

How Much is a Green Card Worth? Evidence from Mexican and Puerto Rican Men Who Marry Women Born in the U.S.

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Abstract

Recognizing that U.S. immigrants can acquire Permanent Resident status by marrying natives, we quantify the value of that status using the earnings premium received by Mexican-born men who marry U.S.-born women. Men born in Puerto Rico are a natural control group because they are U.S. citizens, but otherwise face similar challenges. IV estimates indicate that intermarried Mexicans earn a 30 percent premium, while intermarried Puerto Ricans receive no premium. The premium vanishes within ten years after immigration, consistent with waiting times for green cards. However, among Mexicans who immigrated less than six years ago, the estimated premium exceeds 100 percent.

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I. Introduction

It is widely believed that the right to work permanently in the U.S. is of great economic value to immigrants. Knowing the value of that right would inform calls to expedite the green card application process, and it would provide a useful benchmark for proposed reforms that would allow undocumented immigrants to remain in the U.S. after paying a fine. That value would also provide an upper bound on the implicit economic rents collected by U.S. employers and consumers during the years that immigrants work under more restrictive visas.

Nevertheless, few studies have attempted to quantify the value of Permanent Resident status. A key difficulty is that most sources of variation in immigrants' legal status also influence their wages directly. For example, immigrants who are related to U.S. citizens, who have been in the U.S. longer, or who possess rare occupational skills may be more likely to obtain a green card, but we would have expected them to earn higher wages in any event. Most previous studies have identified the effect of Permanent Resident status from plausibly exogenous reforms like the Immigration Reform and Control Act (IRCA) of 1986, which granted amnesty to over 2.7 million undocumented immigrants. Those studies have generally found that the law caused immigrants' wages to rise by less than ten percent (Bailey, 1985, Borjas and Tienda, 1993; Singer, 1994; Kassoudji and Cobb-Clark, 2002; Barcellos, 2010).

This paper instead exploits the fact that immigrants can acquire Permanent Resident status faster if they marry a U.S. citizen, which some call "intermarriage." Our strategy thus involves measuring a wage premium earned by intermarried immigrant men from Mexico (the largest source country for U.S. immigrants¹). Since this plan does not rely on a particular

¹ Currently about 30 percent of the U.S. foreign-born population is from Mexico, about six times the share from the next largest source country, China (Grieco and Trevelyan, 2010). Passel and Taylor (2009) report

historical event, it avoids potential problems due to contemporaneous economic shocks or general equilibrium effects arising from the sudden jump in the supply of authorized workers.

Even so, this approach still faces two broad challenges. First, marriage is obviously not a randomly assigned treatment. Married and intermarried immigrants likely differ from their peers on observable and unobservable dimensions that may affect their wages directly. We thus rely heavily on the inclusion of appropriate control variables and the use of geography-based instrumental variables that generate independent variation in marital status.

The other difficulty is that a native spouse may offer other benefits beyond legal rights, such as knowledge of institutions, culture, and social or professional networks. To overcome this problem, we use a control group of people who were also born outside the U.S. mainland, yet automatically enjoy permanent access to the U.S. labor market: Puerto Ricans. While they face many of the same challenges as immigrants from elsewhere in Latin America, including language barriers and potential discrimination, they do not face any legal barriers because all Puerto Ricans have been U.S. citizens since 1917.² In contrast, legal immigrants from other places initially have visas that are time-restricted and employer-specific, limiting both their appeal to potential employers and their ability to negotiate for higher wages. Of course, undocumented immigrants face additional constraints, including the risk of deportation.

This approach will yield conservative estimates because we have no way of knowing if

that 64 percent of the 47 million Hispanics in the U.S. mainland (including U.S. natives) are of Mexican descent, while the next two largest subgroups are Puerto Ricans (9 percent) and Cubans (3.5 percent).

² The U.S. annexed Puerto Rico from Spain in 1898 as part of the Treaty of Paris that ended the Spanish-American War. Puerto Rico became an autonomous commonwealth in 1952, but it maintains a formal association with the U.S. and periodically votes on whether to petition for U.S. statehood. Its foreign relations are governed by the U.S., and its people are U.S. citizens. Borjas (2008) covers the relevant history, as well as migration patterns into and out of Puerto Rico. For linguistic convenience, we will use “immigrants” to describe all U.S. residents born outside the 50 states and the District of Columbia, even though the term is inaccurate for both Puerto Ricans and persons without immigrant visas.

some Mexican immigrants may have obtained Permanent Resident status in other ways. Even so, our results indicate that access to U.S. labor markets is quite valuable. When we use our complete sample of immigrant men, we find that Permanent Residents earn about one-third more than similar immigrants without a green card. This estimate is remarkably robust to alternate instruments, control variables, model specifications, and sample selection criteria. Moreover, we find no statistically-significant premium among immigrants who had been in the U.S. for more than ten years, consistent with our expectation that they would have been able to acquire a green card within that time frame regardless of marital status. However, men who immigrated less than six years ago appear to receive a premium exceeding 100 percent.

Our results also contribute to the small but growing literature on the economic benefits of marriage between immigrants and natives. While most studies find that such immigrants earn a positive wage premium, none have attempted to distinguish between competing explanations. Our results imply that legal rights are likely the main source of that premium. Indeed, despite estimating numerous specifications, we find no evidence that Puerto Ricans earn a statistically significant premium for marrying a woman born in the U.S. mainland.

The next section briefly explains some reasons why immigrants' earnings may be related to their marital status. Section III outlines our empirical strategy, and Section IV describes the data. Results appear in Section V. Section VI concludes with a short discussion.

II. Potential Wage Benefits of Marriage and Intermarriage

Economists have long noted that the average wages among married men were higher than those of unmarried men. Many have suspected that the pattern reflects either reverse

causality or spurious correlation, such as if potential wives preferred men with higher wages or personal traits that employers also value. However, there is also some evidence for a causal effect of marriage on men's wages, possibly related to marriage's effect on time use, although that effect appears to have fallen over the last three decades (Daniel, 1993; Gray, 1997).

