"Is the United States a Pro-natalist Destination? A New Look at the Recent Fertility of American Immigrants."

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Prepared for the 2004 Annual Meetings of the Population Association of America, Boston, MS.

Abstract

The fertility dynamics of foreign-born women impact overall population growth and the racial, ethnic, linguistic, and generational composition of the country. Here we consider the patterns of recent fertility among immigrant women along the dimensions of national origin, education, geographic settlement, linguistic behavior, and the presence of grandparents using data from the Census 2000 Supplemental Survey. We estimate a total fertility rate among foreign-born women that is nearly 40% higher than that of native-born women, but also observe a wide array of period fertility rates across national origins subgroups. Differences observed across national origin groups are scarcely attenuated by standard social and demographic control variables. The processes associated with the marital and non-marital fertility of immigrant women are distinct. Our results point to the value of adopting a more life-course oriented approach with greater attention to the context of pathways to marriage and motherhood alike.

Introduction

The direct affects of decades of sustained high levels of immigration on the population dynamics of the United States are well appreciated. More recently the secondary impact of immigration via differential fertility has received increasing attention (Swicegood and Morgan 2002). It is clear that the relative fertility of the foreign-born population is substantially higher than that of native-born women. Thus the higher levels of fertility among the foreign-born population compounds the consequences of immigration for overall population growth and the shifts in the racial, ethnic, linguistic, and generational composition of the population. The query that we pose in our

title turns out to be both complex and conditional. The simple answer to the question is yes, if the reference point is the childbearing behavior of native- born American women. However this broad aggregate comparison raises many further questions about the contributions of various national origin streams to this dynamic and the operative mechanisms that may account for pro-natalist behavior amongst immigrant Americans. The analyses that we report here provide some new insights into these questions and guidance for their further investigation. Below we consider the patterns of recent fertility among immigrant women along the dimensions of national origin, education, geographic settlement, linguistic behavior, and the presence of grandparents in the household.

Background and Significance

Fertility levels in the United States (as measured by the period total fertility rate) have moved from a postwar low of 1.74 in 1976 to 2.03 in 2001 (Martin et al. 2003). After the abolition in 1965 of national origin quotas as a basis for the admission of immigrants, the annual number of immigrants coming to the United States has increased substantially, rising from 296,697 in 1965 to 849,807 in 2000, an increase of 286% that does not take into account substantial undocumented immigration (U.S. Immigration and Naturalization Service 2002; Bean et al, 1989; Reimers 1992). As a result the percentage of the U.S. population that is foreign-born from 5.1 percent in 1965 to 11.1 percent in 2000 (Edmonston and Passel 1994; U.S. Bureau of Census 2000). The national origin composition of immigrants has also shifted away from European countries to Latin American and Asian countries (e.g. from 38.5 percent European in 1965 to more than 70percent Asian or Latino by 2000 (U.S. Immigration and Naturalization Service 1965;

2002). Thus recent immigrants are now more likely to be from countries with higher levels of childbearing than the United States. More than one in five of all births (21.4%) in the United States now occurs to an immigrant woman, and the corresponding figure for Hispanic births is three in five (62.7%) (Martin et al. 2002). Estimates from June 1995 Current Population Survey data show the general fertility rate for immigrant women was 40 percent higher than that of native-born women (83.1 per 1,000 women aged 15-44 vs. 58.9) (Bachu 1997). At least for some prominent country of origin groups, relatively high fertility also characterizes subsequent generations. For example, (Bean, Swicegood and Berg 2000) we have previously shown that the fertility of Mexican-born women substantially exceeds that of non-Hispanic white women both before and after the application of standard socio-demographic controls. The fertility of the second generation of Mexican origin converged towards that of non-Hispanic women. However, third-and later generation women show levels of cumulative and current fertility that are not only higher than those of non-Hispanic white women, they are also higher than those of second generation women.

Beyond these general linkages, detailed information about the childbearing dynamics of the foreign born population is scarce. Few data sources have sufficient numbers of foreign-born women to support separate analyses for different origin groups. Those sources that are large enough tend to include little if any direct information on fertility behavior. The analyses that we report in this research are based on the Census 2000 Supplemental Survey (C2S2). The great advantage of this survey derives from the inclusion of a question on whether or not women of childbearing age had a birth in the last year. Thus we are able to produce the most recent period fertility rates for separate

national origin group that to our knowledge are available. We also are able to estimate models of recent fertility that explore linkages with a variety of potential explanatory factors.

