The Quality of Time Spent with Children among Mexican Immigrants

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Abstract

We examine, from a gender and marital status perspective, the effect of duration of residence in the US on the quality and amount of time Mexican immigrant parents spend with their children. For our estimation, we use the American Time Use Survey from 2003 to 2010 and compare the childcare behaviors of Mexican-born parents to those of three separate groups of US natives. We measure the quality of care by the time spent on primary and secondary childcare activities that differ by the degree of involvement of the parent while the activity is undertaken. We further divide primary care into developmental and non-developmental activities according to their influence on the child's intellectual, physical, and social development. Our estimates indicate that, at the time of arrival married immigrant mothers and non-married fathers spend less time on developmental childcare and more time on secondary care than comparable US natives. We also find that married immigrant fathers spend less time on developmental care than non-Hispanic (NH) whites but the same time as comparable NH blacks and Mexican-Americans. Finally, we find overall evidence that duration of residence improves the childcare behaviors of Mexican immigrants.

Keywords: Childcare Activities, Immigrant Assimilation, Time Use

JEL Codes: J15, J22, J61

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1.   Introduction

The time parents allocate to their children has both investment and consumption motives. On one hand, parental care is a form of investment that affects the child's cognitive and non-cognitive skills, socio-emotional development, and educational outcomes. For this reason, time investment in children constitutes an important mechanism underlying the intergenerational transmission of economic status (Hill and Stafford, 1985 and Guryan et al., 2008). On the other hand, parent-child shared time is a form of consumption that increases the utility of parents. This paper contributes to the literature in this area by analyzing, from a gender and marital status perspective, the effect of duration of residence in the US on the amount and quality of time Mexican immigrant parents spend with their children.

There are very few studies in the literature that focus on the parental care habits of the foreign-born. Time spent with children entails costs to parents in terms of the forgone income and opportunity to invest in additional human capital of their own. Immigrants face significant challenges regarding the provision of childcare given their often inadequate income and lack of a family support system in their country of destination. Estimates from the National Survey of America's Families indicate that although children of immigrants are significantly more likely to have two parents at home than children with native-born parents, they are generally poorer, in worse health, and more likely to experience food insecurity and crowded housing conditions (Reardon-Anderson et al., 2002). Moreover, studies using data from the Survey of Income and Program Participation indicate that immigrant families tend to make less use of non-parental care than natives, even after accounting for other demographic factors (Brandon, 2004).

According to the latest Census Bureau data, the number of immigrants (legal and illegal) in the US reached a record 40 million in 2010 (Camarota, 2012). The childcare behaviors of this large and growing demographic group have important implications not only for their future economic well-being but also for that of the areas where they live. As reported by Fortuny et al. (2009), in 2007 about 16.4 million children or more than one in five children in the US had at

least one immigrant parent. This number doubled from eight million in 1990 and their share among children under the age of 17 increased from 13% to 23% during the same period.

In this paper, we concentrate on the effect of tenure in the US on the childcare behaviors of Mexican immigrants. Mexico is by far the top source country, comprising nearly a third of the US foreign-born population. Motel and Paten (2013) and Camarota (2012) report that in 2010 there were 11.7 million Mexican immigrants living in the US, and Fortuny et al. (2009) indicate that in 2007 about 41% of children of immigrants had parents from Mexico. Previous research indicates that Hispanic immigrant couples increase their market work with years since migration while maintaining or increasing the amount of time devoted to housework or family care (Vargas, 2013). This implies that immigrants' amount of discretionary time decreases with duration of residence in the US, which might be associated with changes in the amount and type of immigrants' childcare. In addition, assimilation, regarded as the process by which individuals adopt the behaviors, beliefs, values, and norms of the dominant culture, may be another mechanism underlying the link between duration of residence in the US and childcare behaviors among immigrants.

Existing childcare studies typically focus on the association between total time spent with children and socio-economic variables such as gender, employment status, and household characteristics. Accounting for the quality care is an important factor in this type of analysis, however. Kalenkoski and Foster (2008) suggest that it is not only the aggregate time but the type of time spent with parents that nurtures a child's healthy development. In addition, Kalenkoski and Foster (2008) argue that the total time approach might be misleading due to the fact that each hour spent by a parent with his/her child may not be equally productive and/or equally costly, and may not be captured by models of parental investment in children. In this paper, we measure the quality of care by the time spent on primary and secondary childcare activities that differ by the degree of involvement of the parent while the activity is undertaken. We further divide primary care into developmental and non-developmental activities according to their influence on the child's intellectual, physical, and social development.

For our estimation, we use the American Time Use Survey (ATUS) from 2003 to 2010 and compare the childcare behaviors of Mexican-born parents to those of US-born parents. To

consider the racial and ethnic diversity of the US, better understand the interactions of Mexican immigrants with other minority groups, and investigate diverse patterns of assimilation we use non-Hispanic (NH) whites, NH blacks, and Mexican-Americans as three separate comparison groups. Regression estimates indicate that, at the time of arrival to the US, married immigrant mothers and non-married fathers spend less time on developmental childcare and more time on secondary care than comparable US-natives. In addition, we find that married immigrant fathers spend less time on developmental care than NH whites and US-born Mexicans but the same time as comparable NH blacks. Furthermore, we find no differences on the amount of time most immigrant parents allocate to non-developmental care regardless of their gender and marital status. The only exception is non-married immigrant mothers, who spend less time on non-developmental care than NH white and Mexican-American mothers, but the same time as NH Blacks. Estimates also indicate that, upon arrival to the US, married immigrant fathers and non-married mothers allocate the same time to secondary care as US natives. Finally, we find that tenure in the US increases the amount of time all immigrant parents devote to developmental care, has no effect on their non-developmental care, and decreases their allocation of time to secondary care. We interpret this as evidence that duration of residence is associated with an improvement of the childcare behaviors of Mexican immigrants.

The remainder of this paper is organized as follows. Section two reviews the literature on time allocated to childcare; section three describes the data and the classification of childcare activities according to quality; section four presents the estimation approach and the analysis of the results; and section five closes the paper with a brief summary of the results and their policy implications.

2.   Literature Review

Parents expend time and other resources to care for their children, enjoy leisure activities with them, and invest in their human capital. The time cost of parent-child shared time is mainly related to foregone labor market opportunities that can have short and long run impacts on earnings. In the short run, parents are forced to cut their working hours, lowering the family's income. In the long run, time spent with children results in forgone future wages due to

the loss in experience and other forms of human capital accumulation. The costs and benefits of childcare vary according to parental education, earnings, employment, and the age and number of children.