Similar issues arise when considering foreign-born men who marry U.S. natives. Such immigrants may be more likely than others to possess unobservable traits that are valued in the labor market, like ambition, a high IQ, English proficiency, cultural tolerance, physical attractiveness, or a social network that alerts them to employment opportunities (Kantarevic, 2004). Endogeneity may also arise if high-earning immigrants have more opportunities to intermarry, e.g., if they interact more frequently with natives of similar background or if native-born women prefer men with higher incomes. On the other hand, some of those wage-enhancing traits might also be obtained via intermarriage. For example, a native-born wife might provide access to a wider social network or help in attaining English proficiency.³

This paper focuses on another possible mechanism, expedited access to Permanent Resident status – a “green card.” Many U.S. immigrants, especially new arrivals, do not have a green card, but rather work under an H-1B visa, which is employer-specific and typically valid for no more than six years. An immigrant with an H-1B loses eligibility to work if his employer does not petition for his green card before the visa expires, or if the worker changes jobs or is laid off. Due to high legal fees and the lengthy process, many firms choose not to hire non-permanent residents or sponsor H-1B visas, and those who do may offer lower wages as a compensating differential. In contrast, Permanent Residents can freely move to

³ Chiswick and Miller (1995) show that language proficiency expedites assimilation in other ways as well.

jobs that more closely match their skills and preferences. That mobility may also increase their ability to negotiate for higher wages, even if they do not actually switch jobs.

Immigrants who marry U.S. citizens can apply for a green card on the basis of marriage rather than employment. Since immigration law gives priority to immediate family members of U.S. citizens,⁴ the process of obtaining a green card can take as little as six months for intermarried immigrants, whereas others often must wait for six to eight years.⁵ Intermarried immigrants also become eligible to apply for citizenship sooner, which may confer additional benefits and possibly new employment opportunities (e.g., in the federal government).

While many sociologists have studied intermarriage as both an indicator and a means of assimilation (Lieberson and Waters, 1986), only a few economic studies have estimated a causal effect of intermarriage on immigrants' wages, and there is little evidence on nature of the premium. Meng and Gregory (2005) find that intermarried immigrants in Australia earn a 15 to 23 percent (after accounting for endogeneity), and Meng and Meurs (2009) find a 25 to 35 percent premium in France. Estimates for the U.S. are smaller, however. Kantarevic (2004) finds no intermarriage wage premium in the 1970 and 1980 U.S. Censuses, though Furtado and Theodoropoulos (2009) find that intermarriage raises the probability of being employed.

III. Methodology

Since we do not directly observe which immigrants have green cards, our strategy is to identify the effect of Permanent Resident status from those who marry a native-born wife. We

⁴ Since 2001, the law has not granted expedited consideration to intermarried immigrants who entered the U.S. without a valid visa. However, this is not relevant for the 2000 Census data examined in this paper.

⁵ For a complete list of ways in which an immigrant can acquire a green card, and the rules for each, see the U.S. Citizenship and Immigration Services (USCIS) website, <http://www.uscis.gov>.

thus estimate separate wage premiums earned by intermarrying men born in Mexico and Puerto Rico, above and beyond a general marriage premium. The difference between the two groups' intermarriage premiums is then attributed to the fact that Mexicans may have thereby obtained a green card, whereas Puerto Ricans have no need for one.

More formally, we want to estimate a model like the following:

$$Y_{ijg} = \alpha_g + X_{ij}'\beta_1 + Y_j\beta_2 + N_{ij}^g\gamma_g + D_{ij}^g\delta_g + \varepsilon_{ijg} \quad , \quad (1)$$

where the dependent variable Y_{ijg} is the log weekly earnings of immigrant i living in place j from country g ($=M$ and P for Mexico and Puerto Rico). The vector X_{ij} contains individual- and place-level controls, including quadratic terms in the immigrant's age and years since he immigrated; dummy variables indicating educational attainment, English proficiency, school attendance, residence in metro areas, regions, and disability and veteran status; and the share of the local population that is of Hispanic descent to account for variation in wages associated with ethnic enclaves.⁶ Y_j is the average log weekly earnings of native men in place j who have the same level of educational attainment, which we include to control for differences in price levels across cities within the region. Price levels may be correlated with intermarriage rates, e.g., if intermarriage is more common in larger cities where prices are also higher.

The remaining explanatory variables are the main object of interest. N_{ij}^g is a dummy variable that equals 1 if the immigrant is married to another immigrant, and D_{ij}^g is a dummy that equals 1 if the immigrant is married to a native. The coefficient γ_g thus represents a wage premium associated with marriage, and $(\delta_g - \gamma_g)$ is the additional premium for intermarriage.

⁶ Regions include Northeast, Midwest, South, and West. The disability dummy equals one if the individual has a lasting physical or mental health condition that causes difficulty working. Although we use the term "Hispanic," it would be equally appropriate to refer to both Mexicans and Puerto Ricans as "Latinos;" preferences between those terms vary within the affected groups (Passel and Taylor, 2009).

The green card premium is thus $(\delta_M - \gamma_M - \delta_P + \gamma_P)$, since we attribute the difference in intermarriage premiums to the fact only Mexicans can benefit from a green card.

Equation (1) would be consistently estimated by OLS if an immigrant's marital status were uncorrelated with his unobserved factors ε_{ij} . However, as explained in Section II, there are many reasons to suspect that those unobserved factors are correlated with both marriage and intermarriage. It is thus necessary to adjust the estimates for the potential endogeneity.

A. Instrumental Variables Estimation

The standard method to address this endogeneity issue is to instrument for the marriage dummies, which obviously requires variables Z that predict variation in marital status but are otherwise unrelated to individuals' earnings. A further complication arises here because our focal explanatory variables are dummies. In principle, one could use Z directly as instruments for immigrants' marital statuses, which amounts to using a linear probability model in the first-stage IV regression. However, it is generally more efficient to use those factors instead as excluded exogenous variables in a non-linear model predicting marital status, then use the fitted values as instruments in a standard IV procedure.⁷ We implement this approach using a multinomial logit to predict immigrants' marital status. Denoting an individual's marital status by S_{ijg} ($=0, n, d$ for single, married to another immigrant, or intermarried), we estimate

$$\Pr(S_{ijg} = q) = \frac{\exp(\theta_0^q + X_{ij}'\theta_1^q + Y_j\theta_2^q + Z\theta_3^q)}{1 + \sum_{s=0, n, d} \exp(\theta_0^s + X_{ij}'\theta_1^s + Y_j\theta_2^s + Z\theta_3^s)} \quad \text{for } q = 0, n, d, \quad (2)$$

and use fitted values $\{\widehat{N}_{ij}^s, \widehat{D}_{ij}^s\}$ as instruments for $\{N_{ij}^s, D_{ij}^s\}$ in (1).

⁷ For a more general discussion of this approach, see Wooldridge (2002, 230-237) or Angrist and Pischke (2009, 190-192).

The excluded exogenous variables used here all involve the demographic composition of the population across locations. Similar strategies have been used in most previous work on intermarriage (Kantarevic, 2004; Meng and Gregory, 2005; Furtado and Theodoropoulos, 2009; Meng and Meurs, 2009). Since we are predicting two variables for each individual (e.g., N^M and D^M for Mexicans), we need two excluded exogenous variables. Our preferred specification uses (1) the ratio of immigrants to natives within the location's population of unmarried Hispanic women, and (2) the share of local women who are unmarried.

