

WELFARE AND THE CHILDREN OF IMMIGRANTS:
TRANSMISSION OF DEPENDENCE OR INVESTMENT IN THE FUTURE

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Abstract

An important question underlying the immigrant-welfare debate is whether the native born children of immigrants will achieve the economic self-sufficiency necessary for social mobility. It is important to examine the effects of welfare receipt on the educational attainment of the young adult children of immigrants, because this is a population in which welfare restrictions could have a significant potential impact on the nation's social and economic future. Most of the research on the intergenerational effects of welfare receipt has focused almost exclusively on native-born parents and native-born children. Using the Current Population Survey and the National Longitudinal Survey of Youth (1997), this paper assesses the relationship between parental welfare receipt and young adult educational attainment for two groups-- the native-born Children of Immigrants and the Children of Natives. Findings indicate that welfare exposure has a positive net effect on high school graduation and college enrollment for the children of immigrants.

1. Introduction

Since 1992, over ten million immigrants have entered the United States and today, an estimated 20 percent of the population is an immigrant or the child of an immigrant (U.S. Census Bureau 2002). An issue that has been debated by both policy makers and researchers concerns not only the immediate cost of immigrants coming into the U.S. but the future costs of their children. The public concern that immigrant families might be using a disproportionate share of social benefits and transmitting some form of public dependency to their children, combined with the rising levels of immigrants entering the country, fueled the passage of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA or Welfare Reform) in 1996. One of the biggest social experiments to be conducted in this country in years, Welfare Reform with its severe immigrant restrictions was intended to reduce the rate of welfare use by immigrants who were already residing in the U.S. and discourage those who might need social assistance from entering. These changes reflect the commonly held notions about the negative effects of welfare on children and families.

An important question underlying the immigrant-welfare debate is whether the native born children of immigrants will achieve the economic self-sufficiency necessary for social mobility. It is important to examine the effects of welfare receipt on the educational attainment of the young adult children of immigrants, because this is a population in which welfare restrictions could have a significant potential impact on the nation's social and economic future. Most of the research on the intergenerational effects of welfare receipt has focused almost exclusively on native-born parents and native-born children. By placing the emphasis on immigrants and their children and exploring the differences in welfare use by nativity and generational status, as well as the effect of welfare receipt on future outcomes, we may begin to understand a key question underlying the welfare and immigration debate—does welfare serve as a crutch for immigrant families characterized by high levels of poverty and low levels of education or does it serve as a means of investment in their children's future? This study is an

attempt to examine the complicated relationship between welfare receipt and intergenerational outcomes among immigrant families.

2. Background

Sociological research consistently points to the possibility that children growing up in households that utilize welfare have higher rates of subsequent welfare use (Gottschalk 1990; Rank and Cheng 1995), lower educational attainment (Ku and Plotnik 2003), and lower levels of labor force attachment (Peters and Mullis 1997; Rich 1999; Santiago 1995). A number of studies, most of which examine mother-daughter pairs, find that parental welfare receipt positively effects daughters' subsequent welfare dependency and high school dropout (Antel 1992; Gottschalk 1992; McLanahan 1988; Solon, Corcoran and Gordon 1988). However, the literature is not clear on the effect of parental welfare receipt on completed education, particularly for children growing up in immigrant families.

There are several explanations—structural and cultural—guiding the research on the intergenerational effect of welfare receipt, all of which assume that children raised in welfare homes are likely to be economically disadvantaged. Structural perspectives suggest that it is a lack of parental economic resources and other characteristics, such as low education levels, family type, and limited English language ability (Barthlomeae et al 2004; Corcoran 1995), that influence children's subsequent outcomes. This perspective suggests that it isn't necessarily the receipt of welfare itself affecting children—it is the characteristics of the parents and the lack of income that affect the achievements of children. If this is the case—that it is income and not the source of that income—then we might expect children growing up in immigrant families to be at a distinct disadvantage. Immigrants arriving to the U.S. during the 1970s and 80s may have found it more difficult to acquire the economic resources necessary to invest in the human capital development of their children because they are confronted with a restricted economy in which there are fewer opportunities for advancement (Bean and Stevens 2003). This is partially due to industrial restructuring which has substantially impacted family income distribution—creating a

substantial gap between those with resources and those without (Chevan and Stokes 2000; Wilson 1997). In addition, among the children of immigrants, those having parents with below proficiency levels of English language ability are more likely to drop out of high school than those whose parents are proficient (Bleakly and Chin 2004). Given that over 40 percent of the children of immigrants have a parent with less than a high school diploma compared with 10 percent of children with native parents (Behrman 2004), we might expect that immigrant parents are less able to invest in the human capital development of their native born child.

