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Health Perpetuation: The impact of parent region of born on children use of health care and health status

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Abstract

Children of immigrants have received increasing attention in recent years because first and second-generation children of immigrant families are the fastest growing segment of the U.S. This paper addresses the relationship between child access to and use of health services, and perceived health, and parental nativity after controlling for enabling, predisposing and need variables discussed in the literature. Even though socioeconomic variability and background cannot entirely explain health differences across children, it is important to know the intergenerational effects of health inequalities among different groups. Using data from from the Integrated Health Interview Series from 2000 to 2009, I analyze the hypothesis that children of immigrants would perpetuate their parents' health outcomes compared to children of natives by having lower health service utilization and lacking a usual place of care. Therefore, the issue on children of immigrant families health outcomes is not only one of access to care but also of how to actively incorporate these groups of parents into the health system so their kids would have better outcomes. Targeting the question of nativity would allow me to evaluate this matching outcomes almost completely ignored by the health and immigration literature.

Keywords: immigration, health access, children health.
JEL:I14, I18, J15

1 Introduction

Children of immigrants have received increasing attention in recent years because first and second-generation children of immigrant families are the fastest growing segment of the U.S. population under age 17. The U.S. Census Bureau estimated in 2010 that of every 5 children one is immigrant or has immigrant family -at least one of the parents is immigrant. Only 50.2% of babies under age 1 are white and not Hispanic, according to the 2010 Census a sharp decline from 57.6% just 10 years earlier.[1] Roughly, 4% of all US children were born abroad and more than 3 million of children are in 'mixed families' where one parent is foreign born. [2]

Parents in general are an important element in the life of the development of any child. In general, any child's performance would be influenced by their family income, structure, work schedule, health

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[1] In 2011, Census estimated that children of Asian, Black and Hispanic families represent 50.1% of under 5 years old population.

[2] The Urban Institute Report: Children of Immigrants: Facts and Figures, May 2006.

insurance status, and any additional benefit or costs faced by their parents. In the case of children of immigrants, there are other elements that would also affect their development and behavior towards health. Regardless of place of birth, children with immigrant parents are influenced by very particular factors such as: parents legal status, culture, and language barriers. Because of lack of health insurance, undocumented family would limit their visits to the doctor

Some studies of children's health care utilization and status and access to care have evaluated the independent effect of parental nativity and characteristics. Most of the current literature has shown the impact of parent's foreign status on children access to care and also found that non-citizen children had the most difficulty accessing health care and lack of usual place of care (**??**).

To further address this discussion I intend to analyze the combine effects of parental nativity and child's citizenship status on children health care utilization and status. In search for a more detail explanation of the indicators affecting the connection between children's health and health service utilization and their immigrant parents, I expand the analysis by identifying parental region of birth to include the differences across immigrant groups and cultural influences. Using integrated data on health services (IHIS) from 2000 to 2009 [3], I assess the relationship between child access to and use of health services, and perceived health, and parental nativity after controlling for enabling, predisposing and need variables used as standard in the literature **?**. The focus of the analysis is on first generation immigrant children and US citizen or non immigrant children in immigrant families and compare them to children in non-immigrant families[4]. Using multivariate logistic regression to examine the impact of parental nativity, I look at three binary variables that indicate child's access to health, health service use and perceived health. The number of physician visits during the past 12 months was obtained for all focal children, also information on whether the child has a usual person or place for medical care and what type of place is collected

The basic model shows that having foreign born parents and no citizenship is associated with the lowest chances of having visited the doctor at least once in the past 12 months (OR=0.48), if the child is uninsured the odds are even lower compared to a child with native parents. Even citizen children of immigrant families have a statistically significant lower odds, compared to those in native families, to visit the doctor in the past year and having a usual place of care. In terms of perceived health, the results are reversed. Non-citizen children of immigrant families have better odds, compared to children in native families, of having a better perceived health. Later, to account for some of the cultural differences, I include race/ethnicity dummies in the model, plus a set of covariates that account for other selection mechanisms such as family income, health insurance coverage, family structure, and child's demographics.

When I examine child's race/ethnicity and parental foreign born status simultaneously, I found mixed results. Citizen Asian children in immigrant families have the lowest odds of having visited the doctor at least once in the past 12 months, followed by White non-citizen children of immigrant families, Black Citizen children in immigrant families and Hispanic children in native families. One category that could be generating this result is that race/ethnic classification is self-reported, and there are cases were individuals of Hispanic origin classified themselves and their future generations as White Non-Hispanic (Pew Hispanic 2008). Therefore, the group of White non-citizen children of immigrant families represents a mixed one.

To analyze the cultural and background differences across parental groups, I analyze a more detail classification on parental background by using parental region of birth. Overall, non-citizen children of

[3] **?**

[4] In the document I will also use the expressions 1st generation for immigrant children, second generation for US children in immigrant families (when one parent is immigrant or when both parents are immigrants), and third and higher generations for US born children with US families.

Latinoamerican, Asian, and African families tend to be the worse off groups in the study. Their odds of visiting a doctor and having an usual place of care, and the marginal effects of their parents being from these particular areas, shows that these groups are the largest groups in need of access to health services. Conversely, these groups are also the ones with the more optimistic perception of health towards their children.

The document is divide in different sections. Section 2 provides a short review of the literature and the motivations of the work. Section 3.1 resume the description of the data and the variables used in the analysis and the methodology. Section 4 examines the results from different multivariate logit models for different strategies of identification. Section 4.4 discuss the limitations of the study, and section 4.5 concludes.

2 Motivation and Background

The significant change in the U.S. population demography has been accompanied by growing concerns about the cost of social services, with special attention to health services provided to this population. However, it has also been discussed the low rate of utilization care by immigrants. Yet, there still a significant gap among this group and children of US born with regard to health service and care. Economists have widely analyzed the impact of immigrants groups on the use of health care services and costs, however, the analysis on further generations and immigrant children has fallen short.

Parents in general are an important element in the life of the development of any child. Basically, any decision during childhood will be taken by the child's parent. This connection explains how parents' decision, perception and status would affect children's health outcomes and access to care. A special attention has been taken on the association between the mother and the child health status and patterns of medical care use (**?**). This association may be stronger among children and their immigrant parents because there are other elements that could affect a child of an immigrant family. For instances, immigrants are more likely to lack of insurance coverage compared to natives because they also tend to be poorer and are excluded from Federal coverage such as Medicaid (The Urban Institute: Children of Immigrants facts and figures.). However, because of the same characteristics, native-born children of immigrants are more likely to be eligible for welfare programs. This result in a complex mixed group of children of immigrants: immigrant children and US born children with immigrant parents. On the other hand, a portion of the immigrant population is undocumented. Their status make them susceptible to changes in enforcement laws and provoke a reduction on the participation of their US-born kids in programs such as Medicaid (**??**).

Immigrants living in the United States are much less likely to be insured than natives. There are several reasons for this. Over one-fourth of immigrants age 16 and over who are in the labor force are part-time or seasonal workers or are unemployed (Census 2010). Part-time and temporary workers usually are not provided with employment-based insurance. Therefore, the employment status of a child's parents represents a key component in the future and health security of the child. Undocumented immigrants, who are estimated to be about 26 percent of all foreign-born, are barred from government insurance programs. Because of their status, the undocumented are not likely to have employment-based insurance or the resources to purchase private insurance. Legal, permanent immigrants are allowed to work, but must be resident for five years before becoming eligible for government insurance programs, with some exceptions. Many temporary immigrants, such as students, do not qualify for government insurance programs and may be limited to temporary employment, if they are allowed to work at all. However, legal permanent and temporary immigrants could receive private medical coverage provided by their employers.

The lack of access to primary care has major consequences in dealing with acute conditions. At the same time, this restriction in the use of primary care could also generate a lack of appropriate management that may transform the acute condition into a chronic condition. Therefore, having access to a regular provider facilitates continuity of health check ups and on-time treatment to future possible acute/chronic conditions. In general, the lack of access to preventive care or/and routine check ups, immunizations increases the likelihood of transforming an easily treatable condition into an acute or chronic conditions. Therefore, preventive care should result the cost efficient way to handle any health care system in the world. Any barrier to access this care should be analyzed and solved not only for the current population and new immigrants but for further generations.