The intuition for the former variable begins with the observation that a high percentage of Mexican and Puerto Rican immigrants marry Hispanic wives. Rosenfeld (2001) shows that this tendency represents more than just marriage within groups defined by national origin, but rather what he calls a "pan-national Hispanic identity." It is not just that, e.g., Mexicans are more likely to marry other Mexicans, but also that they are disproportionately likely (given the local ethnic composition) to marry other Hispanics. We thus infer that the entire Hispanic population constitutes the relevant marriage market, and since our proposed variable measures the share of that market that is native-born, we anticipate that it will be a good predictor for whether a married immigrant man has a foreign-born or native-born wife.

Our second variable is intended to indicate the availability of potential wives, so we expect it to be most useful for predicting whether an individual is married or single. Since there are more singles in large cities, and wages are generally higher there, one might fear that this factor is correlated with the dependent variable. However, note that our specification controls for natives' wages, effectively eliminating the proposed source of the correlation. Bias would thus result only if there were a correlation between (a) immigrants' wages relative

to those of similarly educated natives, and (b) the share women who are single beyond what would be expected given those same natives' wages. We know of no reason to suspect one.

Still, given the potential for controversy with any instrument, Table 5 below will show that the estimated green card premium is robust to the use of alternative excluded exogenous variables. Among those we consider are analogues to two instruments used by Meng and Gregory (2005) and others: the share of local single women who are Hispanic immigrants, and the sex ratio among single Hispanic immigrants.⁸ We also try Kantarevic's instrument, the ratio of immigrants to natives among local single women, relative to the same ratio over the entire U.S. Two new variables are also proposed: the share of local women who are Hispanic (including both immigrants and natives) and the sex ratio among all local singles.

B. Discussion of Potential Biases

That table will also address the concern that the demographically-based excluded exogenous variables may be spuriously correlated with immigrant wages because either marriage rates or immigrant concentrations respond to local economic shocks. For example, labor demand shocks might increase both the immigrant population and immigrants' wages, especially considering that immigrants may have chosen their location relatively more recently. However, Table 5 will show that the estimated difference in intermarriage premiums remains if identification is based on either locations' demographic characteristics ten years earlier or the current demographic conditions in the location where an immigrant lived five years earlier, suggesting that the result reflects more than just local labor market conditions.

⁸ While these variables are similar to those used by Meng and Gregory, they reference a different ethnic group, reflecting the difference in national origin among immigrants to the U.S. and to Australia.

There are at least two reasons to believe that this estimation strategy is conservative. One is simply that marrying a native is not the only way to obtain a green card. Some Mexican immigrants who do not have a U.S.-born wife may have already obtained a green card via the usual employment-based process, and in that case the estimated intermarriage wage premium would understate the true value of Permanent Resident status.

The other reason is that IV estimates reflect the average treatment effect among the subpopulation whose propensity to be treated is sensitive to the instrumental variable (Imbens and Angrist, 1994). All of our instruments are based on variation in local demographics, so the intermarriage premium is identified from the immigrants who become more likely to marry a native when the marriage market includes relatively more native-born unmarried Hispanics. For example, this group would include any men who encountered potential wives at random and were largely indifferent about their place of birth. However, immigrants who would benefit greatly from intermarriage would likely direct their search toward finding a native wife even if they lived among many unmarried immigrant women. It thus seems likely our estimate places little weight on the subgroup of immigrants who would gain most from intermarriage. If so, our estimate represents a lower bound on the true average effect.

IV. Data and Descriptive Statistics

This study analyzes data from the 5 percent sample of the 2000 U.S. Census.⁹ The sample is restricted to immigrant men aged 16 to 44,¹⁰ born in Mexico or Puerto Rico, who

⁹ The data was obtained via the Integrated Public Use Microdata Series (Ruggles et al., 2008)

¹⁰ The sample is restricted to relatively young couples in order to limit the potential bias caused by different divorce rates across the two types of marriage. For instance, if intermarried couples with low earnings were more likely to divorce than nonintermarried immigrants with low earnings, then the estimated effect of intermarriage would be biased upward.

worked at least one week in 1999 and do not reside in group quarters. We drop observations with missing information on the man's wage and salary income, his (and if applicable, his wife's) place of birth, or his year of immigration. Finally, we exclude a small number of immigrant men who are married to non-Hispanic immigrant wives. The resulting sample includes 101,203 immigrant men born in Mexico and 6,891 men born in Puerto Rico.

One significant shortcoming of the 2000 U.S. Census is a lack of information on whether immigrants have green cards or H1-B visas, or for that matter whether they are in the U.S. legally. We use intermarriage to identify a group of Permanent Residents, but the set of other immigrants includes some with each visa status. The length of time since the immigrant arrived in the U.S. can provide further insight into the likelihood that non-intermarried immigrants have green cards (see Table 7). Still, there is no clear way to know whether the remaining immigrants are legal or illegal. Thus, while one would ideally measure the value of a green card relative to both of those alternatives, we can only estimate its value relative to a mixture of the two in a proportion determined by their relative frequencies in the sample.¹¹ In principle, this estimate would still represent the average Mexican immigrant's benefit of a green card relative to his alternate status, at least insofar as our instrument does not inadvertently reweight the probabilities that legal and illegal immigrants marry natives. However, this issue does caution against extrapolating the results to other immigrant groups.

The Census data also does not contain information on the age at which respondents married, so it is impossible to identify whether immigrants were married when they arrived in the U.S. This is unfortunate because immigrants who married before arriving in the U.S.

¹¹ A further complication is that the sample composition may not equal the population composition, particularly if undocumented immigrants attempt to avoid detection by the Census.

could only become intermarried if their first marriage ended (Meng and Gregory 2005). We attempt to exclude such men by dropping those who first came to the U.S. after age 25, which is the mean age at which men marry in Mexico and Puerto Rico (United Nations, 2000).

We define intermarriage as a marital union between a man born in Mexico or Puerto Rico and a wife born in one of the 50 U.S. states or the District of Columbia. Note that this does not include wives born in Puerto Rico, even though they are U.S. citizens. If we instead treated men married to women born in Puerto Rico as intermarried, only 506 Puerto Rican men (seven percent) would be classified as married to a foreign-born wife. The cost of this scheme is that 127 Mexican men who are married to wives born in Puerto Rico are not called intermarried, when in fact it is possible that the marriage did grant them greater legal access to the U.S. labor market. However, note that this only affects a small share of the sample (0.1 percent of our Mexican immigrant men and 0.2 percent of those who are married), and at any rate, the classification should bias the estimated intermarriage premium downward.