In contrast to the structural approach, the welfare culture perspective suggests that welfare receipt in and of itself is a key determinant affecting children's outcomes, having a separate effect beyond that of low income. This perspective stems from fears that welfare receipt may have a negative effect on children. It is based on the notion of a welfare-culture, that is, the idea that welfare receipt among poor families may change cultural or psychological traits of those families leading toward lower levels of educational achievement and socioeconomic attainment (Murray 1984). Growing up in a household that receives welfare payments could potentially lower future costs associated with welfare participation by creating a 'welfare culture' under which the stigma associated with welfare use is lessened or removed by later generations (Moffit 1992) or by increasing the amount of information available to the child about the welfare system itself (Rank and Hirshl 1993). Additionally, as welfare parents become less attached to the labor force and more dependent on welfare income, their children may suffer from a lack of information on successful employment, job searching strategies, etc. Subsequently, these children may lack the necessary skills needed for economic independence, putting them at greater risk as adults.

There has been mixed support for both the structural and cultural perspectives—if parental welfare use is correlated with subsequent outcomes among their children then the welfare culture perspective is supported, but if there is not a correlation then the economic perspective is supported (Bartholomae, Fox and McKenry 2004; Corocoran 1995; Rank and Cheng 1995). Several scholars have investigated whether growing up in a welfare household

reduces children's educational attainment (Bogges 1998; Duncan, Yeung 1995; Duncan and Brooks-Gunn 1997; Duncan 1994; Haveman, Wolfe and Spaulding 1991; Ku and Plotnick 2003), finding that children who grow up in households that have received welfare acquire fewer years of schooling and are less likely to graduate from high school compared to children whose parents did not receive welfare—net of family income. That is, after controlling for family income, results suggest that there is an adverse effect of welfare receipt as a source of income. However, the evidence is somewhat mixed, particularly with regard to differences in the age of exposure. Haveman, Wolfe and Spaulding (1991) tested the timing of welfare receipt, finding that the combination of parental welfare use and poverty during early adolescence (12 to 15) was a significant predictor of high school dropout whereas welfare use at earlier periods was not. Ku et al (2003), using the PSID and sibling fixed effects methods found similar results—the timing of receipt matters the most for educational outcomes—those children who receive welfare during late childhood and early adolescence have less attainment. On the other hand, Teachman, et al (1997) found no evidence that welfare receipt, net of family income, family structure and IQ scores, is related to high school graduation, total number of years schooling and college enrollment.

Limited research has attempted to ascertain the effect of immigrant family welfare receipt on the native born children of immigrants, with most of the focus on the likelihood of welfare receipt in later generations. For example, Butcher and Hu (1999) address the question of intergenerational correlation in welfare receipt among the foreign born by using 1970 Census data on the immigrant generation (the first generation) combined with second generation data taken from the Current Population Survey (1994-1996). Given that the data used in this analysis are cross sectional, Butcher and Hu are unable to link parents with children. Instead, they utilize a group-estimation procedure similar to Borjas' (1999) ethnic effects models, estimating county of origin group-level measures of mean food cash receipt for the first and second generations. Results indicate that while there is a positive and significant correlation between welfare receipt

of the first and second generations, once education levels of the second generation are controlled for, the relationship disappears suggesting that the intergenerational transmission of the effects of welfare operate through the transmission of group skill levels.

Borajs et al (1997) find that children growing up in welfare households are more likely to receive welfare as adults. However, after introducing ethnic group-level characteristics (average employment rate, average education level, and average welfare participation rate) the authors also conclude that net of parental welfare receipt, an increase of one percentage point in the aggregate welfare reciprocity rate of an ethnic group increases the participation rate for that child by .67 percentage points. In other words, growing up in an ethnic environment characterized by welfare receipt directly affects the welfare participation in later generations, above and beyond that of parental receipt.

While the previous research has shown that there may be an intergenerational correlation concerning welfare receipt, the causal links have not been firmly established (Moffit 1992), nor has the role of nativity status (or for that matter, the role of citizenship) been sufficiently explained. For example, we do not know what the effect of limiting the welfare access or the welfare amounts of the parent's generation will have on the child's later outcomes, particularly among the children of immigrants. There may be a causal link between generations, but the observed correlation may be due to the simple fact that children of immigrants and their parents face similar circumstances and limitations. However, it could be that immigrant families utilize welfare benefits as a way to counteract the limiting effects of poverty on their children's achievements. From the perspective of the recent immigrant restrictions in welfare laws, which limited access to a wide range of public benefits based on nativity status, removing welfare access from immigrant parents could potentially influence the outcomes of the second generation in harmful ways.