Theoretical Perspectives and Prior Research.

Cultural and economic perspectives. Research on immigrant fertility is often grounded in a concern with the extent to which the childbearing patterns of the immigrant population varies from that of native born and the pace at which convergence or demographic incorporation occurs. Not surprising that the default hypothesis in much empirical work is that with passage of time (either individual or generational), immigrant groups and their descendants will become increasingly assimilated on a variety of dimensions and as a consequence their fertility patterns will come to resemble those of their new country. From a theoretical standpoint, the assimilation framework can only serve as an orienting perspective because it has not been systematically articulated with a specific theory of reproductive behavior. Its concern with acculturation as the initial component of the process suggests the importance of normative structures (particularly those relevant to childbearing) in the destination society, but the significance of this factor necessarily depends upon the extent to which such norms differ from those at origin and the strength with which they continue to influence immigrants in their new home. While the importance of origin influences on the fertility of immigrant women seems likely, the empirical assessment of normative influences remains underdeveloped with residual differences sometimes attributed to unmeasured normative influences.

The impact of factors such female education and labor market positions, key elements of the structural assimilation occupy a more prominent role both theoretically and empirically in the fertility literature. Here we term this emphasis as an opportunity structures approach. This framework has close affinities with an economic perspective that emphasizes the opportunity costs of childbearing as indicated by labor force behavior and experience and human capital indicators, especially female education. While some versions of the perspective emphasize husband's income flows in the context of fixed preferences, others emphasize variable preferences and a relative income calculus (see Van de Kaa 1996). Economic theories of fertility (Becker 1960; Schultz 1981) use the concept of "opportunity costs" to explain the relationship between female employment and fertility. All else being equal, the more resources a couple has, the more children they will have. At the same time, the greater the "price" of children, the few children a couple will have. In part, the price of children is specified as a function of the mother's foregone earnings (opportunity costs). Opportunity costs may vary for several reasons, depending on the accessibility of the female labor market, a woman's human capital (e.g., educational attainment, specific job skills and experience), and her potential wage. Also, opportunity costs may increase when a woman's earnings make up a substantial share of total household income (see Butz and Ward 1979). The importance of her earnings (and thus the costs of not being employed) is likely to depend on the number of dependents in her family, child care costs, the mother's marital status and the availability of alternative sources of income, such as income from a spouse/partner or support from relatives, friends and public assistance. Its important to note that opportunity costs are likely to

moderated by context that may include both cultural and economic components, because the implications of human capital and incompatibilities between childbearing and work.

In the multivariate analyses that we present below, we view the opportunity costs of childbearing as associated with education, linguistic usage, household structure (co-resident grandparents), and geographic region. These factors may all overlap to some extent with cultural preferences and we make no attempt to untangle the knot in which cultural and economic influences are intertwined. Changing patterns of immigration have make all of this factors potentially more important to childbearing behavior in the United States.

Language Use and English Proficiency. The United States has become the site of a large-scale and multi-facetted experiment in contact between multiple language groups. Only a generation ago, in 1980, the vast majority of Americans, over 90%, spoke only English. But by 2000, forty-seven million Americans, about 18% of the total population, spoke a non-English language. In New York State, over a quarter of the population speaks a non-English language, in Texas, almost a third, in California, over 40 percent (U.S. Census Bureau 2002).

It is an interesting moment in American history. The dramatic changes in the overall numbers of non-English speakers in the U.S., fed by the acceleration in immigration levels beginning in the late 1960s, is reverberating throughout American society. Census data, for example, can be used to consider members of minority language groups from several vantage points: as individuals whose language repertoires change over time, as

members of linguistically complex families, as members of language communities, and as Americans who (sometimes) identify themselves as members of ethnic and national origin groups. Language background or use of a non-English language at home have been used as measures of ancestry or assimilation in analyses of demographic phenomena such as fertility (e.g., Morgan, Watkins, and Ewbank 1994), and mortality (e.g., Preston and Haines 1991). Levels of proficiency in English have been used as measures of human capital in analyses of demographic phenomena such as fertility (e.g., Swicegood et al. 1988), and are a staple measure of human capital in economic analyses of earnings. Research by Swicegood and his colleagues based on data from the 1980's showed that English proficiency was negatively associated with fertility and that this factor accentuated the negative effect of education on fertility. Since that time increasing numbers of non-English speakers have arrived and changed the context of language use in many parts of the country.