The dependent variable is the natural logarithm of individuals' pre-tax wage and salary income per week worked in 1999, including wages, salaries, commissions, cash bonuses, tips, and other money income received from an employer. Key control variables include an indicator of English proficiency (=1 if the person speaks only English or speaks English "very well" or "well") and separate dummy variables for each level of education.¹²

Several other controls and all proposed instrument are computed on a geographic basis. Markets are defined by metropolitan areas (MA); for each state, we have also created an "at-large" market consisting of all individuals residing outside of a metro area.

¹² This is the standard procedure to control for English proficiency in the literature. Table 6 below also reports estimates from a specification that includes a separate dummy variable for each category. The 2000 Census reports individuals' highest degree or level of school completed, not their actual years of schooling.

Table 1 presents summary statistics. Although similar shares of Mexicans (56 percent) and Puerto Ricans (52 percent) are married, Puerto Ricans are twice as likely to be married to a wife born in the U.S. (42 percent of married Puerto Ricans, versus 19 percent for Mexicans), possibly suggesting that they have more opportunities to interact with the native-born population. Intermarried men in both groups are more likely to be better educated, to be proficient in English, to have been in the U.S. longer, and to have migrated at a younger age.

[Table 1 about here.]

The raw intermarriage premium for Mexicans is only modestly larger than that of Puerto Ricans (9 percent versus 5 percent). In both groups intermarried men earn about 11-12 percent less if their wives are Hispanic, which is more common among Mexicans (77 percent versus 60 percent). This compositional difference thus suggests that the difference in raw intermarriage premiums understates the causal effect of Permanent Resident status. In fact, among immigrant men from Puerto Rico with a Hispanic wife, the average log weekly wages are identical whether the wives were born in the U.S. or abroad. Other compositional differences that would appear to narrow the difference in raw intermarriage premiums include differences in age and time since migration. The married-intermarried gaps in education and English proficiency appear to work in the opposite direction, however.

V. Empirical Results

A. Determinants of Intermarriage

Table 2 presents results from a multinomial logit predicting the probability that an immigrant is single, married to another immigrant, or married to a native. It reports estimates

as elasticities for the average man; for example, the first estimate indicates that a ten percent increase in the immigrant/native ratio among local single Hispanic women is associated with a 2.9 percent (not percentage point) decrease in the probability that an average immigrant man is intermarried. Separate estimates are also reported for Mexicans and Puerto Ricans.

[Table 2 about here.]

The main result to note is that immigrants' marital decisions appear to be sensitive to our two proposed excluded exogenous variables. As anticipated, the ratio of immigrants to natives among local single Hispanic women is a statistically significant predictor of intermarriage, although it is not significantly related to the probability of being single, and the share of local women who are single is a significant predictor of all three outcomes. The two factors are jointly significant at the one percent level at both margins.

The results also indicate that Mexican and Puerto Rican men are similarly sensitive to each of the reported factors for all three outcomes. We interpret this finding as evidence that the two groups make marital decisions on similar bases, and possibly that native women view them as close substitutes for one another. However, immigrant men who are proficient in English are almost twice as likely to be married to a native.

B. Main Results

Table 3 presents the main results: the estimates of the intermarriage premium under our preferred specification. The first column reports ordinary least-squares estimates of equation (1). These estimates indicate that if we control only for observables, intermarried Mexican men earn 6.3 percent more than those married to other immigrants, who in turn earn 14.3

percent more than single men. That 6.3 percent difference is statistically significant, but the comparable 0.3 percent difference among Puerto Rican men is not. The OLS estimate of the green card premium is thus 5.9 percent. Given that the raw premiums received by the two groups are close (see Table 1), the larger gap under OLS suggests that the observable differences in demographic characteristics and human capital explain only part of the raw intermarriage premium for Mexicans, but almost the entire premium for Puerto Ricans.

[Table 3 about here.]

The remaining two columns report IV estimates that treat the marriage and intermarriage indicators as endogenous. As described in our methodology section, the instruments are predicted probabilities of marriage and intermarriage from multinomial logits. The middle column reports estimates in which the instruments for both Mexicans and Puerto Ricans are calculated from a single logit on the combined sample (as reported in Table 2 above), while the final column is based on predictions from separate logits for the two groups.

The two approaches ultimately yield similar conclusions: the estimated difference in intermarriage premiums between the two groups is 38.1 percent in the one specification and 34.6 percent in the other. The tables below will confirm that similar estimates emerge under a wide variety of modifications, so we will conclude that the true effect likely lies in this range.

The fact that the IV estimates are larger than the OLS estimates suggests negative selection into intermarriage. Similar findings emerged in previous work on intermarriage wage premiums in Australia (Meng and Gregory, 2005) and France (Meng and Meurs, 2009), and on intermarriage employment premiums in the U.S. (Furtado and Theodoropolous, 2009).

One potential explanation is that immigrant men prefer immigrant wives, and those who earn

more “spend” a portion in the form of a foregone intermarriage premium. Since our instruments are geography-based, it is also possible that more talented immigrants migrate to cities with more immigrants, although Table 5 below offers little support for that hypothesis.

This pattern is more pronounced for Mexicans than Puerto Ricans. In both IV specifications, the estimated intermarriage premium for Mexicans is greater than 40 percent and statistically significant, whereas the estimated premium for Puerto Ricans is 7 to 11 percent, but statistically insignificant. The greater increase in the estimated Mexican premium as we move from OLS to IV suggests that Mexicans are more strongly (negatively) selected into intermarriage, such as if relatively poorer Mexicans benefited more from intermarriage, e.g., because their employers were less likely to sponsor green card applications.¹³

While the two IV models yield similar estimates of the green card premium, there are greater differences in the component estimates. When we run separate multinomial logits for the two groups, we estimate that both groups receive larger wage premiums for marrying both immigrants and natives. The specifications reported below also show similar instability in the estimated baseline marriage premium, but there is much less variation in the estimated intermarriage premium (i.e., $(\delta_g - \gamma_g)$ from equation (1)). A similar comparison holds across Meng and Gregory’s (2005, Table 4) estimates using different possible instrumental variables.

The lower panel of Table 3 reports statistics from the first-stage IV (2SLS) regressions. It indicates that the multinomial logit fitted values are strong instruments for the marriage and intermarriage dummies in equation (1). The smallest of the reported F-statistics is 193, or about 20 times larger than the minimum guideline suggested by Stock and Yogo (2002).

¹³ However, Barcellos (2010) finds that college educated Mexican immigrants experienced more wage growth than high school dropouts after the Immigration Reform and Control Act of 1986 .