3. Analytic Plan

In this paper, there are two separate, yet related, analyses that explore the connection between welfare exposure as a child and subsequent achievement as a young adult—one on an aggregate level and one on the level of the individual. The first analysis utilizes a grouping estimation technique to produce intergenerational correlations between the welfare use of an immigrant ‘parent cohort’ and the welfare use and educational attainment of a ‘young adult’ children of immigrant’s cohort.¹ This analysis attempts to answer the question: Does the welfare participation among first generation immigrant groups affect the later welfare participation of their young adult children? And further, is it related to their children’s educational achievement?

To more fully evaluate the relationship between welfare receipt and adult children’s outcomes, the final portion of the analysis involves the estimation of a series of multivariate models using the National Longitudinal Survey of Youth (1997). The young adult outcomes measured are high school graduation, and college enrollment. The NLSY97-based analysis is used to support the intergenerational correlations explored with the CPS data by attempting to answer the following questions: Does a parental legacy of welfare receipt affect all children the same regardless of the nativity status of their parents? Or might welfare receipt have a differential effect even among the children of immigrants? The paper proceeds as follows: first, a description of the parent and young adult cohorts created from various years of the Current Population Survey followed by the presentation of intergenerational correlations in parental welfare use and young adult outcomes; second, a description of the National Longitudinal Survey of Youth (1997) followed by the presentation of multivariate models predicting educational attainment.

4. Current Population Survey

The CPS is a national monthly survey of about 50,000 households conducted by the Bureau of the Census for the Bureau of Labor Statistics. The Annual Social and Economic Supplement

¹ Appendix 1 outlines the basic structure of the CPS files used.

(formerly known as the March Annual Demographic Supplement) is a primary source of detailed information on income, labor force participation and work experience in the United States. Also included in this file is information on economic and demographic characteristics for all persons in the household, information on poverty levels and welfare use by program type, but also country of birth, citizenship status, parental birthplace and year of entry for foreign born household respondents. The CPS is particularly well suited for this analysis because of the large sample sizes; and unlike the decennial Census, the CPS includes information on the birthplace of the respondent's parents. In addition, the CPS has the advantage of providing detailed information on several different types of program participation.

The first portion of the analysis—the presentation of intergenerational correlations in welfare receipt between the immigrant parent and young adult second generations in the United States are based on two analytic samples generated from various years of the CPS—a ‘young adult’ cohort and a ‘parent’ cohort. The young adult cohort is composed of the native-born young adult children of immigrants ages 19 to 24 taken from several years (2002-2005) of the March CPS.² To be identified as a child of an immigrant the respondent must have at least one immigrant parent. The ‘young adult’ respondent is then assigned the country of origin of their foreign born parent. In the case of two foreign born parents, country of origin status is based on that of the mother. A key feature of this sample is that it is composed of individuals who were ages 12 through 16 in 1997. This is done in order to roughly match the NLSY97-based sample who were ages 12 to 16 in the initial year of the survey (1997).³

The parent cohort is derived from the years 1994-1997 (sample weights for 1994 and 1995 were corrected using the Passel weights). The purpose of this cohort is to obtain country of

² Given that households in the CPS are interviewed for four consecutive months, out of the sample for eight months, and the interviewed again for four months, I restricted the sample by dropping those households in the fifth through eighth month of the survey for the years 2003, 2004, and 2005 in order to remove any possible duplicates.

³ In other words, for the CPS year 2002, I extracted those cases which were ages 19 to 21; for 2003, those cases that were ages 19 to 22; for 2004, those cases that were ages 19 to 23, and for 2005, those cases ages 20 to 24

origin welfare participation rates, following several guidelines in an attempt to match possible parents with the young adult cohort. First, households were included that had an immigrant as either the household head, or the spouse of the household head. (If both the household head and the spouse were foreign born, the country of origin was assigned based on the potential mother). Second, a child had to be present in the household to be included, more specifically, a child that fell into the appropriate age range. That is, those children who would have been ages 9 to 13 in 1994; ages 10 to 14 in 1995; ages 11 to 15 in 1996; and ages 12 to 16 in 1997. (Possible duplicate households were dropped in this cohort as well). Appendix 2 outlines the basic characteristics of the file.

