 0.388 | 3.695 | 1.015* | 0.397 | 2.759 |
| **Years of School** | -0.006 | 0.026 | 0.994 | -0.030 | 0.030 | 0.970 |
| **Length of stay** | 0.01** | 0.003 | 1.014 | 0.009** | 0.002 | 1.009 |
| **Presence of family** | | | | | | |
| Spouse | 1.19** | 0.366 | 3.292 | 1.175** | 0.352 | 3.238 |
| Children | 0.80** | 0.369 | 2.224 | 1.203** | 0.358 | 3.331 |
| **English** | | | | | | |
| No English | --- | --- | --- | --- | --- | --- |
| Understands some | 0.96** | 0.261 | 2.623 | 1.171** | 0.291 | 3.224 |
| ", speaks some | 1.94** | 0.514 | 6.951 | 1.703** | 0.505 | 5.490 |
| Understands well | 1.13** | 0.334 | 3.105 | 1.359** | 0.352 | 3.892 |
| ", speaks well | 0.935 | 0.483 | 2.546 | 1.271** | 0.488 | 3.564 |
| English flag | -3.51** | 1.650 | 0.030 | -1.753 | 1.536 | 0.173 |
| **Place** | | | | | | |
| Mexico | --- | --- | --- | --- | --- | --- |
| United States | 0.587 | 0.418 | 1.799 | 0.676 | 0.391 | 1.967 |
| **Intercept** | -5.75** | 0.86 | | -5.53** | 0.890 | |
| Chi Square | 402.71 | | | 380.49 | | |
| N | 909 | | | 909 | | |

*p<.05, **p<.01

Table 4: Values of selected coefficients in models with and without variables for family connections

| Variable | Doctor | | Hospital | | Unemployment Compensation | |
|---|---|---|---|---|---|---|
| | Without family connections (B, s.d.) | With family connections (B, s.d.) | Without family connections (B, s.d.) | With family connection (B, s.d.) | Without family connection (B, s.d.) | With family connection (B, s.d.) |
| Place (site of interview) | 1.24** | .587 (.418) | 1.46** (.336) | .676 (.391) | .884* | .545 (.530) |
| Spouse | | 1.19** (.366) | | 1.17** (.352) | | 1.49* |
| Children | | .799* (.369) | | 1.20 ** (.358) | | -1.11 |
| Likelihood-Ratio test | | 47.14 (p=.0000) | | 62.40 (p=.0000) | | 25.91 (p=.0000) |

| Variable | Schools | | AFDC | | Food Stamps | |
|---|---|---|---|---|---|---|
| | Without family connections (B, s.d.) | With family connections (B, s.d.) | Without family connections (B, s.d.) | With family connection (B, s.d.) | Without family connection (B, s.d.) | With family connection (B, s.d.) |
| Place (site of interview) | .448 (.519) | .042 (.559) | -.485 (.819) | -.225 (.877) | -1.13 (.739) | -1.20 (.797) |
| Spouse | | .159 (.588) | | 2.45 (1.28) # | | .119 (.958) |
| Likelihood-Ratio test | | 15.89 (p=.0001) | | 5.95 (p=.0147) | | 7.27 |

| Variable | Social Security | | Other taxes | |
|---|---|---|---|---|
| | Without family connections (B, s.d.) | With family connections (B, s.d.) | Without family connections (B, s.d.) | With family connection (B, s.d.) |
| Place (site of interview) | -.522 (.425) | -.547 (.465) | .317 (.400) | .165 (.445) |
| Spouse | | .993* (.447) | | .946* (.431) |
| Children | | -.401 (.422) | | .186 (.411) |
| Likelihood-Ratio test | | 16.67 (p=.0000) | | 18.32 (p=.0001) |