Grandparents, Living Arrangements and Fertility. Extended family living arrangements have been posited as pro-natalist fertility influence, but primarily within the context of developing and or non-Western societies (e.g. Caldwell and Caldwell 1987). Empirical analyses using Taiwanese data, suggests that living with grandparents increases marital fertility (Chi and Hsin1996). More general studies on the role of child care in fertility decisions has shown that the availability of child care by relatives increases the parents' desire to have another child (Lehrer and Kawasaki 1985). Therefore, living with grandparents may decrease the opportunity costs of child bearing. It is more common for co-resident grandparents to provide child care (Baydar and Brooks-Gunn 1998),

especially extended full-time care (Vandell, McCartney, Owen, Booth, and Clarke-Stewart 2003). Hank and Kreyenfeld (2003) found that among German and foreigners living in Germany, access to informal childcare by respondent's parents significantly increases the first birth risk.

While the presence of grandparents may lead to higher fertility, under certain circumstances they might be expected to have a negative impact. Grandparents may compete for household resources with their (potential) grandchildren. The prolongation of life expectancy has meant that more people may experience being a grandparent, and that duration of grandparenthood is increased (Uhlenberg and Kirby 1998). This shifts do not mean however that the presence of grandparents will enhance household resources in terms of childcare provision or other contributions. Baydar and Brooks-Gunn (1998) for example, found that frail grandparents are less likely to provide childcare as compared with healthier grandparents. The presence frail grandparents may even require sufficient care from the adult children's generation as to exert a downward pressure on fertility.

Geographic Dispersion of the Immigrant Population . Since 1960, the foreign-born population has become increasingly concentrated in a handful of states. For instance, the percent of the foreign born population living in six states (California, New York, Florida, Texas, New Jersey and Illinois) increased from 56.5 percent in 1960 to 70.4 percent in 2000 (Schmidley 2001). However, this is down from the high of approximately 87.0 percent during the 1980's (Frey 2002). Indeed, while continuing to favor the traditional receiving areas, immigrants are increasingly spatial dispersed, with both recently arrived migrants and more experienced migrants engaging in "secondary migration" and moving to states that traditionally have appealed to the native born, such as Georgia, Nevada, and

North Carolina (Frey 2002). Indeed, states such as California, New York, and Illinois were the three largest foreign-born "exporters" to other states (Perry and Schachter 2003). California lost many foreign born residents to nearby states such as Nevada, Texas, and Arizona, as well as to more distant states such as Georgia (Perry and Schachter 2003). Since housing and other factors in the cost of living are expensive in California and other primary destination sites, we are interest in examining variation in recent fertility across these contexts. In particularly, we are interested in seeing whether fertility of the foreign-born differs across contexts that we suspect have rather different opportunity costs of childbearing.

Recent settlement patterns of Latinos has been the subject of a flurry of recent study. As has been true in the past, the largest proportion of Latinos in United States live in the West in 2000 (43.5 percent), and was the region with the largest total increase in the number of Latinos over the decade (Guzmán and McConnell 2002). However, the proportion of all U.S. Latinos living in the West and in the Northeast, the other most populated region for Latinos, dropped between 1990 and 2000 (Guzmán and McConnell 2002). Instead, higher proportions of all Latinos lived in the Midwest and South in 2000 than ten years earlier. The geographic patterns of the Latino population has also changed in other ways. Suro and Singer (2002) note two important shifts. First, they note continued concentration in "established Latino metros" such as Los Angeles and New York but that metropolitan areas such as Atlanta and Orlando have experienced the fastest growth rates, what they term "hypergrowth" (Suro and Singer 2002). Second, though Latinos continue to prefer metropolitan areas, more Latinos are residing in the

suburbs rather than central cities. Indeed, the Latino population in the suburbs increased by 71 percent between 1990 and 2000 (Suro and Singer 2002). Still other research has noted the movement of Latinos to rural areas in recent years (Kandel and Parrado 2003; Hernández-León and Zúñiga 2000; Millard and Chapa, forthcoming). Latino population growth has been an important component of nonmetropolitan population change, accounting for 25 percent of the total nonmetropolitan population growth during the 1990's (Cromartie and Kandel 2003). As we report below Hispanic origin immigrants have much higher fertility than other foreign-born women, are interested in where this distinctive behavior may be concentrated.