5. Intergenerational Correlations in Welfare Use.

This portion of the analysis follows the work by Butcher et al (1999) on the intergenerational correlations between immigrants and their children. Whereas Butcher et al (1999) regress the second generation's mean welfare participation rate (taken from 1994-6 CPS) on the mean cash receipt of the first generation (estimated from the 1970 Census); this analysis measures the correlation between generations for specific programs –cash assistance, Food Stamps and Medicaid. The purpose of this analysis is to provide some descriptive evidence on the intergenerational correlations of welfare use between the immigrant parent and young adult children of immigrant generations in the United States.

For this analysis, I utilize a grouping estimation strategy that creates aggregate level country of origin groups instead of micro level individual data. The equation is as follows:

$$C_{jk2} = a + bC_{jk1} + e_j$$

where C_{jk2} and C_{jk1} are the mean receipt rates of receipt for program k by the jth origin group of the native born children of immigrants in the 2002-2005 Current Population Survey and their prospective immigrant parents in the 1994-1997 CPS, respectively. The purpose is to estimate the coefficient b. This represents the percentage point increase in the mean rate of receipt for

program k among the young adult children of immigrants that is associated with a one percentage point increase in the parents generations' mean rate of receipt for program k . A coefficient of zero indicates that the immigrant parent's welfare receipt has no impact on the subsequent use of the child generation, whereas a coefficient of one suggests that the parents' welfare use will be replicated in the child generation.

For this analysis, the 'parent' and 'child' cohorts are constructed as described in the previous section and illustrated in Appendix 1. Only those who are children of immigrants are included in this analysis—no children of natives are included. Each group—the immigrant parent and the child of immigrants—is divided into the same 28 country of origin groups. First, the head of household age-adjusted mean receipt rates for the parent cohort and the child cohort are estimated for cash assistance, Food Stamps, and Medicaid. The child cohort rate of use is regressed on the parent cohort rate of use for each program. The transmission coefficient from this regression (b) is presented in Table 1.

The first panel of Table 1 presents the coefficients of transmission for the three public assistance programs. Each coefficient is significant suggesting a positive effect of parent's generation program receipt on adult children's receipt, that is, as seen in prior research, parent's welfare receipt does have an impact on their grown children's receipt. The coefficient for the parent cohort's receipt of cash assistance on child cohort's receipt of cash assistance is 0.136. This implies that one percent more cash recipients in the parents' cohort is correlated with about 0.14 percent higher cash receipt in the child generation. A similar pattern follows for Medicaid and Food Stamps programs. One percent higher Medicaid recipients in the parent cohort are correlated with about a .5 percent higher Medicaid receipt in the child generation.

These results however do not adjust for any other factors such as income or education levels of either the parent or child generations. It could be that much of the correlation comes from the fact that many of the children of immigrants still reside with their parents. Ideally, an analysis could be conducted of only those young adults who have transitioned out of the parental

home to measure the transmission effect of prior welfare receipt. However, the grouping estimation procedure becomes a problem because so few of the young adult children of immigrants who live on their own as the household head, spouse or roommate receive public assistance (particularly cash assistance).

Positive and significant coefficients in column 1 suggest that there might be a transmission of welfare use across the generations. On the other hand, it could be the transmission of parental skill levels. The immigrant groups with low levels of education might simply have children who also have low levels of skills and education. Column 2 adds the average level of the high school graduates in the immigrant parent group into the model. When parental levels of public assistance and parental education are both included in the model, the effect of parental welfare receipt washes out; the coefficients for all three programs are non-significant, and substantially smaller.

The last two panels of Table 3 result from the same strategy but examine the effect of parental welfare receipt on the group level high school graduation for the native born children of immigrants. As expected based on the results in the top panel, the coefficients are negative. For example, an increase in one percent parental Food Stamps receipt is correlated with a .26 percent decline in high school graduation. However, when parental education is included in the model along with parental welfare receipt—the correlation changes direction. The effect of group level parental cash assistance on child level graduation rate controlling for parental education is .22—implying that net of parental education, an increase of one percent in parental cash welfare receipt is associated with a .22 increase in child high school graduation. The effects of parental Medicaid and Food Stamps receipt are also reversed and in the positive direction but do not reach significance. To further explore this relationship, the second analysis presents multivariate models which examine the effects of parental welfare use on their young adult children's educational attainment.

