

*Excerpt from*  
*Neighborhoods  
and Health:*

**Building Evidence for Local Policy**

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May 2003

SUBMITTED TO  
The Office of the Assistant Secretary for Planning and Evaluation  
U.S. Department of Health and Human Services

SUBMITTED BY  
The Urban Institute  
2100 M Street NW, Washington DC

Delivery Order 19, Contract No. HHS-100-99-0003.



## Section 6

### PROVIDENCE: RESIDENTIAL MOBILITY IN CONTEXT

#### PURPOSE AND APPROACH

This section summarizes the site-specific analysis prepared by the Providence Plan, working closely with the state of Rhode Island Department of Health (HEALTH).<sup>14</sup> It focuses on the relationship between residential mobility and childhood health and the way neighborhood conditions influence that relationship.

#### ***Background and purpose***

A sizeable number of studies have established that highly mobile children (those who move from one house to another much more frequently than average) face serious educational disadvantages. These include poor verbal abilities, poor attendance, lower test scores, and repeated grades (see, for example, Buerkle 1999; Koehn 1998; U.S. General Accounting Office (GAO) 1994). It is believed that residential mobility disrupts learning because of the emotional and behavioral difficulties that accompany it. Children who move often are placed under more stress because of the loss of friendships and other social support systems.

While there has been less research on the topic (exceptions are GAO 1994; Morrow 1995), it seems reasonable to hypothesize that high mobility also has deleterious effects on children's health. The authors of this study wanted to find out the extent to which this was true in Providence, and how mobility and health effects varied with characteristics of local neighborhoods.

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<sup>14</sup> The study is fully documented in an as yet unpublished report of the Providence Plan: *Development and Use of Neighborhood Health Analysis: Residential Mobility in Context*, 2002. The work received support from the Rhode Island Department of Health as well as from this project.



### ***Data sources and methods***

To conduct this study, the Providence Plan had access to unusually complete data on mobility and other aspects of the lives of children in Providence. First, for some time the staff have been conducting demographic and other analyses for the Providence School Department using its database, which now contains historic data on all students enrolled from 1987 through 2001. Information about each student includes all address changes as well as data on test scores, absenteeism, repeating of grades, and other indicators of educational performance.

Second, they were more recently given access to the state Department of Health's KidsNet Databases, which at the time of this project contained information on all children born in Rhode Island from 1997 through 2001—a group overlapping, but generally younger than, those in the School Department dataset. Each of the children has been tracked since birth, so this file also contains information on address changes as well as on birth-related measures (e.g., birth weight, prenatal care) and selected services by various local health care providers (e.g., well-child and illness-related visits to physicians, immunizations, and lead screenings).

In addition to these sources, the staff used various tract-level indicators from the U.S. census and local administrative records (e.g., on reported crime). Relationships were examined using tables, charts, and census tract maps.

## **FINDINGS AND IMPLICATIONS**

### ***Hypotheses and main findings***

Introductory analysis showed that mobility was indeed high among children in Providence and Rhode Island. Information from the School Department database showed that on average, one-quarter of all students in Providence changed addresses at least once in any given year. Information from the HEALTH database showed that nearly one third-of the 65,800 children for whom there were records state-wide had moved at least once by their first birthday; 43 percent of all children born in 1997 had moved at least once by the end of 2001. Children born in the core cities of the state had the highest mobility rates. For example, 22 percent of Providence children had moved two times or more from 1997 to 2001, compared with 7 percent for those outside of the core cities.

Providence Plan staff explored a large number of hypotheses related to these measures, including some to reconfirm the problematic effects of high mobility on educational outcomes. Here we regroup the findings and report on three main hypotheses that emphasize health effects.



