

Revisiting School Readiness Data: An Examination of Select Indicators in Providence



**Prepared for the Urban Institute National
Neighborhood Indicators Partnership and Annie
E. Casey Foundation**
School Readiness and Success Cross Site Initiative

Ready to Learn Providence, May 2008
A program of The Providence Plan

Revisiting School Readiness Data: An Examination of Select Indicators in Providence

Prepared for the Urban Institute National Neighborhood Indicators Partnership and
Annie E. Casey Foundation School Readiness and Success Cross Site Initiative
Ready to Learn Providence, May 2008

Ready to Learn Providence (R2LP) is a program of The Providence Plan with the vision that *all children in Providence will enter school healthy and ready to learn*. Formed in 2002, R2LP is now the largest school readiness initiative in Rhode Island, with a staff of 22 employees, 30 AmeriCorps members, and more than 2,500 community members committed to the R2LP vision. The Providence Plan is a private non profit organization working to improve the economic and social well being of all Providence residents.

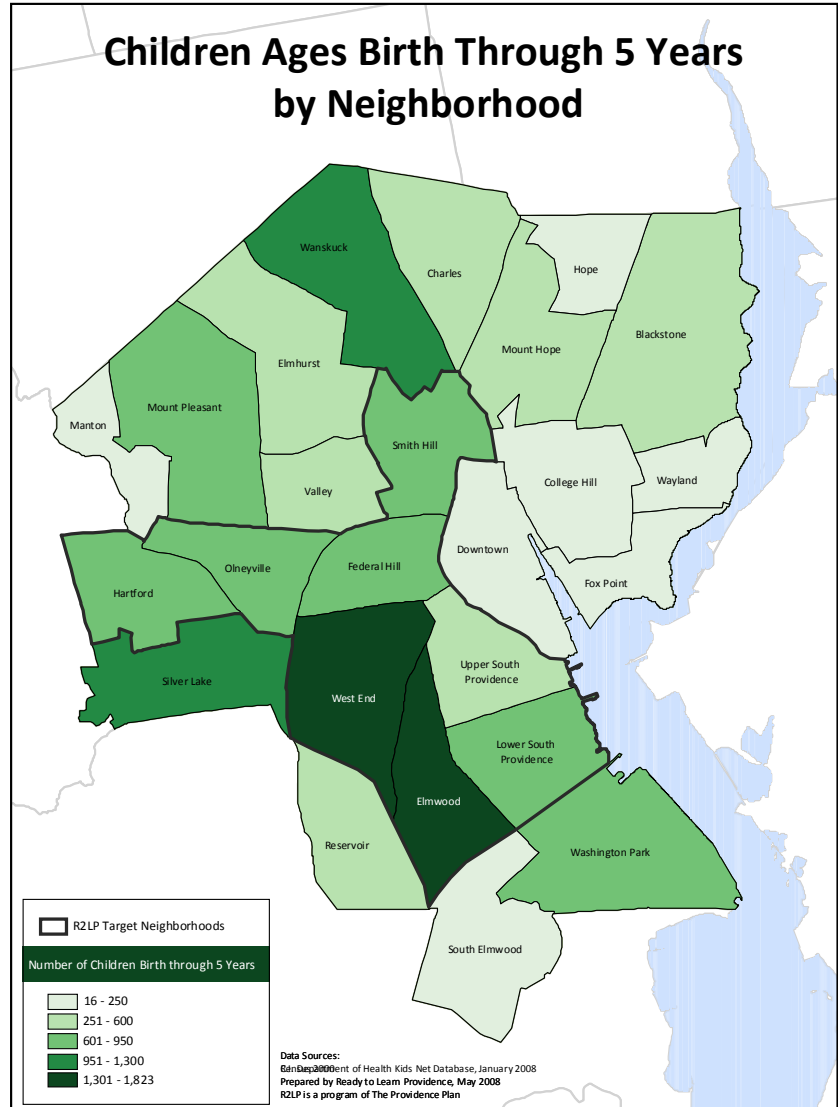
Children in Providence: The Neighborhood Context

According to the 2000 Census, there are approximately 15,200 children ages 5 and under living in Providence. As shown in Figure 1, the number of children in this age group residing in each of the city's 25 neighborhoods varies, from as few as sixteen children living Downtown in 2000 to more than 1,800 children in the West End.

Of the 15,200 children in the city, more than half live in the R2LP "target neighborhoods." These are eight city neighborhoods with the greatest demonstrated need and to which R2LP directs a sizable portion of limited resources. Ten child-related indicators were used to select these neighborhoods, including:

- child population density,
- child poverty,
- childhood residential mobility,
- linguistic isolation,
- births to single women,
- births to teens,
- births to women with delayed prenatal care, and
- births to women with fewer than twelve years of education.

Figure 1



Through a data sharing arrangement with the Rhode Island Department of Health, four of these original indicators were updated using birth datasets from 2003-2005 and are presented in this report.¹

Additional Indicators from *How Ready is Providence?*

The ten indicators identified above were presented within a larger context with the release of *How Ready Is Providence? Advancing a Community Conversation about School Readiness in Providence* in 2004. That report presented 24 indicators of school readiness that were identified by a steering committee of residents, child care providers, and state community agency representatives.

The indicators cover a wide range of topics, from teaching credentials, wages, and curriculum, to dental care, parental incarceration, and lead poisoning. Given this range, data sources varied as did sample populations. In cases where Census Bureau data were cited, the entire child population in the city was considered. In other cases only a subset of the child population, such as children enrolled in kindergarten, were included.

It is R2LP's intention to update all 24 indicators in the near future and this report presents the first opportunity for us to convey more recent data for six of the indicators as follows:

- Education levels of parents
- Professional development of early childhood educators
- Average wages of caregivers
- Children receiving timely immunizations
- Children with incarcerated parents
- Children with unintentional injuries

Each of the indicators will be released as individual briefs and for this reason they are presented as such in this report, each with its own figures, tables, and endnotes.

A final piece submission in this report is a summary of methodology and preliminary findings from a recent survey by R2LP about the impact of recent child care subsidy cuts on child care providers in Providence and statewide. Any current discussion in Rhode Island about school readiness needs to contend with the far-reaching consequences of the September 2007 cuts to the child care subsidy system. Documenting the impact of these cuts is essential to understanding the current landscape for child well-being both in Providence and throughout Rhode Island.

¹ Previously five-year averages were cited (1996-2000) and in preparing this report 2003-2007 averages were intended. However, as a result of time constraints and technical difficulties, only a three-year average (2003-2005) can be reported. A final version of the indicators will include the 2003-2007 averages.