Previous empirical studies find a positive association between parental education and time devoted to childcare. Hill and Stafford (1985) analyze the time married parents between the ages of 18 and 50 devote to their children in pre-school years using a national probability sample of US households from 1975-76. They find that more-educated women spend more time playing with children, helping with the teaching of children, and in child-related travel. More recently, Kalenkoski et al. (2005) use time-diary data from the 2000 United Kingdom Time Use Study and find that among married, cohabiting, and single-parent families, women with advanced degrees spend more time on primary childcare, secondary childcare, and market work than women with lower levels of education. For the US, Kalenkoski et al. (2006) use the 2003 ATUS and find that mothers with a bachelor's or graduate degree also spend more time on primary childcare and in market employment than less educated mothers. Likewise, Guryan et al. (2008) use the ATUS from 2003 to 2006 and find that mothers with a college education or greater spend roughly 4.5 hours more per week in childcare than mothers with a high school degree or less, even though they also spend more time working outside the home.

The type of parental childcare also depends on the children's age. In particular, children are more time intensive when they are young and become more material intensive as they grow. Gustaffson and Kjulin (1994) use data from the 1984 Swedish Panel Study of Market and Non-market Activities and find that time used for childcare decreases sharply with age of the child. Douthitt (1989) finds for Canada that the older the youngest child, the more time is spent by employed mothers in other household activities such as meal preparation, garden care, and laundering. For the US, Kimmel and Connelly (2007) use data from the 2003 and 2004 ATUS and find that mothers' care giving time increases with the number of children and decreases with their age. Their study also suggests that married women with husbands present spend less time on weekday childcare as their partners also provide parental care.

Employment status and earnings are among other factors that influence the amount of time parents spend on childcare activities. Kooreman and Kapteyn (1987) use a random sample of

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the US population and find that the time wives spend on childcare is related to wages of their husbands whereas women's own wages affect neither her childcare time nor her husband's childcare time. In contrast, Hallberg and Klevmarken (2003) and Van Den Brink and Groot (1997) show for Sweden and Netherland, respectively, that parent's earnings do not affect childcare time. Regarding employment status, Nock and Kingston (1988) use a US sample of married couples with children in 1981 and find that mother's employment lowers childcare time, especially the time spent on childcare while simultaneously doing another non-childcare related activity. Later on, Bryant and Zick (1996a, 1996b) use US data from the National Time-Use in Economic and Social Accounts between 1975 and 1981 and find that in two-parent, two-child families, mothers who spend more time in market work share less traditionally defined child-care time, but only with the older child. The authors also find that husbands of white employed married women spend about 1,500 more hours raising two children to age 18 than the husbands of white, unemployed married women. In addition, Hallberg and Klevmarken (2003) use the 1984 and 1993 waves of the Swedish Panel Study of Market and Non-market Activities and find that a change in the mother's work hours influences less the parents' time with their children than a change in the father's work hours does. More recently, Levine (2009) uses the ATUS from 2003-2007 and finds that, among married women, those who are out of the labor force spend roughly three hours per day engaged in childcare, those who are unemployed or work part-time spend a little over two hours with their children per day, and those who work full time allocate one and a half hours per day to childcare.

In a complementary study, Joesch and Spiess (2006) analyze how many hours per week mothers report looking after children under 16 years of age and explore the extent to which cross-country differences in socio-demographic characteristics and parental employment contribute to differences in the allocation of time to this activity. They utilize data from the 1996 wave of the European Community Household Panel and find that differences in socio-economic composition are insufficient to explain differences in the mean number of hours mothers spend on childcare activities across the nine countries in the sample. They argue that these disparities might be explained by cultural differences with respect to child rearing and dissimilar policies that may impact parents' employment and childcare decisions.

Recent cross-country evidence shows that the time parents spend with their children has increased considerably over the years. Gauthier et al. (2004) build on earlier work by Bianchi (2000) and Sayer et al. (2004) to analyze the trends in parental time devoted to children in 16 industrialized countries since the 1960s. They find that parents are devoting more time to childcare than they did four decades ago despite the increase in women's labor force participation and the time pressures of market work. They conclude that activities that involve a higher degree of parent-child interaction, such as playing or personal care, were responsible in many countries for the overall increase in time spent on childcare. They also find that unemployed parents spend slightly more time in childcare activities than their employed counterparts. Finally, their results indicate that fathers tend to spend less time with their children compared to mothers, but this gender gap narrowed in many countries over the last four decades of the twentieth century.

More recently, Giménez-Nadal and Sevilla Sanz (2011) analyze trends in childcare time using data for individuals between the ages of 21 and 65 in seven industrialized countries from the 1970s until recently. Restricting their analysis to non-retired/non-student individuals, they also find a general increase in men's and women's time spent on childcare activities. In particular, childcare increased in most countries for women by an average of one hour and 20 minutes per week over the analyzed period. They also find that men increased the time devoted to housework and childcare activities in all countries by an average of three hours and 35 minutes and one hour per week, respectively.

Research on the time immigrant parents spend on childcare activities is very limited. A study by Hossain and Shipman (2009) examines the factors affecting the levels of parental engagement among parents of school-age children in Mexican immigrant families in the US. They employ data from two rural southwestern regions of the US and find that women in two-parent households spend significantly more time on basic childcare, care on demand, and academic interaction at home and at school than fathers do. They also report a positive relationship between the time Mexican immigrant fathers spend on children's care and their level of education and extra familial support. Finally, they find that the time spent on children's

academic work is positively influenced by their parents' education and negatively influenced by family size.

This paper contributes to the childcare literature by using a national representative sample of the US to analyze, from a gender and marital status perspective, the effect of duration of residence on the amount and quality of parent-child shared time among Mexican immigrant parents. To our knowledge, this has not been documented before in the literature and provides an alternative point of view of the factors that affect the intergenerational progress of this large segment of the US population.

3.   Data and Descriptive Statistics

For the purpose of this study, we use the American Time Use Survey Data Extract Builder (ATUS-X) for the years 2003 to 2010 (Abraham et al., 2008). This annual survey has been conducted by the Bureau of Labor Statistics on a continuous basis since 2003. It is a time diary study of a nationally representative sample of non-institutionalized individuals aged 15 and older that are randomly selected from a subset of households that have completed their eighth and final month of interviews for the Current Population Survey (CPS). The survey collects information about the activities respondents were engaged in over a 24-hour period from 4:00 am of a specified day until 4:00 am of the following day. Respondents are asked to report their activities sequentially, the start and stop time of each activity, the location where the activity took place, and, for most activities, who was with them in the room or who accompanied them on an activity if they were not at home. Respondents are also asked to report secondary childcare of children under age 13. This category comprises those activities in which the child is not the primary target and the parents are not directly engaged with him/her, but they are available to the child. It is important to mention that the ATUS only interviews one person per household; consequently, it only provides time use information for one parent in the household. However, the socio-economic information on the other family members is available from the CPS.