During the end of the 90s, an interdisciplinary group elaborated one of the first comprehensive studies on health and well-being of children of immigrant families. This study brought into attention this mainly neglected group [5]. The overall study offered an introductory discussion to the status of children of immigrant parents and their overtime and across generations performance.

Since earlier, researchers have tried to explain the underutilization of health care services among ethnic/racial minority groups by concentrating on the financial barriers or obstacles that they may encounter when accessing the health care system, such as lack of insurance. However, some studies have shown that the ethnic/racial differences in utilization rates and access to care existing between Latinos and other minority groups and Withes cannot be completely accounted for by low socioeconomic status or other financial barriers to care (Hayward, Shapiro, Freeman and Corey [1988]; McMiller and Weisz [1996]). As a result, investigators are now beginning to examine the influence of cultural factors on help-seeking services. A related but separate line of research has shown that Latinos tend to have lower rates of health care utilization than White Americans (Solis, Marks, Garcia, and Shelton,[1990]). Later other researchers have discussed the utilization, health status and care of immigrants and their children (**???**).

A vast number of the health care services research focused on children's use of health care services is based on the Behavioral Model of Health Service Use developed and adapted by Adersen and Aday for the analysis of minority groups' use of health care service (**?**). The framework of this line of research takes into account three determinants of health service use: predisposing, enabling, and need variables. Among predisposing variables sociodemographic characteristics and health belief are considered, meanwhile enabling variables include family income, insurance, education level, and family size. Need variables are closely related to individual's perceived and actual health status. This research includes relevant variables that would take into account these elements.

3 Data and Methodology

3.1 Data and Variables

I analyzed integrated data on children and their families from the Integrated Health Interview Series from 2000 to 2009. This data includes self-reported data on place of birth as well as on a variety of other sociodemographic and household characteristics. For the analysis, I use data on the focal child selected randomly inside the household per year. The summary statistics of the variables considered in the study are presented in Table (1).

Information on the immigration status of the family is based on both parents when applies. If at least

[5] **??**

one of the parents was foreign born then the family was identified as foreign born[6]. In the same line, if at least one of the parents is born in a particular region, the child's family was identified as belonging to that particular region group. When there were mixed results, race played an important role to identify parents' region of born[7].Children of immigrant families were further separated into two groups: citizen and non-citizen. Therefore children were finally classified in three groups: (1) nonimmigrant child (child with native parents), (2) US-born child (US citizen child) of immigrant parents, and (3) immigrant child of immigrant parents. Children born abroad to US-born parents were classified as nonimmigrant children.The unit of observation is a child, and the characteristics of the parents and family are evaluated at this level. I also drop observations of children who's parents are 17 or younger[8] and children with major activity limitations considered as handicaps[9]. The total number of observations across years is 91,682 children. Of this total almost 78% are children with native families, 19.4% citizen children with immigrant families, and 3% non-citizen children with immigrant families (or at least one immigrant parent). With respect to parental region of origin, the largest group represented in the sample is families from Latinoamerica (or with at least a parent from Latinoamerica) with more than 60% of children with parents from this region, followed by Asia and Europe, with close or more than 10% of children with parents from this continents.

To examine the impact of parental nativity, I look at three binary variables that indicate child's access to health, health service use and perceived health. The number of physician visits during the past 12 months was obtained for all focal children, also information on whether the child has a usual person or place for medical care and what type of place is collected[10]. For number of visits, I follow the literature using the probability of the child having at least one physician visit during the past year[11]. Even though I consider 'perceived health' has complex limitations, it would allow us to see some of child's parents perception towards health status and their inclinations towards regular health care check ups and well-being in general. On average, citizen children of US born parents are more likely to have 1+ visits to the doctor than the other groups and the average (90%). Also 77% of this group has as the usual place of care a doctor's office, in contrast with immigrant non-citizen children of immigrant families who have a high chance of not having a usual place of care (27.3%) and and are more likely to use hospital outpatient, community health center or ER than the rest of the group (36%). In addition, perceived child health status is included in the analysis. Perceived health status was classified in two genearal groups: 'good to excellent health' or 'poor to fair health'. Child age was categorized into three groups: 0-5 years, 6-11 years, and 12-17 years. These variables allow me to measure access to health care services, utilization rate, and perceived health status of the child based on self-reported information. Surprisinly or not, there are not evidence of difference in distribution across the different groups of children. All groups tend to perceive being in excellent, very good, or good conditions. According to the desing of the survey, the caregiver is the one answering his/her perception on the child's health status. Therefore, there is some issues with this self-response questions that may be or may be not equal to actual condition.

Educational status was defined in five groups: high school drop out, high school graduate, some college, college degree, and graduate school. The maximum level of education in the family was used to define this category[12]. The educational distribution across family's children mimics the distribution found in previous research comparing native versus immigrant workers. Immigrants tend to concentrate in

[6]The terms foreign born and immigrant are used as synonymous in this study.

[7]Mixed results appeared in less than 0.1% of the total database

[8]Only few observations were dropped

[9]Even though this group represents a very small portion of the original data, the utilization rate of health service from this group is quite large and generates a bias towards overutilization for particular groups.

[10]In this version of the paper, type of place is not included yet. In a future version of this research, I intend to include the type of usual health care used by the family

[11]The literature is based on the American Academy of Pediatrics' recommendation of annual visits for children and adolescents from ages 24 months to 17 years.

[12]Even thought some part of the literature has shown the importance of mother's educational attainment on children's health care use, in the dataset used there is a high correlation (average 90%) between highest reached education in the family and mother's education level.

high and low educational level. Immigrant families in this study tend to be concentrated in High Schoold Dropouts, while native families are concentrated around Some College and College Degree eduactional groups.

Insurance coverage has been proven to be an essential factor determining health outcomes and the use of health care in the general population. It relevance is even higher for minority and immigrants groups once we combined it with family income level. Health insurance provides the financial means to receive health services in a consistent way (**?**). Other financial barriers could be interfering with child health care. As expected, non-citizen children of immigrant families are more likely to be uninsured (46%) than the rest of the group. Meanwhile, there is not an evidence in large diferences on Medicaid coverage. Citizen children of immigrant families tend to be covered by Medicaid (26%).

A large number of immigrants live in poor areas with limited access to health services, and other services in general. To account for these differences, I include family income related to Federal government poverty levels - less that 100%, 100% to 199%, 200% and more; employment status - whether none, one, or both parents are employed; and household health expenditures - Less than $500, $500 to $1999, $2000 to $2999, $3000 to $4999,$5000 or more. In terms of poverty level, childre of imigrant families are more likely to be be poor than children of native families, even though there seem to be as likely as native families to have at least one of the parents working. In terms of household health expenditures, a simple look shows that children of immigrants families tend to have lower health costs. However, this is self-reported health expenditure information and it is saturated with same conditions affecting percieved health status.

Child's demographic characteristics are also included in the analysis. By age distribution, children of immigrants tend to be a little older so that could explain differences in the use of health services. Older children are less likely to periodically visit the doctor. By sex distribution, non-citizen children tend to be female, but differences in distribution don't seem to be very significant.

Cultural and language barriers are also key factors on the use of health services by adults and children. I account for these factors by including race/ethnicity as control variables. Race/ethnicity is classified into five groups: White non-Hispanic, Black, Asian, Hispanic, and others[13]. For most of the analysis of parental nativity, I include the racial/ethnicity component. However, sample size limitations, after accounting for all covariates, do not permit the inclusion of this variable when I study the effect of parental region of birth[14]. Children of native families tend to be No-Hispanic White (62.7%), meanwhile non-citizen children of immigrant family are very likely to have Hispanic origins.

I also include the US region where the family lives. The distribution across regions and years in the sample is very similar for all groups. Largest representation of children are for the south region (more than 30%).

3.2 Methodology

I present the main questions in this paper as hypothesis of the effect of parental nativity and place of birth on child's health outcomes.

Hypothesis 1: Having a foreign born is an important variable that affects child health outcomes, regardless child citizenship. However, the effect is stronger for non-citizen children.

[13]Black, Asian and Other race exclude individuals with Hispanic origin.