Data and Methods

The Census 2000 Supplementary Survey (C2SS) was part of the demonstration program for the American Community Survey (ACS), whose primary objective was to evaluate the feasibility of collecting long-form data outside the decennial census. It represents an effort by the ACS to provide timely Census long-form type data on a yearly basis instead of once every ten years. When fully implemented, the ACS is projected to replace the Census 2010 long-form (U.S. Bureau of Census 2002a). Despite its comparability to the Census long-form, there are important differences between the C2SS and the Census long-form. By examining such differences we are able to better comment on the reliability, quality, and overall coverage of the C2SS.

First, the design and implementation between both surveys were different. The C2SS used the basic design of the ACS (which is an ongoing survey) thereby utilizing C2SS/ACS staff, permanent professional interviewers who are typically experienced and have undergone extensive training. In contrast, the Census was conducted at one point in

time by hundreds of thousands of temporary employees with limited training. Furthermore, since the long-form isn't the focus of the 2000 Census, non-response on question items were not followed-up, while question follow-up was an integral design of the ACS.[1] In sum, the design and implementation of the C2SS was superior to that of the 2000 Census long-form. Second, although consisting of a very large sample of 700,000 households the C2SS is still a sample and since sampling error often decreases with sample size, the Census long-form (which consists of 19 million households) is likely to inherently have less sampling error. Third, the C2SS did not sample group quarters, while the Census does.[2] Fourth, the reference period for the C2SS is the year before the survey, while the reference period for the Census is the calendar year before the survey.[3] Lastly, the Census is a snapshot in time (April 1, 2000) while the C2SS was an ongoing survey over the year 2000.[4]

Despite its much smaller sample size, overall, accuracy measures indicate that the C2SS was of high quality (U.S Bureau of Census 2002b). High sample completeness ratios[5] reflect this assessment (85%-90%). Some estimates of sample completeness for the C2SS even showed a significant improvement over equivalent estimates from the 1990 Census long-form[6,7] (Starsinic and Albright 2002). Yet, overall sample completeness

[1] Follow-up for the 2000 Census was only conducted if the short form was not filled out. On the other hand, the C2SS followed up by mailing out questionnaires to non-responding households. If responses were still not received, follow up was attempted by telephone. Lastly, if a response was still not obtained, 1/3 of the remaining households received visits by C2SS interviewers. As a result, when comparing imputation rates to the Census 2000, C2SS rates were significantly lower for every basic population item (U.S. Census Bureau, 2000b).

[2] Such a discrepancy may have large effects for certain areas (e.j. the median age in the locality of a large military base would be significantly different between C2SS and Census results).

[3] Results for items such as income are likely to be different due to such methodological differences.

[4] Therefore results in highly seasonal areas are likely to be different between both surveys.

[5] Which measures the extent to which the C2SS represents the Census 2000 population count. A ratio of 100% would mean the sample completely parallels the Census 2000.

[6] Which measures the extent to which the 1990 long-form survey represents the 1990 Census population.

ratios for the C2SS were comparable to 1990 estimates.[8,9] The data quality of the C2SS is further supported by the high weighted survey response rate of 95.4 percent.