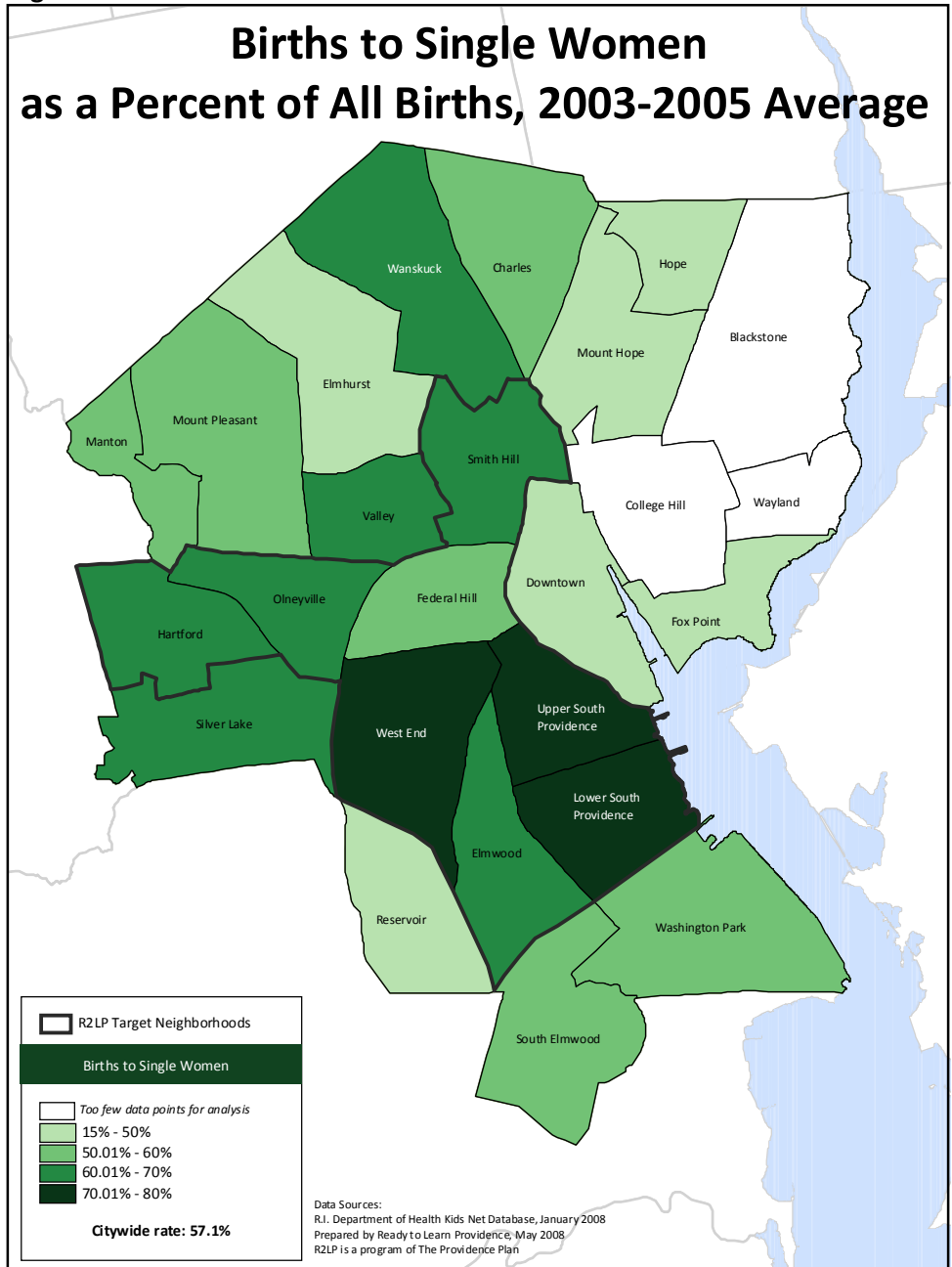
Births to Single Women

More than half (57%) of all children born in Providence between 2003 and 2005 were born to women who identified themselves as single. This is consistent with the 1996-2000 average of 58% used as one of the criteria in identifying the R2LP target neighborhoods.

Rates in the R2LP target neighborhoods are all higher than the city average, ranging from 60% of births in Federal Hill to nearly 80% of births in Upper South Providence.

Supports for single-parent families are of critical concern for a variety of reasons. Children living in single-parent households are more likely to live in poverty than their peers in two-parent families. These same children are also at increased risk for low levels of social and emotional well-being, low academic achievement, and increased levels of stress.

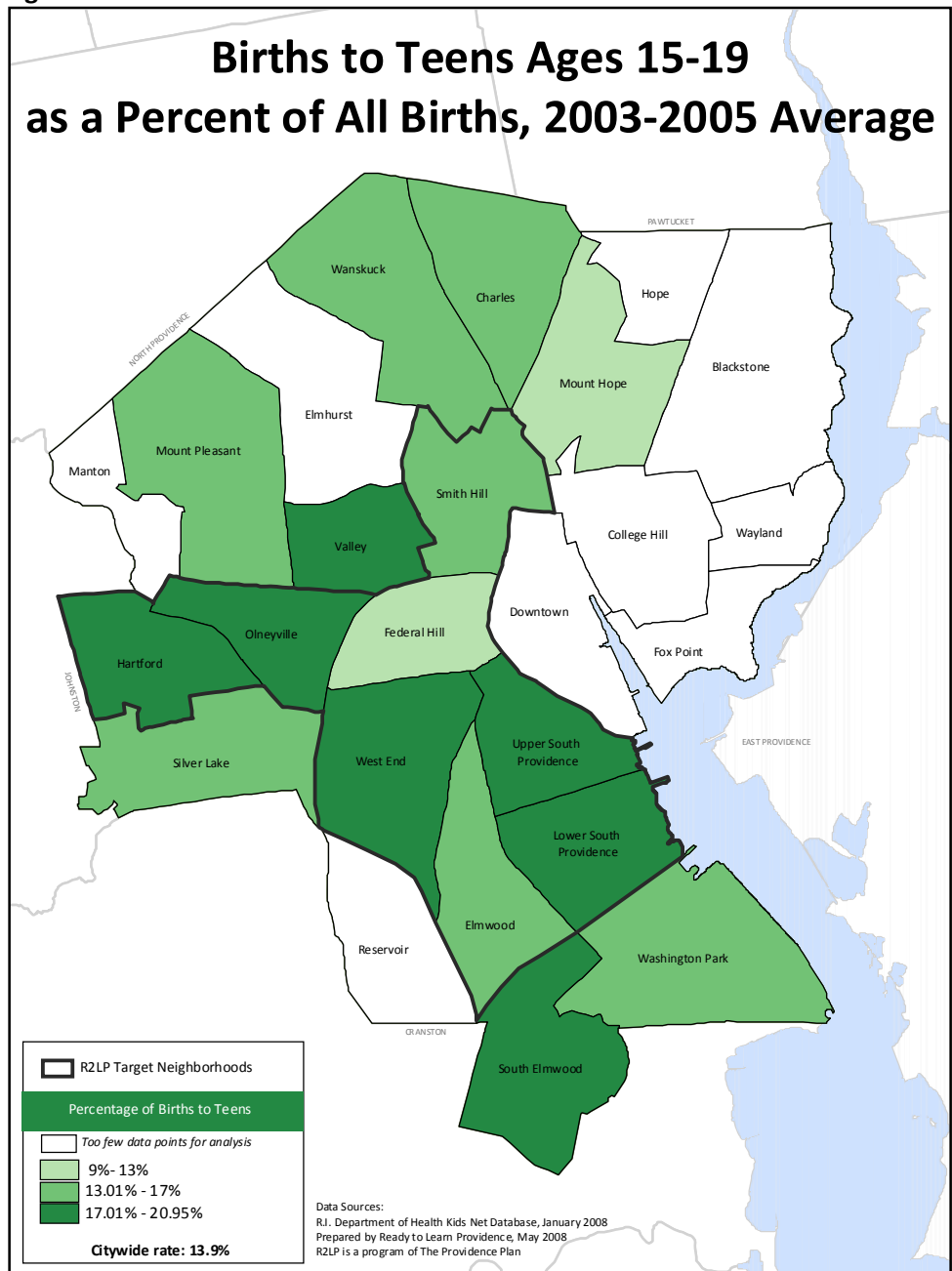
Figure 2



Births to Teens

Between 2003 and 2005, approximately 200 children were born to girls between 15 and 19 years old. This represents 14% of all births during these years and is slightly lower than the 17% rate cited as the 1996-2000 average.

Figure 3



In the R2LP target neighborhoods, rates vary from 13% in Federal Hill and 15% in Elmwood and Smith Hill to nearly 20% in Olneyville and Upper South Providence. These are the highest rates in the city, where nearly one in five births in those neighborhoods was to a teenager.

Teen pregnancy threatens the development of both the teen parent and her children - financially, socially, and emotionally. Teen mothers often do not have the supports, resources, and skills needed for healthy child development. And children born to teens are more likely to live in poverty, struggle socially and academically in school, drop out of high school, be incarcerated, and become teen parents themselves.²

² 2008 Rhode Island KIDS COUNT Factbook.

Education Levels of Parents

Why is it important?

Parental education levels are connected to child learning and well-being through family income and academic inputs.¹ As educational attainment increases, average income increases and chance of unemployment decreases. In 2007, the average person with less than a high school degree earned less than half of the income of the average person with a bachelor's degree. The average person with only a high school degree earned less than two-thirds of the same with a bachelor's degree². The unemployment rate also decreased as educational attainment increased, falling from more than 7% for those with less than a high school degree to less than 2% for those with advanced degrees.³

In Rhode Island, 83% of children (under age 18) whose parents have less than a high school degree are low-income, compared to 47% of children whose parents have only a high school degree and 20% of children whose parents have education past a high school degree.⁴ Low-income status affects children's academic outcomes through a variety of mechanisms, from unequal early childhood opportunities to increased rates of health issues that can impede learning (low-income children are twice as likely to have unrecognized vision problems and three times as likely to have untreated dental problems than middle class children, low-income families often lack health care needed to treat non-emergency problems such as children's earaches).⁵

Family income status is similarly linked to children's academic outcomes. For example, parents with higher education levels may be more able to purchase high quality child care, educational materials, and take their children to libraries and museums.⁶ Children living in poor families will hear 32 million fewer words than those living in professional families by age four.⁷ Children living below the poverty line are also less likely to be read to everyday than those not living in poverty; because of the correlation between parental education and income, a similar trend exists by parental education levels.⁸ For young children, these differences can have a large impact for school-readiness because they impact vocabulary learning and literacy levels;⁹ this impact can also last throughout children's academic careers.¹⁰

Nationally, there is a trend toward increasing education levels overall, although racial disparities still exist.¹¹ The Latino population has the highest dropout rate of any minority group in the U.S. and two of five adult Latinos (age 25 and older) did not graduate from high school.¹² 2000 U.S. Census information indicates that Rhode Island education levels are similar to the United States averages but are slightly lower than other New England states.¹³ For Rhode Islanders (ages 25 and older), 16.5% have no high school degree, 83.5% have at least a high school degree, and 29.3% have a four-year college degree or higher.¹⁴

What did we report in 2004?