[14]The inclusion of these two groups of variables and their interaction are of special interest because we could be able to examine further immigrant generations (3+) with more detail and account for a larger intergenerational effect on health care outcomes

This hypothesis implies that parent's with foreign born status may face different barriers of information, education and access to health services that finally affects their children. With non-citizen children the effect is expected to be even higher given the lack of available services for this group.

Hypothesis 2: Cultural differences matters.

This hypothesis are tested using two different proxy strategies. The first strategy uses the interaction of race and parental nativity as a proxy of cultural differences. The second one uses parental region of birth as the proxy for cultural differences[15].

Hypothesis 2.1: In addition to parental nativity, there are differential effects across racial groups that accounts for cultural differences.

Hypothesis 2.2: There is a differential effect across children outcomes when parental region of birth is accounted for.

To examine the hypothesis exposed above, I use logistic regressions, and multivariate analysis, and analyze the odds ratios and marginal effects of parental nativity and child's citizenship effect on perceived health, use of health services, after controlling for a series of covariates that account for child's and family's demographic characteristics, income, insurance coverage, among others (equation (1). The analytical approach is based on the idea that family characteristics strongly influence children's health outcomes. In principle, I follow the standard literature on minority health care use based on the Behavioral Model of Health Service Use (**?**).

When estimating a non-linear model the interpretation of the regression coefficients is complex, especially for binary models (**??**). The methodology follows the current discussion of how to compute and analyze the estimated coefficients of marginal effects and odds ratios of interacted variables in a non-lineal model. I account for clustering across sample and region and replicate weight and strata design available in IHIS were used to account for the complex survey design and within-household clustering of sampled children. I estimate the variance by performing the standard jackknife-2 method[16].

The model used in this study estimate the probability of having 1 or more visits to the doctor in the past 12 month. If an child visits the doctor once or more then $Y = 1$, otherwise it is zero. The other Ys variables include: having good to excellent health and having an usual place of care.

$$Prob(Y = 1)_{it} = \beta_0 + \beta_1 X_{it} + \beta_2 FORCIT_i + \beta_3 FORNCIT_i + \beta_4 RACE_i + \beta_5 Family_{it} + \beta_6 Region_i + D_t + \epsilon_t \quad (1)$$

where X include the vector of child's basic demographic characteristics and includes insurance coverage, $FORCIT$ and $FORNCIT$ are dummies for having a foreign-born family and child being citizen or non-citizen respectively. $RACE$ accounts for child's race, meanwhile $FAMILY$ accounts for other family characteristics such as: family size, wealth, average age, parental educational attainment, among others. $Region$ and D_t accounts for US region and a vector year dummies respectively.

The model used for the analysis of parental region of birth is similar, and only the variables $FORCIT$ and $FORNCIT$ are changed by the different areas considered in the analysis: Latinoamerica, Asia, Europe, Africa, Middle East, and Other Areas. If the individual is born in one of this areas, by default the individual is considered foreign-born.

[15]Given the high correlation among some of the variables between race and region of birth and the detail classification used, evaluating race and region of birth in the same regression was not possible. In future versions of the paper, I will use aggregate groups to be able to separate race and parental region of birth effects simultaneously.

[16]**?**

4 Analysis of Results

4.1 Basic analysis

Controlling for basic child demographics (age and sex), year and region, Also, a dummy for whether the kid is uninsured is included. Table(2) and Table (3) show the odds ratios and the marginal effects of parental nativity effect on child's number of doctor visits, having a usual place of care, and perceived health status. Having foreign born parents and no citizenship is associated with the lowest chances of having visited the doctor at least once in the past 12 months (OR=0.48), if the child is uninsured the odds are even lower compared to a child with native parents. Even citizen children of immigrant families have a statistically significant lower odds, compared to those in native families, to visit the doctor in the past year and having a usual place of care. In terms of perceived health, the results are reversed. Non-citizen children of immigrant families have better odds, compared to children in native families, of having a better perceived health. Pew Hispanic reported in 2008 that Hispanic community tend to report better perceived health outcomes. There could be two reasons for three answer. One, individuals are actually healthy. Second, lacking access to health care could also limit the individual's ability to follow health check-ups. Third, cultural perception about health and projecting yourself better off than actually the person is. Therefore, having a foreign born parent and not being a citizen reduces the probability of a child (citizen or non-citizen) having visited a doctor in the last 12 months and having a usual place of care. In terms of perceived health, non-citizen children the marginal effect of having a foreign born is positive and significant (0.009).

When looking at parental region of birth, the patterns on the general category of children with foreign born parents repeat for two particular groups. Non-citizen children of Latinoamerican and Asian families have the lowest odds of having visited the doctor at least once in the past 12 months and of having a usual place of care. However their odds of having a better perceived health with respect to children in native homes is higher (above the odds of the reference group).

These results underscore the importance of having both health insurance coverage and a regular connection to the health care system. Children who have a usual source of care have even higher probabilities of receiving at least one physician visit, even if they are uninsured. Also, theses groups have the lowest odds, compared to children of native families, of having a usual place of care.

This basic analysis shows that citizenship status and parental nativity and/or parental region of birth have significant effects on the child's use and access to health services. Interestingly, the same groups that have the worse status, also have the better outcomes on perceived health.

4.2 Including Race/Ethnicity

To account for some of the cultural differences, I include race/ethnicity dummies in the model, plus a set of covariates that account for other selection mechanisms such as family income, health insurance coverage, family structure, and child's demographics. Table (4) and Table (5) shows odds ratios and marginal effects of parental nativity on child's visits to the doctor, having a usual place of care, and perceived health status. For the effect of parental nativity on child's probability of visiting the doctor once or more times in the last 12 months, non-Hispanic White citizen children of immigrant families have lower odds than native counterpart (0.91) and it is statistically significant. Non-citizen children of this comparable group are worse off (0.76). Simultaneously, if race is considered separated, Asian children have the lowest odds to having visited the doctor (1+) in the last year. An interesting result is that after

accounting for race, children with origins different to White have lower odds of having a good to excellent perceived health. However, the result on parental nativity found in the previous basic model holds for children with foreign born parents – they have better odds of having good to excellent perceived health. The marginal effect of parental nativity is negative for visits to the doctor and having a usual place of care, and a positive and significant marginal effect on non-citizen children's favorable health status.

The remaining set of controls have the expected results. Living in a poor large family with parental education not higher than High School Dropout would reduce even further the odds of a child (citizen or non-citizen) of having regular visits to the doctor in the past year.

After looking at the differential effect across racial groups, a natural question that follows is whether this effect is differently across parental nativity and child/family racial group. That is, is this an effect on the parents immigration status or racial/ethnic differences. I found out that there is a mixed effect. Citizen Asian children in immigrant families have the lowest odds of having visited the doctor at least once in the past 12 months, followed by White non-citizen children of immigrant families, Black Citizen children in immigrant families and Hispanic children in native families. One category that could be generating this result is that race/ethnic classification is self-reported, and there are cases were individuals of Hispanic origin classified themselves and their future generations as White Non-Hispanic (Pew Hispanic 2008). Therefore, the group of White non-citizen children of immigrant families represents a mixed one.

4.3 By parental's region of birth

To analyze the cultural and background differences across parental groups, I now intend to analyze a more detail classification on parental region of birth. I think that this classification better identifies family background than the general variables foreign born and race/ethnicity. Table (7) and Table(8) shows the odds ratios and marginal effects, respectively, of parental region of birth on a child probability of having visited a doctor in the last 12 months, having a usual place of care and perceived health status.

Overall, non-citizen children of Latinoamerican, Asian, and African families tend to be the worse off groups in the study. Their odds of visiting a doctor and having an usual place of care, and the marginal effects of their parents being from these particular areas, shows that these groups are the largest groups in need of access to health services. Conversely, these groups are also the ones with the more optimistic perception of health towards their children. Therefore the issue behind the results could also be a voluntary decision towards reducing the use of health care because of the optimistic perception about their own health and their children's health status. Unlike non-citizen children from these groups, citizen't children's perceived health is worse compared to children from native families. In this particular case, lacking an usual place of care and no consistency in the child's check ups could be a consequence of the barriers that the child's parent faces (especially for citizen children of Latinoamerican families). Furthermore, the perception that the more years a person stays in the U.S. the higher the chances of presenting health issues (diabetes, high blood pressure, obesity, etc), could also explain some of the results. Immigrant families of citizen children tend to have lived longer in the US than their counterpart[17].