# p<.10, *p<.05, **p<.01

Table 5. Logistic regressions estimating the log odds of using unemployment insurance and schools while residing in the United States for migrants from 39 Mexican communities

| | Unemployment insurance | | | School | | |
|---|---|---|---|---|---|---|
| | B | SE | exp(B) | B | SE | exp(B) |
| Variable | | | | | | |
| **Legal Status** | | | | | | |
| Illegal | --- | --- | --- | --- | --- | --- |
| Legal | 0.94* | 0.42 | 2.56 | -0.532 | 0.543 | 0.588 |
| Bracero | 0.19 | 0.95 | 1.21 | (dropped) | | |
| | | | | | | |
| **Period** | | | | | | |
| Before 1965 | --- | --- | --- | --- | --- | --- |
| 1965-1976 | 0.91 | 0.61 | 2.48 | 0.784 | 0.932 | 2.191 |
| 1977-1986 | 0.78 | 0.68 | 2.18 | 1.226 | 1.063 | 3.407 |
| 1987-1994 | -0.79 | 1.04 | 0.45 | 0.202 | 1.161 | 1.224 |
| | | | | | | |
| **Wages** | | | | | | |
| None | (dropped) | | | --- | --- | --- |
| <$4.25/hr | --- | --- | --- | 0.160 | 0.770 | 1.173 |
| <$6/hr | -0.16 | 0.65 | 0.85 | 0.188 | 0.815 | 1.206 |
| <$10/hr | -0.07 | 0.63 | 0.93 | -0.765 | 0.804 | 0.465 |
| <$20/hr | 0.36 | 0.66 | 1.43 | -0.120 | 0.886 | 0.887 |
| >=$20/hr | -0.21 | 0.80 | 0.81 | 0.145 | 1.018 | 1.157 |
| missing | -0.53 | 0.67 | 0.59 | -1.104 | 0.906 | 0.331 |
| | | | | | | |
| **Female** | -0.36 | 0.82 | 0.70 | 0.137 | 0.585 | 1.147 |
| **Years of School** | -0.07 | 0.05 | 0.94 | -0.004 | 0.058 | 0.996 |
| **Length of stay** | .010** | 0.00 | 1.01 | 0.009** | 0.003 | 1.009 |
| | | | | | | |
| **Presence of family** | | | | | | |
| Spouse | 1.49* | 0.58 | 4.44 | 0.160 | 0.588 | 1.173 |
| Children | -1.11 | 0.62 | 0.33 | (dropped) | | |
| | | | | | | |
| **English** | | | | | | |
| No English | --- | --- | --- | --- | --- | --- |
| Understands some | -0.44 | 0.65 | 0.65 | 0.697 | 0.642 | 2.009 |
| ", speaks some | -0.08 | 0.80 | 0.92 | -0.171 | 0.821 | 0.843 |
| Understands well | 1.16* | 0.50 | 3.20 | -0.002 | 0.700 | 0.998 |
| ", speaks well | 0.99 | 0.61 | 2.69 | 0.320 | 0.784 | 1.378 |
| English flag | 1.82 | 1.60 | 6.19 | (dropped) | | |
| | | | | | | |
| **Place** | | | | | | |
| Mexico | --- | --- | --- | --- | --- | --- |
| United States | 0.54 | 0.53 | 1.72 | 0.042 | 0.559 | 1.043 |
| | | | | | | |
| **Intercept** | -3.65** | 1.25 | | -1.988 | 1.645 | |
| Chi Square | 145.79 | | | 40.240 | | |
| N | 846 | | | 148 | | |

*p<.05, **p<.01

Table 6. Logistic regressions estimating the log odds of using welfare and food stamps while residing in the United States for migrants from 39 Mexican communities

