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Contexts of English Language Use among First Generation Immigrants

New Immigrant Survey data are used to consider English use among adult, first generation immigrants. Particular attention is paid to the individual's age at arrival and years in the U.S. The longer immigrants are in the U.S., the more likely they are to use English with friends and at work, suggesting considerable social integration within the first generation. The length of U.S. duration among first generation immigrants has no relationship with the use of English at home or with a spouse. The incorporation of English at home occurs across generations while change outside the home begins in the first generation.

This study considers whether English use among first generation immigrants in different contexts varies the longer they are in the U.S. In general, as immigrants become more integrated into the United States, their use of English increases. They make new friends, expand their social networks, have children enrolled in U.S. schools, move into jobs that require more English, and they marry across linguistic barriers. With this in mind, expanding our existing knowledge of whether the use of English in different settings increases with time in the U.S. provides insight into immigrants' level of integration into society. To explore this issue, I examine the use of English at home, with a spouse, with friends, and at work. As prior research has shown that the process of acculturation may vary by gender, I also look at specifications for men and women separately.

Language use among multilingual individuals is driven by social interactions and the language used will depend on various factors, including one's own ability and the ability of the conversation partner. The first two settings under study, at home and with a spouse, can be thought of as the individual's private sphere and the latter two, with friends and at work, as the public sphere. With this premise, the expectation is that the greatest degree of change within the first generation will be observed in the public sphere. Making new friends or changing jobs are factors that might lead to greater English usage in these areas. Shifts in the private sphere are expected to be largely relegated to generational change because of the unlikelihood that household members will simply switch their language use without a precipitating change in social interaction. The cross-generational change in English use, shown in (Alba et al. 2002; Portes and Rumbaut 2001; Portes and Schauffler 1994), would most likely come from having U.S.-born children in schools where they experience an exposure to English unparalleled in their parents' generation.

The multi-contextual use of English among first generation immigrants is an aspect of integration that has received little attention. This is due in part to data limitations and in part to an a priori expectation that little change would be observed within the first generation. To preview the results in this analysis, age at arrival itself is an important determinant of English use in each context, such that immigrants arriving at older ages are less likely to use English. After including this control, speaking English with friends and at work both increase with time in the U.S., yet the use of English at home and with a spouse show little change. These results suggest that change within the home occurs primarily across generations while change outside the home begins in the first generation. Results also suggest immigrant women with a U.S.-born spouse are substantially more likely than men with a U.S.-born spouse to speak English with their friends.

Public and Policy Concerns

The desire to understand English use patterns is tied to public and policy concerns over the assimilation of recent immigrants. The broad concerns about the recent trends in immigration are synthesized in the following quote from Massey (1995):

"The rapidity of the change and the scale of the movement have led to much consternation about what the 'new immigration' means for American society… Some worry about the economic effects of immigration…Others worry about the social welfare caused by immigrants… Observers also express fears of linguistic fragmentation…" Massey continues to say that the real issue is: "What the public really wants to know…is whether or not the new immigrants will assimilate into the Euro-American society of the United States, and how that society and its culture might change as a result of this incorporation"(Massey 1995).

The dramatic shift in sending countries in the last three decades has increased anxiety over whether immigrants will integrate into American society in the manner observed among previous generations. For instance, of the 705,827 individuals granted permanent residency during 2003, 14 percent were from Europe, 35 percent were from Asia, and 32 percent were from Central and South America (including Mexico); 16 percent were from Mexico alone. The top five sending countries of immigrants in recent years have been Mexico, India, the Philippines, China, and the Dominican Republic. Further highlighting this dramatic shift, in 1960, 75 percent of the foreign-born were from Europe. By 1990 that number had declined to 22 percent. Conversely, the percent of the foreign-born from Asia in 1960 was five and in 1990 it was 25. For individuals from Latin America and the Caribbean, the percent went from nine to 43 in the same years (Gibson and Lennon 1999).

These concerns are due in part to the lower average education levels of many of the source countries and to the greater propensity of several of these ethnic groups to be geographically clustered (Massey 1995). This clustering reinforces the fear that immigrants will remain disadvantaged, have low socioeconomic mobility, and be more likely to rely on public assistance. Further, it is thought that residence in ethnically concentrated neighborhoods will reduce the probability of learning English by reducing the costs of a lack of proficiency (McManus 1990). The association between English proficiency and earnings has been well demonstrated (McManus 1985, 1990; McManus et al. 1983; Tainer 1988; Trejo 1997). McManus has placed the cost of English deficiency as ranging from $19,000 for the individual closest to fluency to $36,000 for the least fluent (1985).[1]

[1] McManus' article was written in 1985. In 2005 dollars, this range extends from $33,718 to $63,887.

Many U.S. natives also have a normative expectation that immigrants should *want* to become part of the mainstream American society. This idea is captured in the following excerpt from a series that appeared in the Washington Post:

> "Not only are the demographics of the United States changing in profound and unprecedented ways, but so too are the very notions of assimilation and the melting pot that have been articles of faith in the American self-image for generations. *E Pluribus Unum* (From Many, One) remains the national motto, but there no longer seems to be a consensus about what that should mean. There is a sense that, especially as immigrant populations reach a critical mass in many communities, it is no longer the melting pot that is transforming them, but they who are transforming American society" (Branigan 1998).

Regardless of which of the above arguments is adhered to, knowledge of patterns of English use among recent, first generation immigrants can provide perspective on these issues and inform our understanding of the social integration of the first generation.

BACKGROUND AND PREVIOUS WORK

Although previous work has looked at determinants of English *proficiency* among adult immigrants, this is the first study to pay specific mind to the English *use* patterns of first generation adults in multiple contexts. This review will broadly cover two areas, each with a focus on the United States. The first is the substantially larger body of work in which English proficiency has been considered as an outcome. The second is on the relatively small body of work where English use is considered as a dependent variable. I do not review the vast and varied works in which English proficiency or use is used as an independent variable as they are not directly relevant for the current study.

English Proficiency

Several researchers have used census or Current Population Survey (CPS) data to determine English proficiency. Espenshade and Fu used CPS data to examine this outcome and found evidence supporting the importance of age at immigration and duration in the U.S. (1997). Similar findings have been made in several works using census data by Stevens (1991; 1999a; 1999b) and Grenier (1984). Also using census data, Dávila and Mora use census data and find a substantial increase in English skills among Hispanics after five years in the U.S. (Dávila and Mora 2000). Carliner also found that each additional year in the U.S. was associated with a corresponding 1.1 percentage point increase in the probability of fluency (Carliner 2000). Specific studies of Mexicans have found that English proficiency with this group rises with exposure to the U.S. and that there is little variation in proficiency by the individual's destination choice (Espinoza and Massey 1997; McConnell and LeClere 2002).