Results

Reliability of the C2SS data. In table 1 we present estimates of the total and general fertility rates derived from the recent fertility question in the C2SS. The results are compared with the comparable Vital Statistics values published by NCHS for the years 1999 and 2000 for women ages 15-44. For all women the C2SS data produces a TFR that is about three and a half percent higher than the vital statistics reports for the year 2000. The comparability of the GFR comparison is even closer with the C2SS estimate exceeding the vital statistics figure by about one and a half percent. When we consider the race specific fertility measure, the reliability of the C2SS data is further reinforced. Estimates for the white population are virtually identical to the vital statistics figures. For other racial/ethnic categories the C2SS data results in small over estimates as compared with vital statistics reports. The major exception to this general assessment is found for the Native American category where limits of survey coverage for a relatively small group are likely to account for the large divergence in the rates under comparison. These

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[7] Completeness ratios for the total population, Hispanics, Whites, and Blacks were actually significantly higher for the C2SS

[8] Completeness ratios for American Indians/Alaska Natives, Asians, and Native Hawaiians/Other Pacific Islanders were comparable to those for the 1990 long-form. The only racial/ethnic group with a significantly lower completeness ratio were those in the "some other race" category, which was likely the result of differences in data collection. Also, there was a discrepancy in the response format for the Hispanic question. While the response format for the Census 2000 was simply "yes" or "no" the response format for the C2SS consisted of several categories (not Hispanic, Mexican, Puerto Rican, Cuban, Dominican, etc.). The end result stemmed from Hispanics having different patterns of response to the race question as fewer Hispanics in the C2SS reported "some other race" and many more reported "white" in the Census 2000.

[9] Completeness ratios by age and gender were comparable to and better in some cases to the 1990 Census long-form. Furthermore, completeness ratios for persons in Metropolitan areas were either significantly higher for the C2SS or comparable to the 1990 Census long-form. On the other hand, completeness ratios for persons not in Metropolitan areas were generally lower for the C2SS, but usually not significant when compared to equivalent measures for the 1990 Census long-form. So estimates for respondents from rural areas will still be accurate.

results support the general conclusion that fertility behavior during the previous year is reasonably well-assessed with the C2SS data. Of course we have no direct comparisons with immigrant only women because NCHS does not publish rates for this subpopulation. In effect we must assume that our estimates and models of recent fertility for these women are of similar quality.

[Table 1 About Here]

National Origin Differentials. Next we consider the estimated TFR's and GFR's for all foreign-born women and specific national origin categories. These results are unique in so far as they provide the first major assessment of the period fertility of national-origin populations of foreign-born women for the twenty-first century. Some obvious caveats are in order. The estimates are subject to any differential biases associated with the coverage of the C2SS survey. Moreover, a number the estimates for specific countries are based on quite small sub-samples. Here we have presented estimates only for groups with one hundred or more women. Noting first the overall fertility of the foreign-born women, we find the TFR of 2.706 is nearly forty percent higher that the comparable estimate for all native-born women of childbearing age. Because the TFR measure is adjusted for age distribution, the GFR's show an even greater discrepancy for the native- and foreign-born comparisons as the younger age structure of the immigrants is more favorable to births. Quite clearly the period fertility levels of the immigrant population exceed those of the native-born women by a substantial margin.

[Table 2 about here]

The disaggregated results reported in table 2 provide further insights into the national origin sources of this differential. Much of the gap is attributable to the childbearing of Hispanic origin immigrants. Their TFR is about twenty five percent higher than that of all foreign-born women and is nearly two-thirds higher than that of all native-born women. Yet within the Hispanic subgroups there is considerable variation. While few demographers would be surprised that the Mexican-born women have the highest TFR (3.777) for Hispanics and indeed the highest rate for any national origin group in the sample, they probably would not have expected the El Salvadoran or Guatemalan women to be at or below replacement level fertility. The TFR of 2.748 observed for the Cuban born women is probably higher than might have been expected and may point to differential selectivities involved in more recent immigrant streams from this sending country. The fertility levels for most of the East Asian countries (save Vietnam with a TFR of 2.4) are all substantially below replacement level and if placed in cross-national perspective would be amongst the lowest currently observed rates anywhere in the world. South Asian-origin women from Indian (2.516) and the Philippines (2.342) have fertility rates that while generally lower than Hispanic women are still relatively high for the American context and if sustained would generate population growth amongst their associated descent groups. Immigrant women from Europe and Canada occupy middle ground of the rankings with rates well below replacement, but in a number of cases exceeding current levels in their respective country of origin.

