Variability in Immigrant Health across Cohorts and Duration in the U.S.

Several potential explanations of why immigrant health in the U.S. appears to deteriorate over time have been proposed and studied. Among the most prominent is acculturation. According to acculturation theory, immigrants adopt the risky (unhealthy) behaviors of their non-immigrant peers as they assimilate to the U.S. Other explanations purport that the health of immigrants deteriorates because of prolonged or cumulative exposure to adverse racial- or ethnic-specific social environments in host countries (Nazroo, 2001; Singh and Siahpush, 2002; Reijneveld, 1998; Uretsky and Mathiesen, 2007; Landale et al., 2006). Cross-sectional observational data reveal patterns in the health of immigrants over time and across generations that are consistent with existing cultural, behavioral, and environmental theories predicting declines in health (Cho and Hummer 2001; Jasso et al., 2004; Uretsky and Mathiesen 2006). However, the observed patterns are also consistent with explanations based on (1) selective migration (e.g., Landale et al., 2000); (2) selective return migration (Borjas and Bratsberg 1996; Palloni and Arias, 2004), although the evidence on this is controversial (Rosenberg et al. 1999; Turra et al, 2005); and (3) health differences across immigrant cohorts, making it impossible to adjudicate between explanations with radically different social, political, and policy implications.

In this paper, we investigate whether health differences exist across immigrant cohorts, and the extent to which arrival cohort accounts for observed differences in immigrant health by duration of residence in the U.S. Specifically, we describe cohort changes in the health of immigrant mothers arriving in the U.S. between 1970 and 2005, as well as the health of their U.S. born children.

### Data

We use restricted National Health Interview Survey (NHIS) files from 1998 to 2005, which include data on 108,745 immigrants. Our analysis for infant and maternal outcomes includes 13,891 observations.

# Approach

We focus on low birthweight as the measure of infant health and on self-reported health, activity limitations, and obesity as measures of maternal health. We compare crude rates of infant and maternal health across cohorts as well as rates adjusted by sex, age, country/region of origin, survey year, citizenship status, race, family income, and education.

### Preliminary findings

Figure 1 illustrates variation in low birthweight by year of arrival to the U.S. It clearly indicates that infant health, at least as proxied by birthweight, has declined over successive immigrant cohorts. That is, health selection appears to have declined over time. This pattern holds up in regression analyses controlling for age and survey year, as well as for self-reported maternal health.

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Figure 1: Low Birthweight among Immigrants by Year of Arrival

We also estimate maternal and infant health by duration of residence in the U.S., adjusting for cohort effects, and find that it follows a curvilinear pattern. Consistent with recent findings based on 3 other nationally representative datasets, we find that health appears to improve for the first few years a woman resides in the U.S. and subsequently deteriorates (Teitler, Hutto, & Reichman, forthcoming). See Figure 2.

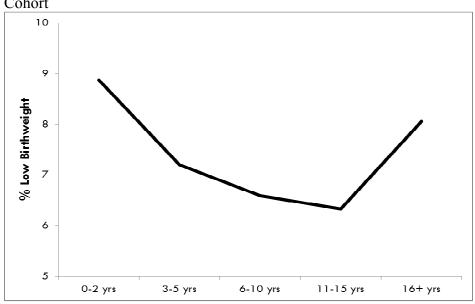


Figure 2: Low Birthweight among Immigrants by Duration in the US, Controlling for Arrival Cohort

## Discussion

The curvilinear association between duration of residence in the U.S. and health, adjusting for cohort effects, is somewhat at odds with most current immigrant assimilation theories. We conclude our paper with a discussion of why immigrant health over time follows a non-linear pattern.

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