English Use

In one of the early works in this area, Veltman uses data from the 1976 Survey of Income and Education (SIE) and finds evidence of a rapid move to English among the foreign-born (1988). Stevens also used the SIE to consider the influence of individual and demographic factors on language use, finding evidence supporting the effects of both (Stevens 1992). More specifically, she found that the demographic effects largely operate through their influence on the probability that non-native English speaking individuals will marry someone who shares their native language. An important distinction between the current work and those using the SIE is that the SIE only asks respondents about usual language usage and does not distinguish between contexts. Looking across generations, Alba et al. used census data to consider English use at home among various ethnic groups (2002). They find rates of transition similar to those

observed among earlier waves of immigrants, almost exclusive use of English in the third generation. In their studies of second generation adolescents, Portes and co-authors found that English knowledge and preference was almost universal (Portes and Hao 1998; Portes and Schauffler 1994). The current study extends previous work by examining English use patterns among first generation adults in four contexts, more than has been available in any previously available large scale dataset. The premise of this analysis is that context matters for a nuanced understanding of assimilation in the public and private lives of immigrants.

DATA & METHODS

Sample

The data used for this study come from the New Immigrant Survey (NIS). This study was based on a probability sample of immigrants who were granted permanent residency between May and November of 2003. The survey methodology for the adult sample used four strata: spouses of U.S. citizens, employment principals, diversity principals, and other immigrants (Jasso et al. *forthcoming*).[2] Unique to the NIS is that the interview was conducted in the language of the respondent's choice (see Jasso et al. *forthcoming* for a full description). The present investigation uses the adult sample, which was restricted to individuals who were at least 18 years old at the time of admission. In order to carry out the analysis, the sample had to be restricted in several ways. Most importantly, studying of the use of English precludes individuals whose native language is English. For current purposes, that means excluding respondents who had either of the following traits: never having spoken a language other than English; reported English as one of the languages spoken in their home when they were 10 years old. The presence of either characteristic would suggest English as a native language. These exclusions, combined with observations missing values on one or more of the variables used in

[2] All descriptive characteristics presented are weighted with sampling weights.

the analysis, brought the sample size to 6,673 from 8,575. For the sections of the analysis considering the use of English at work, only individuals currently employed were included, yielding 3,958 cases and for those considering English use with a spouse, only married respondents were considered, yielding 4,513 observations.

Dependent Variables

The four areas of language use considered in this study are at home, with a spouse, with friends, and at work. The survey questions (shown in Appendix A, Table 1) asked individuals about the language they spoke in each context, allowing the respondent to list multiple languages. For the multinomial probit specifications (MNP) in Tables 4, 9, and 10, I consider the following three levels of English usage: no English, some English, or English only. No English is coded for individuals who did not list English as one of the language used in the specified context. Some English is for respondents who reported English as one of the languages used, and English only indicates respondents who reported only English used in the specified context. For all Figures and Tables other than 4, 9, and 10, a single indicator of some English spoken is used. This takes a 1 for all respondents reporting English as one of the languages used, 0 otherwise.

Independent Variables

Following previous work, the two key variables in the analysis are age at arrival in the U.S. and years of U.S. experience (Stevens 1999a; Veltman 1981).

Age at Arrival and Years in the U.S.

We might expect that immigrants who arrive at older ages would be more likely than younger arrivals to restrict their contact in all contexts to coethnics. They may feel there is less incentive personally to incorporate English and less cost economically to maintain interactions in

their native language. This anticipation suggests two testable hypotheses. First, levels of English use upon arrival among this group will be the lowest observed among the age at arrival categories. Second, this leads to the prediction that the slope the line for their predicted probability of English use, when plotted against years in the U.S. will be flat, suggesting little change as years in the U.S. accumulate. Conversely, we expect an upward slope as time in the U.S. increases for other age at arrival groups.

Years of U.S. experience is included as a main effect and as a quadratic as additional work (not shown here) indicated the relationship to English use was nonlinear. The measure of U.S. experience used in this work is a cumulative measure of the respondent's years, a measure which has theoretical and empirical advantages over the usual question of when the immigrant 'came to the U.S. to stay' (Redstone and Massey 2004). The measure of age at arrival is taken as the difference between the individual's current age and this cumulative measure of U.S. experience. This assumes that an immigrant's first exposure to the U.S., and not only the most recent exposure, may influence the probability of English use. In any case, the vast majority (95%) of respondents report only one trip to the U.S., indicating little cause for debate over whether the time accrued on prior trips should be included in the measure.

Demographic, Background, and Household Characteristics

Indicators for gender and for whether the individual is married are included to allow for the possibility that women and married immigrants have different English use patterns than men and single individuals. Differences between men and women are further explored with the separate specifications.

As English use is highly correlated with English ability, an indicator for spoken English proficiency is included. This is generated from the respondent's self-reported assessment and

takes a 1 if the individual reported her ability to speak English as 'well' or 'very well'. A continuous measure of years of education is included as immigrants with more education may be more likely to utilize English in any context. I include two family characteristics, both thought to be linked to language use. The analysis includes an indicator for whether the individual's spouse was born in the U.S. This has been shown to be strongly linked to English use, particularly at home (Alba et al. 2002; Stevens 1985; Veltman 1981). Lastly, an indicator for the number of children in the household under the age of five is added as the presence of young children may influence the parents' English use in ways that are difficult to foresee.

Methods

The analytical methods used in this analysis are multinomial probit (Table 4, 9, and 10), univariate probit (Table 2, 5, and 6), and bivariate probit (Table 3, 7, and 8). All multivariate results are presented as marginal effects, estimated as $\frac{\partial P(x)}{\partial x_i}$. The result of this partial derivative is the change in the probability of the outcome for an incremental change in the explanatory variable x_i, evaluated at the mean. For dummy variables, the marginal effect is calculated for a discrete change from 0 to 1.

RESULTS

Descriptive Statistics

Table 1 displays descriptive statistics for the full sample and for men and women separately. Only eight percent of respondents report speaking only English at home, suggesting the rarity of this pattern among immigrants. Fifty-nine percent of respondents report speaking *no* English at home and more than three-fourths report speaking *some* English at work, marking a substantial difference in the two settings. A substantial number (13 percent) report speaking only English with friends and a full 87 percent speak no English with their spouse. Based on

these figures, speaking English with a spouse is the least likely context of usage among first generation immigrants, followed by at home, with friends, and at work. The differences with the largest magnitude for men and women are in years of U.S. experience, age at arrival, and years of education in which men arrive younger, have spent more time in the U.S., and have more education.

The average age at arrival for respondents is 35 years old, with a mean length of residence of about four and a half years in the U.S. Women tend to be slightly younger on average, 34 instead of 35, and have about four months fewer of U.S. experience. Slightly less than half of the sample is women and just under three-fourths (71 percent) are married. Just under half (48 percent) report proficiency in spoken English. About eight percent report having a spouse who was born in the U.S. and the average household has less than one child under the age of five.