1. *That young children who move often will have more disruptions to health care access than other children.* Staff defined and examined three ways in which access might be disrupted: (1) when children have to shift from one care provider to another; (2) when children have fewer office visits for immunization; and (3) when children do not receive recommended blood level screenings in a timely manner. Results were mixed:

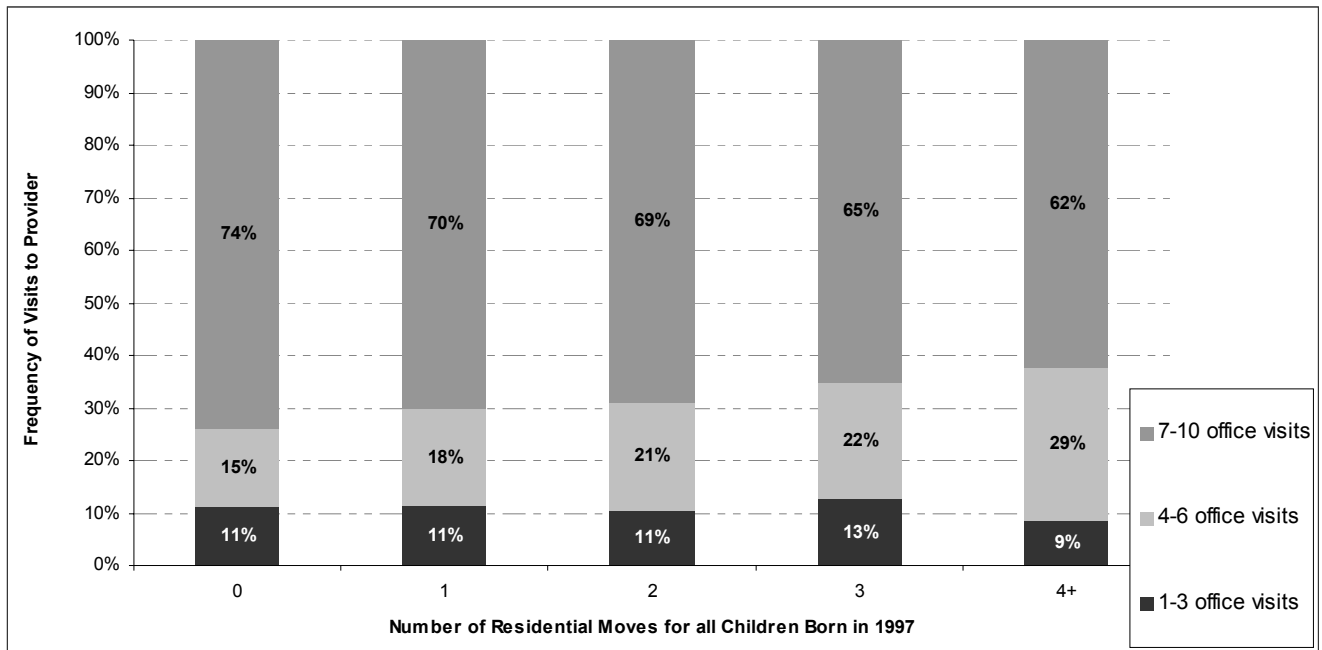
- The data supported the hypothesis with respect to the first measure, but only modestly. Young children (ages 0 to 5) who moved often were only slightly less likely to see more than one provider than their more stable counterparts. The share of children who saw only one provider dropped from 84 percent for those who never moved, to 80 percent for those who moved once, to 77 percent for those who moved twice, to 74 percent for those who moved four times or more.
- Data on office visits for immunizations also supported the hypothesis, although again modestly; the contrasts were not dramatic (figure 6.1). Among all children born in 1999, for example, half of the children who never moved had the desired number (seven or more) of immunization visits. The shares with seven or more visits then declined consistently the more times the child had moved, reaching a low of 36 to 37 percent for children who had moved three times or more.
- Residential mobility does not appear to affect whether a child receives timely blood level screenings.

2. *That children born to disadvantaged women, women of color, and single women are likely to move more often than other children.* In this analysis, the staff defined “mobile” children as any born between 1997 and 2000 who had moved two or more times by December 2001 and any born in 2001 who had moved at all in that year. All results supported the hypothesis:

- Mobile children accounted for 28 percent of those born to African-American mothers and 31 percent of those born to Hispanic mothers, but only 11 percent of those born to white mothers.



**Figure 6.1: Frequency of Visits to Service Provider and Number of Residential Moves between 1997 and 2001 for all Children born in 1997 Providence, RI**





- Just over one-quarter (27 percent) of the mothers of mobile children had delayed prenatal care (starting after the first trimester), compared with only 15 percent of mothers of other children; 15 percent of mothers of mobile children had insufficient prenatal care (fewer than six obstetric visits by the 36<sup>th</sup> week of pregnancy), compared with only 6 percent of other mothers.
- Two-thirds of all mobile children were born to single women, compared with less than one-third (30 percent) of other children; 21 percent of mobile children were born to teen mothers, compared with 8 percent of other children.
- Two-thirds of mobile children were classified as “risk positive at birth” by the state of Rhode Island, compared with 36 percent of other children<sup>15</sup>.