| | Welfare | | | Food Stamps | | |
|---|---|---|---|---|---|---|
| | B | SE | exp(B) | B | SE | exp(B) |
| Variable | | | | | | |
| **Legal Status** | | | | | | |
| Illegal | --- | --- | --- | --- | --- | --- |
| Legal | -1.307 | 0.886 | 0.271 | -1.596 | 0.893 | 0.203 |
| Bracero | (dropped) | | | | | |
| **Period** | | | | | | |
| 1965-1976 | --- | --- | --- | --- | --- | --- |
| 1977-1986 | 1.098 | 0.929 | 2.998 | 2.058 | 0.969 | 7.833 |
| 1987-1994 | 0.725 | 1.309 | 2.064 | 2.006 | 1.222 | 7.431 |
| **Wages** | | | | | | |
| None | --- | --- | --- | --- | --- | --- |
| <$4.25/hr | 2.178 | 1.546 | 8.827 | 0.472 | 1.416 | 1.603 |
| <$6/hr | -0.130 | 1.544 | 0.878 | -0.408 | 1.477 | 0.665 |
| <$10/hr | 1.110 | 1.421 | 3.035 | 1.502 | 1.351 | 4.490 |
| <$20/hr | 1.046 | 1.526 | 2.846 | 1.658 | 1.396 | 5.250 |
| >=$20/hr | 0.646 | 1.697 | 1.908 | 1.371 | 1.633 | 3.938 |
| missing | 1.459 | 1.601 | 4.300 | 1.775 | 1.367 | 5.900 |
| **Female** | 1.797 | 1.108 | 6.030 | 0.833 | 0.962 | 2.299 |
| **Years of School** | 0.060 | 0.083 | 1.062 | 0.044 | 0.079 | 1.045 |
| **Length of stay** | 0.010# | 0.006 | 1.010 | 0.010# | 0.006 | 1.010 |
| **Presence of family** | | | | | | |
| Spouse | 2.451# | 1.277 | 11.597 | 0.120 | 0.958 | 1.127 |
| Children | (dropped) | | | (dropped) | | |
| **English** | | | | | | |
| No English | --- | --- | --- | --- | --- | --- |
| Understands some | 1.287 | 0.949 | 3.623 | 1.081 | 0.989 | 2.948 |
| ", speaks some | -0.331 | 1.366 | 0.719 | -0.150 | 1.343 | 0.861 |
| Understands well | 1.061 | 0.979 | 2.889 | 2.412 | 1.009 | 11.156 |
| ", speaks well | 0.626 | 1.151 | 1.870 | 1.423 | 1.146 | 4.148 |
| English flag | (dropped) | | | (dropped) | | |
| **Place** | | | | | | |
| Mexico | --- | --- | --- | --- | --- | --- |
| United States | -0.225 | 0.878 | 0.798 | -1.192 | 0.797 | 0.304 |
| **Intercept** | -9.460 | 3.471 | | -6.750 | 2.578 | |
| Chi Square | 21.44 | | | 28.12 | | |
| N | 137 | | | 137 | | |