Predicted Probabilities

All of the prediction equations for the Figures contain the same covariates as observed in Table 2 with the exception of age at arrival, as it is by this characteristic that the graphs are stratified. Figure 1 displays the predicted probabilities of English use in each context. For each context, an older age at arrival is associated with a lower probability of English use, after controlling for the other covariates. The variation in levels across groups tells a different story than that obtained by simply looking at how each predicted probability fares as age at arrival increases. The predicted probabilities of English use with friends and at home follow a similar pattern, starting between 0.5 and 0.6 and steadily declining as age at arrival increases. Not surprisingly given the proportions in Table 1, the predicted probability of speaking English with a spouse starts low (0.1) and declines from there. The probability of speaking English at work is

substantially higher than the other three contexts at all points, although it too declines with age at arrival, a result not necessarily expected. There are probably few jobs that require no English at all, perhaps only those that are simultaneously embedded in an economic community of coethnics and require no interaction with the public. The observed result could be interpreted as an increased likelihood that immigrants who arrive at older ages will hold these types of jobs. This may be the case given that individuals arriving at ages 40 and higher have levels of English proficiency (27 percent) that are substantially lower than immigrants arriving at younger ages (61 percent for those arriving under age 20 and 55 percent for those arriving between 20 and 39).

Figure 2 displays predicted probabilities of English use at home by years in the U.S. The youngest age at arrival group starts at the highest level (probability of 0.5), yet exhibits little change over years in the U.S. The oldest arrival group shows some increase in use over years in the U.S., yet their levels are consistently the lowest. The steepest growth is seen for individuals in the middle age at arrival category. If some of these individuals, many of whom arrived in their childbearing years, had children shortly after arrival in the U.S., an increase in the use of English might be observed as the children grow up and use English more at school, therefore incorporating it into their home lives.

Figure 3 shows the same predicted probabilities for English use with a spouse. In this case, the patterns for the youngest and the oldest groups are similar; they are both flat trends at low levels, not crossing 0.10. This pattern is consistent with the theory presented earlier that suggests that English use in the private sphere changes across, not within, generations. Interestingly, for immigrants who arrive between 20 and 39, there is a clear and substantial increase in the probability of speaking English with their spouse. Although the prediction equations control for having a spouse who was born in the U.S., further investigation indicates

that this slope almost entirely flattens out if an indicator for marrying prior to coming to the U.S. is included. It appears that marrying after coming to the U.S. is associated with a higher probability of English use with a spouse even if the spouse is not a U.S. native. With the inclusion of this indicator, the predicted probabilities for the other two age at arrival groups remain unchanged.

Figure 4 indicates that the patterns of English use among friends observed among individuals arriving between 0 and 19 and 20 and 39 are almost indistinguishable. They both begin with a predicted probability between 0.4 and 0.5 and experience a fairly steady increase after arrival. Although immigrants arriving after age 39 have the lowest levels of English use with friends, it is important to note that they also experience a substantial increase in this probability over time. This is consistent in part with the hypotheses presented earlier, which predicted that the levels for oldest arrivals would be the lowest of the three groups. However, the slope also suggests substantial change over time for individuals arriving after age 39. At the time of arrival, their probability of speaking English with friends is about 0.19, yet after 20 years in the United States, that same probability increases to 0.45. These patterns suggest substantial integration in the social networks of individuals arriving at all ages.

Figure 5 shows similar probabilities for English use at work. In this case, the probabilities begin high for all age at arrival groups and growth is slight. There is some notable variation upon first arrival such that the probability for individuals who arrived between 20 and 39 have approximately a 0.1 higher probability than those who arrived at the youngest ages. Arrivals at the oldest ages have lower English usage at work at all points, yet even for this group, their lowest point is high at 0.69 and they experience an increase in the probability of using

English at work as years in the U.S. accumulate. These high levels reflect the fact that most jobs require some English usage, whether it is to communicate with the public or with co-workers.

Pooled Results

Table 2 displays marginal effects from probit regressions predicting English use in each setting. After controlling for years in the U.S., age at arrival has a negative association with English use in each specification. Notably, with the control for age at arrival, the association between years in the U.S. and English use at home and with spouse is not statistically significant. This indicates that household English use is set by life course patterns associated with age at arrival rather than by the years the individual has been in the U.S. All else equal, individuals with higher levels of education are more likely to use English in all four contexts. However, the magnitude of this relationship varies from a 0.5 percent increase in the probability of using English with a spouse for each additional year of education to a 2.9 percent increase in the probability of speaking English with friends for each additional year of education. Married individuals have lower usage of English at home and with friends, yet if their spouse was born in the U.S., the individual is 37 percent more likely to speak English at home, 15 percent more likely to speak it with friends, and 48 percent more likely to speak English with their spouse. Nativity of the spouse is not associated with a higher probability of English use at work, a trait that is more tightly linked to other characteristics, such as time in the U.S., years of education, sex, U.S. experience, and age at arrival. Notable is the fact that the pseudo R^2 value as a rough goodness-of-fit measure suggests that the most variance is explained predicting English use with a spouse. A comparison of specifications including the indicator for whether the spouse was born in the U.S. and without indicates that this explanatory power more than doubles (from 0.188 to 0.396) with the addition of this variable.

Table 3 displays rho coefficients from bivariate probits. The bivariate specification jointly estimates the decisions to use English in each combination of contexts. Rho is interpreted as the relationship between the unmeasured effects on the two outcomes. A positive ρ indicates that the unmeasured characteristics exhibit a similar influence on each outcome while a negative ρ indicates divergent influences.[3] One characteristic of Table 3 is that all of the coefficients are positive, indicating that the influence of unmeasured characteristics on English use is exerted in the same direction on all four contexts. Not surprisingly, given that they are both household measures, the strongest correlation is between English use at home and English use with spouse (0.68). Also strong are the correlations between English with friends and its use at work and at home. As many individuals likely make their friends through work (or obtain the job through friends), it is not unexpected to see a strong link between these two contexts. The strength of the relationship between the home use of English and its use with friends is curious. It may be that these contexts of English use are most closely linked to the individual's level of acculturation or integration, one of the unmeasured characteristics. The lowest observed ρ coefficient is for English use with friends and with a spouse, yet even in this case, the correlation is not inconsequential at 0.40. The results clearly suggest that English use among immigrants is not contextually compartmentalized. Its use in one aspect of an individual's life is tied to other areas as well.

[3] A concise explanation is provided by Chiswick et al (2004, p. 20-21) in their study of English use within families. "The interpretation of ρ is that it captures the correlation between the effects of unobservables in the models of language skills of two people. Consider a household where the husband had a relatively high ability for learning English. Under positive assortative mating, this implies similar characteristics for the spouse. As this ability is not a measured variable in this analysis, its influence will be captured via the error terms in the estimating equations for both male and female partners, and a positive correlation between the error terms for partners would therefore be expected. Alternatively, a model where comparative advantage leads to specialization might see above average English skills of the husband being associated with below average English skills of his female partner, measured variables held constant. A negative correlation between the disturbance terms in the equations would be observed. One spouse may then serve as the translator for the other."