There is no standard method in the literature to classify childcare according to its quality level. Some studies separately model the total time spent on primary childcare in which the

child is the primary target of the activity being undertaken, and secondary childcare in which another non-childcare activity is the main task being performed (Bianchi, 2000 and Kalenkoski et al., 2005). In this classification, the primary activity is regarded as high quality care and the secondary activity as low quality care. In a subsequent study, Kalenkoski and Foster (2008) distinguish between active (high quality) and passive (low quality) childcare. The active care measure comprises childcare activities with a child aged 0-11 years in a primary capacity. The passive care is similar to the secondary activities defined by previous studies, except that in this classification the child needs to be present in the same room while the main activity is being performed. In addition, Kalenkoski and Foster (2008) define quality of childcare time as sole-tasked (high quality) and multi-tasked (low quality)[1] and argue that, unlike other measures, this one captures the heterogeneous costs of childcare time to parents for the reason that sole-tasked care by its nature does not allow engaging in another productive work and therefore inherently has an equal or greater opportunity cost for parents compared to other forms of care. Other studies measure the quality of childcare beyond the primary and secondary differentiation of activities. For instance, Stafford and Yeung (2005) classify childcare activities into development oriented and non-development oriented according to their influence on the child's intellectual, physical, and social development over his/her life time. They consider care giving, play and companionship, achievement-related, and social activities with children as development oriented and all other childcare activities as non-development oriented.

In this study, we measure the quality of childcare using the primary and secondary classification activities. We further sub-divide primary childcare into development and non-development oriented activities following the classification used by Stafford and Yeung (2005). In particular, developmental childcare activities comprise: physical care, reading to or with children, playing sports, doing arts and crafts with children, talking with or listening to children,

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[1] To construct sole-tasked care measure the authors add the number of minutes during which a person reported performing as a primary activity any childcare task for children 0–14 but did not report being simultaneously engaged in any non-childcare activity. Multi-tasked care measure is computed by adding the number of minutes during which a person reported being engaged in any childcare task, whether primary or otherwise, while also being simultaneously engaged in some non-childcare activity.

education-related activities,[2] organizing and planning for children, and attending children events. Non-developmental childcare activities include: looking after children, waiting for children, picking up or dropping off children, travel time related to childcare activities, and health-related activities.[3] We cannot sub-divide secondary childcare activities into development and non-development oriented because the ATUS only provides an aggregate measure of this type of care. Furthermore, it is important to clarify that the ATUS reports the time parents spend on primary childcare of children under the age of 18, but only records secondary childcare activities for children under the age of 13.

For our estimation, we restrict the sample to adults aged 18-65 with at least one child under the age 18. To consider the racial and ethnic diversity of the US, our estimation methodology compares childcare habits of first generation Mexican immigrants to those of three separate groups of native-born Americans: NH whites, NH blacks, and Mexican-Americans. We define first generation Mexican immigrants as those individuals born in Mexico who migrated to the US at age 16 or older. Mexican-Americans comprise immigrants who arrived to the US when they were younger than 16 years of age, US natives whose parents are Mexican immigrants, and US natives with US native parents and whose ethnic identification is Hispanic of Mexican origin. First and second generation white and black immigrants from countries other than Mexico, and respondents from all other ethnicities were excluded from the study. Our sample includes 12,680 fathers and 14,542 mothers for a total of 27,222 observations. NH whites represent 75% of the respondents and NH blacks, Mexican Americans, and first generation immigrants from Mexico are roughly equally represented the remaining 25% of the sample.

Table 1 displays the average minutes per day spent on developmental, non-developmental, and secondary childcare activities by gender and immigration status. The left panel reports the fathers' activities and the right panel the mothers' behaviors. Estimates indicate that, for all demographic groups considered, fathers devote less time than mothers to all types childcare.

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[2] Education-related activities include: helping or teaching children, helping children with homework, meetings and school conferences, home schooling, and other activities related to children's education. However, the waiting associated with children's education is considered as non-developmental care.

[3] Health-related activities include: providing and obtaining medical care to children, waiting associated with children's health, and other activities related to children's health.

Among fathers, Mexican immigrants spend the least amount of time with their children. In particular, foreign born fathers devote only 19 minutes per day to developmental care, about 25, 21, and 6 minutes less than NH whites, Mexican Americans, and NH Blacks, in that order. In addition, immigrant fathers devote on average eight minutes per day to non-developmental care, an amount that is not significantly different from that of US-natives. Finally, fathers born in Mexico devote three and half hours per day to secondary childcare, roughly the same amount as NH natives but 50 minutes less than Mexican-Americans.

Among mothers, estimates in Table 1 indicate that there are no statistically significant differences in the childcare habits of foreign and US- born Mexicans. There are, however, noteworthy differences in childcare time between Mexican immigrants and NH natives. In particular, Mexican immigrants devote 61 minutes per day to developmental care, roughly 24 minutes less than NH whites and 10 minutes more than NH blacks. In addition, Table 1 shows that immigrant mothers allot on average 23 minutes per day to non-developmental care, about 4 and 6 minutes more than NH whites and blacks, in that order. Finally, our estimates indicate that immigrant mothers devote on average seven hours per day to secondary childcare, approximately two hours more than NH natives.

The observed time use differences between Mexican immigrants and US-born natives may be partly explained by their dissimilar socio-economic characteristics, however. In particular, estimates in Table 2 indicate that in Mexican immigrant households, fathers are on average 38.5 years old and mothers are 2.2 years younger. In addition, 64% of immigrant parents do not hold a high school degree, about 23% have a high school diploma as their highest degree, and only 12% hold a bachelor degree or higher. Furthermore, 94% of immigrant fathers and 37% of immigrant mothers are employed, revealing specialization in household activities. Finally, immigrant households have on average 2.6 adults, 2.3 children, and a little over 50% have children younger than five years of age. Estimates in Table 2 also show that Mexican immigrant parents are on average younger, less educated, live in households with more adults, and have more children than NH natives. In addition, immigrant fathers are the more likely to be employed while immigrant mothers are less likely to be employed and devote the least number of hours to market work than their NH native counterparts. Estimates also reveal that the socio-

economic differences between foreign and US-born Mexicans are less pronounced or non-existent.

These figures indicate that it is necessary to account for the different socio-economic backgrounds of immigrants and natives to be able to isolate the effect of duration of residence in the US on the childcare patterns of Mexican Immigrants.