C. Robustness

Tables 4, 5, and 6 respectively list the estimated intermarriage premiums under alternate sample selection criteria, excluded exogenous variables, and control variables. The first column of Table 4 presents IV estimates from a sample that includes only men who immigrated before age 18, so that we can be confident that they were not married before they arrived. The estimates indicate that intermarried Mexican immigrants earn a 46 percent wage premium, but the estimated premium for Puerto Ricans is negative and statistically insignificant. The difference-in-differences point estimate suggests that a green card increases wages by about 50 percent. The next column uses only immigrant men who are reported to speak English “well” or better; much as in Table 3, the estimated green card premium is just over 30 percent and statistically significant. Estimates are also very similar if we exclude individuals living in the three largest cities (column 3), which includes the most common locations of both groups (Los Angeles for Mexicans and New York for Puerto Ricans).

[Table 4 about here]

The samples used the last three columns are subject to potentially severe selection biases, and the first two also conflict with the intuition for one of our excluded exogenous variables (immigrants/natives among local single Hispanic women), yet the results are still largely consistent with the previous IV estimates. The samples used in the fourth and fifth columns exclude men who marry non-Hispanic or Hispanic natives, respectively. In both cases the estimated Mexican intermarriage premium is similar to previous estimates (37 and 28 percent) and statistically significant, and the latter sample even yields a similar estimate of the green

card premium, a statistically significant 33 percent. The corresponding estimate is smaller and insignificant when men married to non-Hispanic natives are excluded, but the deviation from earlier results arises mainly from the large yet imprecise estimated intermarriage premium for Puerto Ricans (24 percent, but the p-value is 0.34), which strikes us as less troublesome than uninformative. Finally, the sample used in the last column excludes single men. While this change substantially reduces the two groups' intermarriage premiums, the difference between those premiums is again about 30 percent and statistically significant.

Table 5 presents estimates from several variations on our IV strategy. The first two specifications address the concern that immigrants may have chosen cities with favorable labor or marriage market shocks; they respectively compute our preferred set of excluded exogenous variables using metro areas' demographics ten years earlier (from the 1990 Census) and individuals' locations five years earlier. The next three columns report results using the alternate excluded exogenous variables described at the end of Section III.A. The instruments used in the last column are fitted values from a multinomial probit rather than a logit.

[Table 5 about here]

The estimated green card premiums from these specifications are remarkably similar to both one another and to the estimates reported in Table 3. In all cases the estimated premium is about 0.35 and statistically significant at the one percent level. Moreover, the estimated intermarriage premium among Mexicans is almost always near 0.40 and significant, but the estimated intermarriage premiums are never significant for Puerto Ricans.

Table 6 reports estimates from three specifications that include expanded controls. The first column includes a dummy variable for each state, the second adds dummy variables for

each industry, and the third includes separate dummies for each reported level of English proficiency, rather than a simple binary variable. In each case, the estimated green card effect is on the order of 30 percent; it is statistically significant at the one percent level for the first two cases and at the six percent level when the expanded set of proficiency dummies. The only substantial difference from the IV estimates in Table 3 is that Puerto Rican intermarriage premium is larger here, although still significant at only the nine percent level.

[Table 6 about here]

D. Estimates by Time Since Immigration

As explained earlier, the main way in which immigrants acquire green cards is not via marriage to a native, but through sponsorship by an employer. The latter process usually takes more than five years, but less than ten. It thus seems likely that the Mexican immigrants in our sample who have been in the U.S. for more than ten years have acquired a green card regardless of their marital decisions, but those who arrived less than six years ago probably do not have a green card unless they are intermarried. We can therefore test our empirical strategy further by stratifying the sample on the basis of time in the U.S., with the expectation that our measure of the green card premium is much larger for the recent immigrants.

Table 7 confirms this prediction. For men who immigrated at least ten years earlier, the estimated intermarriage premiums for both Mexicans and Puerto Ricans and the green card premium are all statistically insignificant (and negative). However, for those who immigrated less than six years ago, the estimated green card premium is 0.766, implying a statistically significant 115 percent increase in weekly earnings.

[Table 7 about here.]

The clear implication is that Permanent Resident status is very valuable. This group earns \$15,500 on average, so the point estimate implies an annual premium of about \$18,000.

That point estimate is admittedly quite noisy: the 95 percent confidence interval ranges from \$2,600 to \$46,000. However, similar magnitudes are implied by estimates from the full sample of immigrant men in Tables 3 through 6. That group has an average annual income of \$21,100, so the preferred estimate of the green card premium from Table 3 ($e^{0.346}-1=0.41$) amounts to \$8,700 per year, but Table 7 implies that the effect is almost entirely concentrated among immigrants who arrived less than six years ago. Since that group includes only 31 percent of the Mexican men who arrived after age 16 (20,688 out of 66,440), the implied green card premium for those recent immigrants would be \$28,000 per year. If we instead assumed an eight year wait for a green card, the point estimate falls to \$19,900. Alternatively, using our smallest compelling IV estimate (from the last column of Table 6) and again assuming a six year wait, the estimated effect would be \$19,100 per year.

These are clearly crude, back-of-the-envelope calculations, but they consistently imply that for the average recent Mexican immigrant, the difference between having a green card or not – which for some means holding a more limited work visa and for others means having no legal authorization to work – is roughly \$20,000 per year, or somewhere on the order of \$100,000 to \$150,000 over a typical wait for an employment-based green card.

VI. Concluding Comments

As noted in the introduction, the green card premium can be described as the amount by which the wages of male Mexican immigrants fall short of their potential due to the delay in

obtaining a green card. It is not clear what becomes of the loss, however. The consequences for the immigrants themselves are obvious, but it would be an interesting question for future research to apportion the premium into parts accruing to employers of immigrants, to workers shielded from competition from immigrants, to consumers facing lower prices, and to the deadweight loss of unrealized gains from potentially more efficient employment matches.

While we have identified some reasons to believe that our estimates are conservative, several concluding caveats are in order. For one thing, we have not considered any potential costs to the immigrant, such as the legal fees that often accompany green card applications. Further, our estimates are based only on the experience of men born in Mexico, so it remains to be seen if women or men from other countries experience similar gains. They may not; the fact that many Mexican immigrants are undocumented suggests that green cards may be especially valuable to them. It should also be noted that these figures specifically do not estimate the increase in immigrants' wages relative to what they would have earned in Mexico. Finally, while the 2001 immigration law preventing undocumented immigrants from acquiring a green card through intermarriage presumably reduced the value of intermarriage for that group, we know of no reason to suspect that it altered the value of a green card itself.