Table 4 presents marginal effects from multinomial probit analyses. The outcomes predicted for each context are no English use and exclusive English use. The omitted category is some English in each setting. The motivation behind this Table is to explore the correlates of these two extreme categories. Results indicate that, for each context, coming to the U.S. at an older age is associated with a higher probability of using no English. For all settings except at home, arriving in the U.S. at older ages is also associated with a lower probability of the exclusive use of English. An unexpected result is that having a U.S.-born spouse is associated with a significantly lower probability of exclusive English use at work. An a priori expectation for this relationship might have been that the nativity of the spouse would not significantly influence in one way or another the probability of English use in the work environment. The fact that it is negative and significantly associated with a lower probability of speaking exclusively English at work, relative to some English, suggests an interesting process at work among the immigrant spouses. Individuals with U.S.-born spouses may be selecting into jobs with a linguistically diverse workplace or they may simply be seeking out linguistic coethnics. This is an interesting possibility, meriting further study, yet remains outside the scope of this paper.

Gender Specific Results

Tables 5 and 6 indicate similar predictive patterns for men and women with respect to the use of English in each of the four contexts. Several of the marginal effects have similar significance levels and similar magnitudes for men and women. For instance, having a spouse who was born in the U.S. increases the probability of speaking English at home by 35 and 38 percent for men and women respectively. Further, an additional year of education is associated with increases of 50 and 52 percent for men and women and both groups experience an increase in the probability of speaking English with friends over time. Despite these clear similarities,

there are also important differences. For instance, the friendship networks of immigrant women are substantially more sensitive to having a U.S.-born spouse than are those of men. A female immigrant married to a U.S. native is 18 percent more likely to speak English with friends, while the associated increase for a male immigrant married to a U.S. native is only 8 percent. An additional important difference is that, after controlling for age at arrival, the probability of men speaking English at work increases with time in the U.S., whereas that is not the case for women.

Tables 7 and 8 contain the bivariate probit rho coefficients, similar to Table 3, also separated for men and women. In examining the two groups, the magnitude of many of the correlations is quite similar. For instance, speaking English at home and with friends are moderately correlated for men and women with ρ coefficients of 0.529 and 0.531 respectively. The largest differences in magnitude are for the correlations between speaking English with a spouse and speaking English with friends (0.361 for men and 0.440 for women) and speaking English with a spouse and speaking English at work (0.317 for men and 0.521 for women). Consistent with Tables 5 and 6, this suggests that immigrant women's language-based connection to their spouses is more closely linked to other aspects of her life than is the case for immigrant men, who are slightly more compartmentalized in their language use.

Tables 9 and 10 present results predicting the level of English use, similar to Table 4, for men and women separately. Looking first at the degree of English use at home, it is noteworthy that women's probability of speaking only, relative to some, English at home increases the longer they remain in the U.S. However, this probability is decreased by the presence of young children in the household. In predicting the level of English use with friends, many of the marginal effects are similar across genders, with a couple of important exceptions. An interesting twist on the pattern observed in Tables 5 and 6 regarding having a spouse born in the

U.S. and speaking English with friends, is that the probability of speaking *only* English with friends, relative to *some* English, is increased more for men than for women by having a U.S. born spouse. Moving to a comparison of usage levels at work, it is clear from the measure of years in the U.S. that the probability of English usage in this context increases for men. Men may experience greater occupational mobility or job changes than women do, thus making the likelihood that one of those jobs will require some English more likely. Finally, for the levels of English use with a spouse, the marginal effects differ little for men and women. In both cases, the outcomes are primarily determined by having a U.S.-born spouse.

DISCUSSION

Using the terms English and immigrants together in a sentence can lead to contentious discussions among advocacy groups in the United States, with English-as-an-official-language advocates on one side and pro-immigrant advocacy groups often on another. Many people feel apprehensive and resentful at what they perceive as the possibility that recent immigrants will not learn English or integrate into U.S. society. This uneasiness is nested amid larger concerns driven by the increased volume of immigration and the changing composition of sending countries in the late 20th century.

Immigration at the end of the twentieth and the beginning of the twenty-first centuries has been dominated by individuals from Asia and Latin America, bringing about a compositional change which substantially differs from that of earlier waves of immigrants, who were mostly from Europe. Much of the public concern is rooted in the lower average education levels in many of the sending countries and the individuals' apparent likelihood to reside in ethnically concentrated neighborhoods. This raises alarms for some U.S. natives about the economic welfare of these immigrants, whether they will place a financial burden on the native population,

whether they will integrate or create a permanently fractured group, and whether they will learn English. For all of these reasons, the study of English use among recent immigrants is both timely and relevant as it provides key insight into integration levels.

The foregoing analysis has presented evidence that, within the public sphere, substantial change occurs in the probability of speaking English with friends and at work. This indicates significant social integration occurring even within the first generation. Conversely, the lack of a significant relationship between years in the U.S. and English use at home or with a spouse suggests that change in the private sphere occurs primarily across generations. The findings presented may assuage some of the concerns mentioned earlier in the paper in that they show considerable change in use of English outside the home within the first generation. Future studies should incorporate residential context. Specifically, being able to carry out an empirical investigation of how ethnically-concentrated neighborhoods influence language behavior and choice will continue to illuminate this work.

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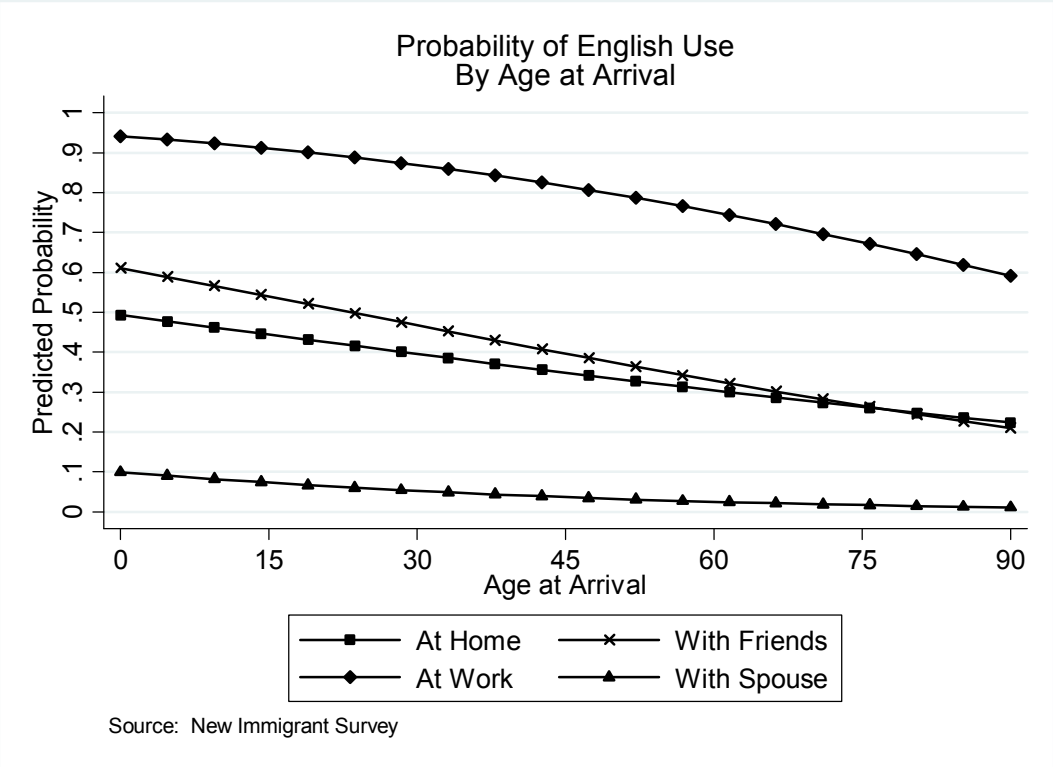
Figure 1.