4. Empirical Model and Results

To analyze the immigrants' patterns of childcare, we estimate for each type of activity the following equation independently for fathers and mothers using native-born NH whites, native-born NH blacks, and Mexican Americans as three separate reference groups:

$$T_{it} = \beta' X_{it} + \alpha_1 M_{it} + \alpha_2 (Img_i) + \alpha_3 YSM_{it} + \alpha_4 YSMSQ_{it} + \alpha_5 (YSM_{it} * M_{it}) +$$
$$\alpha_6 (YSMSQ_{it} * M_{it}) + \alpha_7 (Img_i * M_{it}) + K_t + \varepsilon_{it} \tag{1}$$

Where T_{it} are the minutes spent on a particular childcare activity on the previous day by individual i in year t. X_{it} is a vector of control variables that are expected to affect the time spent with children. It includes age, age squared, dummies for the highest level of schooling for the respondent and, if married, the schooling of the spouse, usual hours of work, real hourly wage, occupation, family income level, number of adults in the household, number of children in the household, dummies for the presence of children for age groups 0-2, 3-5, and 6-12,[4] metropolitan area size, and three regional dummies. In addition, M_{it} is a dummy variable equal to one for married individuals and zero otherwise and Img_{it} is an indicator variable for first generation Mexican immigrants. This foreign born indicator allows the intercept to vary between immigrants and natives and captures differences in childcare habits at the time of the immigrant's arrival to the US. The effect of duration of residence on the immigrant's patterns of childcare is captured by the variable years since migration (YSM) and its square ($YSMSQ$),

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[4] The omitted category is children between 13-17 years of age.

which equal 0 for natives.[5] In practice, these variables allow the immigrant's returns to age to deviate from the native returns by their own years since migration, and the quadratic approximation is commonly used in the immigration literature (e.g. Borjas, 1995 and Blau et al., 2003). To allow the effect of duration of residence to vary by marital status, we include interactions of the married indicator with the dummy that controls for first generation immigrants and the variables that control for years since migration. Finally, K is a vector of year fixed effects and it is common to both natives and immigrants and ε is the error term.

In equation (1), immigrants and natives are pooled. A concern in the assimilation literature is that if the unmeasured characteristics of cohorts of immigrants are changing over time, studies based on a single cross-section of the population may produce biased estimates of the immigrant assimilation effects (Borjas 1985). Nevertheless, if one has cross-sectional data collected at two different points in time, it is possible to track a given immigration cohort across time and identify cohorts of arrival effect. The ATUS sample includes 8 consecutive years of data and cohorts of arrival can only be defined in five year intervals, however. Given that the ATUS cross-sections are too close in time and the cohorts of arrival are very coarsely defined, the data looks more like a single cross-section, limiting one's ability to separately identify cohort and assimilation effects (Blau, Kahn, Moriarty and Portela Souza 2003). For this reason, I do not include cohort of arrival effects in the regression and attempt to mitigate the bias caused by changes in unmeasured characteristics of cohorts by concentrating the analysis on a single immigrant group, Mexicans. In addition, I do not include in the regression the years since migration of the spouse, if the respondent is married, because they are highly correlated with the years since migration of the respondent and will introduce a problem of multicollinearity.

Another concern is that a large fraction of observations might have values of zero for the time spent in a particular activity on a given day. Zeros in time-use data arise from a mismatch between the reference period of the data (the diary day) and the period of interest, which is typically much longer. For this reason, there has been a continuous debate in the literature

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[5] Following Borjas (1995), we calculated the years since migration variables by evaluating the categorical period of immigration variables at the midpoints of the indicated intervals and used the year of interview minus 1950 for the open-ended category before 1950.

about whether it is more appropriate to fit censored regression (Tobit) models, using maximum likelihood estimation, or linear models using ordinary least squares (OLS) to explain individuals' allocations of time to different activities in time-diary data. Stewart (2009) finds that Tobit marginal effects significantly underestimate the true parameter values and the extent of the bias varies with the fraction of zero-value observations. The likely reason for this is that the Tobit model assumes that the process that determines whether an individual engages in the activity is the same that governs how much time is spent in that activity. In contrast, Stewart (2009) finds that OLS produces unbiased estimates. In a related study, Foster and Kalenkoski (2013) examine how the diary window length affects OLS and Tobit estimates. They find that Tobit marginal effects are smaller than OLS, but the magnitude of the bias decreases as the reference period lengthens because of the reduction in the number of zero observations. Thus, both studies conclude that analyst should be cautious when interpreting Tobit marginal effects based on a single diary day, as is the case of the American Time Use Survey. For this reason I estimated equation (1) using ordinary least squares (OLS).

In addition, I cannot estimate equation (1) for fathers and mothers simultaneously, for those who are married, because the ATUS only interviews one person per household. Consequently, I only have time use information for one member of the couple, but the socioeconomic information of all members of the household is available from the CPS. However, given that equation (1) is the same for fathers and mothers for all the activities considered, OLS equation by equation gives the same result as the estimation of the Seemingly Unrelated Regression model via GLS (Bhattacharya 2004; Greene 2012). In addition, in a system of linear seemingly unrelated regression equations with identical regressors, equation by equation OLS yield efficient estimates of the coefficient vectors.

The estimations use weights based on the 2006 ATUS' weighting methodology and the standard errors are computed by successive difference replication methods. Tables 4a through 4f provide the basic regression results that show the assimilation profiles of the minutes per day spent doing various childcare activities. Tables 4a, 4b, and 4c compare immigrant fathers to NH whites, NH blacks, and Mexican Americans, in that order. Tables 4c, 4e, and 4f show the corresponding results for immigrant mothers. The net effects of the estimated years since

migration on developmental, non-developmental and secondary cares of immigrant fathers and mothers by marital status are presented in Tables 5 through 7. On each table the left panel displays the effects using NH white, NH black and Mexican American fathers as a reference group and the corresponding effects for mothers are displayed on the right panel.

Panel A in Table 5 shows the assimilation profiles of immigrant fathers compared to NH whites while accounting for other socio-economic characteristics. Estimates indicate that at the time of arrival married and non-married immigrant fathers allocate 31 and 48 minutes less to developmental childcare activities than comparable NH white fathers, in that order. However, these differences decrease substantially as the immigrant's duration of residence in the US increases. In particulars, after 12 years in the US, the time allocated by married and non-married immigrant fathers to developmental care becomes 20 and 22 minutes less per day compared to NH white fathers, respectively. However, we find no statistically significant differences on non-developmental care among Immigrant and NH white fathers, regardless of their marital status and the immigrant's duration of residence in the US. Concerning secondary care, our estimates indicate that at the time of arrival married immigrant fathers have the same time allocations to this activity as their NH white counterparts, whereas non-married immigrant fathers devote over eight hours more to this activity. The time non-married foreign born fathers devote to secondary care gradually decreases with tenure in the US, however. After 12 years in the country, married and non-married immigrant fathers allocate 43 minutes and two hours less than their NH white counterparts, in that order.