These results obviously reflect a great deal of diversity in the recent childbearing of immigrant women. While comparatively low rates are observed for many national origin groups, these tend to be countries with relatively small contributions to the immigration

stream of recent decades. Historical shifts in proportion of immigrants from Latin America clearly mean that increasing proportions of immigrants are from comparatively high fertility sending countries. We might add the populations entering from India and the Philippines to this list as well. In this broad sense, the United States does appear to provide a pro-natalist environment for immigrant family formation. The case of the Mexican-born women, however, is especially intriguing. Their current TFR of 3.777 is equivalent to the highest level recorded in the country during the pick of the baby boom. Moreover, the fertility level of Mexican-born women in the United States appears to be considerably higher than that reported for women in Mexico. The Population Reference Bureau now reports the TFR for Mexico in 2003 as 2.8 (PRB, 2003), and reports from the Mexican government place the rate even lower. In the analyses below, we devote special attention to the Mexican-born component of the immigrant population. The type of information that is available in the C2SS sample will not allow us to explore in much detail the specific forces that may serve sustain this level of fertility in the American context. We can however, identify the factors that appear to be associated with higher or lower levels of childbearing for this group in particular and immigrant women in general.

Logistic Regression Models of Recent Fertility. The remainder of the results are presented in the form of logistic regression models that consider a birth in the previous year as a function of a sequential set of social and demographic characteristics. We consider all foreign-born women, but we have estimated separate models for women who were married at the time of the survey and those who were not. Because we wanted to address the possible impact of grandparents in the household, we focused initially on married women for whom it would be possible to have either maternal or paternal grandparents as co-residents. When we began to explore comparable models for unmarried women we observed very different patterns of effects across marital status

categories. As a growing proportion of childbearing occurs outside of marriage, demographers have begun to argue that this dimension of the life course requires a more sophisticate and analytical treatment (Rindfuss and Parnell, 1989; Wu and Wolf, 2001). Although we are very limited in terms of the marital and fertility histories available to us in the C2S2, our results reinforce the value of this observation.

[Table 3 about here]

The results for all foreign-women are show in table 3 where all coefficients are reported in terms of estimated logits. The first model simply controls for the age of women and immediately shows the difference that marital status makes. Unmarried teen age women are much less like to have a birth than the reference category of 20-24 year olds, while for married women there is no statistically significant difference between the two age categories. In the second set of models we see that educational differences in the recent fertility of immigrant women are concentrated almost entirely within the unmarried sub-sample. For those women the effects of education show the expected strong negative impact on fertility. The next two sets of models consider two aspects of the language repertoires of immigrant women. The first contains set contains a dummy variable for whether or not a language other than English is used in the household. For married women the estimated positive coefficient of .293 suggests that if the a language other than English is used the women is 1.34 times as likely to have had a birth in the previous year as compared to the English only speakers. Conversely this variable appears to have no association with the recent fertility of unmarried immigrant women. In the next models that examine English proficiency, we see again that language matters for married women, and that these effects are independent of education and age controls.

The next two sets of models include dummy variable for co-resident grandparents. For the married women we can evaluate the presence of maternal and paternal grandparent separately. We find in this case no significant effects but an interesting pattern in so far as the coefficients take on opposite signs for maternal versus paternal grandparents. For unmarried women, however the presence of a potential grandparent has a strong negative impact. In this case, we must be careful about imputing causal significance in only one direction. Those immigrant women who are unmarried and still living with one or more of their parents may be in that household context because they are yet to start separate families.

In the next set of models, we show the coefficients associated with being Mexican born and the area of the country that the immigrant woman resides in. With respect to the later, we find no statistically significant variation across these different regional aggregates as compared with the reference category of California. It is the case however, that the Mexican born women of both marital statuses have significant higher recent fertility than women from other countries of origin. The effect is particularly pronounced in the case of unmarried women where the coefficient of .604 implies that Mexican born women were 1.83 times as likely to have a birth in the previous year as all other foreign-born women. It's important to note that this estimated effect is net of age, education, region of residence, and presence of potential grandparents. In the final set of models shown in table 3, we add a variable measuring the length of time that the women has been in the United States using information on year of immigration. A simple assimilation

perspective would lead to an expectation that this relationship would be negative, with increasing time in the United States leading to lower fertility. However, we find no significant effect of this variable even when we explored alternative, non-linear functional forms (results not shown here). Moreover, year of entry does not moderate any of the effects observed in the previous models.