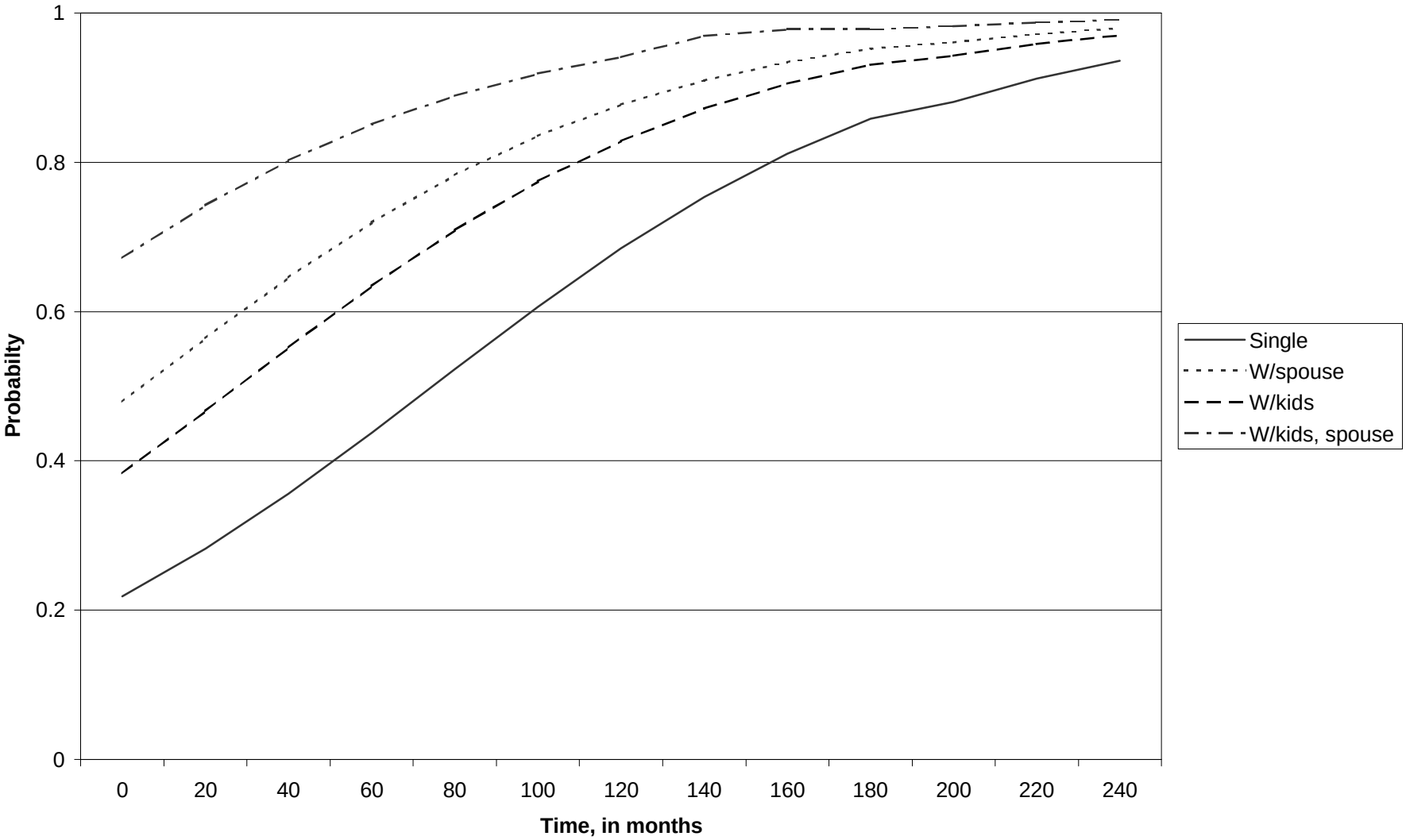
#p<.10, *p<.05, **p<.01

Table 7. Logistic regressions estimating the log odds of making tax payments while residing in the United States for migrants from 39 Mexican communities

| | Social Security payments | | | Other federal tax payments | | |
|---|---|---|---|---|---|---|
| | B | SE | exp(B) | B | SE | exp(B) |
| Variable | | | | | | |
| **Legal Status** | | | | | | |
| Illegal | --- | --- | --- | --- | --- | --- |
| Legal | 0.367 | 0.521 | 1.443 | 0.313 | 0.477 | 1.367 |
| Bracero | 1.399** | 0.372 | 4.053 | 0.764* | 0.364 | 2.143 |
| **Period** | | | | | | |
| Before 1965 | --- | --- | --- | --- | --- | --- |
| 1965-1976 | 1.008 | 0.334 | 2.740 | 0.890** | 0.327 | 2.436 |
| 1977-1986 | 1.100 | 0.309 | 3.004 | 0.951** | 0.306 | 2.561 |
| 1987-1994 | 0.972 | 0.350 | 2.644 | 0.615 | 0.348 | 1.849 |
| **Wages** | | | | | | |
| None | (dropped) | | | (dropped) | | |
| <$4.25/hr | --- | --- | --- | --- | --- | --- |
| <$6/hr | 1.014** | 0.272 | 2.757 | 1.006** | 0.269 | 2.734 |
| <$10/hr | 0.752** | 0.276 | 2.121 | 0.807** | 0.274 | 2.261 |
| <$20/hr | 1.068** | 0.381 | 2.910 | 1.271** | 0.368 | 3.566 |
| >=$20/hr | 0.264 | 0.648 | 1.302 | 0.984 | 0.624 | 2.676 |
| missing | 0.982** | 0.269 | 2.671 | 0.999* | 0.266 | 2.661 |
| **Female** | -0.762 | 0.410 | 0.467 | -0.637 | 0.412 | 0.529 |
| **Years of School** | -0.029 | 0.024 | 0.971 | 0.008 | 0.024 | 1.008 |
| **Length of stay** | 0.016** | 0.004 | 1.016 | 0.008** | 0.003 | 1.008 |
| **Presence of family** | | | | | | |
| Spouse | 0.937** | 0.446 | 2.553 | 0.947* | 0.431 | 2.588 |
| Children | -0.405 | 0.422 | 0.667 | 0.182 | 0.411 | 1.200 |
| **English** | | | | | | |
| No English | --- | --- | --- | --- | --- | --- |
| Understands some | 0.497 | 0.266 | 1.644 | 0.163 | 0.248 | 1.177 |
| ", speaks some | 0.869 | 0.674 | 2.384 | 0.559 | 0.607 | 1.749 |
| Understands well | 0.385 | 0.360 | 1.470 | 0.075 | 0.340 | 1.078 |
| ", speaks well | 1.130 | 0.634 | 3.096 | 0.989 | 0.610 | 2.688 |
| English flag | (dropped) | | | -0.331 | 1.299 | 0.718 |
| **Place** | | | | | | |
| Mexico | --- | --- | --- | --- | --- | --- |
| United States | -0.553 | 0.465 | 0.575 | 0.160 | 0.445 | 1.174 |
| **Intercept** | -0.608 | 0.542 | | -0.893 | 0.546 | |
| Chi Square | 132.71 | | | 133.61 | | |
| N | 709 | | | 701 | | |