[17]In a future version of this document, I will include years in the US in the analysis. In a family were both parents are present there is complexity in determining years in the US.

4.4 Limitations

There are several limitations of this study that deserve careful attention. The adjusted regression of the effect of parental nativity and region of birth are statistically significant in most of the expected cases, and qualitatively relevant, however, a more detail desegregation of parental place of birth would provide a better identification of possible explanations behind cultural and language barriers that affect child's health outcomes. Another limitation of the study relates to the variable perceived health. It would be fair to say that this variable may not be able to capture child health adequately. Parental's bias towards a specific group or sex would introduce sensible bias in the analysis. Finally, it is important to mention that the study would need of a series of robustness check using maternal information to verify the underline drivers of the results. In the document, I include all types of families: single-father, single-mother, and couple families. The decision and the definition of who the caregiver is becomes more complex when all this family structures are considered.

4.5 Concluding Remarks

I find that parental nativity, and region of birth for particular groups, are important determinants in reducing the probability a child having one or more visits to the doctor and a usual place of care. On the other hand, the probability of a child having a good to excellent perceived health reflects mixed results. The effect is even stronger for non-citizen children of immigrant families. Therefore, health policies should be targeted to this particular group, but taking into account their different family's backgrounds.

In general, this study provides evidence of the importance of parental background when analyzing children health outcomes. Previous analysis focusing only on child's nativity and background were incomplete. Furthermore, the analysis is more informative when place of birth is included. There is an interesting complex analysis of perceived health in the groups of children from immigrant families. This could be shedding some lights towards the reverse impact of children's health care utilization and their parents perceptions towards the health system and their health status. Accordingly, the issue on children of immigrant families health outcomes is not only one of access to care but also of how to actively incorporate these groups of parents into the health system so their kids would have better outcomes. Targeting the question of nativity would allow me to evaluate this matching outcomes almost completely ignored by the health and immigration literature.

5 Tables and Figures

Table 1: *Descriptive Statistics - Children and Parents (Weighted -% and Averages-)*

Child	**Citizen**		**Non-Citizen**	**All**
Parents	**US Born**	**Foreign Born**	**Foreign Born**	All
Variables				
Doctor Visits 1+	90.23	86.41	67.97	88.86
Perceived Health Child				
Excellent-VG-Good	98.28	97.94	98.70	98.22
Fair-Poor	1.72	2.06	1.30	1.78
Usual Place of Care				
No	3.72	6.21	27.26	4.87
Hospital/outpatient/Community H.Center	18.16	28.95	33.62	20.70
Doctor Office	77.20	63.63	35.68	73.38
ER	0.48	0.81	1.98	0.59
Others	0.44	0.40	1.46	0.46
Total	77.72	19.44	2.84	100.00
Parental Nativity				
By Region of Birth				
Latinoamerica	na	61.54	66.03	13.84
Europe	na	11.79	8.12	2.52
Africa	na	3.28	4.94	0.78
Middleast	na	2.81	2.16	0.61
Asia	na	17.38	10.39	3.67
Others	na	3.17	2.72	0.69
Enabling Resources				
Uninsured	6.89	12.24	45.50	9.03
Medicaid	19.31	26.11	14.76	20.50
Family Wealth				
Poverty				
Less than 100% federal poverty level	15.45	22.51	36.70	17.43
100% to 199% federal poverty level	20.42	28.54	33.95	22.38
200% and over	64.13	48.95	29.35	60.19
Number of working parents				
None	10.30	8.58	9.59	9.94
One	43.52	49.32	56.10	45.01
Two	46.18	42.09	34.31	45.05
Household health expenditures				
Zero	8.12	12.19	14.91	9.10
Less than $500	36.69	40.36	43.82	37.61
$500 to $1999	35.02	30.44	27.87	33.92
$2000 to $2999	9.45	8.23	6.55	9.13
$3000 to $4999	6.09	4.87	3.11	5.76
$5000 or more	4.64	3.92	3.74	4.48
Years in the US				
Less than 5 years	na	3.4	30.8	7.0
5 years to less than 10 years	na	10.7	31.4	13.5
10 years and more	na	84.4	36.6	79.5
Parents Demographic and Family Structure				

Continued on next page

Table1 – continued from previous page

Child	**Citizen**		**Non-Citizen**	**All**
Parents	**US Born**	**Foreign Born**	**Foreign Born**	All
Variables				
Single Parent	25.25	16.06	17.66	23.25
Married parents	69.84	79.63	80.79	72.05
Average Family Size (std)	4.33 (1.38)	4.75 (1.58)	4.91 (1.69)	4.43 (1.44)
Average Parents age (std)	38.37 (8.96)	38.08 (8.51)	37.82 (7.99)	38.30 (8.85)
Max. educational level				
High School Dropout	7.65	26.70	40.05	12.27
High School Graduate	18.26	16.79	15.64	17.90
Some College	39.42	25.53	16.13	36.06
College Degree	21.09	17.64	15.09	20.25
Graduate School	13.50	13.08	12.56	13.39
Grandchild	4.84	4.02	1.77	4.59
Child Demographic				
Age				
Average age (std)	8.64 (5.71)	7.68 (5.11)	11.25 (4.25)	8.53 (5.17)
0-5	32.52	39.82	12.18	33.36
6-11	33.20	32.89	35.08	33.19
12-17	34.28	27.29	52.74	33.45
Female	49.10	48.24	50.70	48.98
Race/Ethnicity				
White-NH	71.86	62.7	2.7	62.0
Black	15.97	3.3	9.9	14.5
Asian	0.51	7.1	16.7	3.5
Hispanic	8.04	26.7	69.9	19.1
Others	0.96	0.2	0.8	0.9
Other variables				
Years				
2000	9.74	8.56	10.23	9.52
2001	9.81	8.35	11.38	9.57
2002	9.62	8.84	9.25	9.46
2003	9.30	9.11	9.55	9.27
2004	9.63	9.89	8.10	9.63
2005	9.73	9.77	9.73	9.73
2006	9.42	8.90	11.33	9.37
2007	10.67	11.76	10.80	10.88
2008	10.95	12.37	9.35	11.18
2009	11.15	13.31	10.29	11.55
Region				
Northeast	1.67	19.04	16.26	5.46
North Central/Midwest	27.37	12.88	13.70	24.17
South	37.95	30.70	35.34	36.47
West	18.04	37.37	34.70	22.27

Table 2: Odds Ratios: Basic model on Effect of parental nativity and Region of birth on children health outcomes

	Doctor Visits 1+	Usual Place of Care	Good to Excellent Health
Foreing-born Parent			
Citizen Child	**0.73**	**0.72**	**0.79**
	(.6818 .7908)***	(.6511772 .7923675)***	(.6914395 .9112633)***
Non-Citizen Child	**0.48**	**0.29**	**1.49**
	(.4291-.5331)***	(.2563959 .3317501)***	(1.057052 2.093415)**
Uninsured	**0.27**	**0.11**	0.89
	(.2518-.2976)***	(.1001352 .1203712)***	(.7381422 1.079178)
By Region of Birth			
Latinoamerica			
Citizen Child	**0.67**	**0.68**	**0.94**
	(.6450783 .7059362)***	(.6473938 .7144509)***	(.8868297 .9865876)**
Non-Citizen Child	**0.45**	**0.30**	**1.61**
	(.3316101 .5983986)***	(.2380711 .3740011)***	(1.570087 1.65415)***
Europe			
Citizen Child	0.99	0.91	0.81
	(.8719768 1.1271)	(.6413225 1.302906)	(.4356642 1.494916)
Non-Citizen Child	0.60	**0.24**	**1.672182**
	(.1501963 2.40465)	(.1865422 .3143236)***	(1.519985 1.839619)***
Africa			
Citizen Child	1.01	0.91	**1.64**
	(.983795 1.037806)	(.4741285 1.732561)	(1.039478 2.600863)**
Non-Citizen Child	**0.67**	**0.27**	**2.48**
	(.4972425 .911255)*	(.4741285 1.732561)***	(1.98111 3.103822)***
Middle East			
Citizen Child	**2.27**	**2.30**	**2.14**
	(1.512029 3.415296)***	(1.265082 4.182254)***	(1.686303 2.715166)***
Non-Citizen Child	1.11	4.63	na
	(.8752661 1.407582)	(.2701659 79.32926)	
Asia			
Citizen Child	**0.71**	**0.81**	**1.31**
	(.6832026 .7411102)***	(.7895594 .8324125)***	(1.000229 1.723721)**
Non-Citizen Child	**0.47**	**0.23**	**4.35**
	(.450907 .4961156)***	(.2010137 .2734973)***	(2.29199 8.243313)***
Others			
Citizen Child	0.96	0.70	**0.40**
	(.7178666 1.280667)	(.3796862 1.307576)	(.3454041 .452143)***
Non-Citizen Child	1.15	**1.58**	na
	(.2113314 6.204834)	(1.008844 2.475042)**	
Uninsured	**0.28**	**0.10**	**0.80**
	(.219531 .3477337)***	(.0954562 .1050507)***	(.6081031 1.042062)*

Notes: Unit of observation is a child. N=91,682. Other controls include: year, region, Medicaid,age, and sex. Reference group: male child with US born parents, 0-5 years old, with medicaid.