Given the distinctive levels of fertility that we have observed for the Mexican-born women, we also estimated separate models paralleling those in Table 3 for all immigrant women. In this case, the sample sizes are relatively small for supporting the multivariate analysis of a relatively rare event. For the Mexican-born sample, the results do not markedly differ from those reported above. However, we did find that the effects of education are appear to be less pronounced for the Mexican-born women, and that year of entry had a small statistically significant effect such that the women who have been in the country the longest had lower birth rates in the previous year.

Discussion and Further Research

Using data from the Census 2000 Supplemental Survey, we have shown that the period fertility rates of foreign-born women in the United States are substantially higher than native-born women. If the volume and character of immigration remains in force, these dynamics will make a major contribution to the population momentum of the country. Within this overall pattern, a wide array of period fertility rates are observed. The variance observed across different national origin groups corresponds rather closely with extant differences across the sending nations. In some instances, we see fertility levels

that are substantially lower (Korean) or higher (Mexican) than might be anticipated. Differences observed across national origin groups are scarcely attenuated by standard social and demographic control variables (results not shown here.)

Our investigation still leaves open the most interesting questions regarding the mechanisms that operate to sustain relatively high fertility levels amongst some sectors of the foreign-born population and quite low levels amongst others. Our results point to the value of adopting a more life-course oriented approach than is typically of differential fertility research. As we have seen the processes associated with marital and non-marital fertility appear to be quite distinct and ultimately understanding differential family formation will require attention to the pathways that lead into and out of marriage. Certainly we will need richer data than the Census based surveys are likely to provide. While that C2S2 data used for this analysis is valuable, it lacks any information on fertility beyond the occurrence of a birth in the last year. For this reason, we are not able to control for prior parity in the models we have estimated. As we continue this investigation we will be addressing this limitation by the application of own child fertility measures (Cho, Retherford and Choe 1986). These procedures will allow us to estimate prior fertility for women in the C2S2 sample. We will be also be applying these measures to the 5% PUMS sample from the 2000 Census where no direct fertility measure are available at all. With the PUMS data, the case base should be large enough for some specific country of origin research as well as much more refined geographic detail and associated characteristics of the residential area than we were able to present in this version of our study.

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Table 1: Comparison of TFR and GFR Estimates from Census 2000 Supplementary Survey With Vital Statistics, Women Ages 15-44

Race by Hispanic Origin	TFR_{15-44}	GFR_{15-44}	2000 Vital Statistics TFR_{15-44}	2000 Vital Statistics GFR_{15-44}	1999 Vital Statistics TFR_{15-44}	1999 Vital Statistics GFR_{15-44}
All Women (N = 78,608)	2.130	66.9	2.056	65.9	2.008	64.4
White Alone (N = 61,439)	2.053	64.0	2.051	65.3	2.008	64.0
Non-Hispanic White (N = 56,572)	1.986	61.6	1.866	58.5	1.839	57.7
Black (N = 8357)	2.300	70.8	2.129	70.0	2.083	68.5
Non-Hispanic Black (N = 8,195)	2.273	69.9	2.179	71.4	2.134	69.9
Asian Alone or Pacific Islander (N = 3,634)	1.950	69.3	1.892	65.8	1.755	60.9
Hispanic (N = 8,492)	2.826	95.7	2.730	95.9	2.649	93.0
Native American and/or Alaskan Native Alone (N = 666)	2.718	82.6	1.773	58.7	1.784	59.0

Table 2: TFR's and GFR's for Native Born, Foreign Born, and Country of Origin Subgroups, Women Ages 15-44

	TFR_{15-44}	GFR_{15-44}
Native-Born (N = 69,179)	2.048	63.4
Foreign-Born (N=9,429)	2.706	92.0
Country of Origin Subgroups		
Foreign-Born Hispanic (N=4,061)	3.344	112.0
Foreign Mexican-Born (N=2,355)	3.777	132.1
Foreign El Salvadoran-Born (N=246)	2.058	81.3
Foreign Guatemalan-Born (N=145)	1.642	55.2
Foreign Cuban-Born (N=159)	2.748	88.1
Foreign Colombian-Born (N=182)	3.436	93.4
Foreign Dominican-Born (N=195)	3.182	87.2
Foreign Haitian-Born (N=118)	3.527	101.7
Foreign Jamaican-Born (N=200)	2.200	55.0
Foreign Japanese-Born (N=156)	1.475	70.5
Foreign Chinese-Born (N=303)	1.063	52.8
Foreign Philippine-Born (N=527)	2.342	81.6