Panel B in Table 5 displays the corresponding effects for immigrant mothers compared to NH whites. Our estimates indicate that immigrant mothers exhibit a similar pattern of assimilation for developmental care as their male counterparts. They spend at the time of arrival roughly an hour less on this activity than comparable NH whites, but the gap closes with years since migration, especially for single immigrant mothers where it becomes statistically insignificant after six years of residence in the US. Regarding non-developmental care, we find no statistically significant differences in the amount of time married immigrant mothers allot to this activity compared to NH whites. Non-married immigrant mothers, however, devote 19 minutes less to non-developmental care than comparable NH white mothers at the time of

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arrival, and this difference becomes statistically insignificant after four years in the country. Concerning secondary care, estimates indicate that, at the time of arrival, married immigrant mothers spend about 70 minutes more on secondary care relative to NH whites, but the difference gradually diminishes and becomes statistically insignificant after 10 years in the US. Finally, we find that non-married immigrant mothers spend the same amount of time on this activity as their NH white counterparts regardless of their years since migration.

The previous results do not always hold when NH blacks are used for comparison. In particular, Panel A in Table 6 shows that married immigrant fathers allocate the same time to developmental care as NH blacks, regardless of their years since migration. However, single immigrant fathers spend 47 minutes less on developmental activities at the time of arrival than NH blacks, and this difference gradually closes with duration of residence in the US. As before, we find no differences on the time allocated to non-developmental care between immigrant fathers and NH blacks regardless of the immigrant's marital status and tenure in the US. Concerning secondary care, estimates indicate that married immigrant fathers devote the same amount of time to this activity as NH blacks at the time of arrival, but they gradually decrease the amount of time they devoted to it, spending 52 minutes less than comparable NH blacks after 12 years in the country. In contrast, non-married fathers born in Mexico spend about seven hours more on secondary care than comparable NH blacks at the time of arrival, but this gap rapidly narrows and becomes insignificant after six years of residence in the US.

Concerning mothers, Panel B in Table 6 shows that, at the time of arrival, married immigrant mothers devote 25 minutes less to developmental care than NH blacks but this difference becomes insignificant after only four years in the country. On the other hand, we find no differences in developmental care between non-married immigrant mothers and comparable NH blacks at the time of arrival. However, they gradually increase the amount of time devoted to this activity with years since migration, allocating 45 minutes more after 12 years of residence in the US. As previously found, our estimates show that mothers born in Mexico spend the same time on non-developmental childcare as their NH black counterparts, regardless of their marital status and their duration of residence in the US. With respect to secondary care, married immigrant mothers devote one hour and 50 minutes more to this

activity upon arrival to the US, and this gap closes to about an hour after 12 years in the country. On the other hand, non-married immigrant mothers devote the same amount of time on secondary care as their NH black counterparts, irrespective of their tenure in the US.

Panel A in Table 7 presents the estimated effect of duration of residence when Mexican-American fathers are used as a reference group. Married immigrant fathers allocate 18 minutes less time to developmental care relative to US-born Mexicans and the gap remains roughly constant with years of residence in the US. On the other hand, single immigrant fathers devote 51 minutes less to developmental care than their native counterparts at the time of arrival, but the difference gradually decreases and becomes statistically insignificant after 8 years of tenure in the US. As in all previous cases, no differences are observed on the time spent on non-developmental care for any marital status group. Concerning secondary care, we find no significant differences between married foreign-born and Mexican-American fathers, regardless of the years since migration. Non-married immigrant fathers, however, devote seven hours and 28 minutes more to secondary care at the time of arrival than Mexican Americans, but this difference rapidly reverses with tenure in the US. In particular, after 12 years of residence in the country, single immigrant fathers allot two hours and 43 minutes less to secondary care relative to Mexican-American fathers.

Finally, Panel B in Table 7 compares foreign born and Mexican-American mothers. Estimates show that, upon arrival to the US, married immigrant mothers spend 25 minutes less in developmental childcare than Mexican American mothers, but the gap closes after six years of tenure in the US. In addition, we don't find significant differences in non-developmental or secondary care between married foreign born and Mexican-American mothers, regardless of the years since migration. Among non-married mothers, estimates show that there are no statistically significant differences in the amount of time foreign and us-born Mexicans spend on developmental or secondary childcare regardless of their years since migration. Non-married immigrant mothers, however, devote 29 minutes less to non-developmental care upon arrival to the US, but this gap closes quickly becoming insignificant after four years of residence in the US.

5. Summary and Conclusions

This paper shows evidence of assimilation effects on the patterns of childcare of Mexican immigrant parents. Our estimates indicate that at the time arrival immigrant fathers, regardless of their marital status, allocate less time to developmental care than any group of comparable US natives and that this gap gradually closes with tenure in the US. The only exception is married immigrant fathers, who devote the same developmental care time as NH Blacks regardless of their years in the US. In addition, we find no significant differences in non-developmental care between immigrant fathers and any group of US natives, irrespective of their marital status and migration history. Finally, we find that at the time of arrival married immigrant fathers allocate the same amount of time to secondary care as any comparable group of US natives. In contrast, single immigrant fathers tend to devote significantly more time to secondary care at the time of arrival relative to their native counterparts, and this gap closes during the first few years of residence in the US.

Regarding mothers, our estimates indicate that at the time of arrival married immigrant mothers spend less time on developmental care relative to US natives, and this gap narrows with years since migration. On the other hand, recently arrived single immigrant mothers only show significant differences in developmental care relative to NH whites, and this difference disappears soon after arrival to the country. Furthermore, married immigrant mothers devote the same amount of time to non-developmental care as comparable US-natives regardless of their years since migration. Single immigrant mothers, however, allocate less time to non-developmental care at the time of arrival than NH whites and Mexican Americans. In both cases, however, the differences become insignificant after four years of residence in the US. In addition, we find that married immigrant mothers devote more time to secondary care relative to NH natives and this allocation decreases with tenure in the US. On the other hand, single immigrant mothers show no significant differences in secondary care relative to comparable US natives.

We conclude that acculturation, as measured by years of residence in the US, improves the childcare behaviors of Mexican immigrants. In particular, Mexican immigrant parents, specially the married ones, are increasing their allocations of time to high quality care and decreasing

their allocation of time to low quality care as their duration of residence in the US increases. The observed changes in childcare behaviors are not due to differences in income, education, or other socioeconomic characteristics, as these are included as controls in these estimates.