The Rhode Island Department of Health KidsNet database provides information about births in Providence. An average of 2,832 children were born each year in Providence between 2000 and 2002.

Significant variation in the educational attainment of birth mothers has existed across Providence neighborhoods, correlated with family income (Table 1). To compare extremes, only 51% of women giving birth from the Olneyville neighborhood between 2000 and 2002 had completed 12 or more years of education, compared to 99% of women giving birth from the Blackstone neighborhood; the corresponding child poverty rates were 54% in Olneyville and 2% in Blackstone. Between 2000 and 2002, less than two-thirds of mothers in ten of the 25 Providence neighborhoods had at least 12 years of education; these ten included all eight Ready to Learn Providence target neighborhoods.¹⁵

Table 1: Education Levels of Providence Mothers (200-2002 and 2003-2005) Compared to Child Poverty Rates¹⁶

Neighborhood	Births to Moms with 12+ Years Ed 2000-2002	Births to Moms with 12+ Years Ed 2003-2005	Poverty Among Children <18	Average Number of Births 2000-2002	Average Number of Births 2003-2005
Blackstone	100%	99%	2%	85	83
Charles	75%	75%	30%	41	57
College Hill	96%	100%	8%	29	29
Downtown	57%	76%	0%	16	18
Elmhurst	89%	87%	13%	109	118
Elmwood	64%	67%	47%	248	281
Federal Hill	65%	63%	55%	131	117
Fox Point	80%	88%	7%	38	29
Hartford	59%	57%	61%	121	134
Hope	94%	97%	5%	50	54
Lower S. Providence	63%	64%	53%	114	131
Manton	77%	79%	38%	40	32
Mount Hope	79%	79%	45%	71	71
Mount Pleasant	73%	73%	32%	154	170
Olneyville	51%	51%	54%	163	173
Reservoir	75%	79%	18%	44	50
Silver Lake	62%	61%	43%	223	236
Smith Hill	55%	61%	48%	132	141
South Elmwood	77%	73%	22%	37	35
Upper S. Providence	58%	61%	44%	87	94
Valley	59%	55%	41%	91	121
Wanskuck	66%	66%	49%	158	174
Washington Park	68%	70%	25%	137	165
Wayland	98%	99%	10%	30	26
West End	54%	54%	48%	355	375
<i>Citywide</i>	<i>67%</i>	<i>70%</i>	<i>41%</i>	<i>2832</i>	<i>2915</i>

Source: Rhode Island Department of Health KidsNet, Poverty data from the 2000 U.S. Census, Summary File 3
R2LP target neighborhoods in bold.

What is happening now?

With an average of 2,915 citywide births per year between 2003 and 2005, the total percentage of births to mothers with 12 or more years of education increased slightly from 67% in 2000-2002 to 70% in 2003-2005. However, in nine Providence neighborhoods, including seven of the eight R2LP target neighborhoods, the percentage of birth mothers who have completed more than 12 years of education remains below two-thirds of total birth mothers (Table 1). The inverse relationship between parent education and child poverty is still clear.

Figure 1

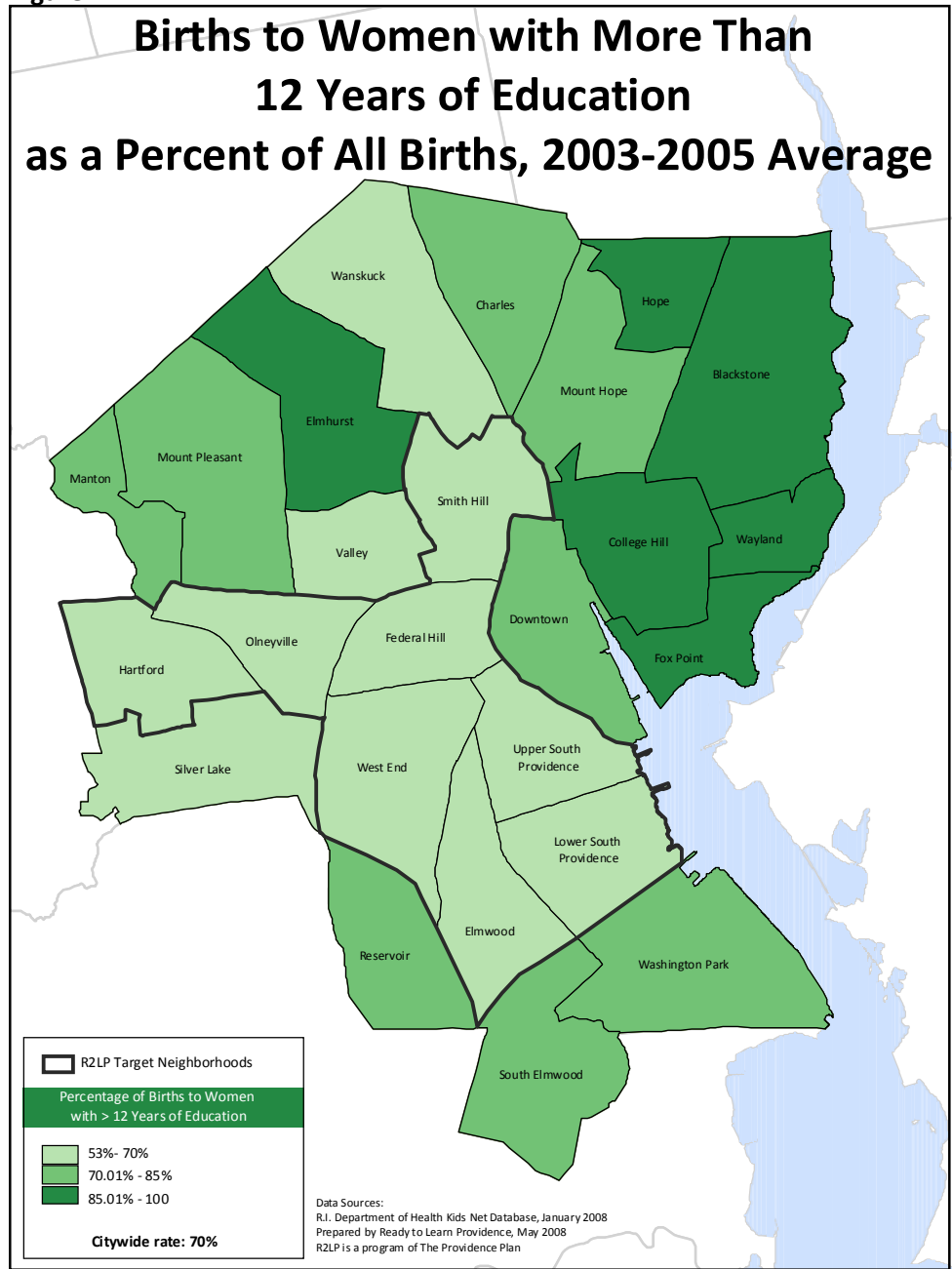


Figure 1 presents the 2003-2005 education data geographically. This display provides a clear visual representation of the contrasts in education levels (and accordingly poverty as well as myriad other indicators of family well being) between neighborhoods. This is true of the R2LP target neighborhoods where the lightest shading indicates fewer mothers with at least twelve years of schooling.

¹ www.familit.org. 1 May. 2008.

² <http://www.bls.gov>. 19 May. 2008. According to the U.S. Department of Labor Bureau of Labor Statistics, those without a high school degree earned median weekly wages of \$428, compared to \$604 for those with only a high school diploma and \$987 for those with a bachelor's degree (but no additional degrees). Therefore, a non-high school graduate makes 43% of wages of the bachelor degree holder and the high school graduate makes 61% of these wages.