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Table 1: Summary Statistics, Single and Married Immigrant Men from Mexico and Puerto Rico Aged 16-44

	Annual Earnings		Log Weekly Earnings		Age		Years Since Migration		Age at Migration		Speaks English "well" or better		Educational Attainment				Number of Obs.
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	High Sch. Dropouts	High Sch. Graduates	Some College	College Graduates	
	Mexican:																
Single Men	16,184	18,121	5.75	0.65	24.78	5.80	9.13	7.26	15.65	5.83	0.47	0.50	67.5%	20.5%	9.5%	2.5%	44,537
All Married Men	24,693	23,618	6.11	0.67	32.24	6.19	15.54	7.61	16.70	5.40	0.59	0.49	68.6%	18.3%	10.1%	3.0%	56,666
Married to a Hispanic Immigrant	24,138	23,357	6.09	0.67	32.47	6.11	15.20	7.24	17.27	4.87	0.54	0.50	71.6%	17.3%	8.6%	2.5%	45,977 (81%)
Married to a Native	27,136	24,586	6.18	0.65	31.22	6.44	17.05	8.90	14.17	6.73	0.80	0.40	55.5%	22.8%	16.7%	5.0%	10,689 (19%)
Married to a Hispanic Native	26,015	23,068	6.15	0.65	31.00	6.45	17.12	8.83	13.88	6.73	0.77	0.42	59.1%	21.7%	15.3%	3.9%	8,177 (77%)
Married to a Non-Hispanic Native	30,744	28,648	6.26	0.63	31.93	6.34	16.85	9.13	15.08	6.65	0.93	0.26	44.0%	26.1%	21.5%	8.5%	2,512 (23%)
Puerto Rican:																	
Single Men	19,645	21,908	5.85	0.81	26.84	7.11	15.27	9.44	11.57	7.70	0.88	0.32	38.1%	28.2%	23.4%	10.3%	3,341
All Married Men	32,791	29,543	6.34	0.69	33.88	6.52	19.99	10.26	13.89	7.79	0.90	0.30	27.9%	30.3%	28.3%	13.6%	3,550
Married to a Hispanic Immigrant	31,299	27,703	6.32	0.71	33.92	6.58	18.58	9.97	15.33	7.43	0.87	0.34	30.5%	30.4%	26.1%	13.0%	2,056 (58%)
Married to a Native	34,847	31,799	6.37	0.66	33.82	6.46	21.91	10.33	11.96	7.85	0.95	0.21	24.3%	30.0%	31.3%	14.5%	1,494 (42%)
Married to a Hispanic Native	31,761	24,902	6.32	0.65	33.38	6.54	21.35	10.48	12.04	7.90	0.93	0.25	29.8%	33.2%	29.0%	8.0%	890 (60%)
Married to a Non-Hispanic Native	39,373	39,398	6.44	0.67	34.45	6.27	22.74	10.06	11.72	7.77	0.99	0.11	16.1%	25.3%	34.6%	24.0%	604 (40%)

Table 2: Estimated Mean Elasticities of Probabilities of Marital Outcomes with Respect to Selected Explanatory Variables in Multinomial Logit Model, Mexican and Puerto Rican Immigrant Men Aged 16-44

Explanatory Variable	Intermarried			Non-intermarried			Single		
	Elast.	SE	P	Elast.	SE	P	Elast.	SE	P
Immigrant/native ratio among local unmarried Hispanic women									
All	-0.29	0.05	0.00	0.04	0.02	0.01	0.02	0.02	0.23
Men born in Mexico	-0.29	0.05	0.00	0.04	0.02	0.01	0.02	0.02	0.31
Men born in Puerto Rico	-0.32	0.06	0.00	0.09	0.03	0.00	0.06	0.02	0.00
Share of local women who are not married									
All	-1.37	0.21	0.00	-0.26	0.13	0.05	0.61	0.15	0.00
Men born in Mexico	-1.38	0.21	0.00	-0.27	0.13	0.04	0.60	0.15	0.00
Men born in Puerto Rico	-1.36	0.21	0.00	-0.20	0.17	0.23	0.70	0.14	0.00
Share of local population that is Hispanic									
All	-0.20	0.04	0.00	0.02	0.02	0.26	0.02	0.02	0.36
Men born in Mexico	-0.20	0.05	0.00	0.02	0.02	0.27	0.02	0.02	0.39
Men born in Puerto Rico	-0.12	0.03	0.00	0.03	0.02	0.12	0.03	0.01	0.06
Average wage of local native-born married men in educational group									
All	-8.98	1.04	0.00	-0.04	0.50	0.93	2.32	0.55	0.00
Men born in Mexico	-9.02	1.05	0.00	-0.10	0.49	0.83	2.25	0.56	0.00
Men born in Puerto Rico	-8.39	0.99	0.00	0.79	0.61	0.20	3.21	0.55	0.00
Dummy: English proficiency (semi-elasticity)									
All	0.94	0.04	0.00	-0.06	0.01	0.00	-0.14	0.01	0.00
Men born in Mexico	0.88	0.04	0.00	-0.12	0.01	0.00	-0.19	0.01	0.00
Men born in Puerto Rico	0.95	0.04	0.00	-0.06	0.01	0.00	-0.13	0.01	0.00
Test: Excluded variables are jointly significant		$\chi^2(2)$	P		$\chi^2(2)$	P			(base category)
		65.77	0.00		14.63	0.00			
Pseudo R ²		0.23							
No. of Observations		108,094							

Notes: The reported estimates are interpreted as percentage changes in the average man's probability of the indicated outcome per percentage change in the explanatory variable; for fluency, it is the percentage change in the probability of the outcome if the individual is fluent rather than not fluent. The first two explanatory variables comprise our preferred set of excluded exogenous variables. Other non-reported controls include a quadratic in the number of years since the person migrated to the U.S. (excluding Puerto Rico); dummy variables for current school attendance, urban residence, and veteran status; and complete sets of dummy variables for age, education, and region of residence. Intercepts and the effects of educational attainment are allowed to differ between Mexicans and Puerto Ricans; we have also tried allowing other coefficients to vary across groups, but none of the differences were statistically significant. The sample excludes men who are divorced, widowed, married to a non-Hispanic immigrant, or married to an absent spouse. All estimates use person-level sample weights, and standard errors correct for non-independence (clustering) of observations within metropolitan areas.