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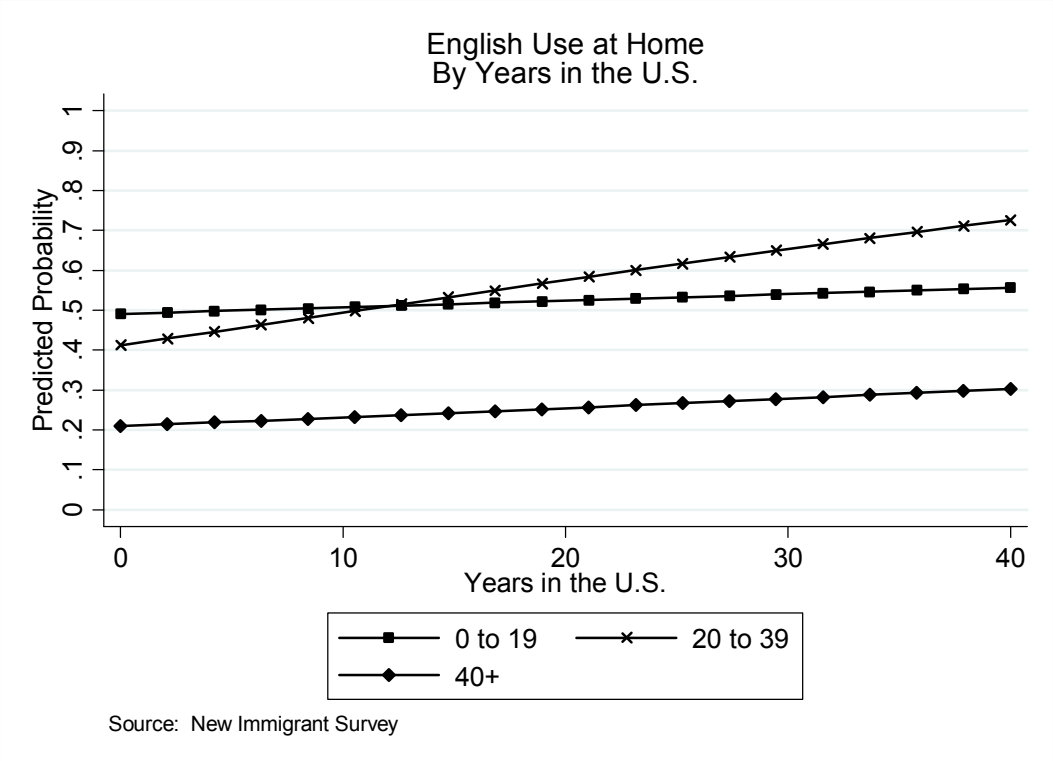

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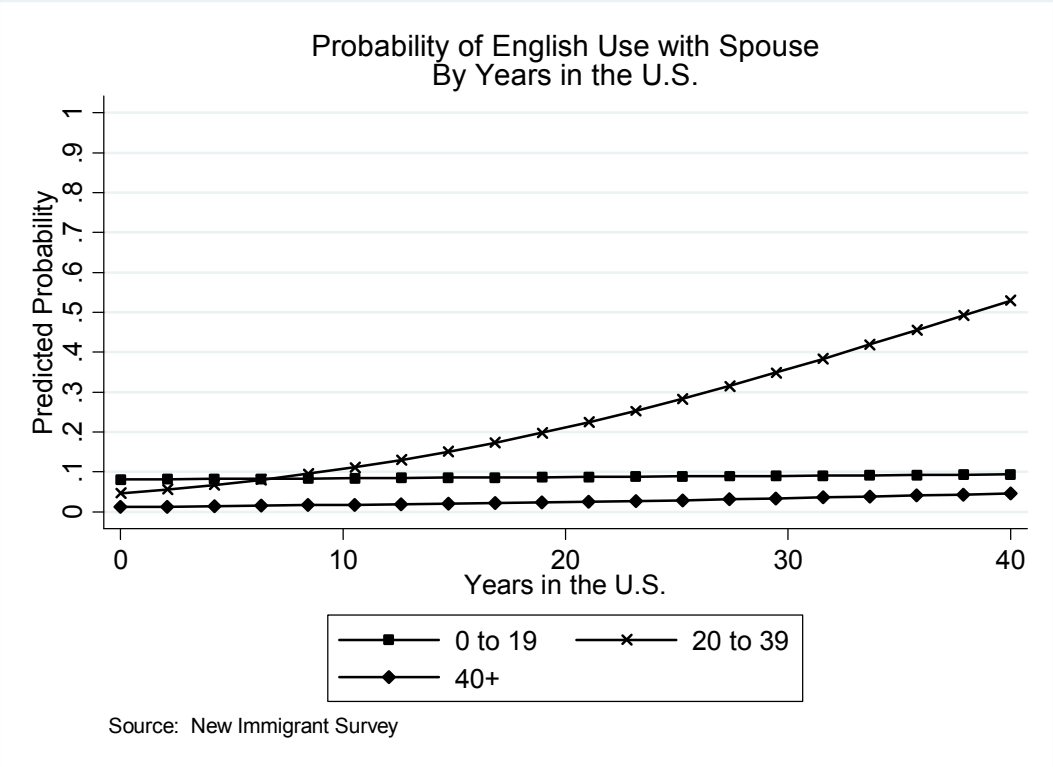