Table 3: Marginal Effects: Basic model on Effect of parental nativity and Region of birth on children health outcomes

	Doctor Visits 1+	Usual Place of Care	Good to Excellent Health
Foreing-born Parent			
Citizen Child	**-0.028**	**-0.013**	**-0.002**
	(0.0034249)***	(0.0019962)***	(0.000462)***
Non-Citizen Child	**-0.068**	**-0.050**	**0.009**
	(0.0050443)***	(0.0026635)***	(0.0011385)**
Uninsured	**-0.119**	**-0.089**	**-0.012**
	(0.0039545)***	(0.002184)***	(0.0025849)***
By Region of Birth			
Latinoamerica			
Citizen Child	**-0.393**	**-0.014**	**-0.004**
	(0.0229987)***	(.001718)***	(.0004129)***
Non-Citizen Child	**-0.809**	**-0.053**	**0.005**
	(0.1505888)***	(.0032387)***	(.0013015)***
Europe			
Citizen Child	-0.009	0.003	0.000
	(0.0654708)	(.0070728)	(.0053107)
Non-Citizen Child	-0.509	**-0.061**	**0.010**
	(-0.509204)	(.0042458)***	(.0012116)***
Africa			
Citizen Child	0.010	-0.002	**0.012**
	(0.0136347)	(.0142654)	(.0022388)***
Non-Citizen Child	**-0.396**	**-0.056**	**0.018**
	(0.1545296)***	(.0068956)***	(.0045402)***
Middle East			
Citizen Child	**0.821**	**0.033**	**0.012**
	(0.207864)***	(.0142608)**	(.0053906)**
Non-Citizen Child	0.10	0.06	na
	(0.1212013)	(.0662464)	
Asia			
Citizen Child	**-0.340**	**-0.007**	**0.007**
	(0.0207549)***	(.0009783)***	(.0024432)***
Non-Citizen Child	**-0.749**	**-0.063**	**0.028**
	(0.0243749)***	(.0057742)***	(.0023842)***
Others			
Citizen Child	-0.042	-0.013	**-0.013**
	(0.1476692)	(.0123135)	(.0021882)***
Non-Citizen Child	0.136	**0.016**	na
	(0.8621731)	(.0082578)*	
Uninsured	**-1.286**	**-0.093**	**-0.012**
	(0.1173347)***	(.0031788)***	(.0027995)***

Notes: Unit of observation is a child. N=91,682. Other controls include: year, region, Medicaid,age, and sex. Reference group: male child with US born parents, 0-5 years old, with medicaid.

Table 4: Odds Ratios: Full Model with Parent Nativity and Child race (no interacted)

Dep. Var.	*Visits*			*Usual Place of Care*			*Child's Health: Good to Excellent*		
Ind. Var	**Odds Ratio**	**Std. Err.**	**P>t**	**Odds Ratio**	**Std. Err.**	**P>z**	**Odds Ratio**	**Std. Err.**	**P>z**
age 6-11	0.38	*0.02*	*0.00*	0.47	*0.03*	*0.00*	0.62	*0.05*	*0.00*
age 12-17	0.41	*0.02*	*0.00*	0.69	*0.04*	*0.00*	0.70	*0.06*	*0.00*
Female	1.04	*0.03*	*0.12*	1.07	*0.04*	*0.10*	1.18	*0.08*	*0.01*
Foreign Born Parent									
Citizen Child	0.91	*0.04*	*0.04*	0.83	*0.06*	*0.00*	1.05	*0.10*	*0.64*
Non-Citizen Child	0.76	*0.05*	*0.00*	0.36	*0.03*	*0.00*	2.03	*0.39*	*0.00*
Medicaid	1.38	*0.07*	*0.00*	1.07	*0.08*	*0.37*	0.51	*0.05*	*0.00*
Uninsured	0.48	*0.02*	*0.00*	0.13	*0.01*	*0.00*	0.80	*0.09*	*0.04*
Grandchild	1.19	*0.09*	*0.03*	0.77	*0.10*	*0.04*	1.17	*0.16*	*0.25*
No Usual Place	0.25	*0.01*	*0.00*				1.25	*0.18*	*0.13*
Fam. Size	0.92	*0.01*	*0.00*	0.97	*0.02*	*0.15*	0.99	*0.02*	*0.53*
Race/Ethnicity									
Hispanic	0.92	*0.04*	*0.06*	0.90	*0.06*	*0.14*	0.73	*0.08*	*0.00*
Asian	0.76	*0.06*	*0.00*	0.82	*0.09*	*0.06*	1.20	*0.23*	*0.34*
Black	0.88	*0.04*	*0.01*	1.02	*0.07*	*0.73*	0.66	*0.05*	*0.00*
Other race/ethn.	1.20	*0.13*	*0.08*	1.35	*0.17*	*0.02*	0.81	*0.13*	*0.20*
Unmarried	0.94	*0.04*	*0.11*	0.84	*0.05*	*0.00*	0.95	*0.07*	*0.51*
Avg. Parents age	1.00	*0.00*	*0.04*	1.01	*0.00*	*0.02*	0.99	*0.00*	*0.11*
Poverty: Less 100%	0.79	*0.04*	*0.00*	0.71	*0.04*	*0.00*	0.62	*0.06*	*0.00*
Poverty: 100% - 199%	0.80	*0.03*	*0.00*						
Both	0.99	*0.03*	*0.68*	1.14	*0.06*	*0.02*	1.16	*0.10*	*0.07*
None	1.08	*0.06*	*0.14*	0.98	*0.07*	*0.74*	0.56	*0.04*	*0.00*
High School Dropout	0.84	*0.04*	*0.00*	0.97	*0.07*	*0.61*	0.74	*0.07*	*0.00*
Some College	1.15	*0.05*	*0.00*	1.19	*0.07*	*0.00*	1.02	*0.09*	*0.86*
College Degree	1.37	*0.06*	*0.00*	1.29	*0.09*	*0.00*	1.33	*0.14*	*0.01*
Graduate School	1.89	*0.12*	*0.00*	1.55	*0.16*	*0.00*	2.19	*0.46*	*0.00*
Region									
North Central/Midwest	0.58	*0.03*	*0.00*	0.48	*0.05*	*0.00*	0.93	*0.11*	*0.53*
South	0.53	*0.03*	*0.00*	0.37	*0.03*	*0.00*	0.88	*0.09*	*0.22*
West	0.42	*0.02*	*0.00*	0.34	*0.03*	*0.00*	1.07	*0.12*	*0.57*

Notes: Unit of observation is a child. N=91,682. Other controls include: year and years in the US (not shown). Reference group: male child with US born parents, 0-5 years old.