These results indicate that recently arrived Mexican immigrant parents constitute an at-risk group that should be targeted by early childhood education programs, which can have a significant influence on the intergenerational mobility of this large and growing segment of the US population.

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Table 1

Allocation of Time Spent on Childcare Activities, by Gender and Immigration Status

(Minutes per Day)

		Fathers				Mothers			
		Non-Hispanic		Mexican		Non-Hispanic		Mexican	
		Whites	Blacks	Americans	Immigrants	Whites	Blacks	Americans	Immigrants
Developmental	Mean	44 ***	25 *	41 ***	19	84 ***	51 *	69	61
	Std. Error	0.8	2.5	5.9	2.0	1.2	3.7	3.1	4.2
Non-Developmental	Mean	9	10	8	8	19 **	17 ***	20	23
	Std. Error	0.3	1.3	1.1	1.1	0.5	1.5	1.6	1.6
Secondary	Mean	219	238	263 **	212	316 ***	289 ***	414	420
	Std. Error	2.8	12.3	14.7	13.2	3.3	13.1	13.0	14.4
N		10,381	800	764	735	11,903	780	976	883

Source: Authors' computations, ATUS-X, 2003-2010

Asterisks denote significance of the immigrant-native differences on the time spent on the childcare activity: * p<0.10, ** p<0.05, *** p<0.01

Table 2
Socio-economic Characteristics by Gender, Race/ethnicity and Immigration Status

| | | Fathers | | | | Mothers | | | |
| | | Non-Hispanic | | Mexican | | Non-Hispanic | | Mexican | |
		Whites	Blacks	Americans	Immigrants	Whites	Blacks	Americans	Immigrants
Age	Mean	40.3	41.1	34.3	38.5	38.2	38.4	32.3	36.3
	Std. Error	0.1	0.4	0.4	0.4	0.1	0.3	0.4	0.3
Marital Status									
Married	Proportion	94.2%	82.8%	89.4%	92.8%	92.9%	86.2%	88.1%	93.2%
	Std. Error	0.3%	1.8%	1.3%	1.4%	0.3%	1.3%	1.3%	1.3%
Education									
Less than	Proportion	5.1%	12.1%	37.1%	63.8%	4.5%	8.7%	33.6%	64.6%
High School	Std. Error	0.3%	1.5%	2.4%	2.4%	0.3%	1.4%	2.0%	2.0%
High School	Proportion	30.9%	36.7%	30.8%	25.1%	27.2%	34.3%	34.2%	23.2%
	Std. Error	0.5%	2.3%	2.1%	2.0%	0.5%	2.0%	2.0%	1.9%
More than High	Proportion	64.0%	51.2%	32.2%	11.1%	68.3%	57.0%	32.2%	12.1%
School	Std. Error	0.5%	2.3%	1.8%	1.4%	0.5%	2.3%	2.0%	1.1%
Labor Market									
Employed	Proportion	92.4%	78.7%	90.2%	93.5%	70.9%	72.7%	51.3%	36.8%
	Std. Error	0.3%	1.9%	1.2%	1.0%	0.5%	1.7%	2.0%	2.1%
Weekly	Mean	43.7	35.4	39.2	39.7	25.2	28.9	18.4	12.5
Hours of Work	Std. Error	0.2	1.0	0.7	0.6	0.2	0.8	0.7	0.7
Household									
Number	Mean	2.25	2.34	2.53	2.53	2.25	2.38	2.55	2.66
of Adults	Std. Error	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1
Number	Mean	1.9	1.9	2.2	2.3	1.9	1.9	2.2	2.4
of Children	Std. Error	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
Children	Proportion	43.3%	37.6%	61.7%	53.9%	43.4%	37.5%	60.7%	50.8%
Less than 5	Std. Error	0.6%	1.9%	2.2%	2.2%	0.5%	2.1%	2.1%	2.1%

Source: Authors' computations, ATUS-X, 2003-2010

Table 4a: Assimilation Profiles of the Minutes per Day Spent doing various Childcare Activities
Mexican Fathers Compared to Non-Hispanic Whites

	Developmental Care		Non-Dev. Care	Secondary Care	
YSM	2.39	*	-0.31	-82.62	***
	(1.39)		(1.29)	(20.02)	
YSM squared	-0.02		0.01	2.561	***
	(0.04)		(0.05)	(0.642)	
Img	-47.85	***	6.08	503.3	***
	(9.81)		(10.24)	(147)	
Img x Married	17.57		-3.68	-498.7	***
	(11.23)		(11.49)	(146.8)	
YSM x Married	-1.36		-0.11	75.32	***
	(1.56)		(1.43)	(19.93)	
YSM squared x Married	0.01		0.00	-2.282	***
	(0.05)		(0.05)	(0.631)	
R-sq	0.17		0.04	0.169	

Source: Authors' computations, ATUS-X, 2003-2010, Standard errors in parentheses, * p<0.10, ** p<0.05, *** p<0.01

Table 4b: Assimilation Profiles of the Minutes per Day Spent doing various Childcare Activities
Mexican Fathers Compared to Non-Hispanic Blacks

	Dev. Care		Non-Dev. Care	Secondary Care	
YSM	3.16	**	-0.37	-74.37	***
	(1.49)		(1.39)	(17.98)	
YSM squared	-0.08	*	0.01	2.38	***
	(0.04)		(0.05)	(0.63)	
Img	-46.60	***	-0.73	416.70	***
	(14.21)		(14.16)	(127.40)	
Img x Married	40.57	***	8.01	-426.20	***
	(13.94)		(14.89)	(128.80)	
YSM x Married	-2.17		-0.28	67.54	***
	(1.70)		(1.48)	(18.57)	
YSM squared x Married	0.05		0.01	-2.11	***
	(0.05)		(0.05)	(0.64)	
R-sq	0.11		0.11	0.19	

Source: Authors' computations, ATUS-X, 2003-2010, Standard errors in parentheses, * p<0.10, ** p<0.05, *** p<0.01

Table 4c: Assimilation Profiles of the Minutes per Day Spent doing Various Childcare Activities
Mexican Fathers Compared to Mexican-Americans

	Dev. Care		Non-Dev. Care		Secondary Care	
YSM	3.84		-0.46		-81.77	***
	(3.36)		(1.31)		(18.27)	
YSM squared	-0.09		0.02		2.57	***
	(0.11)		(0.05)		(0.60)	
Img	-51.23	*	9.42		447.90	***
	(26.26)		(10.52)		(132.30)	
Img x Married	33.16		-5.92		-417.60	***
	(27.52)		(12.56)		(131.90)	
YSM x Married	-3.34		-0.05		74.56	***
	(3.49)		(1.50)		(18.72)	
YSM squared x Married	0.08		0.00		-2.30	***
	(0.11)		(0.05)		(0.61)	
R-sq	0.19		0.08		0.17	