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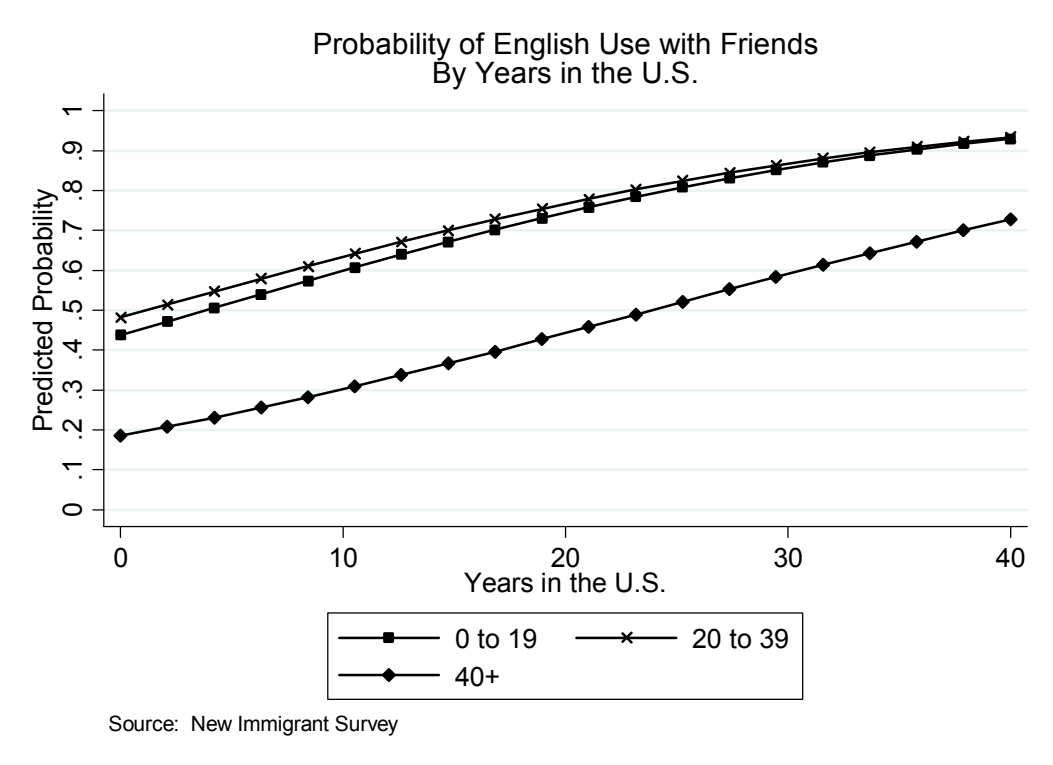

Figure 5.

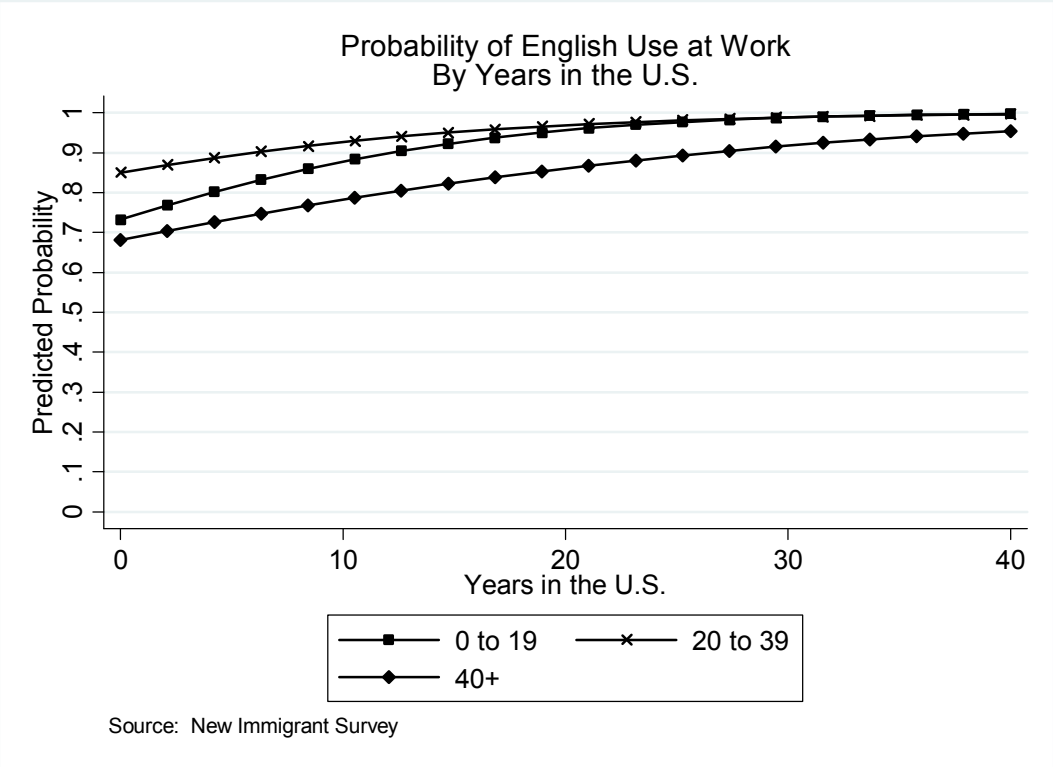
Probability of English Use at Work
By Years in the U.S.
Predicted Probability
0
.1
.2
.3
.4
.5
.6
.7
.8
.9
1
0
10
20
30
40
Years in the U.S.
0 to 19
20 to 39
40+
Source: New Immigrant Survey

Table 1. Descriptive Statistics of the Sample

Dependent Variables	Men	Women	Difference	Full Sample
At Home^{+++}				
No English	0.568	0.625	-0.057	0.594
Some English	0.347	0.298	0.049	0.324
Only English	0.085	0.077	0.008	0.082
With Spouse^{++}				
No English	0.879	0.864	0.015	0.872
Some English	0.010	0.020	-0.001	0.014
Only English	0.112	0.116	-0.004	0.113
With Friends^{+++}				
No English	0.466	0.597	-0.131	0.527
Some English	0.379	0.297	0.082	0.341
Only English	0.155	0.106	0.049	0.132
At Work^{+++}				
No English	0.190	0.253	-0.063	0.212
Some English	0.364	0.321	0.043	0.349
Only English	0.447	0.426	0.021	0.440
Independent Variables				
Age at Arrival	33.890	35.311	-1.421***	34.551
	(0.244)	(0.266)		(0.180)
Years in the U.S.	4.776	4.450	0.326**	4.625
	(0.110)	(0.109)		(0.078)
Female	--	--	--	0.465
	--	--		(0.006)
Married	0.721	0.691	0.030***	0.707
	(0.008)	(0.008)		(0.006)
Speaks English Well/Very Well	0.534	0.409	0.125***	0.476
	(0.009)	(0.009)		(0.006)
Years of Education	13.286	11.723	1.563***	12.559
	(0.088)	(0.091)		(0.064)
Spouse Born in the U.S.	0.068	0.108	-0.040***	0.087
	(0.005)	(0.005)		(0.004)
Number in Household Under Five	0.300	0.315	-0.015	0.307
	(0.010)	(0.011)		(0.007)
N	3227	3446		6673

Note: All descriptive statistics are weighted using sample weights. Standard errors in parentheses. Asterisks indicate significant differences at the 10, 5, and 1% levels. + signs indicate a statistically significant Wald chi-squared test at the 10 (+), 5 (++), and 1 (+++) % levels.