Table 5: Marginal Effects: Full Model with Parent Nativity and Child race (no interacted)

Dep. Var.	*Visits*			*Usual Place of Care*			*Child's Health: Good to Excellent*		
Ind. Var	**Marginal Effect**	**Std. Err.**	**P>z**	**Marginal Effect**	**Std. Err.**	**P>z**	**Marginal Effect**	**Std. Err.**	**P>z**
age 6-11	-0.09	*0.01*	*0.00*	-0.03	*0.00*	*0.00*	-0.01	*0.00*	*0.00*
age 12-17	-0.08	*0.01*	*0.00*	-0.01	*0.00*	*0.00*	-0.01	*0.00*	*0.00*
Female	0.00	*0.00*	*0.00*	0.00	*0.00*	*0.10*	0.00	*0.00*	*0.00*
Foreign Born Parent									
Citizen Child	-0.01	*0.00*	*0.00*	-0.01	*0.00*	*0.00*	0.00	*0.00*	*0.47*
Non-Citizen Child	-0.02	*0.01*	*0.02*	-0.04	*0.00*	*0.00*	0.01	*0.00*	*0.00*
Medicaid	0.03	*0.00*	*0.00*	0.00	*0.00*	*0.37*	-0.01	*0.00*	*0.00*
Uninsured	-0.07	*0.01*	*0.00*	-0.08	*0.00*	*0.00*	0.00	*0.00*	*0.14*
Grandchild	0.02	*0.01*	*0.03*	-0.01	*0.01*	*0.04*	0.00	*0.00*	*0.07*
No Usual Place	-0.12	*0.00*	*0.00*				0.00	*0.00*	*0.27*
Fam. Size	-0.01	*0.00*	*0.00*	0.00	*0.00*	*0.15*	0.00	*0.00*	*0.54*
Race/Ethnicity									
Hispanic	-0.01	*0.00*	*0.00*	0.00	*0.00*	*0.14*	-0.01	*0.00*	*0.00*
Asian	-0.02	*0.00*	*0.00*	-0.01	*0.00*	*0.06*	0.00	*0.00*	*0.00*
Black	-0.01	*0.00*	*0.00*	0.00	*0.00*	*0.73*	-0.01	*0.00*	*0.00*
Other race/ethn.	0.02	*0.00*	*0.00*	0.01	*0.01*	*0.02*	0.00	*0.00*	*0.37*
Unmarried	-0.01	*0.00*	*0.00*	-0.01	*0.00*	*0.00*	0.00	*0.00*	*0.00*
Avg. Parents age	0.00	*0.00*	*0.09*	0.00	*0.00*	*0.02*	0.00	*0.00*	*0.05*
Poverty: Less 100%	-0.02	*0.01*	*0.00*	0.17	*0.01*	*0.00*	0.08	*0.01*	*0.00*
Poverty: 100% - 199%	-0.02	*0.00*	*0.00*	0.18	*0.01*	*0.00*	0.09	*0.01*	*0.00*
Both	0.00	*0.00*	*0.09*	0.01	*0.00*	*0.02*	0.00	*0.00*	*0.00*
None	0.01	*0.00*	*0.00*	0.00	*0.00*	*0.74*	-0.01	*0.00*	*0.00*
High School Dropout	-0.01	*0.00*	*0.00*	0.00	*0.00*	*0.61*	-0.01	*0.00*	*0.00*
Some College	0.01	*0.01*	*0.04*	0.01	*0.00*	*0.00*	0.00	*0.00*	*0.84*
College Degree	0.03	*0.01*	*0.00*	0.01	*0.00*	*0.00*	0.00	*0.00*	*0.00*
Graduate School	0.06	*0.01*	*0.00*	0.02	*0.00*	*0.00*	0.01	*0.01*	*0.04*
Year									
Region									
North Central/Midwest	-0.04	*0.00*	*0.00*	-0.02	*0.00*	*0.00*	0.00	*0.00*	*0.00*
South	-0.05	*0.00*	*0.00*	-0.03	*0.00*	*0.00*	0.00	*0.00*	*0.00*
West	-0.07	*0.00*	*0.00*	-0.04	*0.00*	*0.00*	0.00	*0.00*	*0.12*

Table 6: Odds Ratios: Full Model with Parent Nativity and Child race (interacted)

Dep. Var.	*Visits*			*Usual Place of Care*			*Child's Health: Good to Excellent*		
Ind. Var	**Odds Ratio**	**Std. Err.**	**P>z**	**Odds Ratio**	**Std. Err.**	**P>z**	**Odds Ratio**	**Std. Err.**	**P>z**
age 6-11	0.371	*0.010*	*0.000*	0.458	*0.001*	*0.000*	0.539	*0.019*	*0.000*
age 12-17	0.434	*0.031*	*0.000*	0.683	*0.001*	*0.000*	0.663	*0.001*	*0.000*
Female	1.040	*0.006*	*0.000*	1.070	*0.026*	*0.005*	1.164	*0.021*	*0.000*
White									
Foreign Parent*Citizen	0.920	*0.066*	*0.246*	0.711	*0.031*	*0.000*	0.933	*0.129*	*0.617*
Foreign Parent*Non-Citizen	0.634	*0.093*	*0.002*	0.280	*0.015*	*0.000*	2.837	*0.367*	*0.000*
Hispanic									
Native	0.876	*0.003*	*0.000*	0.782	*0.046*	*0.000*	0.738	*0.035*	*0.000*
Foreign Parent*Citizen	0.967	*0.068*	*0.637*	1.253	*0.133*	*0.033*	1.000	*1.143*	*0.810*
Foreign Parent*Non-Citizen	1.095	*0.024*	*0.000*	1.456	*0.149*	*0.000*	1.000	*0.758*	*-1.610*
Asian									
Native	1.025	*0.011*	*0.021*	1.103	*0.133*	*0.419*	1.834	*0.889*	*0.211*
Foreign Parent*Citizen	0.694	*0.049*	*0.000*	0.867	*0.082*	*0.130*	1.000	*0.594*	*-0.550*
Foreign Parent*Non-Citizen	0.867	*0.029*	*0.000*	0.629	*0.113*	*0.010*	1.000	*0.355*	*-1.220*
Black									
Native	0.839	*0.010*	*0.000*	0.941	*0.088*	*0.516*	0.662	*0.013*	*0.000*
Foreign Parent*Citizen	1.058	*0.062*	*0.337*	1.003	*0.050*	*0.953*	1.000	*1.163*	*0.470*
Foreign Parent*Non-Citizen	1.428	*0.398*	*0.201*	1.217	*0.051*	*0.000*	1.000	*0.461*	*-175.240*
Other Race/Ethnicity									
Native	1.046	*0.045*	*0.291*	1.147	*0.171*	*0.358*	0.770	*0.002*	*0.000*
Foreign Parent*Citizen	1.320	*0.068*	*0.000*	0.937	*0.174*	*0.727*	1.000	*0.943*	*-1.240*
Foreign Parent*Non-Citizen	1.458	*0.371*	*0.138*	0.768	*0.375*	*0.589*	1.000	*0.733*	*-27.990*
Medicaid	1.345	*0.074*	*0.000*	1.002	*0.028*	*0.948*	0.497	*0.009*	*0.000*
Uninsured	0.505	*0.051*	*0.000*	0.125	*0.002*	*0.000*	0.797	*0.075*	*0.015*
Grandchild	1.097	*0.001*	*0.000*	0.902	*0.065*	*0.154*	1.118	*0.241*	*0.604*
No Usual Place	0.262	*0.004*	*0.000*				1.345	*0.064*	*0.000*
Fam. Size	0.933	*0.001*	*0.000*	0.985	*0.030*	*0.621*	0.995	*0.023*	*0.841*
Unmarried	1.072	*0.022*	*0.001*	1.195	*0.022*	*0.000*	0.989	*0.021*	*0.595*
Avg. Parents age	0.997	*0.001*	*0.028*	1.007	*0.000*	*0.000*	0.995	*0.006*	*0.388*
Poverty: Less 100%	0.813	*0.050*	*0.001*	59.583	*4.635*	*0.000*	100.807	*38.106*	*0.000*
Poverty: 100% - 199%	0.828	*0.004*	*0.000*	79.498	*6.824*	*0.000*	180.079	*78.414*	*0.000*
Both Work	0.987	*0.016*	*0.403*	1.070	*0.016*	*0.000*	1.137	*0.011*	*0.000*
None Work	1.073	*0.041*	*0.068*	0.978	*0.041*	*0.591*	0.583	*0.045*	*0.000*
High School Dropout	0.866	*0.039*	*0.001*	0.924	*0.017*	*0.000*	0.737	*0.058*	*0.000*
Some College	1.189	*0.061*	*0.001*	1.155	*0.029*	*0.000*	0.991	*0.076*	*0.901*
College Degree	1.438	*0.103*	*0.000*	1.342	*0.197*	*0.045*	1.230	*0.108*	*0.019*
Graduate School	1.851	*0.150*	*0.000*	1.564	*0.086*	*0.000*	2.172	*0.546*	*0.002*