Table 3: OLS and IV Estimates of the Wage Premiums Associated with Marriage to a U.S. Native or Another Immigrant, Mexican and Puerto Rican Immigrant Men Aged 16-44

Estimated Coefficients in Wage Equation	OLS			IV (2SLS)			IV (2SLS)		
	Est. (x100)	SE (x100)	P	Est. (x100)	SE (x100)	P	Est. (x100)	SE (x100)	P
Mexican:									
Intermarried versus Single	20.6	1.0	0.00	20.3	14.2	0.15	31.4	12.0	0.01
Non-intermarried versus Single	14.3	0.6	0.00	-29.1	14.8	0.05	-10.1	8.7	0.24
Intermarriage Premium	6.3	0.8	0.00	49.4	13.0	0.00	41.5	11.4	0.00
Puerto Rican:									
Intermarried versus Single	26.1	1.8	0.00	2.7	18.7	0.89	21.5	14.3	0.13
Non-intermarried versus Single	25.8	2.1	0.00	-8.6	20.7	0.68	14.6	11.0	0.19
Intermarriage Premium	0.3	2.3	0.89	11.3	23.1	0.63	6.9	16.7	0.68
Difference in Differences	5.9	2.6	0.02	38.1	16.4	0.02	34.6	13.1	0.01
R ²	0.18			0.11			0.15		
Observations	108,094			108,094			108,094		
First-stage IV regressions				R ²	F	P	R ²	F	P
Intermarriage - Mexicans				0.11	386.2	0.00	0.11	440.4	0.00
Non-intermarriage - Mexicans				0.30	1,814.8	0.00	0.30	1,330.7	0.00
Intermarriage - Puerto Ricans				0.29	193.4	0.00	0.30	194.3	0.00
Non-intermarriage - Puerto Ricans				0.37	201.9	0.00	0.38	312.2	0.00
Mexicans and Puerto Ricans in a single or separate multinomial logits?				single			separate		

Notes: The excluded variables used are (1) ratio of immigrants to natives among local unmarried Hispanic women, and (2) share of all local women aged 16-44 who are unmarried. Other controls included are the fraction of the local population who are Hispanic immigrants, a quadratic in the number of years since the individual migrated, and dummy variables indicating his English fluency, educational attainment, age, veteran status, current school attendance, urban residence, and nine geographic regions. Intercepts and effects of educational attainment are allowed to differ between Mexicans and Puerto Ricans. The sample excludes men who are divorced, widowed, married to a non-Hispanic immigrant, or married to an absent spouse. All estimates use person-level sample weights, and standard errors correct for non-independence (clustering) of observations within metropolitan areas.

Table 4: Alternative Sample Selection Criteria - Selected IV Estimates of the Earnings Equation, Mexican and Puerto Rican Immigrant Men Aged 16-44

Sample:	Exclude men older than 18 upon arrival			Speaks English "well" or better			Exclude men from NYC, LA, Chicago			Exclude men married to non-Hispanic natives			Exclude men married to Hispanic natives			Exclude single men		
	Est. (x100)	SE (x100)	P	Est. (x100)	SE (x100)	P	Est. (x100)	SE (x100)	P	Est. (x100)	SE (x100)	P	Est. (x100)	SE (x100)	P	Est. (x100)	SE (x100)	P
<u>Mexicans:</u>																		
Intermarried versus Single	12.8	13.9	0.36	25.5	13.2	0.05	25.4	12.1	0.04	24.2	12.6	0.06	20.9	13.4	0.12			
Non-intermarried versus Single	-33.8	12.8	0.00	-12.3	10.4	0.24	-11.6	10.1	0.25	-12.8	5.8	0.13	-7.1	7.9	0.37			
Intermarriage Premium	46.5	12.8	0.01	37.8	12.9	0.00	37.0	11.9	0.00	37.0	13.2	0.01	27.9	12.6	0.03	-2.6	10.1	0.80
<u>Puerto Ricans:</u>																		
Intermarried versus Single	-11.1	15.8	0.48	11.6	14.2	0.41	21.7	14.8	0.14	31.0	21.3	0.15	11.8	13.2	0.37			
Non-intermarried versus Single	-7.6	19.3	0.69	6.5	13.8	0.64	18.5	12.1	0.13	7.0	10.8	0.52	17.1	9.9	0.08			
Intermarriage Premium	-3.5	20.0	0.86	5.1	18.3	0.78	3.2	16.8	0.85	24.0	25.4	0.34	-5.3	14.4	0.71	-30.9	13.1	0.02
Difference in Differences (IV)	50.0	17.6	0.01	32.7	13.4	0.02	33.8	13.5	0.01	12.9	22.6	0.57	33.2	13.9	0.02	28.4	9.6	0.00
Difference in Differences (OLS)	7.9	3.4	0.02	5.4	2.7	0.04	3.3	2.6	0.20	4.7	3.1	0.13	8.7	3.1	0.01	6.5	2.6	0.02
R ²	0.13			0.17			0.15			0.14			0.16			0.11		
Observations	68,472			60,308			82,907			104,978			99,027			60,215		

Notes: The excluded variables used are (1) ratio of immigrants to natives among local unmarried Hispanic women, and (2) share of all local women aged 16-44 who are unmarried. Other controls included are the fraction of the local population who are Hispanic immigrants, a quadratic in the number of years since the individual migrated, and dummy variables indicating his English fluency, educational attainment, age, veteran status, current school attendance, urban residence, and nine geographic regions. Intercepts and effects of educational attainment are allowed to differ between Mexicans and Puerto Ricans. The sample excludes men who are divorced, widowed, married to a non-Hispanic immigrant, or married to an absent spouse. All estimates use person-level sample weights, and standard errors correct for non-independence (clustering) of observations within metropolitan areas.

Table 5: Alternative Excluded Variables in Equation (2) - Selected IV Estimates from the Earnings Equation, Mexican and Puerto Rican Immigrant Men Aged 16-44