Source: Authors' computations, ATUS-X, 2003-2010, Standard errors in parentheses, * p<0.10, ** p<0.05, *** p<0.01

Table 4d: Assimilation Profiles of the Minutes per Day Spent doing Various Childcare Activities
Mexican Mothers Compared to Non-Hispanic Whites

	Dev. Care		Non-Dev. Care		Secondary Care	
YSM	6.11		3.30	**	0.09	
	(5.53)		(1.49)		(17.46	
YSM squared	-0.08		-0.09	*	-0.20	
	(0.22)		(0.05)		(0.53)	
Img	-60.48	*	-18.93	**	-3.50	
	(33.98)		(7.98)		(124.60)	
Img x Married	-2.13		15.65	*	73.55	
	(34.74)		(9.05)		(133.80)	
YSM x Married	-1.64		-2.80	*	-6.51	
	(5.79)		(1.57)		(18.75)	
YSM squared x Married	-0.01		0.07		0.40	
	(0.23)		(0.05)		(0.57)	
R-sq	0.31		0.07		0.33	

Source: Authors' computations, ATUS-X, 2003-2010, Standard errors in parentheses, * p<0.10, ** p<0.05, *** p<0.01

Table 4e: Assimilation Profiles of the Minutes per Day Spent doing Various Childcare Activities
Mexican Mothers Compared to Non-Hispanic Blacks

	Dev. Care	Non-Dev. Care		Secondary Care
YSM	5.90	3.71	**	1.62
	(5.68)	(1.72)		(17.59)
YSM squared	-0.10	-0.10	*	-0.35
	(0.22)	(0.06)		(0.56)
Img	-10.07	-16.96		78.38
	(34.96)	(11.09)		(129.20)
Img x Married	-15.26	12.47		32.38
	(37.89)	(11.77)		(133.50)
YSM x Married	-2.33	-3.08	*	-6.61
	(5.98)	(1.73)		(18.35)
YSM squared x Married	0.01	0.07		0.43
	(0.23)	(0.06)		(0.59)
R-sq	0.25	0.12		0.33

Source: Authors' computations, ATUS-X, 2003-2010, Standard errors in parentheses, * p<0.10, ** p<0.05, *** p<0.01

Table 4f: Assimilation Profiles of the Minutes per Day Spent doing Various Childcare Activities
Mexican Mothers Compared to Mexican-Americans

	Dev. Care	Non-Dev. Care		Secondary Care
YSM	6.00	3.71	**	4.66
	(5.57)	(1.59)		(20.39)
YSM squared	-0.10	-0.09	*	-0.39
	(0.20)	(0.05)		(0.62)
Img	-28.76	-28.67	**	-68.44
	(36.24)	(12.75)		(155.40)
Img x Married	4.08	27.08	*	119.10
	(37.22)	(14.74)		(156.10)
YSM x Married	-2.23	-3.33	**	-8.52
	(5.80)	(1.67)		(20.87)
YSM squared x Married	0.00	0.08		0.44
	(0.21)	(0.05)		(0.64)
R-sq	0.26	0.10		0.30

Source: Authors' computations, ATUS-X, 2003-2010, Standard errors in parentheses, * p<0.10, ** p<0.05, *** p<0.01

Table 5: Immigrant-Native Differences in Childcare Time Use by Marital Status

		A. Mexican Fathers Compared to Non-Hispanic Whites							B. Mexican Mothers Compared to Non-Hispanic Whites						
Married															
	YSM	0	2	4	6	8	10	12	0	2	4	6	8	10	12
Developmental	Coeff.	-30.28	-28.26	-26.35	-24.54	-22.83	-21.22	-19.71	-62.61	-54.04	-46.21	-39.10	-32.73	-27.08	-22.16
	Std. Err	8.45	6.98	5.76	4.83	4.19	3.84	3.71	10.50	8.35	6.75	5.78	5.41	5.47	5.74
	P-val	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Non-Developmental	Coeff.	2.40	1.62	0.94	0.37	-0.09	-0.44	-0.68	-3.27	-2.37	-1.64	-1.10	-0.73	-0.54	-0.52
	Std. Err	5.40	4.33	3.44	2.73	2.23	1.94	1.81	4.74	3.89	3.27	2.88	2.70	2.68	2.75
	P-val	0.66	0.71	0.79	0.89	0.97	0.82	0.71	0.49	0.54	0.62	0.70	0.79	0.84	0.85
Secondary	Coeff.	4.58	-8.90	-20.15	-29.16	-35.95	-40.49	-42.81	70.05	57.97	47.43	38.43	30.97	25.04	20.65
	Std. Err	49.22	38.70	29.95	23.28	19.10	17.54	18.02	42.95	32.63	24.74	19.73	17.78	18.10	19.38
	P-val	0.93	0.82	0.50	0.21	0.06	0.02	0.02	0.11	0.08	0.06	0.05	0.08	0.17	0.29
Non-Married															
Developmental	Coeff.	-47.85	-43.15	-38.63	-34.27	-30.09	-26.08	-22.24	-60.48	-48.58	-37.32	-26.68	-16.67	-7.30	1.45
	Std. Err	9.81	8.14	7.09	6.64	6.64	6.89	7.20	33.98	25.93	20.27	17.07	15.89	15.88	16.36
	P-val	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.06	0.07	0.12	0.30	0.65	0.93
Non-Developmental	Coeff.	6.08	5.52	5.06	4.71	4.46	4.31	4.27	-18.93	-12.68	-7.14	-2.31	1.83	5.25	7.97
	Std. Err	10.24	8.70	7.59	6.83	6.31	5.94	5.64	7.98	7.00	6.86	7.28	7.95	8.64	9.27
	P-val	0.55	0.53	0.51	0.49	0.48	0.47	0.45	0.02	0.07	0.30	0.75	0.82	0.54	0.39
Secondary	Coeff.	503.28	348.29	213.79	99.78	6.26	-66.77	-119.32	-3.50	-4.13	-6.39	-10.26	-15.75	-22.87	-31.60
	Std. Err	147.03	114.19	87.64	67.99	55.71	50.21	49.30	124.62	94.95	70.70	52.93	42.99	40.86	43.63
	P-val	0.00	0.00	0.02	0.14	0.91	0.19	0.02	0.98	0.97	0.93	0.85	0.72	0.58	0.47