Table 7: Odds Ratios:Parental Region of Birth effect on Child's health outcomes

Dep. Var.	*Visits*			*Usual Place of Care*			*Child's Health: Good to Excellent*		
Ind. Var	**Odds Ratio**	**Std. Err.**	**P>z**	**Odds Ratio**	**Std. Err.**	**P>z**	**Odds Ratio**	**Std. Err.**	**P>z**
age 6-11	0.379	*0.018*	*0.000*	0.472	*0.027*	*0.000*	0.614	*0.016*	*0.000*
age 11-17	0.414	*0.033*	*0.000*	0.688	*0.003*	*0.000*	0.700	*0.034*	*0.000*
Female	1.043	*0.014*	*0.001*	1.077	*0.020*	*0.000*	1.175	*0.023*	*0.000*
Foreign-Born Parent									
Latinoamerica									
Citizen Child	0.874	*0.017*	*0.000*	0.770	*0.033*	*0.000*	0.935	*0.025*	*0.014*
Non-Citizen	0.762	*0.099*	*0.037*	0.365	*0.074*	*0.000*	1.612	*0.021*	*0.000*
Asia									
Citizen Child	0.695	*0.013*	*0.000*	0.736	*0.021*	*0.000*	1.313	*0.182*	*0.050*
Non-Citizen	0.529	*0.037*	*0.000*	0.211	*0.001*	*0.000*	4.347	*1.419*	*0.000*
Africa									
Citizen Child	0.995	*0.009*	*0.572*	0.799	*0.317*	*0.570*	1.644	*0.385*	*0.034*
Non-Citizen	0.796	*0.174*	*0.294*	0.263	*0.021*	*0.000*	2.480	*0.284*	*0.000*
Europe									
Citizen Child	0.930	*0.083*	*0.419*	0.825	*0.156*	*0.309*	0.807	*0.254*	*0.495*
Non-Citizen	0.704	*0.532*	*0.643*	0.226	*0.030*	*0.000*	1.672	*0.081*	*0.000*
Middle East									
Citizen Child	2.167	*0.575*	*0.004*	2.246	*0.860*	*0.035*	2.140	*0.260*	*0.000*
Non-Citizen	0.797	*0.049*	*0.000*	4.468	*6.185*	*0.280*			
Other Region									
Citizen Child	0.949	*0.187*	*0.791*	0.639	*0.181*	*0.113*	0.395	*0.027*	*0.000*
Non-Citizen	0.985	*0.798*	*0.985*	1.249	*0.158*	*0.079*			
Medicaid	1.374	*0.000*	*0.000*	1.067	*0.066*	*0.293*	0.487	*0.001*	*0.000*
Uninsured	0.475	*0.063*	*0.000*	0.131	*0.002*	*0.000*	0.796	*0.109*	*0.097*
Grandchild	1.176	*0.090*	*0.036*	0.769	*0.014*	*0.000*	1.147	*0.094*	*0.095*
No Usual Place	0.246	*0.002*	*0.000*				1.259	*0.216*	*0.180*
Fam. Size	0.921	*0.011*	*0.000*	0.975	*0.036*	*0.489*	0.978	*0.022*	*0.321*
Unmarried	1.084	*0.001*	*0.000*	1.185	*0.076*	*0.008*	1.136	*0.011*	*0.000*
Avg. Parents age	0.996	*0.002*	*0.103*	1.008	*0.006*	*0.213*	0.995	*0.003*	*0.083*
Poverty: Less 100%	0.783	*0.051*	*0.000*	0.537	*0.143*	*0.000*	0.803	*0.276*	*0.000*
Poverty: 100% - 199%	0.793	*0.001*	*0.000*	0.752	*0.271*	*0.000*	1.351	*0.442*	*0.000*
Both	0.984	*0.008*	*0.042*	1.137	*0.051*	*0.004*	1.164	*0.039*	*0.000*
None	1.077	*0.010*	*0.000*	0.988	*0.018*	*0.493*	0.550	*0.046*	*0.000*
High School Dropout	0.838	*0.030*	*0.000*	0.948	*0.081*	*0.532*	0.721	*0.024*	*0.000*
Some College	1.151	*0.078*	*0.039*	1.197	*0.055*	*0.000*	1.028	*0.082*	*0.731*
College Degree	1.378	*0.097*	*0.000*	1.298	*0.209*	*0.105*	1.362	*0.029*	*0.000*
Graduate School	1.902	*0.274*	*0.000*	1.575	*0.002*	*0.000*	2.281	*0.766*	*0.014*

Table 8: Marginal Effects:Parental Region of Birth effect on Child's health outcomes

Dep. Var.	*Visits*			*Usual Place of Care*			*Child's Health: Good to Excellent*		
Ind. Var	**Marginal Effect**	**Std. Err.**	**P>z**	**Marginal Effect**	**Std. Err.**	**P>z**	**Marginal Effect**	**Std. Err.**	**P>z**
age 6-11	-0.062	0.005	0.000	-0.013	0.002	0.000	-0.007	0.000	0.000
age 12-17	-0.056	0.004	0.000	-0.006	0.001	0.000	-0.005	0.000	0.000
Female	0.002	0.002	0.132	0.001	0.001	0.076	0.002	0.000	0.000
Foreign-Born Parent									
Latinoamerica									
Citizen Child	-0.008	0.003	0.008	-0.004	0.001	0.000	-0.001	0.000	0.061
Non-Citizen	-0.017	0.005	0.002	-0.026	0.004	0.000	0.005	0.001	0.000
Asia									
Citizen Child	-0.023	0.006	0.000	-0.005	0.003	0.034	0.003	0.002	0.078
Non-Citizen	-0.046	0.016	0.005	-0.054	0.012	0.000	0.010	0.002	0.000
Africa									
Citizen Child	0.000	0.012	0.981	-0.004	0.005	0.476	0.005	0.002	0.038
Non-Citizen	-0.014	0.018	0.454	-0.041	0.015	0.007	0.008	0.000	0.000
Europe									
Citizen Child	-0.004	0.007	0.562	-0.003	0.003	0.273	-0.003	0.004	0.506
Non-Citizen	-0.022	0.018	0.210	-0.050	0.020	0.013	0.005	0.001	0.000
Middle East									
Citizen Child	0.030	0.007	0.000	0.009	0.003	0.001	0.007	0.000	0.000
Non-Citizen	-0.014	0.040	0.734	0.012	0.003	0.000			
Other Region									
Citizen Child	-0.003	0.009	0.759	-0.009	0.006	0.135	-0.019	0.000	0.000
Non-Citizen	-0.001	0.028	0.976	0.003	0.007	0.672			
Medicaid	0.016	0.002	0.000	0.001	0.001	0.387	-0.011	0.001	0.000
Uninsured	-0.053	0.005	0.000	-0.079	0.008	0.000	-0.003	0.002	0.066
Grandchild	0.008	0.004	0.030	-0.005	0.003	0.070	0.002	0.001	0.025
No Usual Place	-0.135	0.010	0.000				0.003	0.001	0.072
Fam. Size	-0.004	0.002	0.007	0.000	0.000	0.257	0.000	0.001	0.649
Unmarried	0.004	0.002	0.037	0.003	0.001	0.009	0.002	0.000	0.000
Avg. Parents age	0.000	0.000	0.115	0.000	0.000	0.127	0.000	0.000	0.571
Poverty: Less 100%	-0.014	0.003	0.000	0.071	0.006	0.000	0.068	0.001	0.000
Poverty: 100% - 199%	-0.013	0.003	0.000	0.174	0.015	0.000	0.196	0.013	0.000
Both Work	-0.001	0.002	0.634	0.002	0.001	0.024	0.002	0.000	0.000
None Work	0.004	0.003	0.151	0.000	0.001	0.868	-0.010	0.001	0.000
High School Dropout	-0.010	0.003	0.001	-0.001	0.001	0.444	-0.005	0.001	0.000
Some College	0.007	0.002	0.001	0.003	0.001	0.004	0.000	0.001	0.739
College Degree	0.017	0.002	0.000	0.004	0.001	0.000	0.004	0.001	0.000
Graduate School	0.029	0.003	0.000	0.006	0.001	0.000	0.008	0.002	0.000