³ <http://www.bls.gov>. 19 May. 2008.

⁴ <http://www.nccp.org/>. 1 May. 2008. State data includes 2005-2007 Current Population Survey data from the U.S. Census. The trend in Rhode Island is similar to national trend: 82% of children nationally are low income if their parents are not high school graduates, 57% if only high school graduates, 24% if more than high school graduates.

⁵ J. Coffman. Questions and Answers: A Conversation with Richard Rothstein. *The Education Exchange*, 11(1). Cambridge, MA: Harvard University Graduate School of Education, 2005.

⁶ Shonkoff, Jack, Deborah Phillips, eds. *From Neurons to Neighborhoods: The Science of Early Childhood Development*. Washington, D.C: National Academy Press, 2004.

⁷ www.familit.org. 1 May. 2008.

⁸ www.childtrends.org. 1 May. 2008. In 2005, 72% of children between three and five years old were read to everyday by someone in their family if their mothers had a bachelor's degree or higher, compared to 60% of children whose mothers had some post-secondary education, 55% of children whose mothers have only a high school diploma, and 41% of children whose mothers have less than a high school diploma (www.childstats.gov. 1 May. 2008.).

⁹ J. Coffman. Questions and Answers: A Conversation with Richard Rothstein. *The Education Exchange*, 11(1). Cambridge, MA: Harvard University Graduate School of Education, 2005.

¹⁰ For example, The National Assessment of Educational Progress (NAEP), a set of nationally representative tests overseen by the National Center for Educational Statistics at the U.S. Department of Education, shows that despite trends toward greater proficiency overall, disparity is still large between students whose parents have varying education levels. Eighth grade students whose parents have graduated from college are considerably more likely to score at or above basic or proficient in both reading and math than students whose parents graduated from high school but did not attend college or those whose parents did not graduate from high school. While nearly half of 8th graders whose parents did not finish high school scored below basic (the lowest category) on the NAEP in reading and math, less than one-fifth of those whose parents graduated from college scored in this category (<http://nces.ed.gov/>. 15 May, 2008.).

¹¹ Shonkoff, Jack, Deborah Phillips, eds. *From Neurons to Neighborhoods: The Science of Early Childhood Development*. Washington, D.C: National Academy Press, 2004.

¹² www.familit.org. 1 May. 2008.

¹³ Rhode Island Kids Count. *2002 Rhode Island Kids Count Factbook*. Providence, RI: Kids Count, 2002.

¹⁴ <http://factfinder.census.gov>. 1 May. 2008.

¹⁵ R2LP analysis of the R.I. Department of Health KidsNet Database. Percentages of mothers at certain education levels are calculated using only mothers with known education levels.

¹⁶ During the 2000-2002 period, there were 386 births with unknown neighborhoods; 376 have education levels (10 unknown), with 77% of these 376 mothers having 12 or more years of education. For the 2003-2005 period, there were 378 births with unknown neighborhoods; 357 have education levels (21 unknown), with 72% of mothers with known education levels having 12 or more years of education.

Professional Development of Early Childhood Educators

Why is it important?

Quality early childhood education has consistently been linked to positive short and long term outcomes for children. In 1962, the High/Scope Perry research team began a rigorous scientific study to assess the impacts of high-quality early education for children living in poverty. Data collected for the past 40 years reveal significant positive outcomes in education, economic attainment, criminal offenses, family relationships, and health for participants who received the high quality preschool experience.¹

In *Eager to Learn: Educating our Children*, the National Research Council's Committee on Early Childhood Pedagogy examines the relationship between quality care and the professional development of early childhood educators. "The professional development of teachers has been shown to be related to quality of early childhood programs, and program quality predicts developmental outcomes for children." The authors further emphasize "the need for major investments in teacher preparation and professional development to support new capacities in teachers of early childhood education."² The Rhode Island Department of Children, Youth and Families require all early childhood educators to participate in professional development each year in order to retain their licensures. Center-based providers must complete a minimum of 20 professional development hours per year. Family child care providers must complete a minimum of 24 hours every 2 years, and family child care assistants must complete a minimum of 16 hours every 2 years (excluding CPR and First Aid).³

There is no complete record for the number of early childhood educators who have participated in professional development. While many professional development opportunities are available, such as through area colleges and other not-for-profit agencies, early childhood educators in Rhode Island typically turn to Childspan and Ready to Learn Providence.

What did we report in 2004?

At the time that R2LP released *How Ready is Providence?* in 2004, the only available source of data regarding professional development of child care providers was via Childspan, Rhode Island's state-funded child development and education system. ChildSpan was formed in 1991 and has traditionally been the largest provider of professional development for early childhood educators in the state. The organization provides training and consultation to early childhood educators through workshops, conferences, series-based training, and an in-house lending library.

In 2003, 18% (53) of trainings offered by Childspan were directly relevant to issues of child development (including brain development, social emotional development, special needs, behavior management, and literacy, among others). Thirty percent of these trainings (16) ranged from 7.5 to 36 hours, 13% (7) ranged from 2.5 to 5 hours, and 55% (29) were 2 hours or less. A total of 1,158 individuals participated in these trainings, 489 of whom provided registration information. Of the 489 participants, 25% (122) were from Providence.⁴

What is happening now?

Since the time of that report, Ready to Learn Providence has offered a vast array of professional development courses for child care providers. R2LP's work with early care educators began in September 2003 with *HeadsUp! Reading*, a 45-hour research-based early literacy course developed by the National Head Start Association. Between September and December 2004, a total of 63 participants completed *HeadsUp! Reading* at five sites throughout the city in both English and Spanish.⁵

Figure 1

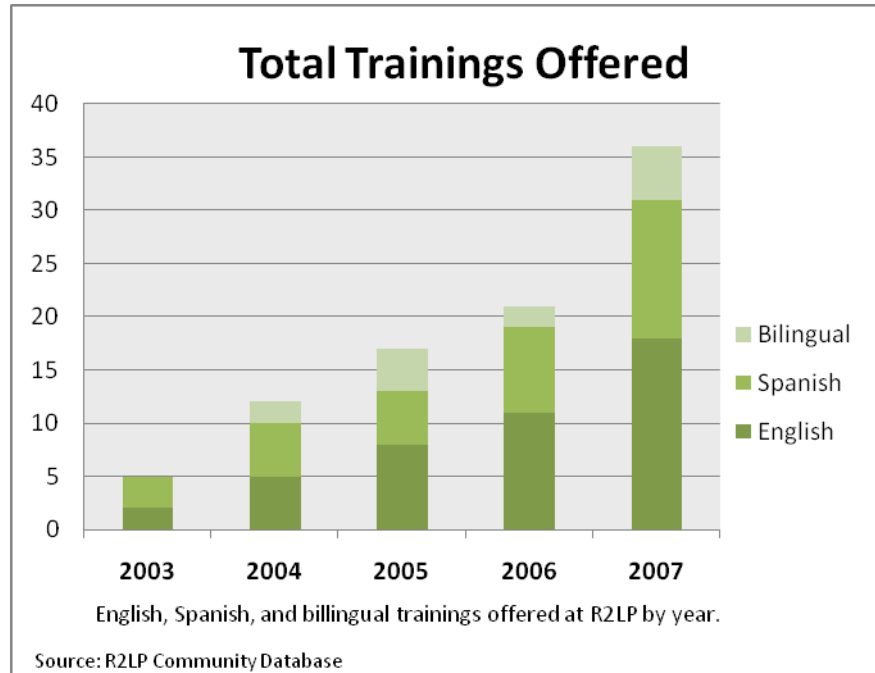
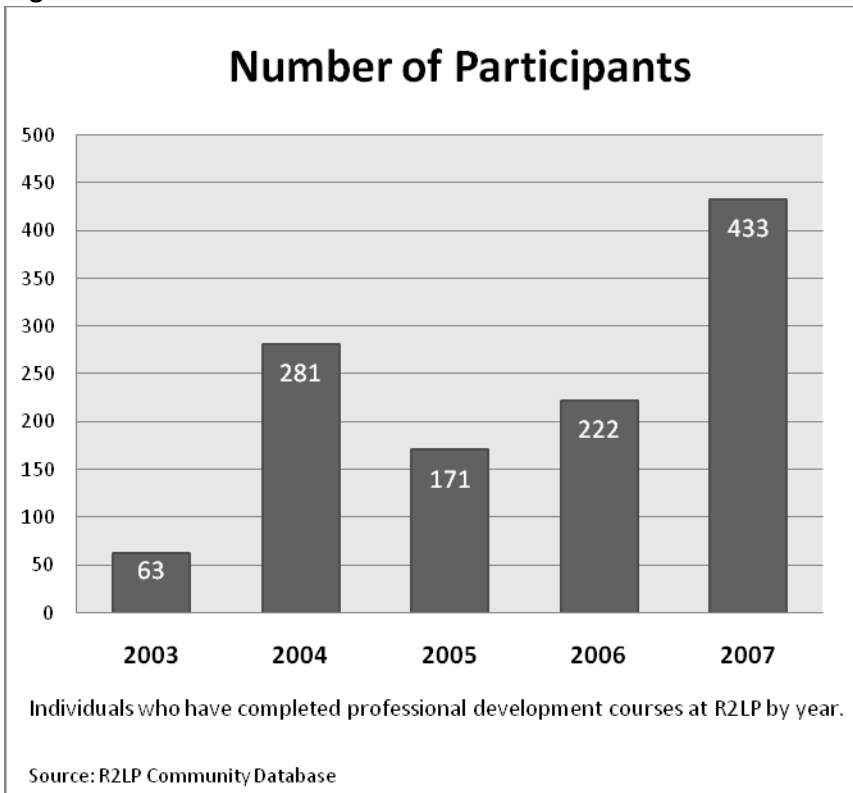


