Welfare Leaving and Health Trajectories among the Children of Immigrants and Natives

The 1996 federal welfare reform law introduced, among other things, broad restrictions on immigrants' eligibility for many health and social service programs, including cash welfare assistance (TANF), food stamps, and subsidized health insurance. Caseloads for welfare and other benefit programs have fallen dramatically in the wake of welfare reform (Blank, 2002), but the declines have been steeper for immigrants than for native-born citizens (Fix & Passel, 1999) even when immigrant families remain eligible for assistance.[1] Some have suggested that this so-called "chilling effect" reflects immigrants' confusion about their eligibility or their fear that benefit use will adversely affect their chances for citizenship or even their opportunities to reenter or stay in this county (Capps, 2001; Fix & Passel, 1999). For example, parents who are not citizens may not be aware of their U.S.-born children's eligibility for important benefits. This is a particular problem among low-income parents with low education, as this population has a high proportion of non-citizen parents (Hernandez, 2004).

In light of their more limited use of government assistance programs (in addition to their higher levels of participation in the low-wage labor market and lesser likelihood of full-time year-round work), it is not surprising that immigrant families suffer more material hardships than their native counterparts. Children of immigrants are more likely than their native counterparts to be poor and to experience material hardships such as crowded housing conditions and difficulties affording food (Capps, 2001). Children with foreign-born parents are much less likely to have health insurance than native children; for Hispanic children, this is true even after controlling for key demographic characteristics such as parental education, income, and employment (Hernandez, 2004). Children of immigrants are also more likely to lack access to

[1] Most (80%) children in immigrant families, having been born here, are U.S. citizens, and are therefore eligible for government assistance on the same basis as all other U.S. citizens (Hernandez, 2004).

medical care (Capps, 2001). Finally, children of immigrants, especially those in low-income families, are substantially more likely to be in poor health, which reflects, in part, the fact that they are at greater risk for lacking health insurance as well as a regular place for medical care (Reardon-Anderson, Capps, & Fix, 2002).

Few studies have linked these disparate strands of research together to pose the question of whether welfare leaving in the wake of welfare reform is associated with different trajectories of health for the children of immigrants versus natives, and, if so, what factors might explain these differences. Using a unique longitudinal data set representing approximately 1,000 young children in Chicago during the period welfare reform was being implemented (1995-2001; the Project on Human Development in Chicago Neighborhoods, PHDCN) this study investigates (a) how welfare-leaving affects changes in young children's physical health over time, (b) whether these associations differ for children of immigrants versus natives, (c) whether any differential patterns can be explained by differential access to health insurance and medical care or different patterns of parental employment and income; and (d) whether patterns differ for pre-school versus school- age children.

Method

This study draws upon two waves of data from the longitudinal cohort component of the Project on Human Development in Chicago Neighborhoods (PHDCN), a multi-level study of more than 6,000 children and adolescents. The six-year period (1995-2001) covered by these data encompasses the implementation of welfare reform and other important macro-economic changes (e.g., from the boom years of the late 1990's to the economic downturn that began in 2001). Importantly, the PHDCN sample is racially, ethnically, and socioeconomically diverse, including a sizable proportion of native and immigrant Latino families. With the intention of

yielding a representative probability sample of Chicago residents, researchers screened approximately 35,000 households in 80 neighborhood clusters, and identified 8,347 participants in seven age cohorts (birth, 3, 6, 9, 12, 15, and 18). During the first wave of data collection (1995-1997), 75% of eligible participants were interviewed; approximately 3 years later (1997-1999), a second wave of data was collected with a response rate of 86%. At each assessment, extensive data regarding child and family functioning were gathered through face-to-face interviews and direct assessments with participants and their primary caregivers.

The analysis sample for the present study includes three age cohorts of children whose parents reported receiving welfare at the beginning of the study, and for whom there are two waves of data available (n = 1,033). Children in the Infant Cohort (n = 376) were born around the time of the first interview (T1) and were approximately 3 years old at the time of the second interview (T2). Children in the Age 3 (n = 341) and Age 6 (n = 316) cohorts were ages 6 and 9, respectively, at T2.