Appendix

Table A-1: *Descriptive Statistics - Children and Parents (Unweighted -n-)*

Child	**Citizen**		**Non-Citizen**	**All**
Parents	**US Born**	**Foreign Born**	**Foreign Born**	All
Variables				
Doctor Visits 1+	59128	19520	2316	80964
Perceived Health Child				
Excellent-VG-Good	64347	22135	3403	89885
Fair-Poor	1214	531	52	1797
Usual Place of Care				
No	2526	1548	1013	5087
Hospital/outpatient/Community H.Center	12131	6894	1158	20183
Doctor Office	50247	13938	1166	65351
ER	360	190	70	320
Others	297	96	48	441
Total	65561	22666	3455	91682
Parental Nativity				
By Region of Birth				
Latinoamerica	na	16023	2567	18590
Europe	na	1870	195	2065
Africa	na	573	128	701
Middleast	na	372	43	415
Asia	na	3311	464	3775
Others	na	509	58	567
Enabling Resources				
Uninsured	4846	3164	1664	9674
Medicaid	12676	6191	493	19360
Family Wealth				
Poverty				
Less than 100% federal poverty level	9775	5047	1257	16103
100% to 199% federal poverty level	12840	6791	1240	20871
200% and over	42919	10828	961	54708
Number of working parents				
None	7407	2085	332	9824
One	28523	11254	1922	41721
Two	29609	9327	1201	401721
Household health expenditures				
Zero	5738	2992	579	9309
Less than $500	25819	9665	1545	37029
$500 to $1999	22206	6662	941	29809
$2000 to $2999	2608	1693	189	7490
$3000 to $4999	3488	915	105	4512
$5000 or more	2695	739	96	3533
Years in the US				
Less than 5 years	na	933	1082	2016
5 years to less than 10 years	na	2601	1058	3664
10 years and more	na	18772	1268	20065
Parents Demographic and Family Structure				

Continued on next page

Table A-1 – continued from previous page

Child	**Citizen**		**Non-Citizen**	**All**
Parents	**US Born**	**Foreign Born**	**Foreign Born**	All
Variables				
Single Parent	19502	4252	716	24470
Married parents	42625	17305	2679	62609
Max. educational level				
High School Dropout	5445	6875	1484	13804
High School Graduate	12791	4008	567	17366
Some College	26300	5830	564	32694
College Degree	13007	3487	463	16957
Graduate School	7967	2412	361	10740
Mother educational level				
High School Dropout	6909	7977	1602	16488
High School Graduate	15184	4336	556	20076
Some College	24594	5258	478	30330
College Degree	11263	2960	422	14645
Graduate School	4824	1421	195	6440
Grandchild	3865	1112	78	5055
Child Demographic				
Age				
0-5	21760	9227	477	31464
6-11	20250	6991	1153	28394
12-17	23551	6448	1825	31824
Female	32146	10887	1709	44742
Race/Ethnicity				
White-NH	42181	3278	311	45770
Black	12218	1552	225	13995
Asian	395	2532	470	3397
Hispanic	8305	14591	225	25326
Others	499	12	311	609
Years				
2000	7585	2367	414	10366
2001	7725	2316	426	10467
2002	6912	2167	353	9432
2003	6522	2213	352	9087
2004	6923	2155	290	9368
2005	6924	2339	374	9637
2006	5175	1784	303	7262
2007	5566	2210	316	8062
2008	5347	2149	268	7764
2009	6882	2966	359	10207
Region				
Northeast	10447	4248	553	15248
North Central/Midwest	16519	2345	388	19252
South	25704	7086	1265	34055
West	12891	8987	1249	23127

Table A-2: *Descriptive Statistics - Children and Parents (Unweighted -%-)*

Child	**Citizen**		**Non-Citizen**	**All**
Parents	**US Born**	**Foreign Born**	**Foreign Born**	All
Variables				
Doctor Visits 1+	64.49	21.29	2.53	88.31
Perceived Health Child				
Excellent-VG-Good	70.18	24.14	3.71	98.04
Fair-Poor	1.32	0.58	0.06	1.96
Usual Place of Care				
No	2.76	1.69	1.10	5.55
Hospital/outpatient/Community H.Center	13.23	7.52	1.26	22.01
Doctor Office	54.81	15.20	1.27	71.28
ER	0.39	0.21	0.08	0.35
Others	0.32	0.10	0.05	0.48
Total	71.51	24.72	3.77	100.00
Parental Nativity				
By Region of Birth				
Latinoamerica	na	17.48	2.80	20.28
Europe	na	2.04	0.21	2.25
Africa	na	0.62	0.14	0.76
Middleast	na	0.41	0.05	0.45
Asia	na	3.61	0.51	4.12
Others	na	0.56	0.06	0.62
Enabling Resources				
Uninsured	5.29	3.45	1.81	10.55
Medicaid	13.83	6.75	0.54	21.12
Family Wealth				
Poverty				
Less than 100% federal poverty level	10.66	5.50	1.37	17.56
100% to 199% federal poverty level	14.00	7.41	1.35	22.76
200% and over	46.81	11.81	1.05	59.67
Number of working parents				
None	8.08	2.27	0.36	10.72
One	31.11	12.28	2.10	45.51
Two	32.30	10.17	1.31	438.17
Household health expenditures				
Zero	6.26	3.26	0.63	10.15
Less than $500	28.16	10.54	1.69	40.39
$500 to $1999	24.22	7.27	1.03	32.51
$2000 to $2999	2.84	1.85	0.21	8.17
$3000 to $4999	3.80	1.00	0.11	4.92
$5000 or more	2.94	0.81	0.10	3.85
Years in the US				
Less than 5 years	na	1.02	1.18	2.20
5 years to less than 10 years	na	2.84	1.15	4.00
10 years and more	na	20.48	1.38	21.89
Parents Demographic and Family Structure				
Single Parent	21.27	4.64	0.78	26.69
Married parents	46.49	18.88	2.92	68.29

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Table A-2 – continued from previous page

Child	Citizen		Non-Citizen	All
Parents	**US Born**	**Foreign Born**	**Foreign Born**	All
Variables				
Max. educational level				
High School Dropout	5.94	7.50	1.62	15.06
High School Graduate	13.95	4.37	0.62	18.94
Some College	28.69	6.36	0.62	35.66
College Degree	14.19	3.80	0.51	18.50
Graduate School	8.69	2.63	0.39	11.71
Mother educational level				
High School Dropout	7.54	8.70	1.75	17.98
High School Graduate	16.56	4.73	0.61	21.90
Some College	26.83	5.74	0.52	33.08
College Degree	12.28	3.23	0.46	15.97
Graduate School	5.26	1.55	0.21	7.02
Grandchild	4.22	1.21	0.09	5.51
Child Demographic				
Age				
0-5	23.73	10.06	0.52	34.32
6-11	22.09	7.63	1.26	30.97
12-17	25.69	7.03	1.99	34.71
Female	35.06	11.87	1.86	48.80
Race/Ethnicity				
White-NH	46.01	3.58	0.34	49.92
Black	13.33	1.69	0.25	15.26
Asian	0.43	2.76	0.51	3.71
Hispanic	9.06	15.91	0.25	27.62
Others	0.54	0.01	0.34	0.66
Years				
2000	8.27	2.58	0.45	11.31
2001	8.43	2.53	0.46	11.42
2002	7.54	2.36	0.39	10.29
2003	7.11	2.41	0.38	9.91
2004	7.55	2.35	0.32	10.22
2005	7.55	2.55	0.41	10.51
2006	5.64	1.95	0.33	7.92
2007	6.07	2.41	0.34	8.79
2008	5.83	2.34	0.29	8.47
2009	7.51	3.24	0.39	11.13
Region				
Northeast	11.39	4.63	0.60	16.63
North Central/Midwest	18.02	2.56	0.42	21.00
South	28.04	7.73	1.38	37.14
West	14.06	9.80	1.36	25.23