Table 2. Probit Regressions Predicting English Use in Four Contexts

	At Home	With Spouse	With Friends	At Work
Age at Arrival	-0.003***	-0.001***	-0.005***	-0.003***
	(0.001)	(0.000)	(0.001)	(0.001)
Years of U.S. Experience	0.003	0.001	0.013***	0.007***
	(0.003)	(0.001)	(0.003)	(0.002)
Years of U.S. Experience Squared	-0.000	-0.000	-0.001***	-0.000**
	(0.000)	(0.000)	(0.000)	(0.000)
Female	-0.011	0.010	-0.068***	-0.033***
	(0.013)	(0.006)	(0.015)	(0.012)
Married	-0.046***	--	-0.051***	0.011
	(0.015)	--	(0.017)	(0.013)
Speaks English Well or Very Well	0.385***	0.135***	0.514***	0.278***
	(0.013)	(0.011)	(0.013)	(0.015)
Years of Education	0.011***	0.005***	0.029***	0.017***
	(0.002)	(0.001)	(0.002)	(0.001)
Spouse Born in the U.S.	0.370***	0.480***	0.149***	-0.001
	(0.022)	(0.026)	(0.026)	(0.022)
Number of Children Under 5 in Household	0.018	-0.001	-0.013	0.005
	(0.012)	(0.005)	(0.013)	(0.011)
Observations	6673	4513	6673	3958
Pseudo R^2	0.205	0.396	0.355	0.288
Log Likelihood	-3576.398	-1049.639	-2976.177	-1453.654
Degrees of Freedom	9	8	9	9

Standard errors in parentheses. * significant at 10%; ** at 5%; *** at 1%.

Results are marginal effects.

Table 3. Bivariate Probit Correlations (ρ coefficients)

	Speaks English at Home	Speaks English with Friends	Speaks English at Work	Speaks English with Spouse
Speaks English at Home	1	0.529	0.491	0.682
		(0.019)	(0.023)	(0.027)
Speaks English with Friends	-	1	0.599	0.403
			(0.021)	(0.039)
Speaks English at Work	-	-	1	0.420
				(0.052)
Speaks English with Spouse	-	-	-	1

Table 4. Multinomial Probit Predicting Levels of English Use in Various Contexts

Reference Category: Speaking Some English in the Specified Context	At Home		With Spouse		With Friends		At Work	
	No English	Only English	No English	Only English	No English	Only English	No English	Only English
Age at Arrival	0.003***	-0.000	0.001***	-0.002***	0.005***	-0.001***	0.003***	-0.003***
	0.001	0.003	0.000	0.000	0.001	0.000	0.000	0.001
Years in the U.S.	-0.002	0.003**	-0.001	-0.000	-0.012***	-0.001	-0.007***	-0.004
	0.003	0.001	0.001	0.001	0.003	0.002	0.002	0.004
Years in the U.S. Squared	0.000	-0.000**	0.000	-0.000	0.001***	-0.000	0.000***	-0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Female	0.011	-0.001	-0.008	0.004	0.067***	-0.026***	0.030**	0.019
	0.013	0.004	0.006	0.005	0.015	0.008	0.013	0.018
Married	0.044***	-0.031***	--	--	0.050***	-0.024**	-0.013	0.035*
	0.015	0.006	--	--	0.017	0.009	0.014	0.021
Speaks English Well/Very Well	-0.381***	0.092***	-0.128***	0.120***	-0.512***	0.198***	-0.282***	0.372***
	0.014	0.007	0.010	0.010	0.013	0.010	0.015	0.018
Years of Education	-0.011***	0.004***	-0.004***	0.004***	-0.029***	0.008***	-0.019***	0.022***
	0.002	0.001	0.001	0.001	0.002	0.001	0.002	0.002
Spouse Born in the U.S.	-0.381***	0.298***	-0.461***	0.345***	-0.149***	0.091***	0.009	-0.143***
	0.023	0.022	0.027	0.026	0.027	0.018	0.023	0.029
Number in Household Under Five	-0.020*	-0.017***	0.001	-0.002	0.014	-0.004	-0.005	0.006
	0.011	0.004	0.004	0.004	0.013	0.007	0.011	0.016
Observations	6673		4513		6673		3958	
Log Likelihood	-4745.771		-1214.014		-4759.984		-3383.051	
Wald Chi^2	1722.92		849.22		2504.33		1188.83	
Degrees of Freedom	18		16		18		18	

Results are marginal effects.

Table 5. Probit Regressions Predicting English Use in Four Contexts, Men Only

	At Home	With Spouse	With Friends	At Work
Age at Arrival	-0.004***	-0.001***	-0.005***	-0.003***
	(0.001)	(0.000)	(0.001)	(0.001)
Years of U.S. Experience	-0.001	-0.000	0.017***	0.009***
	(0.004)	(0.002)	(0.005)	(0.003)
Years of U.S. Experience Squared	-0.000	-0.000	-0.001***	-0.000**
	(0.000)	(0.000)	(0.000)	(0.000)
Married	-0.047**	--	-0.033	0.010
	(0.023)	--	(0.025)	(0.018)
Speaks English Well or Very Well	0.380***	0.113***	0.497***	0.238***
	(0.019)	(0.013)	(0.018)	(0.018)
Years of Education	0.011***	0.005***	0.027***	0.015***
	(0.002)	(0.001)	(0.003)	(0.002)
Spouse Born in the U.S.	0.354***	0.428***	0.079*	-0.033
	(0.036)	(0.043)	(0.043)	(0.033)
Number of Children Under 5 in Household	0.016	0.006	-0.024	-0.007
	(0.017)	(0.006)	(0.018)	(0.012)
Observations	3227	2226	3227	2381
Pseudo R^2	0.177	0.329	0.318	0.255
Log Likelihood	-1812.800	-539.799	-1521.204	-859.340
Degrees of Freedom	8		8	8

Standard errors in parentheses. * significant at 10%; ** at 5%; *** at 1%

Results are marginal effects.