Figure 2



Since the first *HeadsUp! Reading* class in 2003 and the end of 2007, R2LP offered 91 courses, workshops, and trainings, 67% (61) of which were 20 hours or more, and 53% (48) of which were college-level.⁶

Based on registration information collected by R2LP, 865 early childhood educators participated in professional development with R2LP, impacting an estimated 7,500 children. Over 60% (557) of providers have completed *HeadsUp!*

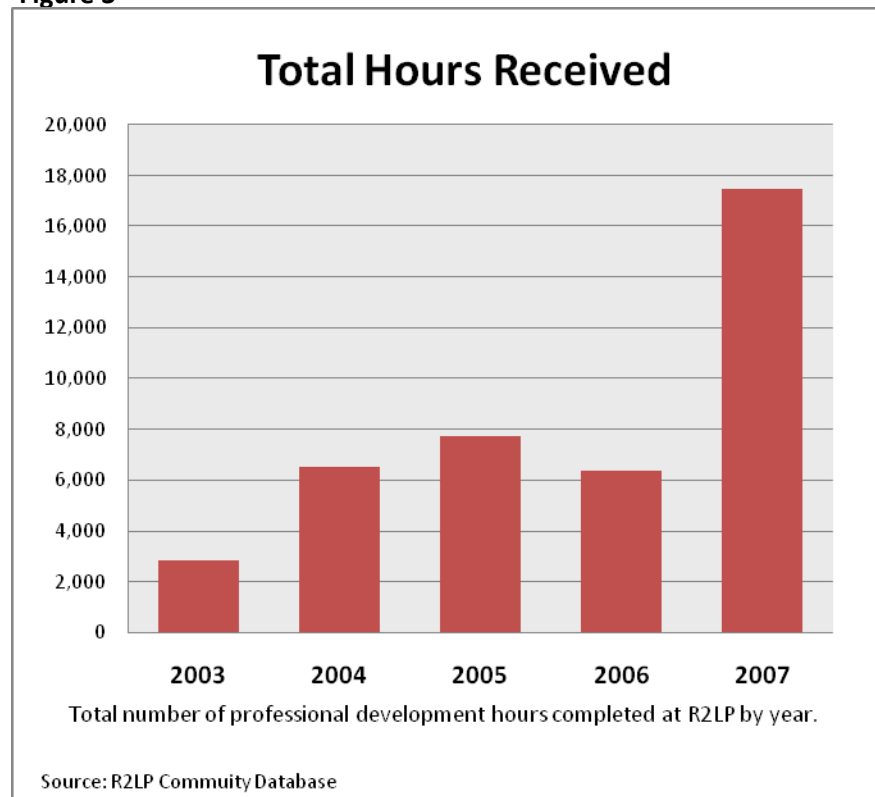
Reading, and 13% (116) have completed *Mind in the Making* (a 36-hour interactive training developed by the Families and Work Institute that demonstrates how social, emotional, and intellectual learning are inextricably linked⁷). Of the educators R2LP has served, 39% (335) have taken more than one training, and 17% (151) have taken three or more.⁸

An estimated 40,000 hours of professional development have been provided to early care providers during this time. On average, participants have completed 55 hours of professional development, and a total of 34% (293) have completed more than 55 hours, with a maximum of 375 hours.

Delivery of professional development has been through R2LP’s Early Reading First program, now in its fifth year, the Early Childhood Educator Professional Development initiative, entering its second year, the R2LP Provider’s Club, and additional workshops and courses. Topics have included early literacy, curriculum, early childhood development, early learning standards, and assessment, among others.

The majority of early childhood educators who have taken professional development at R2LP are family child care providers. Figure 4 displays the neighborhood distribution of all family child care providers operating in Providence over the past five years, and the proportion that have taken courses with R2LP. Between 2003 and 2007, at least 1,218 individuals received licensing through the Rhode Island Department of Children, Youth and Families to operate a family child care home in Providence. As of April 2008, 40% (482) of these same providers have taken professional development courses at R2LP.⁹ Most these providers (75%) identified themselves as Spanish-speaking and received instruction from R2LP in Spanish.

Figure 3



¹ Schweinhart, Ph.D, Lawrence J. *The High/Scope Perry Preschool Study Through Age 40*. Ypsilanti, MI: High/Scope Press, 2005.

² Committee on Early Childhood Pedagogy; National Research Council; Bowman, Barbara T.; M. Suzanne Donovan; M. Susan Burns, eds. *Eager to Learn: Educating Our Preschoolers*. Washington, D.C.: National Academy Press, 2000.

³ Childspan. *2008 Spring Training Calendar*. Pawtucket, RI: Childspan, 2008. Confirmed in a phone conversation with DCYF. 30 April. 2008.

⁴ Ferguson, Cynthia, James Vandermillen. *How Ready Is Providence?*. Providence, RI: Ready to Learn Providence, 2004.

⁵ Ready to Learn Providence analysis of R2LP Community Database.

⁶ Ready to Learn Providence analysis of R2LP Community Database. Courses, workshops, and trainings total includes only those courses identified as professional development for early childhood educators from 2003-2007, excluding First Aid and CPR.

⁷ <http://www.mindinthemaking.org/>. 15 May. 2008.

⁸ Ready to Learn Providence analysis of R2LP Community Database. Of the 2,790 participants registered with R2LP, 1,121 have been identified as early childhood educators: 637 family child care providers, 348 center-based providers, and 136 Head Start providers. Between 2003 and 2007, 865 of those providers completed at least one professional development training. Another 81 providers registered for trainings, but did not complete the required hours. Of the 865 providers who completed professional development, 485 were family child care providers, 284 were center based providers, and 96 were Head Start providers. Child numbers are estimated based on the average number of children served by each provider type (15 for center-based, 18 for Head Start, and 3 for family child care providers).

⁹ Ready to Learn Providence analysis of DCYF licensed provider lists, obtained by request of R2LP 2003-2008. DCYF name and address information matched to R2LP Community Database registration information. Original DCYF lists merged and cleaned to reduce to 1,175 providers, and 439 providers found in R2LP data. Another 43 self-reported family child care providers working in Providence were identified in R2LP data and added to the family child care provider list for a total of 1,218. These providers may not serve enough children to require licensure or they may be operating without a license.

Average Wages of Caregivers

Why is it important?

Research in early child care settings finds that staff wages influence turnover and program quality.¹ However, 70% of child care workers nationwide earn wages at or below the poverty level and caregivers typically receive fewer benefits than workers in other professions.² For example, child care center and direct care workers are less likely to be insured than all female workers.³ The national annual wage of the average child care worker is only 76% of the annual wage of pre-school teachers, 41% of the annual wage of kindergarten teachers, and 39% of the annual wage of elementary school teachers (for more information, see Table 1).⁴ The turnover rate in center-based settings remains above 30% a year⁵, while public school turnover is closer to the national average of 7%.⁶ As wages increase, turnover declines.⁷ Adequate compensation is one factor linked to cognitive, social, and emotional outcomes of children in early childhood care.⁸ Stability is an important component of quality care for young children.