Source: Authors' computations, ATUS-X, 2003-2010

Table 6: Immigrant-Native Differences in Childcare Time Use by Marital Status

		A. Mexican Fathers Compared to Non-Hispanic Blacks							B. Mexican Mothers Compared to Non-Hispanic Blacks						
Married															
	YSM	0	2	4	6	8	10	12	0	2	4	6	8	10	12
Developmental	Coeff.	-6.02	-4.17	-2.54	-1.16	-0.02	0.89	1.56	-25.33	-18.57	-12.55	-7.26	-2.71	1.09	4.16
	Std. Err	7.84	6.68	5.78	5.15	4.78	4.61	4.57	12.93	10.79	9.20	8.19	7.71	7.65	7.86
	P-val	0.44	0.53	0.66	0.82	1.00	0.85	0.73	0.05	0.09	0.18	0.38	0.73	0.89	0.60
Non-Developmental	Coeff.	7.28	6.06	4.99	4.08	3.32	2.72	2.27	-4.49	-3.32	-2.34	-1.54	-0.92	-0.49	-0.24
	Std. Err	6.76	5.54	4.51	3.71	3.13	2.77	2.60	5.61	4.82	4.24	3.87	3.69	3.65	3.69
	P-val	0.28	0.28	0.27	0.27	0.29	0.33	0.38	0.43	0.49	0.58	0.69	0.80	0.89	0.95
Secondary	Coeff.	-9.50	-22.07	-32.47	-40.69	-46.74	-50.62	-52.33	110.76	101.09	92.02	83.58	75.74	68.51	61.89
	Std. Err	56.79	47.34	39.70	34.00	30.22	28.17	27.42	45.44	35.89	29.21	25.59	24.62	25.23	26.37
	P-val	0.87	0.64	0.42	0.23	0.12	0.07	0.06	0.02	0.01	0.00	0.00	0.00	0.01	0.02
Non-Married															
Developmental	Coeff.	-46.60	-40.59	-35.20	-30.45	-26.32	-22.81	-19.93	-10.07	1.31	11.88	21.61	30.53	38.61	45.88
	Std. Err	14.21	12.54	11.41	10.74	10.45	10.41	10.50	34.96	26.51	20.59	17.34	16.36	16.68	17.43
	P-val	0.00	0.00	0.00	0.01	0.01	0.03	0.06	0.77	0.96	0.57	0.21	0.06	0.02	0.01
Non-Developmental	Coeff.	-0.73	-1.41	-1.99	-2.46	-2.81	-3.06	-3.20	-16.96	-9.94	-3.70	1.77	6.45	10.34	13.46
	Std. Err	14.16	12.37	10.97	9.92	9.15	8.58	8.14	11.09	9.61	9.00	9.07	9.56	10.21	10.89
	P-val	0.96	0.91	0.86	0.81	0.76	0.72	0.70	0.13	0.30	0.68	0.85	0.50	0.31	0.22
Secondary	Coeff.	416.74	277.53	157.37	56.26	-25.79	-88.80	-132.75	78.38	80.22	79.27	75.53	69.00	59.68	47.57
	Std. Err	127.36	101.08	81.77	69.52	63.39	61.23	60.72	129.17	104.87	87.79	78.18	75.03	76.15	79.25
	P-val	0.00	0.01	0.06	0.42	0.69	0.15	0.03	0.55	0.45	0.37	0.34	0.36	0.43	0.55

Source: Authors' computations, ATUS-X, 2003-2010

Table 7: Immigrant-Native Differences in Childcare Time Use by Marital Status

		A. Mexican Fathers Compared to Mexican-Americans							B. Mexican Mothers Compared to Mexican-Americans						
Married	YSM	0	2	4	6	8	10	12	0	2	4	6	8	10	12
Developmental	Coeff.	-18.07	-17.10	-16.20	-15.37	-14.60	-13.89	-13.25	-24.86	-20.76	-13.56	-7.28	-1.91	2.55	6.10
	Std. Err	11.36	9.85	8.64	7.74	7.11	6.71	6.47	10.28	8.05	6.44	5.53	5.31	5.55	5.98
	P-val	0.11	0.08	0.06	0.05	0.04	0.04	0.04	0.01	0.01	0.04	0.19	0.72	0.65	0.31
Non-Developmental	Coeff.	3.49	2.53	1.70	0.99	0.40	-0.06	-0.40	-1.59	-0.48	0.19	0.72	1.12	1.39	1.53
	Std. Err	5.33	4.18	3.25	2.57	2.17	2.03	2.06	4.82	4.18	3.74	3.51	3.41	3.41	3.44
	P-val	0.51	0.55	0.60	0.70	0.85	0.98	0.85	0.79	0.91	0.96	0.84	0.74	0.68	0.66
Secondary	Coeff.	30.28	16.93	5.71	-3.38	-10.35	-15.20	-17.92	50.66	49.30	40.87	33.51	27.22	21.99	17.83
	Std. Err	50.81	40.98	32.99	27.05	23.30	21.62	21.48	38.40	29.66	23.79	21.00	20.73	21.77	23.05
	P-val	0.55	0.68	0.86	0.90	0.66	0.48	0.41	0.13	0.10	0.09	0.11	0.19	0.31	0.44
Non-Married															
Developmental	Coeff.	-51.23	-43.92	-37.34	-31.50	-26.39	-22.02	-18.38	-28.76	-22.71	-11.34	-0.75	9.05	18.06	26.29
	Std. Err	26.26	21.62	18.35	16.47	15.75	15.80	16.17	35.24	27.42	21.88	18.73	17.64	17.78	18.38
	P-val	0.05	0.04	0.04	0.06	0.10	0.17	0.26	0.32	0.41	0.61	0.97	0.61	0.31	0.16
Non-Developmental	Coeff.	9.42	8.57	7.85	7.27	6.83	6.52	6.35	-28.67	-22.48	-16.26	-10.78	-6.06	-2.08	1.14
	Std. Err	10.52	8.68	7.27	6.25	5.59	5.18	4.95	12.81	12.19	12.06	12.24	12.55	12.89	13.20
	P-val	0.37	0.33	0.28	0.25	0.22	0.21	0.20	0.02	0.07	0.18	0.38	0.63	0.87	0.93
Secondary	Coeff.	447.88	294.63	161.92	49.76	-41.84	-112.90	-163.41	-68.44	-83.55	-81.94	-82.25	-84.49	-88.65	-94.74
	Std. Err	132.28	106.00	86.89	75.16	69.86	68.79	69.51	134.01	105.46	83.14	67.76	59.54	57.34	58.86
	P-val	0.00	0.01	0.06	0.51	0.55	0.10	0.02	0.52	0.43	0.33	0.23	0.16	0.12	0.11

Source: Authors' computations, ATUS-X, 2003-2010