3. *That neighborhoods with high levels of distress will also have higher rates of child mobility.* For this analysis, Providence Plan staff identified 13 measures of distress and counted the number of times each census tract’s score exceeded the mean for each measure by one standard deviation or more<sup>16</sup>. The tracts that met this standard for at least two of the measures were classified as “distressed.” These tracts, shown on the map in figure 6.2, are clustered to the west and south of downtown Providence and heavily overlap the high-poverty tracts mapped in section 3.

Mobility data support the hypothesis: (1) 92 percent of the distressed tracts have student residential mobility rates above the city average between 1996 and 2001; (2) the same share (92 percent) had residential mobility rates for young children above the city average (children age 5 and under as identified in the health database).

Looking at this relationship from the other direction, the staff also showed that neighborhoods with high rates of child mobility (see figure 6.3 related to younger children) have higher levels of neighborhood distress with respect to health. The seven tracts with the highest rates of child mobility (tracts 4, 5, 8, 9, 10, 11, and 19) are above the city’s average on a number of measures of distress, including births to women with delayed or insufficient prenatal care; births to single women; risk-positive births; elevated blood lead levels; and violent crime.

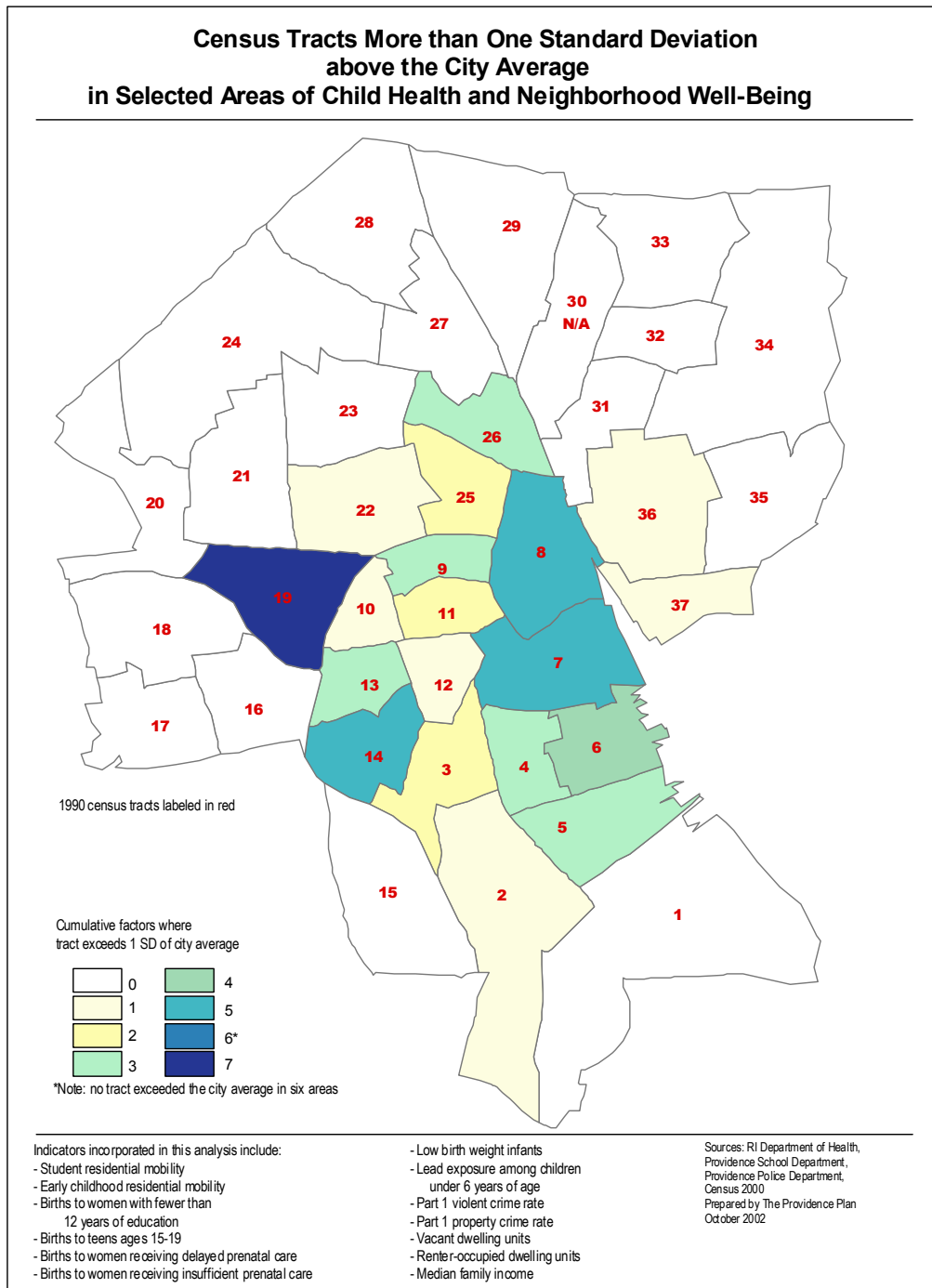
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<sup>15</sup> The Rhode Island Department of Health establishes risk for developmental delay for all newborns based on a variety of maternal health and socioeconomic criteria and vital statistics gathered at birth.