Table 1: National Estimates for Occupational Employment and Wages (May 2007)⁹

	Child Care Workers	Pre-School Teachers (except special education)	Kindergarten Teachers (except special education)	Elementary School Teachers (except special education)
National Employment	576,680 (RSE 1.1%)	380,930 (RSE 1.0%)	170,880 (RSE 1.6%)	1,538,030 (RSE 0.7%)
Mean Hourly Wage	\$9.46	\$12.40		
Mean Annual Wage	\$19,670 (RSE 0.7%)	\$25,800 (RSE 0.5%)	\$47,750 (RSE 1.1%)	\$50,040 (RSE 0.6%)
10th Percentile Wage	\$6.70 hourly \$13,930 annual	\$7.39 hourly \$15,380 annual	\$29,300 annual	\$31,480 annual
25th Percentile Wage	\$7.48 hourly \$15,560 annual	\$8.74 hourly \$18,180 annual	\$36,150 annual	\$38,130 annual
50th Percentile (Median) Wage	\$8.82 hourly \$18,350 annual	\$11.12 hourly \$23,130 annual	\$45,120 annual	\$47,330 annual
75th Percentile Wage	\$10.97 hourly \$22,810 annual	\$14.66 hourly \$30,490 annual	\$57,690 annual	\$60,070 annual
90th Percentile Wage	\$13.56 hourly \$28,210 annual	\$19.39 hourly \$40,330 annual	\$72,130 annual	\$74,670 annual

Note: RSE = Relative Standard Error (reliability measure)

What did we report in 2004?

A comparison of wages for area child care workers, preschool teachers, kindergarten teachers, and elementary school teachers is shown in Table 2. Pre-school teachers are defined by the U.S. Department of Labor as teachers who “instruct children in activities designed to promote social, physical and

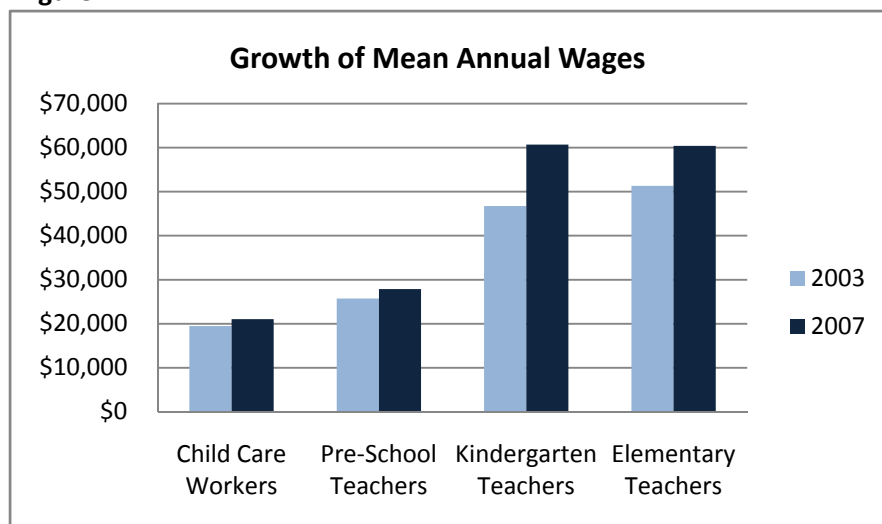
intellectual growth needed for primary school in preschools, day care centers, or other child development facilities”. Some of these teachers may be required to hold state certification. Child care workers are defined as employees who “attend to children at schools, businesses, private households, and child care institutions.”¹⁰ Because family care providers are self-employed, they are not included in either category.

In Providence, as in the rest of the country, reported wages of child care workers and preschool teachers in 2003 were much lower than public school teachers.¹¹ According to 2003 data, average annual salaries for area child care workers (\$19,490) were only one-third and annual average salaries for area preschool teachers were below one-half (\$25,730) of the annual (school-year) salary of a Providence kindergarten teacher (\$57,620).¹² In addition to working a full year and earning less pay, the child care worker and preschool teacher received few of the benefits found in the public school system.¹³ In 2002, the average annual net income for family care providers who were members of the Daycare Justice Co-op, a membership association of family child care providers in Rhode Island, was \$20,166 (or about \$6.31 an hour).¹⁴ These earnings include increases from the state reimbursement rates that occurred between 1998-2002; it is important to consider that reimbursement rates are currently frozen at the 2002 market rate level.¹⁵

What is happening now?

Updated 2007 data in Table 2 indicates that although the average salaries of child care workers, preschool teachers, kindergarten teachers, and elementary school teachers have all increased, the disparity between local child care and preschool teachers and public school teachers has increased, especially when comparing child care and preschool teachers to kindergarten teachers. This disparity seems to be driven by the 37% increase in the entry wage of kindergarten teachers, although wages of kindergarten teachers increased dramatically at all experience levels.¹⁶ Figure 1 displays the change in mean annual wages between 2003 and 2007.

Figure 1



Overall, mean wages increased by 8% for child care workers (\$19,490 to \$21,050), 8% for preschool teachers (\$25,730 to \$27,893), 30% for kindergarten teachers (\$46,730 to \$60,680), and 18% for elementary school teachers (\$51,330 to \$60,420) from 2003 to 2007.¹⁷ In the Providence Public School District, mean

kindergarten teacher wages increased from \$57,620 for the 2003-2004 school year to \$68,800 for the 2007-2008 school year (a 19.4% increase).¹⁸ Larger percentage increases for the already higher-paying occupations of kindergarten and elementary school teachers further the differences between the incomes of these occupations and those of child care workers and pre-school teachers.

Table 2: Providence Metropolitan Area Wage Comparisons for Child Care Workers, Pre-School Teachers, Kindergarten Teachers, and Elementary School Teachers¹⁹

	2007		2003	
	Hourly	Annual (%Change)	Hourly	Annual
Child Care Workers (not including family-care providers):				
Mean Wage	\$10.12	\$21,050 (8.0%)	\$9.37	\$19,490
Entry Wage	\$8.53	\$17,742 (10.1%)	\$7.75	\$16,120
Median Wage	\$9.73	\$20,238 (8.4%)	\$8.98	\$18,678
Experienced Wage	\$11.39	\$23,691 (8.8%)	\$10.47	\$21,778
Pre-School Teachers (except special education):				
Mean Wage	\$13.41	\$27,893 (8.4%)	\$12.37	\$25,730
Entry Wage	\$10.05	\$20,904 (3.6%)	\$9.70	\$20,176
Median Wage	\$12.59	\$26,187 (5.2%)	\$11.97	\$24,898
Experienced Wage	\$15.63	\$32,510 (6.2%)	\$14.72	\$30,618
Kindergarten Teachers (except special education):				
Mean Wage	\$34.48	\$60,680 (29.9%)	\$26.55	\$46,730
Entry Wage	\$26.87	\$47,290 (44.4%)	\$18.61	\$32,750
Median Wage	\$35.28	\$62,090 (24.7%)	\$28.29	\$49,790
Experienced Wage	\$41.44	\$72,930 (21.1%)	\$34.22	\$60,230
Providence Public School District Mean Kindergarten Wage		\$57,620 (2003-2004)		\$68,800 (2007-2008)
Elementary School Teachers (except special education):				
Mean Wage	\$34.33	\$60,420 (17.7%)	\$29.16	\$51,330
Entry Wage	\$26.77	\$47,120 (12.1%)	\$23.88	\$42,030
Median Wage	\$35.29	\$62,110 (14.5%)	\$30.83	\$54,260
Experienced Wage	\$41.66	\$73,330 (16.0%)	\$35.90	\$63,190

Rhode Island Department of Labor and Training, Providence Public School Department