Measures

Children's physical health. Our key outcome measure assesses children's physical health status. At both the T1 and T2 assessments, parents were asked to rate their child's general health (1 = poor, 2 = fair, 3 = good, 4 = very good, 5 = excellent). Because the responding caregiver was almost always the child's mother, we use this term from this point forward. Mother ratings of general child health represent a commonly used measure, though they may be more vulnerable to bias than evaluations made by health professionals. Along with single-item measure of children's overall health, the T2 parent interview included an extensive set of items about specific health conditions and events. We find that the general health rating is significantly correlated with a scale measuring the frequency of acute illnesses (e.g., colds, ear infections,

gastrointestinal) (r = -.14, p < .05 for the Infant Cohort; r = -.19, p < .01 for the Age 3 Cohort; r = -.18, p < .01 for the Age 6 Cohort). Parental perceptions of health may also vary across different groups of parents (e.g., by race, ethnicity or immigrant status). A strength of our analysis is the ability to examine intra-individual change (i.e., change in parent ratings), minimizing the effect of reporter bias on our estimate of the relationship between welfare leaving and children's health.

For the Age 3 and Age 6 cohorts, change scores in health were derived by subtracting the T1 health rating from the T2 rating. Time 1 health ratings were not available for the Infant Cohort (many were born shortly after the first interview); instead, we create a dichotomous variable (0/1) that identifies whether the child exhibited a health risk factor at birth (either prematurity or very low birth weight). This indicator of early health is used as a control in the regression predicting the T2 health ratings for this cohort of very young children.

Immigrant status. Parents reported the birthplace of themselves, their parents, their partner, their partner's parents, and the birthplace of their children, allowing us to identify children as first-generation immigrant (foreign-born), second-generation immigrant (of foreign-born parents) or beyond. For the purposes of this study, we adopt the common convention of categorizing first- and second- generation immigrant children as "immigrant" and all others as "native." It is noteworthy that all of the immigrant children in our analytic sample are actually native born themselves (i.e., they are second-generation immigrant). As American citizens, these children remained eligible for assistance throughout the study period (i.e., pre- and post- welfare reform), regardless of their parents' immigrant status.

Within native and immigrant populations, there may be important racial and ethnic differences in welfare participation and its connection to health care and health outcomes. In our

sample, however, small cell sizes prevent us from examining groups beyond the native/immigrant distinction; however, all analyses control for racial/ethnic background. We note that 72% of native welfare recipients are African-American, 17% are Latino/a, and 10% are Caucasian; whereas the majority of immigrant children (94%) are Latino/a.

Welfare receipt. At each assessment, parents were asked about their use of public assistance in the previous year. All families in this sample were selected for inclusion based on their report of receipt at Time 1; dichotomous variables were created to indicate whether families continued to receive assistance at Time 2 or whether they had discontinued receipt.

Because we are interested in whether welfare leaving (or staying) has potentially different consequences for the well-being of native and immigrant children, we created a set of mutually exclusive dummy variables that serve as our primary independent variables of interest: native stayers (i.e., native families who continued to receive assistance across both time points), native leavers (i.e., families who stopped receiving welfare by Time 2), immigrant stayers, and immigrant leavers.

Mediators. As part of the T1 and T2 interviews, mothers provided information on several variables that may serve to mediate a relationship between patterns of welfare use and children's health. These include health insurance coverage (0/1 indicator of whether child was uninsured during interval between T1 and T2); changes in maternal employment (number of hours per week); changes in mothers' earnings ($); and changes in household income ($).

Control variables. The present analyses include controls for child's gender (1=boy, 0=girl); mother's age and years of completed education at first interview (as a continuous variable); dummy variables indicating child's race/ethnicity (Black, Latino/a, or White); the number of children (< age 18) in the household; whether the mother is married at T1 (0/1);

whether the mother or her spouse/partner is employed at T1 (0/1); and, the length of time between the T1 and T2 interviews (continuous variable in number of weeks).

Empirical Strategy

To examine the relationship between families' welfare leaving and young children's health, we a change score approach. Under appropriate conditions, change score methods provide a relatively strong test of causal inferences with nonexperimental data (Allison, 1990; 1994) because of their ability to deal with unmeasured selectivity. Parents who continue to receive public assistance are likely to be different in several ways from parents who discontinue receipt. An estimate derived from regressing T2 health on T2 welfare status (or change in welfare status) using a traditional ordinary least squares approach will be biased if characteristics that co-determine welfare receipt and child health are omitted from the model. Given that it is impractical (and often impossible) to observe and accurately measure all relevant characteristics, selection biases are cause for concern in traditional OLS approaches to nonexperimental data. Change score models control for the influence of all stable observed and unobserved differences between groups (e.g., children of welfare leavers vs. stayers), by comparing individuals to themselves overtime.