6. National Longitudinal Survey of Youth (1997).

The National Longitudinal Survey of Youth (1997) is a longitudinal study conducted by the United States Bureau of Labor Statistics that follows a nationally representative sample of approximately nine thousand children. There are currently 7 rounds of data available with the first round beginning in 1997. The initial interview was conducted when the youths were between 12 to 16 years of age as of December 31, 1996. In the initial round, both the youth and the youth's parents received hour long personal interviews. The surveys collected considerable retrospective and contemporaneous information on educational attainment, work history and parental program participation. In addition, an extensive two-part questionnaire was administered that gathered demographic information on members of the youth's household and on his or her immediate family members living elsewhere. Given that the NLSY97 is designed to document the transition from school to work and into adulthood, it collects detailed information about youths' labor market behavior and educational experiences over time (Center for Human Resource Research, 1999).

The NLSY analytic sample is restricted to those respondents who have a completed parent interview, and have valid responses on nativity status of the parent, nativity status of the child respondent, and a valid response on the main independent variable of interest—prior parental welfare receipt. Those respondents who are native born with native born parents are considered the “Children of Natives.” Those respondents who are native born but have at least one resident foreign born parent are considered the native-born child of an immigrant. In addition, foreign born children who entered the country prior to age 7 are included as native-born children of immigrants due to the fact that they will have spent the majority of their life in the U.S. Given that most previous studies on educational achievement have found that first-and second generation students are very similar in terms of performance (Fuligni, 1997; Fuligni and Witgow 2004; Kao and Tienda 1995) these two generations therefore are collapsed in the multivariate analyses to form a single group of “Children of Immigrants.” Those remaining foreign born youth respondents are dropped

from the sample. Those children who were born in Puerto Rico or those children born of Puerto Rican parents are not defined as immigrants in this study because they are U.S. citizens and may not face the same kinds of barriers regarding admission to the U.S., citizenship and welfare eligibility that children from immigrant families may face.

Much of the prior research on the educational attainment of young adults has focused on the total number of years schooling achieved by a specific age (Sandefeur, McLanahan, and Wojtkiewicz 1993). The primary dependent variable in the multivariate analysis is the educational attainment of the young adults by age 19. This is measured in two ways: 1) high school graduation by age 19, and 2) college enrollment by age 19. Given that the NLSY has monthly education status information, I assess educational attainment attained by the last month of the respondent's 19th year. Any respondents who did not have complete information on educational status and attainment, or had left the sample before the last month of their 19th year were dropped from the sample. The resulting sample size is 4,951 children of natives, and 841 children of immigrants.

A central independent variable used in the analysis is parental welfare receipt. In round 1 of the NLSY parent survey, retrospective data were collected on the parent's employment, marriage histories, and history of participation in government programs for low-income households (e.g., AFDC or ADC, SSI, food stamps). A series of questions recorded the number of years during the previous five years that a responding parent participated in various government programs targeting low income households, and whether the parent had ever received government assistance (AFDC, Medicaid, Food Stamps, and SSI) from the time that their sample youth was born to the present. These retrospective data enable me to construct two measures of previous childhood exposure to welfare for the children of immigrants and the children of natives. First, I construct an indicator of any parental welfare receipt history from the time the child was born to the first year of the survey (i.e. ever/never exposed to welfare). Prior research has shown that exposure to welfare during adolescence has the strongest negative effect on children's

achievement; therefore an additional measure of more recent parental welfare use—any welfare use in the last five years—is included.⁴

A number of parental and family characteristics that may be associated with children's outcomes are used as control variables in the NLSY-based multivariate models. The NLSY97 contains a measure of total family income as reported by the parents or household head, for each year the youth respondent is in the survey. A base year measure of parental income, along with a dichotomous indicator of poverty status is included as well. Parental education is measured as the highest number of years obtained from either parent. Given that children who grow up in single-parent or step-parent homes have lower educational outcomes than those who grow up with both biological parents (McLanahan and Sandefur 1994), family structure is included in the models.

Neighborhoods are thought to affect adolescent children's outcomes through the collective behavior of its residents as well as the presence of positive adult role models (Brooks-Gunn, Duncan, Klebanov and Sealand 1993). In fact, research has shown that children and adolescents from poorer neighborhoods perform less well on a variety of developmental measures than do their counterparts in more advantaged neighborhoods (Brooks-Gunn, Duncan and Aber 1997; Duncan, Brooks-Gunn and Klebanov 1994; Jencks and Mayer 1990). Immigration scholars have long been concerned that the macro-economic shifts from a manufacturing based economy to the technology based U.S. economy may have increased barriers for the immigrant families in particular (Portes and Zhou 1993; Zhou 1999). Given that adolescents from immigrant families are more likely to live in neighborhoods with fewer resources and often high crime rates (Portes and Rumbaut 1996), we might expect that this type of concentration of poverty would have the power to undermine the educational and economic success of native born children of immigrants. Therefore, the multivariate models include neighborhood characteristics such as county level poverty and unemployment rates.