-
- 1 The Local Child Care Wage Initiative. *Investing in our future by investing in quality care for our kids*. Madison, WI: The Center on Wisconsin Strategy, December 2002. <http://www.cows.org/pdf/ov-childcare-2.pdf>.
 - 2 <http://www.cows.org/pdf/ov-childcare-2.pdf>. 15 May. 2008.
 - 3 Smith, K., Baughman, R. *Low wages prevalent in direct care and child care workforce*. Durham, NH: Carsey Institute & University of New Hampshire, Spring 2007.
 - 4 Calculated from May 2007 Occupational Employment Statistics from the U.S. Department of Labor Bureau of Labor Statistics. <http://www.bls.gov>. 19 May. 2008.
 - 5 Smith, K., Baughman, R. *Low wages prevalent in direct care and child care workforce*. Durham, NH: Carsey Institute & University of New Hampshire, Spring 2007.
 - 6 Shonkoff, Jack, Deborah Phillips, eds. *From Neurons to Neighborhoods: The Science of Early Childhood Development*. Washington, D.C: National Academy Press, 2004.
 - 7 Whitebook & Bellm. *Taking on Turnover: An Action Guide for Child Care Center Teachers and Directors*. Center for the Child Care Workforce, 1999.
 - 8 *Low Wages=Low Quality: Solving the Real Preschool Teacher Crisis*. National Institute for Early Education Research, January 2003.
 - 9 <http://www.bls.gov/oes/home.htm>. 15 May. 2008.
 - 10 <http://www.bls.gov>. 15 May. 2008.
 - 11 Ferguson, Cynthia, James Vandermillen. *How Ready Is Providence?*. Providence, RI: Ready to Learn Providence, 2004.
 - 12 Wage data for child care workers and preschool teachers obtained from: *Occupational Wages for Providence-Fall River-Warwick Metropolitan Statistical Area, 2nd Quarter 2003 Occupational Employment Statistics Survey* (www.dlt.ri.gov). Salary data for Providence kindergarten teachers provided by Providence School Department, May 2004; average annual salary calculated as the average value of salaries for 84 kindergarten teachers (excluding special education teachers) on the payroll at that time.
 - 13 Ferguson, Cynthia, James Vandermillen. *How Ready Is Providence?*. Providence, RI: Ready to Learn Providence, 2004.
 - 14 Net income calculated by subtracting expenses from gross income from an analysis of the income and expenses of the members of the Daycare Justice Co-op conducted by Public/Private Ventures between 1999 and 2002: Seavey, Dorie, Anne Roder. *Working Toward Better Care and Compensation: The Story of the Day Care Justice Co-op*. Public/Private Ventures, 2002.
 14. *Rhode Island's Early Care and Education Budget*. Providence, RI: KidsCount, March 2008. <http://www.rikidscount.org/matriarch/documents/ECE%20talking%20Pts.pdf>. 14 May. 2008.
 - 15 <http://www.rikidscount.org/matriarch/documents/ECE%20talking%20Pts.pdf>. 14 May. 2008.
 - 16 www.dlt.ri.gov. May 15. 2008.
 - 17 www.dlt.ri.gov. May 15. 2008.
 - 18 Salary data for currently-employed Providence kindergarten teachers (excluding special education teachers) provided by Providence School Department, April 2008. R2LP is in correspondence with the Providence Public School Department to learn more about the rapid increase in kindergarten teacher wages.
 - 19 Annual wages for child care workers and pre-school teachers were calculated using 52 weeks per year and 40 hours per week for a total of 2,080 hours per year. Hourly wages for kindergarten and elementary school teachers were calculated using 44 weeks per year and 40 hours per week for a total of 1,760 hours per year. Percent change subtracts 2003 wages from 2007 wages and then divides by 2003 wages.

Children Receiving Timely Immunizations

Why is it important?

Globally, immunizations save more than three million lives annually and protect millions more from illnesses and permanent disability. Just 50 years ago in the United States, young children often died of diseases that are now nearly eliminated.

Yet there is growing complacency in the United States about timely immunizations for children, making this one of the chief challenges to widespread vaccination. Coupled with the increasing number of parents who are expressing skepticism about the safety of vaccines, diseases inevitably reappear. This is evidenced by an unusual outbreak of measles in San Diego in February 2008. Of the 12 children who became ill, nine had not been inoculated against the virus because of parent objections and the other three children were too young for vaccinations.¹

A recent study of National Immunization Survey data finds that children of women with less than a high school education were 16% more likely to have received timely childhood vaccinations than the children of college graduates. Immunization rates were highest among Hispanic and non-Hispanic Black families.² Study authors cite cultural differences as one possibility for the difference. They also acknowledge that vaccination information is widely shared with the low-income and minority parents who access government-subsidized health care programs.

What did we report in 2004?

In 2004 Ready to Learn Providence reported on the percentage of young children enrolled in the Providence Public Schools in the 2004-2005 academic year who received their third and fourth doses of the Diphtheria, Tetanus, and Pertussis (DtaP) vaccinations on time.³ Since regular visits to a pediatrician generally drop off after a child's first birthday, a comparison of on-time immunizations for the third and fourth doses of DtaP is a good indication of whether parents continue to bring their children for necessary "well visits" as they age, rather than seeking care only at times of crisis.

As displayed in Table 1, we previously reported that, on average, 80% of children in pre-kindergarten through second grade received their third dose of DtaP on time. Fewer children, 65%, received their fourth dose of DtaP on time.

What is happening now?

Since that time, rates of immunization in Providence appear to have increased. An analysis of immunization data for children enrolled in the public schools in the 2007-2008 academic year indicate that, of the children in pre-K through 2nd grade whose immunization data were available and valid,⁴ 87% received the third dose of DtaP on time and 79% received the fourth dose of DtaP on time. These rates are substantially higher than those previously reported.

When data are examined at a neighborhood level,⁵ all but two of Providence's 25 neighborhoods experienced an increase in rates of immunization for the third dose of DtaP. Rates ranged from 81% in Elmwood and Manton to 94% in Hope and Mount Hope. The exceptions to increases were in Elmhurst and Reservoir where the rates declined slightly by five and three percentage points respectively.

Increase in the rates of immunization for the fourth dose of DtaP were particularly impressive, with all 25 neighborhoods experiencing gains. The lowest rate of 70% was for children living in Lower South Providence and the highest rate of 96% in Blackstone as displayed in Figure 2. These ranges are substantially higher than just 3 years ago, where rates were as low as 59% in some neighborhoods.

Detailed data comparing neighborhood-level statistics from 2004 to 2007 are presented in the following table and figures.

Table 1: 2004-2007 Comparison by Neighborhood of Children Receiving DTaP on Time

Neighborhood	Third DTaP by 11 Months		Fourth DTaP by 24 Months	
	2004	2007	2004	2007
Blackstone*	-	93%	-	96%
Charles	85%	90%	69%	80%
College Hill*	-	-	-	-
Downtown*	-	-	-	-
Elmhurst	88%	83%	68%	82%
Elmwood	80%	85%	65%	75%
Federal Hill	77%	89%	67%	81%
Fox Point	82%	91%	85%	84%
Hartford	80%	90%	64%	77%
Hope	88%	94%	81%	87%
Lower South Providence	79%	83%	64%	70%
Manton	77%	81%	64%	90%
Mount Hope	85%	94%	67%	90%
Mount Pleasant	84%	91%	61%	82%
Olneyville	76%	89%	64%	78%
Reservoir	90%	87%	72%	78%
Silver Lake	82%	87%	73%	81%
Smith Hill	80%	89%	60%	81%
South Elmwood	78%	81%	63%	78%
Upper South Providence	77%	84%	64%	77%
Valley	81%	86%	63%	80%
Wanskuck	79%	84%	66%	79%
Washington Park	81%	86%	63%	76%
Wayland*	71%	-	57%	-
West End	75%	87%	61%	80%
Citywide Average	80%	87%	65%	79%

* Public school enrollment at one or both points in time is too low in these particular neighborhoods to accurately represent rates of immunization.