	Est. (x100)	SE (x100)	P	Est. (x100)	SE (x100)	P	Est. (x100)	SE (x100)	P	Est. (x100)	SE (x100)	P	Est. (x100)	SE (x100)	P	Est. (x100)	SE (x100)	P
Mexican:																		
Intermarried versus Single	43.3	11.7	0.00	10.5	15.7	0.50	43.5	11.0	0.00	37.2	12.3	0.00	25.6	12.4	0.04	33.3	12.2	0.01
Non-intermarried versus Single	-6.5	9.0	0.47	-29.3	13.2	0.03	-17.0	9.2	0.07	-8.1	9.6	0.40	-13.5	9.0	0.13	-13.4	8.9	0.13
Intermarriage Premium	49.9	12.7	0.00	39.8	12.0	0.00	60.5	11.7	0.00	45.3	12.7	0.00	39.1	12.6	0.00	46.7	11.3	0.00
Puerto Rican:																		
Intermarried versus Single	30.5	14.0	0.03	-4.2	18.3	0.82	29.5	13.0	0.02	25.2	14.6	0.09	15.7	14.6	0.28	21.3	14.5	0.14
Non-intermarried versus Single	14.9	11.8	0.21	-6.7	14.9	0.65	2.4	11.6	0.84	15.2	12.20	0.214	10.4	11.7	0.37	11	11.3	0.33
Intermarriage Premium	15.6	18.0	0.39	2.5	17.9	0.89	27.1	15.6	0.08	10.0	17.9	0.21	5.3	17.5	0.76	10.3	17.0	0.54
Difference in Differences	34.3	13.0	0.01	37.3	13.8	0.01	33.4	13.0	0.01	35.3	13.2	0.01	33.8	13.2	0.01	36.4	13.5	0.01
Excluded variables for multinomial logit	Baseline set, using location's 1990 data			Baseline set, using individual's location 5 years earlier			Meng and Gregory's (2005) instruments			Kantarevic's (2004) instrument plus sex ratio			(Two other candidate excluded variables)			Baseline set, using multinomial probit rather than logit		
	(1) Immigrant/native ratio among local unmarried Hispanic women			(excludes persons abroad 5 years ago)			(1) Share of local unmarried women who are Hispanic immigrants			(1) Ratio of Hispanic immigrants/natives among local unmarried women / same ratio for entire US			(1) Share of local native unmarried women who are of Hispanic descent					
	(2) Share of all local women aged 16-44 who are unmarried						(2) Sex ratio (women/men) among unmarried Hispanic immigrants			(2) Sex ratio (women/men) among all local people			(2) Sex ratio (women/men) among all unmarried people					
R ²	0.14			0.10			0.12			0.15			0.14			0.14		
Observations	107,082			89,762			108,094			108,094			108,094			108,094		

Notes: Other controls included are the fraction of the local population who are Hispanic immigrants, a quadratic in the number of years since the individual migrated, and dummy variables indicating his English fluency, educational attainment, age, veteran status, current school attendance, urban residence, and nine geographic regions. Intercepts and effects of educational attainment are allowed to differ between Mexicans and Puerto Ricans. The sample excludes men who are divorced, widowed, married to a non-Hispanic immigrant, or married to an absent spouse. All estimates use person-level sample weights, and standard errors correct for non-independence (clustering) of observations within metropolitan areas.

Table 6: Alternative Controls - Selected IV Estimates of the Earnings Equation, Mexican and Puerto Rican Immigrant Men Aged 16-44

	Est. (x100)	SE (x100)	P	Est. (x100)	SE (x100)	P	Est. (x100)	SE (x100)	P
Mexican:									
Intermarried versus Single	40.3	12.1	0.00	29.0	8.9	0.00	35.4	11.7	0.00
Non-intermarried versus Single	-5.1	8.3	0.54	-10.8	6.4	0.09	-14.3	8.5	0.09
Intermarriage Premium	45.4	10.5	0.00	39.8	8.9	0.00	49.7	10.2	0.00
Puerto Rican:									
Intermarried versus Single	30.2	13.2	0.02	23.4	9.9	0.02	28.5	14.1	0.04
Non-intermarried versus Single	18.7	10.2	0.07	12.2	7.6	0.11	3.6	10.1	0.72
Intermarriage Premium	11.5	14.1	0.42	11.1	11.1	0.32	24.9	14.6	0.09
Difference in Differences	34.0	11.8	0.00	28.6	9.7	0.00	24.8	13.1	0.06
R ²	0.15			0.17			0.13		
Additional controls	state dummies			industry dummies			detailed language proficiency dummies		
Observations	108,094			108,094			108,094		

Notes: The excluded variables used are (1) ratio of immigrants to natives among local unmarried Hispanic women, and (2) share of all local women aged 16-44 who are unmarried. Other controls included are the fraction of the local population who are Hispanic immigrants, a quadratic in the number of years since the individual migrated, and dummy variables indicating his English fluency, educational attainment, age, veteran status, current school attendance, urban residence, and nine geographic regions. Intercepts and effects of educational attainment are allowed to differ between Mexicans and Puerto Ricans. The sample excludes men who are divorced, widowed, married to a non-Hispanic immigrant, or married to an absent spouse. All estimates use person-level sample weights, and standard errors correct for non-independence (clustering) of observations within metropolitan areas.

Table 7: Disaggregation - Selected Results from OLS and Two-Stage Estimation of the Earnings Equation, Mexican and Puerto Rican Immigrant Men Aged 16-44

Sample	Men who immigrated 0-5 years ago, arrived at age greater than 15						Men who immigrated more than 10 years ago, arrived at age greater than 15					
	OLS			IV (2SLS)			OLS			IV (2SLS)		
	Est. (x100)	SE (x100)	P	Est. (x100)	SE (x100)	P	Est. (x100)	SE (x100)	P	Est. (x100)	SE (x100)	P
Mexican:												
Intermarried versus Single	14.1	2.0	0.00	20.1	17.5	0.25	21.2	2.3	0.00	25.5	27.6	0.36
Non-intermarried versus Single	5.8	1.1	0.00	-50.2	16.8	0.00	17.6	1.4	0.00	37.0	28.4	0.19
Intermarriage Premium	8.3	2.1	0.00	70.4	19.5	0.00	3.6	1.6	0.02	-11.5	12.7	0.37
Puerto Rican:												
Intermarried versus Single	26.5	5.3	0.00	26.5	24.8	0.28	25.5	7.0	0.00	14.6	30.4	0.63
Non-intermarried versus Single	26.4	4.8	0.00	32.7	19.8	0.10	26.4	6.1	0.00	24.5	23.0	0.29
Intermarriage Premium	0.1	6.3	0.99	-6.2	28.5	0.83	-0.9	3.8	0.80	-9.9	19.3	0.61
Difference in Differences	8.2	6.5	0.21	76.6	31.2	0.01	4.5	4.1	0.27	-1.5	18.9	0.94
Observations	21,521			21,521			32,630			32,630		

Notes: The excluded variables used are (1) ratio of immigrants to natives among local unmarried Hispanic women, and (2) share of all local women aged 16-44 who are unmarried. Other controls included are the fraction of the local population who are Hispanic immigrants, a quadratic in the number of years since the individual migrated, and dummy variables indicating his English fluency, educational attainment, age, veteran status, current school attendance, urban residence, and nine geographic regions. Intercepts and effects of educational attainment are allowed to differ between Mexicans and Puerto Ricans. The sample excludes men who are divorced, widowed, married to a non-Hispanic immigrant, or married to an absent spouse. All estimates use person-level sample weights, and standard errors correct for non-independence (clustering) of observations within metropolitan areas.