⁴ Those respondents in the analytic sample indicating welfare receipt within the last five years range in age from 13 to 16 in 1997.

7. NLSY Results.

While most of the children of immigrants do go on to achieve higher levels of education than their parents (Chiswick and DebBurman 2003), the exact role that welfare receipt plays in this transition is not known. Empirical studies on the effects of welfare receipt on children find, for the most part, a negative correlation between parents' receipt and children's educational outcomes (Boggess 1998; Brooks-Gunn, Guo, and Furstenburg 1993; Duncan 1994; Duncan and Yeung 1995; Haveman and Wolfe 1994; Haveman, Wolfe, and Spaulding 1991; Hill and Duncan 1987; Ku and Plotnick 2003; McLanahan 1985; Peters and Mullis 1997; Teachman, Paasch, Day and Carver 1997). Table 2 presents weighted mean characteristics of the analytic sample for the two groups of interest. Regardless of the nativity status of their parents, those respondents with no welfare legacy clearly have higher levels of educational attainment, than those with a legacy. . However, the impact of welfare on the children of immigrants may not be the same for the children of natives—the unadjusted levels of educational attainment among those with any history of welfare or a recent history of welfare are higher for the children of immigrants than the children of natives. Indeed, the children of immigrants have higher unadjusted levels of college enrollment than do the children of natives, across both types of welfare legacy.

Many studies have found a fairly consistent negative correlation between parental welfare use and children's attainments after controlling for a wide variety of socioeconomic characteristics through the use of standard regression models by relating parent's welfare history (measured either short or long term) to children's later outcomes. However, a potential problem is that parental welfare receipt is likely to be endogenous, that is the correlation could be driven by the unobserved characteristics of welfare families. It could be the case that families (either immigrant or native) that receive welfare are systematically different from families that do not due to unobserved characteristics associated with both parental welfare receipt and with the children's outcomes. To control for the effects of possible endogeneity, models are presented using both OLS and Instrumental Variable techniques. The use of an IV estimator allows for the

potential identification of causal linkages between parental welfare receipt and children's educational outcomes if there are certain variables that are correlated with parental welfare receipt but uncorrelated with children's later educational attainment. As in prior research, the present analysis incorporates parameters of local labor market conditions (measured as local area unemployment rates) along with measures of state welfare benefits (measured as the maximum amount of Aid to Families with Dependent Children (AFDC) guarantee averaged over 1991-1996).

In order to simplify the presentation of results, Table 3 lists the OLS and IV coefficients for parental welfare legacy, children of immigrant status and the interaction corresponding interaction terms. Hausman tests of significance and Sargan tests of over-identification are also presented. The Hausman test is used to evaluate whether OLS is a consistent estimator of the model, determining if the coefficients between the OLS and instrumental variable models are different. For the Hausman test, a significant p-value indicates that OLS is not indicated for the second stage equation under the assumption that the instrumental variables estimator is consistent (Stata 2005). A second test—the Sargan test of over-identification, examines the validity of the instruments. Both of these tests evaluate whether the IV model is a better choice over the OLS. After evaluating the OLS and IV additive models using these two tests, it seems apparent that the IV models are an appropriate analytic choice. However, the same can not be said for the interaction models. The IV models do not pass a majority of the Hausman or Sargan tests; therefore I present the interaction results based on the OLS models.

With full controls of respondent gender, race/ethnicity, family income, poverty level, parent education level, and neighborhood characteristics, the linear probability model (column 1) indicates that parental welfare legacy—measured as either ever receiving welfare since the child's birth or receiving welfare in the last 5 years—has a consistently negative impact on both high school graduation and college enrollment by age 19. For instance, children with a welfare legacy are about 8.7 percent less likely to graduate from high school and about 16 percent less likely to

ever enroll in college than are those children with no experience with welfare. Those children who have experienced welfare during a more recent time frame are roughly 7 percent less likely to graduate from high school and 8 percent less likely to ever enroll in college by age 19. After controlling for the possible endogeneity of welfare receipt (column 2), the effects of parental welfare receipt remain significant and negative in three out of four models.