Table 6. Probit Regressions Predicting English Use in Four Contexts, Women Only

	At Home	With Spouse	With Friends	At Work
Age at Arrival	-0.003***	-0.001*	-0.004***	-0.004***
	(0.001)	(0.000)	(0.001)	(0.001)
Years of U.S. Experience	0.007*	0.002	0.009**	0.006
	(0.004)	(0.002)	(0.004)	(0.004)
Years of U.S. Experience Squared	-0.000	-0.000	-0.000**	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Married	-0.038*		-0.062***	0.015
	(0.020)		(0.022)	(0.021)
Speaks English Well or Very Well	0.393***	0.162***	0.520***	0.340***
	(0.019)	(0.018)	(0.018)	(0.024)
Years of Education	0.012***	0.003***	0.029***	0.019***
	(0.002)	(0.001)	(0.003)	(0.003)
Spouse Born in the U.S.	0.377***	0.514***	0.180***	0.030
	(0.029)	(0.033)	(0.033)	(0.031)
Number of Children Under 5 in Household	0.021	-0.011	-0.002	0.041*
	(0.016)	(0.007)	(0.017)	(0.022)
Observations	3446	2287	3446	1577
Pseudo R^2	0.230	0.459	0.378	0.333
Log Likelihood	-1759.462	-503.722	-1449.902	-586.563
Degrees of Freedom	8		8	8

Standard errors in parentheses. * significant at 10%; ** at 5%; *** at 1%

Results are marginal effects.

Table 7. Bivariate Probit Correlations (ρ coefficients), Men Only

	Speaks English at Home	Speaks English with Friends	Speaks English at Work	Speaks English with Spouse
Speaks English at Home	1	0.529 (0.027)	0.497 (0.033)	0.666 (0.040)
Speaks English with Friends	-	1	0.610 (0.030)	0.361 (0.058)
Speaks English at Work	-	-	1	0.317 (0.084)
Speaks English with Spouse	-	-	-	1

Table 8. Bivariate Probit Correlations (ρ coefficients), Women Only

	Speaks English at Home	Speaks English with Friends	Speaks English at Work	Speaks English with Spouse
Speaks English at Home	1	0.531 (0.027)	0.488 (0.031)	0.695 (0.038)
Speaks English with Friends	-	1	0.585 (0.030)	0.440 (0.052)
Speaks English at Work	-	-	1	0.521 (0.067)
Speaks English with Spouse	-	-	-	1

Table 9. Multinomial Probit Predicting Levels of English Use in Various Contexts, Men Only

Reference Category: Speaking Some English in the Specified Context	At Home		With Spouse		With Friends		At Work	
	No English	Only English	No English	Only English	No English	Only English	No English	Only English
Age at Arrival	0.004***	0.000	0.001***	-0.002***	0.005***	-0.001	0.003***	-0.004***
	(0.001)	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)
Years in the U.S.	0.001	0.001	0.000	-0.001	-0.017***	-0.004	-0.008**	-0.015***
	(0.004)	(0.002)	(0.002)	(0.002)	(0.005)	(0.003)	(0.003)	(0.005)
Years in the U.S. Squared	0.000	-0.000	0.000	-0.000	0.001***	0.000	0.000**	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Female	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
Married	0.042*	-0.049***	--	--	0.032	-0.026	-0.011	0.015
	(0.023)	(0.011)	--	--	(0.025)	(0.016)	(0.019)	(0.029)
Speaks English Well/Very Well	-0.377***	0.089***	-0.110***	0.104***	-0.498***	0.214***	-0.247***	0.385***
	(0.019)	(0.009)	(0.013)	(0.012)	(0.018)	(0.013)	(0.019)	(0.022)
Years of Education	-0.010***	0.006***	-0.005***	0.005***	-0.027***	0.010***	-0.018***	0.027***
	(0.002)	(0.001)	(0.001)	(0.001)	(0.003)	(0.002)	(0.002)	(0.003)
Spouse Born in the U.S.	-0.379***	0.344***	-0.415***	0.349***	-0.082*	0.115***	0.046	-0.198***
	(0.036)	(0.040)	(0.044)	(0.043)	(0.044)	(0.034)	(0.036)	(0.041)
Number in Household Under Five	-0.018	-0.010	-0.006	0.004	0.026	-0.005	0.007	0.010
	(0.017)	(0.006)	(0.006)	(0.005)	(0.019)	(0.011)	(0.013)	(0.020)
Observations	3227		2226		3227		2381	
Log Likelihood	-2402.683		-600.959		-2503.735		-2004.225	
Wald Chi^2	754.60		319.04		1156.33		716.62	
Degrees of Freedom	16		14		16		16	

Results are marginal effects.

Table 10. Multinomial Probit Predicting Levels of English Use in Various Contexts, Women Only

Reference Category: Speaking Some English in the Specified Context	At Home		With Spouse		With Friends		At Work	
	No English	Only English	No English	Only English	No English	Only English	No English	Only English
Age at Arrival	0.003***	-0.000	0.001***	-0.002***	0.004***	-0.001***	0.004***	-0.001
	(0.001)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.001)	(0.002)
Years in the U.S.	-0.007*	0.004***	-0.001	0.000	-0.009**	0.001	-0.007	0.007
	(0.004)	(0.001)	(0.002)	(0.002)	(0.004)	(0.002)	(0.004)	(0.006)
Years in the U.S. Squared	0.000	-0.000**	0.000	-0.000	0.000**	-0.000	0.000	-0.001**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Female	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
Married	0.038**	-0.017**	--	--	0.060***	-0.022**	-0.019	0.076**
	(0.020)	(0.008)	--	--	(0.022)	(0.011)	(0.022)	(0.030)
Speaks English Well/Very Well	-0.387***	0.096***	-0.149***	0.140***	-0.519***	0.187***	-0.341***	0.371***
	(0.019)	(0.011)	(0.017)	(0.017)	(0.018)	(0.015)	(0.024)	(0.028)
Years of Education	-0.012***	0.003***	-0.003***	0.002**	-0.029***	0.005***	-0.020***	0.016***
	(0.002)	(0.001)	(0.001)	(0.001)	(0.003)	(0.001)	(0.003)	(0.004)
Spouse Born in the U.S.	-0.380***	0.269***	-0.488***	0.344***	-0.177***	0.077***	-0.025	-0.087**
	(0.030)	(0.027)	(0.035)	(0.034)	(0.034)	(0.020)	(0.033)	(0.042)
Number in Household Under Five	-0.022	-0.024***	0.010	-0.010*	0.002***	-0.005	-0.041*	0.003
	(0.016)	(0.006)	(0.006)	(0.006)	(0.017)	(0.008)	(0.022)	(0.029)
Observations	3446		2287		3446		1577	
Log Likelihood	-2331.580		-603.835		-2243.486		-1351.548	
Wald Chi^2	964.32		515.91		1316.57		486.31	
Degrees of Freedom	16		14		16		16	

Results are marginal effects.

Appendix A, Table 1. Survey Questions Generation Variables Representing Acculturation

Variable	Question(s)
English Use at Home	What languages do you currently speak at home?
English Use with Friends	What languages do you speak outside of your home when you are with friends?
English Use at Work	What languages have you spoken outside of your home while at work in the United States in the past twelve months?
English Use with Spouse	What languages do you speak with your husband/wife at home?