In our primary models, we regress change in children's health between T1 and T2 on the set of four mutually-exclusive variables capturing patterns of welfare use by native and immigrant parents during this same period (native leavers are set as the reference group), as well as the baseline demographic control variables described above. Separate models are estimated for each age group (Infant Cohort, Age 3 Cohort, and Age 6 Cohort) rather than as one model with age-interaction terms, given the lack of a comparable change score for the infant group. A

Chow test of the equivalency of coefficients across age groups supported the decision to run separate models.

To examine potential pathways between change in welfare participation and change in child health, we perform four additional sets of analyses that regress health insurance coverage (and alternately changes in maternal employment, maternal earnings, and household income) on the covariates and the indicators of welfare status for native and immigrant families. In cases where immigrant status or welfare participation predict change in insurance or economic circumstances, we test for mediation by adding this variable to the original change score models predicting health.

Preliminary Results

Table 1 provides a descriptive summary of basic characteristics of these families, for the full sample and separately for native children and children of immigrants. Native and immigrant families in our sample differ demographically in ways that are consistent with the literature. Low-income immigrant parents have lower education and less household income than their native counterparts; at the same time, the immigrant parents in our sample were more likely than native parents to be married and employed at the beginning of the study. Though all families reported receiving assistance at Time 1, immigrant families were much more likely than native families to have left the welfare system by Time 2 (60% of immigrants vs. 20% of natives). We note that children of immigrant parents have lower health ratings on average than children of native parents at T1 and T2. Our analyses examine whether welfare leaving (or staying) differentially affects the health trajectories of children in immigrant and native families.

Welfare leaving and change in physical health. Table 2 presents estimates of the effects of different welfare patterns on the health of young children in native and immigrant families.

Models are run separately by age group. Given our preference for the change score model, we focus first on the results for the Age 3 and Age 6 cohorts. In each of these models, effects on children's health trajectories of being in one of three nativity-by-welfare categories are compared to the omitted case of native welfare leavers. For example, the coefficient for "immigrant family – welfare leaver" is the effect of welfare leaving on a change in health for children in immigrant families *relative* to the change experienced by children in native families who also left welfare during this time period.

For the Age 3 cohort, we find that being either in a native stayer family or in an immigrant leaver family significantly predicts a change in health. Whereas native children in welfare leaver families experienced a substantial improvement in health over time (as can be seen in Table 1), native children in welfare recipient families experienced a significantly smaller improvement, and immigrant children in welfare leaver families experienced a small decline in overall health between the first and second interview. Post-hoc tests further indicate that immigrant children in welfare leaver families fared significantly worse than immigrant children whose families continued to receive assistance.

Results for the Infant cohort, where the effects of welfare participation on Time 2 health are estimated controlling for birth health outcomes, also indicate negative health consequences of leaving welfare for children in immigrant, but not native families. Living in an immigrant stayer family also negatively predicts Time 2 health, but post-hoc tests indicate that the health outcomes of this group were significantly better than those for immigrant children in welfare leaver families.

Notably, we fail to find a similar link between changes in welfare status and the health trajectories of school-aged children. Changes in health for the Age 6 cohort were unrelated to

parents' nativity or welfare participation. This finding may reflect, in part, improvements in health that generally occur after the preschool years. It may also be the case that formal schooling provides some access to basic health services. The significance of certain barriers that immigrant families face in accessing health care (e.g., parents' English proficiency) may also lessen as children get older and are able to communicate directly or more frequently with care providers.

Potential mediators. We examine the role of potential mediators by testing whether welfare leaving (or staying) for native and immigrant families predicts the likelihood of children experiencing a period of uninsurance, and changes in parents' employment, earnings, and household income. We find that for the Age 3 cohort only, children in immigrant welfare leaver families are much more likely than their peers to have had no health insurance. Looking at changes in families' economic circumstances, we generally find that native stayers fare worse (i.e., less improvement or more decline over time) than other types of families in terms of household income and parental employment hours. Immigrant parents (stayers and leavers) in the Age 3 cohort report significantly less growth in earnings between T1 and T2 than do native parents. Interestingly, including each of these potential mediators in regressions predicting children's health did not change the coefficients for the welfare pattern variables. This suggests that alternate pathways be considered in understanding the relationship between native and immigrant families' interactions with the welfare system and their children's health.