*p<.05, **p<.01

## Figure 1: Probability of Visiting a Physician



## Figure 2: Probability of collecting unemployment insurance

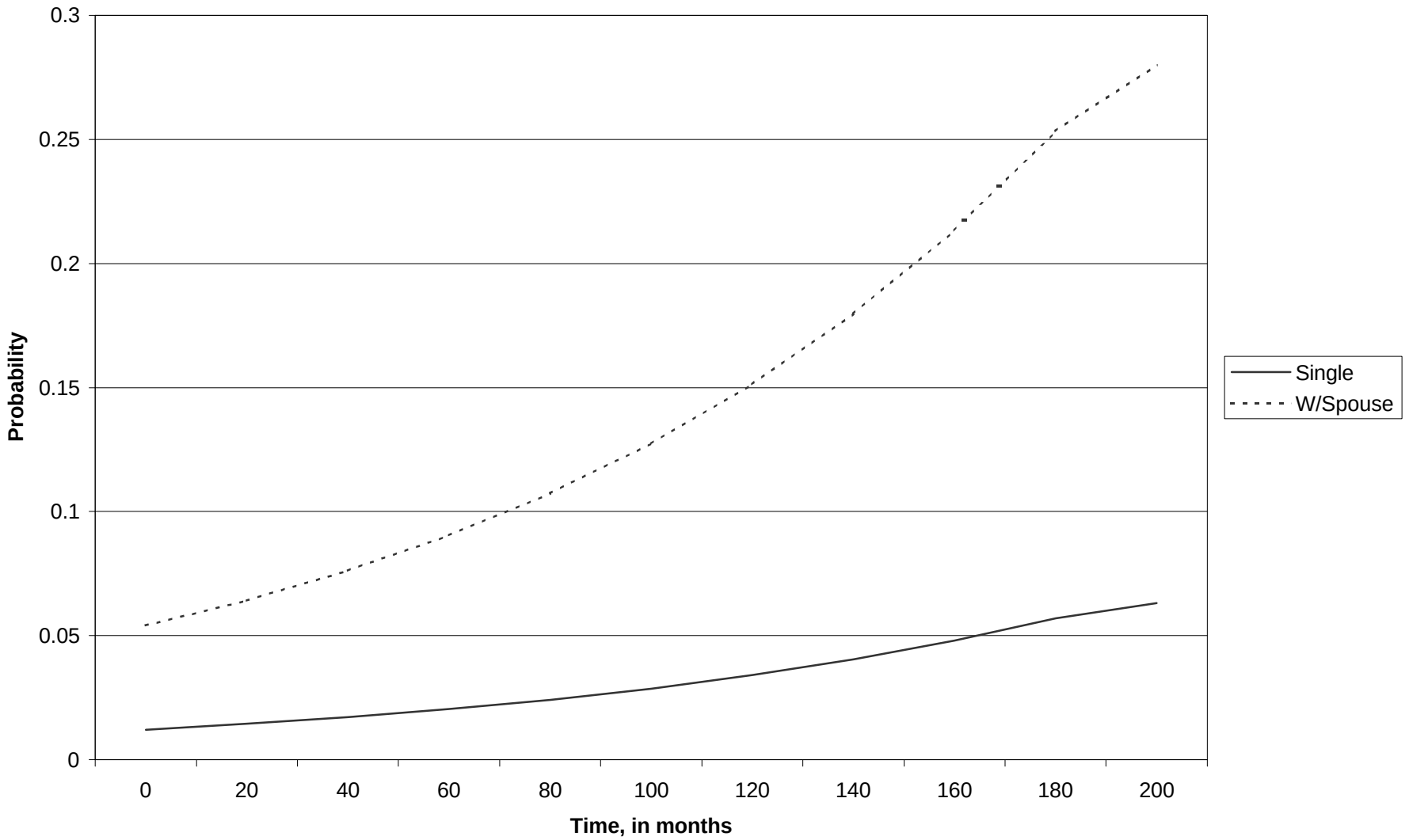