<sup>16</sup> The thirteen measures of distress were: student residential mobility, early childhood residential mobility, births to women without a high school degree, births to teens age 15 to 19, births to women receiving delayed prenatal care, births to women receiving insufficient prenatal care, low birth weight infants, lead exposure among children under 6 years of age, Part I violent and property crime rate, vacant dwelling units, renter-occupied housing units, and median family income.

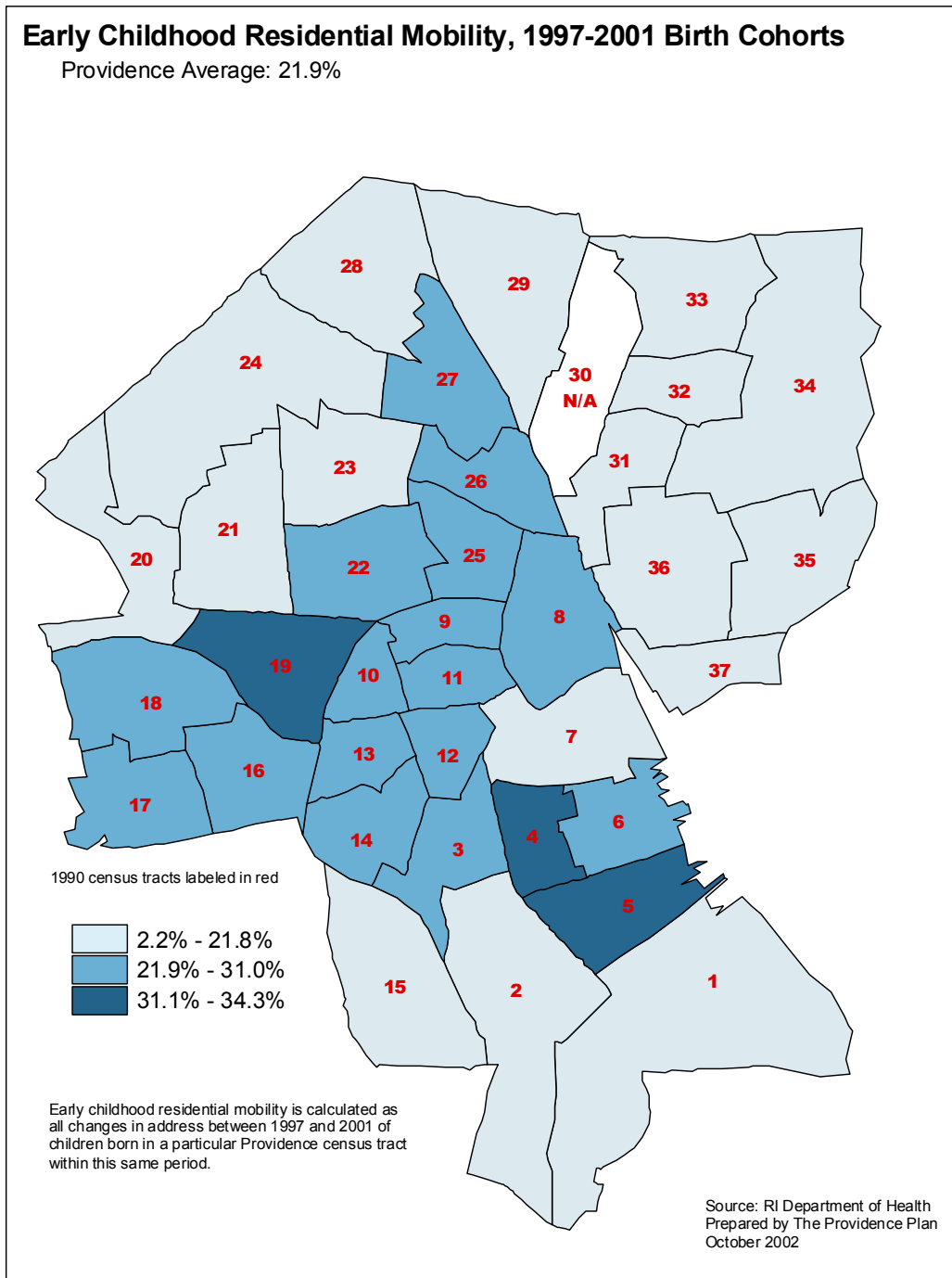


**Figure 6.2: Census Tracts More than One Standard Deviation above the City Average in Selected Areas of Child Health and Neighborhood Well-Being Providence, RI**





**Figure 6.3: Early Childhood Residential Mobility for 1997-2001 Birth Cohorts  
Providence, RI**





### ***Implications and community process***

High rates of mobility are indeed prevalent among children from distressed and minority families and in Providence's most troubled neighborhoods. While the effects are not dramatic, they also appear to have a negative impact on health care. Coupled with the Providence Plan's previous research showing negative effects of high mobility on education outcomes, there is now substantial evidence to draw attention to the issue.

Staff members recognize that mobility cannot be lessened in isolation from the myriad of other problems facing distressed families. There is need to better understand how the circumstances of poverty and neighborhood-level stressors interact to cause high mobility and other problematic impacts on families and children, and then to approach the mix of problems holistically. Next steps have now been planned in conjunction with HEALTH.

First, now that high-mobility children have been specifically identified, it will be possible for trained "parent consultants" (e.g., peers) employed by HEALTH to have targeted discussions with the families both to find out more about *why* they move and raise awareness of deleterious effects. Providence has a system of grass-roots community health centers (operated by nonprofits), and this work will be coordinated through them. Consideration is also being given to involving an ethnographic researcher from Brown University to help understand the dynamics of the issue.