Country of Origin Subgroups	**TFR_{15-44}**	**GFR_{15-44}**
Foreign Taiwanese-Born (N=159)	1.227	56.6
Foreign Korean-Born (N=322)	0.727	21.7
Foreign Vietnamese-Born (N=372)	2.398	88.7
Foreign Indian-Born (N=376)	2.516	103.7
Foreign German-Born (N=126)	1.502	63.5
Foreign Polish-Born (N=122)	1.367	49.2
Foreign English-Born (N=125)	1.061	40.0
Foreign Russian-Born (N=109)	1.783	55.0
Foreign Canadian-Born (N=195)	1.474	66.7

Table 3: Logistic Regression Results Predicting Birth in Last Year - *All Foreign-Born Women Ages 15-44*

	Married	Unmarried	Married	Unmarried	Married	Unmarried	Married	Unmarried	Married	Unmarried	Married	Unmarried	Married	Unmarried
AGE														
15-19	0.492	-0.735**	0.494	-1.170**	0.476	-1.169**	0.432	-1.090**	0.505	-0.837**	0.456	-0.775**	0.446	-0.775**
25-29	-0.466**	-0.146	-0.450**	-0.024	-0.452**	-0.024	-0.443**	-0.050	-0.448**	-0.178	-0.448**	-0.187	-0.431**	-0.186
30-34	-0.729**	-0.043	-.0733**	0.013	-0.729**	0.013	-0.716**	0.026	-0.735**	-0.187	-0.717**	-0.146	-0.674**	-0.145
35-39	-1.553**	-0.618*	-1.557**	-0.631*	-1.549**	-0.631*	-1.527**	-0.601*	-1.558**	-0.855**	-1.528**	-0.828**	-1.454**	-0.826**
40-44	-2.412**	-1.475**	-2.145**	-1.500**	-2.401**	-1.500**	-2.378**	-1.501**	-2.416**	-1.743**	-2.374**	-1.692**	-2.268**	-1.690**
(25-24 REF)														
EDUCATION														
0-8th grade			0.029	0.481*	0.005	0.480*	-0.118	0.286	0.035	0.415	-0.069	0.259	-0.090	0.258
Less than HS			0.002	0.337	-0.018	0.336	-0.053	0.285	0.001	0.309	-0.049	0.222	-0.053	0.222
Some College			0.021	-0.689*	0.036	-0.688**	0.048	-0.654**	0.017	-0.692**	0.053	-0.574*	0.064	-0.574*
College Grad			0.027	-1.351**	0.039	-1.351**	0.049	-1.307**	0.025	-1.414**	0.089	-1.276**	0.076	-1.276**
(HS REF)														
ENGLISH PROF														
Very Well							0.326*	-0.003						
Somewhat Well							0.119	-0.286						
Not Well							0.371*	0.143						
Not At All							0.591**	0.499						
(Eng Only REF)														
OTHER LANG					0.293*	0.011								
(Eng Only REF)														
YEAR OF ENTRY													-0.010	-0.000
GRANDPARENT														
Maternal G.									0.310		0.296		0.318	
Paternal G.									-0.172		-0.161		-0.168	
Grandparent										-0.970**		-0.949**		-0.948**
(no grand REF)														
MEXICAN BORN											0.250*	0.604**	0.264*	0.604**
(other FB ref)														
GEOGRAPHY														
TX, NM, AZ											-0.197	-0.007	-0.207	-0.007
Florida											-0.240	0.045	-0.250	0.045
NY,NJ,MS,PN											-0.112	0.398	-0.118	0.398
Other States											-0.048	-0.047	-0.065	-0.047
(CA ref group)														
Sample Size (N):	5,268	4,163	5,268	4,163	5,268	4,163	5,268	4,163	5,268	4,163	5,268	4,163	5,268	4,163
Model χ^2:	281.6**	31.9**	281.6**	96.9**	285.4**	96.9**	293.3**	109.9**	286**	119.4**	295**	136.2**	297.7**	136.2**

*p<.05 **p<.01