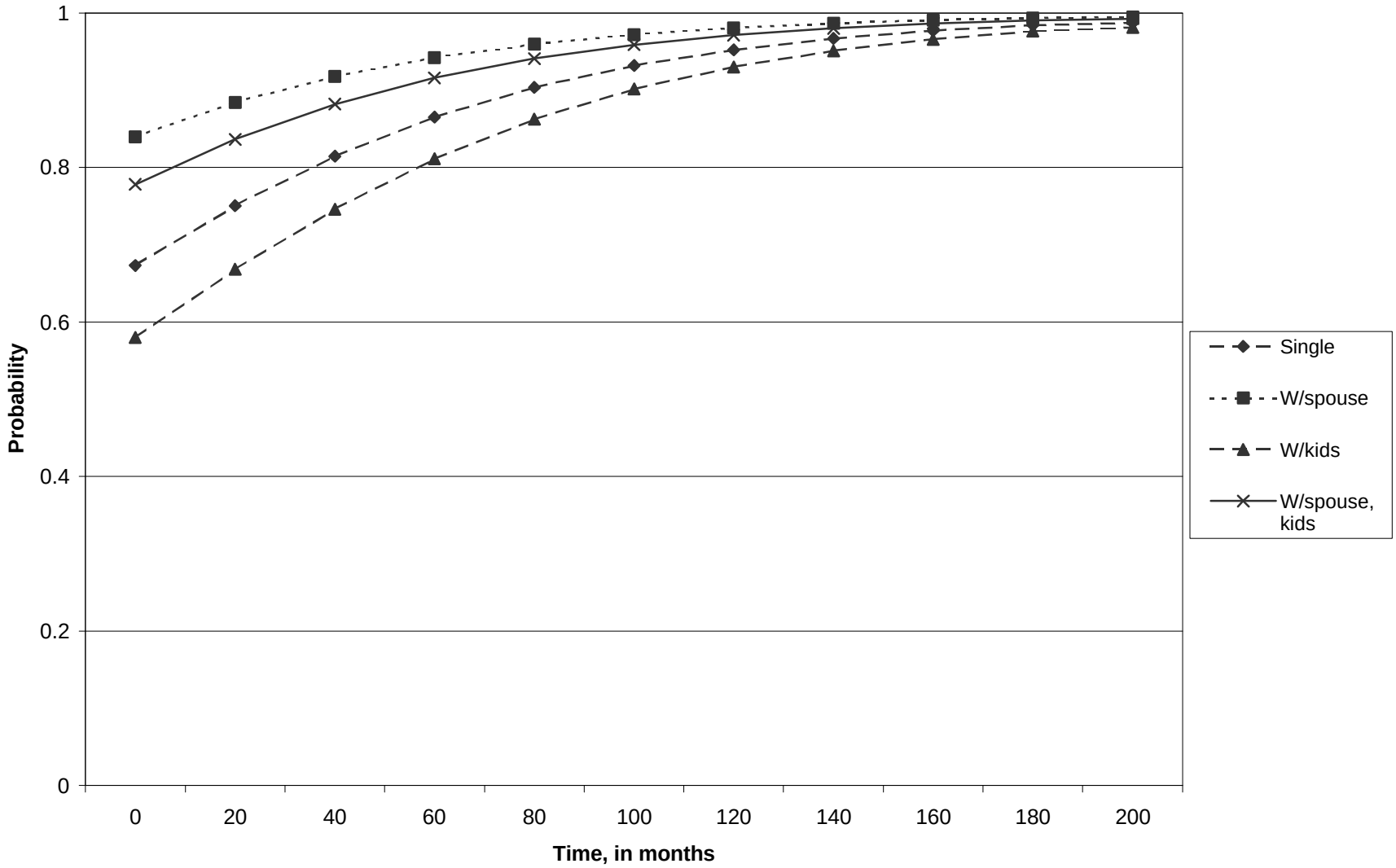


**Figure 3: Probability of paying social security tax**



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