Much of the literature on the children of immigrants consistently point to the possibility that family income and parental education, and even the social networks of the immigrants' community, are strong determinants of the success of the children of immigrants. Indeed, the multivariate models do show that parental education and family income are significant predictor's of children's subsequent achievement. However, it could be that welfare may play a role in the subsequent attainments of the children of immigrants in ways not predicted by the additive models. To test this idea that welfare may act differently for the children of immigrants, models in column 3 include an interaction term between parental welfare legacy and children of immigrant status.

Results indicate that the effects of a parental welfare legacy—measured either as any welfare since the child's birth or receipt of welfare during a more recent time frame—are significantly different for the children of immigrants compared to the children of natives. For example, the interaction coefficient of (.076) is the additional effect of welfare receipt on high school graduation for the children of immigrants ($-.097 + .076 = -.021$), compared with the effect for the children of natives ($-.097$). The effect of parental welfare legacy is weaker among the children of immigrants than among the children of natives. A similar pattern is observed among those with a more recent welfare history—the additional effect of welfare receipt on high school graduation for the children of immigrants is (.150) resulting in a net effect of ($-.089 + .150 = .061$). Thus, these results indicate that welfare has a positive effect on high school graduation for the children of immigrants who have more recent welfare exposure.

The same relationship is seen for college enrollment. For example, the interaction coefficient of (.104) represents the additional effect of any prior welfare receipt on college enrollment by age 19 for the children of immigrants ($-.176 + .104 = -.072$), compared with the effect for the children of natives ($-.089$). Also, for those with a more recent welfare legacy, the additional effect of welfare receipt on college enrollment is (.136) resulting in a net effect of ($-.100 + .136 = .036$). Therefore, these findings indicate that more recent welfare receipt has a positive effect on college enrollment for the children of immigrants. The net effect of welfare exposure on the children of natives—particularly for those with more recent exposure ($-.100$)—mirrors findings from other research that negative impact of welfare exposure is particularly strong when exposure occurs during adolescence.

8. Conclusion.

It has been shown that economic deprivation during childhood hinders the future achievement of children (Duncan, Yeung, Brooks-Gunn, and Smith 1998), but we do not know the impact that the immigrant restrictions of PWRORA will have on the eventual outcomes of the children of immigrants. From a policy standpoint, if it is the case that immigrant parents' welfare receipt positively influences children's outcomes then recent revisions of welfare eligibility rules will ultimately have a negative effect on the success of the children of immigrants—and the success of U.S. immigration policy.

This study examined the effects of welfare receipt in immigrant families on the educational attainment of the young adult children of immigrants. While previous research has shown that most of the children of immigrants do go on to achieve higher levels of education than their parents (Chiswick and DebBurman 2003), the role that welfare receipt plays in this transition is not known. This represents a serious gap in the literature on immigrant families because a majority of the children of immigrants are citizens and are eligible for social benefits—social benefits that may play an important role in their development. This study has tried to address this gap by using more current data sources, thus trying to capture the first cohorts of

children from the more recent waves of immigration who are now entering their late teens and early 20s. This population is important to understand given that during these years, most young adults are obtaining education or training that will influence later levels of socio-economic achievement (Arnett 2000).

A key issue concerning immigration scholars and policy makers is whether immigrant family welfare receipt is related to outcomes such as education and employment independent of other economic and socio-demographic factors that also occur with welfare receipt. The results shown here give some indication that welfare receipt among the immigrant parent generation—a generation characterized by high levels of poverty and low levels of education—may in fact help the educational attainment of the young adult second generation. Further, individual level analyses determined that the effect of welfare on young adult outcomes varied based on the nativity status of the parents, that is, the negative effect of welfare receipt in general was either reversed or at least lessened among immigrant families. These results challenge the common notion that immigrant families use welfare as a crutch and imply that welfare receipt among immigrant families may serve a function similar to settlement assistance, enabling them to invest in the educational development of their children.

Table 1: Estimated Coefficient of Transmission between Parent's Public Assistance Use and Second Generation's Outcomes.