In summary, with these data, we cannot estimate the relative contributions of welfare reform policy versus the economy to welfare leaving. Our analyses indicate that whereas native leavers increased their employment, earnings, and income, while native stayers and immigrant families (both stayers *and* leavers) experienced few changes in these respects. These findings

suggest that immigrant families with young children may have left welfare for reasons other than improved economic circumstances. Second, we also find that the children of immigrant welfare leavers fare significantly worse in terms of their physical health trajectories than either native leavers or immigrant stayers. These effects, moreover, seem to be concentrated among infants and preschoolers (versus school-age children). Our final paper will discuss these results at greater length and consider their policy implications.

References

Alison, P. D. (1990). Change scores as dependent variables in regression analysis." Pp. 93-114 in Clifford Clogg (Ed.), Sociological Methodology. Oxford: Basil Blackwell.

Blank, R. (2002). Evaluating welfare reform in the United States. Journal of Economic Literature, 1105-1166.

Capps, R. (2001, February). Hardship among children of immigrants: Findings from the 1999 National Survey of America's Families, Series B, No. B-29. Washington, D.C.: Urban Institute.

Fix, M., & Passel, J. (1999, March). Trends in noncitizens' and citizens' use of public benefits following welfare reform. Urban Institute Research Report. Washington, D.C.: The Urban Institute.

Hernandez, D. (2004). Demographic change and the life circumstances of immigrant families. The Future of Children, 14 (2), 17-47.

Reardon-Anderson, J., Capps, R., & Fix, M. (2002, November). The health and well-being of children in immigrant families, Series B, No. B-52. Washington, D.C.: Urban Institute.

Table 1. Sample Characteristics, Full Sample and by Immigrant Status

	Full Sample		Native Families		Immigrant Families	
	M	sd	M	sd	M	sd
Child in immigrant family	33.3%		0		100%	
Child is male	49.9%		49.7%		50.3%	
Child is African-American	49.0%		72.6%		1.7%	
Child is Latino/a	43.5%		18.3%		93.9%	
Maternal age, T1	27.9	6.4	27.272	6.3	29.093	6.3
Maternal education (years), T1	11.8	3.4	12.846	2.1	9.735	4.4
Mother is married at T1	25.1%		11.4%		52.3%	
Number of siblings in household, T1	1.8	1.5	1.734	1.5	1.887	
At least one parent employed at T1	56.3%		45.3%		78.2%	
Yearly household income, T1	$13,843	12074	$14,132	13289	$13,285	9640
Welfare stayer	66.6%		79.9%		39.9%	
Welfare leaver	33.4%		20.1%		60.0%	
In welfare stayer families						
Child's health at T1	4.00	1.0	4.12	1.0	3.55	1.1
Child's health at T2	4.04	1.0	4.11	0.9	3.72	1.1
In welfare leaver families:						
Child's health at T1	3.78	1.1	3.96	1.1	3.65	1.1
Child's health at T2	3.76	1.0	4.19	0.8	3.48	1.0
Period of uninsurance T1-T2 (1=yes)	19.3%		13.4%		31.2%	

Table 2. Changes in welfare participation and children's health in native and immigrant families

	T2 Health, Infant Cohort		Δ Health, Age 3 Cohort		Δ Health, Age 6 Cohort	
Immigrant family - welfare stayer	-0.510	*	-0.293		-0.155	
	(0.22)		(0.29)		(0.29)	
Immigrant family - welfare leaver	-0.945	**	-0.861	**	0.001	
	(0.19)		(0.30)		(0.30)	
Native family - welfare stayer	-0.001		-0.480	**	-0.132	
	(0.14)		(0.18)		(0.21)	
Native family - welfare leaver (omitted group)						
N	284		312		284	
Model F-Test	9.05	***	1.71	*	1.84	ns
Adjusted R-Squared	0.24		0.08		0.05	

Notes: ***=p-value<0.001; **=p-value<0.01; *=p-value<0.05.

Standard errors are in parentheses.
Each model includes the following covariates measured at Time 1: child's gender; mother's age and years of completed education; child's race/ethnicity; number of children in the household; whether mother is married at T1; whether the mother or her spouse/partner is employed at T1; and, the length of time between the T1 and T2 interviews. In addition, the Infant Cohort model controls for whether the child was born prematurely or had low birth weight.