After better information is available, HEALTH will reassess how well all of its services meet the needs of mobile families. For example, families of risk-positive children are offered home visiting and early intervention services. The report showed that two-thirds of highly mobile children were identified as risk-positive at birth. Assessment of how well the home-visit approach is working and how it might be modified to better address mobility issues would be a priority. Starting from data in this report, further work on locational patterns would also appear warranted to allow HEALTH to develop a better system of indicators so it can more efficiently target resources to those most in need.

In addition, plans are being made to present the findings of this report to the staffs of housing agency and advocacy groups. It is recognized that growing housing affordability problems play a central role in expanded mobility for low-income families. Housing professionals need to be working more closely with community health centers and other grass-roots groups if the issue is to be addressed.



### ***Data potentials***

The detailed schools and health data systems available to the Providence Plan for this work are not readily available for policy analysis in most American cities, if they exist at all. However, they offer models that should be attractive to develop elsewhere. In particular, the KidsNet Databases (birth records coupled with records on subsequent health system interactions for each child) would certainly seem worth emulating. The potential of such databases to support effective program planning, resource targeting, and internal performance monitoring, as well as providing a basis for external accountability, should be substantial.

This analysis built on an existing, working relationship between the Providence Plan and HEALTH has enabled the organizations to jointly explore issues of concern to the health community for several years. Appropriate data sharing and confidentiality agreements have promoted the relationship. The Providence Plan had no problems in accessing the data and found the records to be orderly and reliable in general.