Young Adult Children of Immigrant Outcomes	Estimated Coefficient of Transmission	
	Parental Program Participation (1)	Parental education and program use (2)
<u>Program Use</u>		
Cash	0.136 **	0.098
Medicaid	0.552 ***	0.141
Food Stamps	0.233 ***	0.112
<u>High School Graduation</u>		
Cash	-0.261	0.217 *
Medicaid	-0.337 **	0.159
Food Stamps	-0.431 **	0.092
<u>Ever Enroll in College</u>		
Cash	-0.681 *	0.248
Medicaid	-0.758 **	0.204
Food Stamps	-0.913 **	0.148

p-value significant at the .01 level (**), at the .05 level (*)

Note: The dependent variable is the cell mean for the outcome for the second generation (age 19-24), adjusted for age and age squared. The independent variable is the cell mean for the level of public assistance use adjusted for age, and age squared for the parent generation(see text for details).

Table 2: Sample Characteristics, weighted means NLSY97.

Characteristics	Children of Immigrants	Children of Natives
Educational Outcomes*		
High School Graduation	0.854	0.840
Ever enrolled in College	0.578	0.510
Parental Welfare Legacy		
Any	0.296	0.402
Recent (1993-1997)	0.188	0.213
Combined Welfare Legacy and Education		
Any Welfare		
High School Graduation	0.774	0.730
Ever enrolled in College	0.423	0.325
Recent welfare (1993-1997)		
High School Graduation	0.752	0.659
Ever enrolled in College	0.374	0.244
Never Any Welfare		
High School Graduation	0.887	0.914
Ever enrolled in College	0.643	0.635
Race/ethnicity of respondent		
Hispanic (any race)	0.465	0.074
Non-Hispanic		
White	0.292	0.739
Black	0.084	0.162
Asian	0.099	0.011
Other	0.057	0.012
Parent Characteristics		
Household Income (log)	9.88	10.15
Below poverty level	0.220	0.166
Years of education	11.7	13.5
Household structure at age 12		
Two biological parents	0.649	0.478
Two parent/step	0.032	0.064
Single mother	0.242	0.358
Single father	0.027	0.043
Other family type	0.032	0.045
Non-English is spoken in home	0.693	0.065
Neighborhood Characteristics		
City	0.361	0.262
Rural	0.041	0.232
Suburb	0.598	0.506
Unemployment rate	6.231	4.951
Pct living below poverty in county	7.021	5.015
Average AFDC benefit by state (1990-1996)	\$413	\$344

*By last month of 19th year.

Table 3: Effects of Parental Welfare Receipt by Nativity Status, High School Graduation and College Enrollment, NLSY97

	(1)		(2)		(3)	
Welfare Receipt since Youth Respondent's Birth	OLS		IV		OLS	
High School Graduation						
Child of an immigrant	0.045	*	-0.012		0.018	
Parental welfare receipt (any)	-0.087	***	-0.513	*	-0.097	***
Interaction					0.076	**
Hausman			<i>marginal pass</i>			
Over Id			<i>pass</i>			
College Enrollment						
Child of an immigrant	0.060	**	-0.010		0.023	
Parental welfare receipt (any)	-0.162	***	-0.681	*	-0.176	***
Interaction					0.104	**
Hausman			<i>marginal pass</i>			
Over Id			<i>pass</i>			
Welfare Receipt in the Last Five Years*						
High School Graduation						
Child of an Immigrant	0.043	*	0.061	**	0.008	
Parental Welfare Receipt in last 5 years	-0.069	***	0.525		-0.089	***
Interaction					0.150	***
Hausman			<i>pass</i>			
Over Id			<i>pass</i>			
College Enrollment						
Child of an immigrant	0.057	**	0.091	**	0.025	
Parental welfare receipt (any)	-0.082	***	-0.440	**	-0.100	***
Interaction					0.136	**
Hausman			<i>pass</i>			
Over Id			<i>pass</i>			

p-value significant at the .001 level (***), .01 level (**), at the .05 level (*)

1. All models include a full set of controls for family, personal and neighborhood characteristics.

Appendix 2: Characteristics of Immigrant Households with at least one child ages 9 to 16, CPS 1994-1997

	Immigrant	Native
Race/Ethnicity		
Hispanic	49.43	5.81
NonHispanic		
White	24.89	75.94
Black	6.89	16.60
Asian	18.60	0.65
Other	0.19	1.00
Poverty Level		
Below poverty	27.06	17.24
100 to 124 percent	7.10	4.63
125 to 149 percent	7.21	4.96
150 and above	58.64	73.17
Education of parent HH Head¹		
High School Graduate	60.75	85.16
College Graduate	22.87	22.11
Public Transfer		
Cash	11.19	9.98
Food Stamps	17.32	14.82
Medicaid	25.54	19.05
Unweighted N	3,450	17,715

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