Figure 1

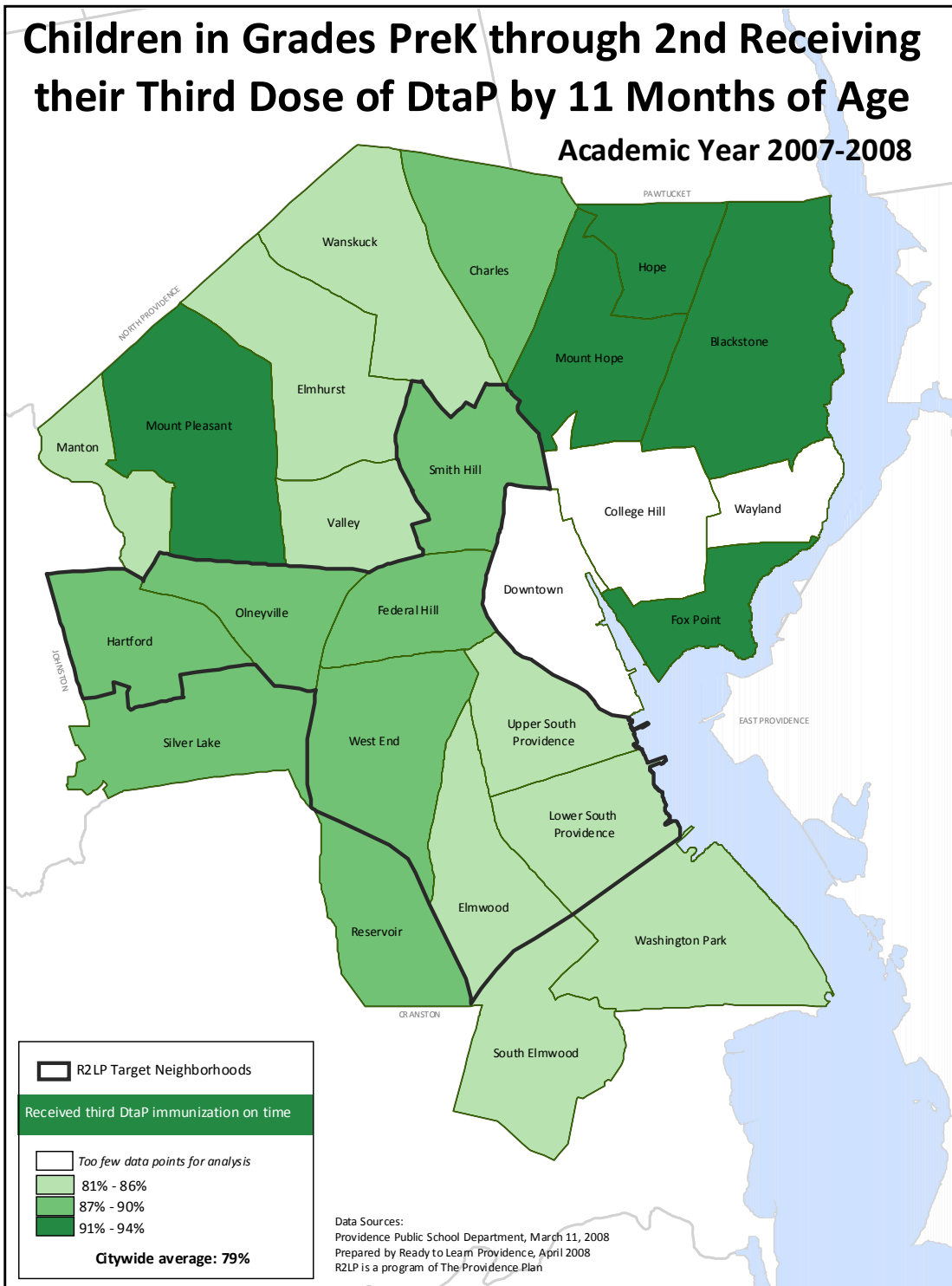
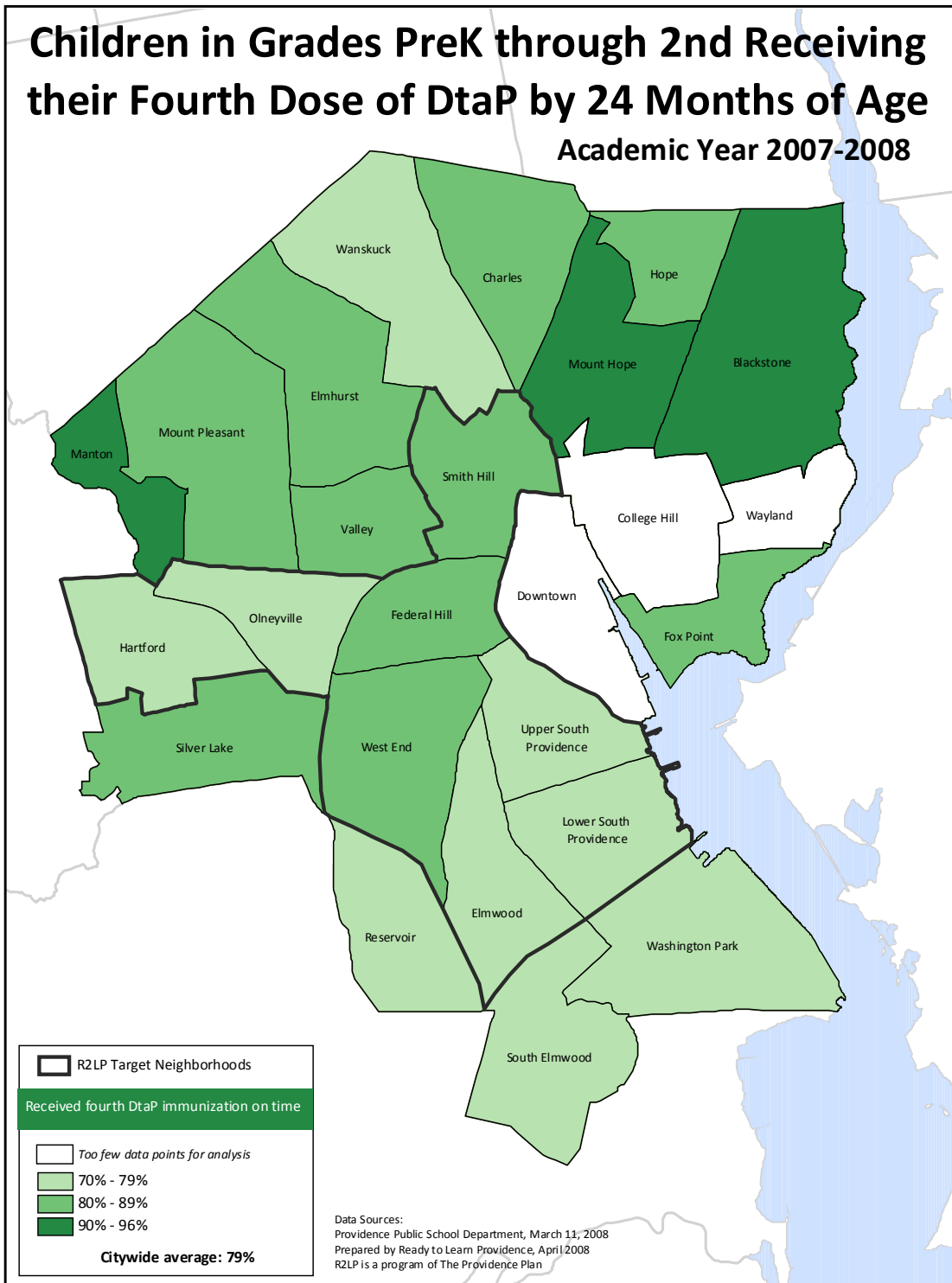


Figure 2



¹ Public Health Risk Seen as Parents Reject Vaccines. Jennifer Steinhauer, The New York Times. March 21, 2008.

² Kim, Sam S., MA Jemima A. Frimpong, MPH, Patrick A. Rivers, PhD, MBA and Jennie J. Kronenfeld, PhD. Effects of Maternal and Provider Characteristics on Up-to-Date Immunization Status of Children Aged 19 to 35 Months. American Journal of Public Health. February 2007, Vol 97, No. 2

³ The Centers for Disease Control recommends that the third dose of DtaP be administered by six months of age and the fourth dose by 18 months. For purposes of these analyses, the third dose by 11 months and the fourth dose by 24 months are considered on time.

⁴ Only 65% of the 6,109 children in pre-K through 2nd grade in Providence Schools in 2007-2008 were included in this analysis. Approximately 1,700 records (28%) were missing immunization data and an additional 470 records were eliminated because data errors made them invalid. In the 2004 analysis, records for 71% of enrolled children were included.

⁵ For a neighborhood level analysis, all student residential addresses are geocoded based on the 2007-2008 enrollment. The immunization dataset is then linked to this record set. The addresses, therefore, are reflective of the address of record as of Fall 2007 and not necessarily the address of the child at the time of the immunizations.

Children with Incarcerated Parents

Why is it important?

In 1999, at least 721,500 parents nationwide were in state or federal custody, impacting nearly 1.5 million children. Of those children, 22% were under the age of 5.¹ Since that time, the national prison population has grown an average of 1.9% each year, bringing the 2006 prison population to 1,570,861.² The Justice Policy Center of the Urban Institute estimates that at least 2 million children in the United States currently have a parent behind bars.³

Research showing the impact of parental incarceration on children is limited. Still, the existing literature supports the notion that the consequences can be profound.⁴ Children often display inappropriate, disruptive, or anti-social behavior. Their academic performance frequently deteriorates. Children placed with unsuitable caregivers are at risk for abuse and neglect. Not surprisingly, older children often engage in substance abuse and criminal behavior themselves.

Figure 1

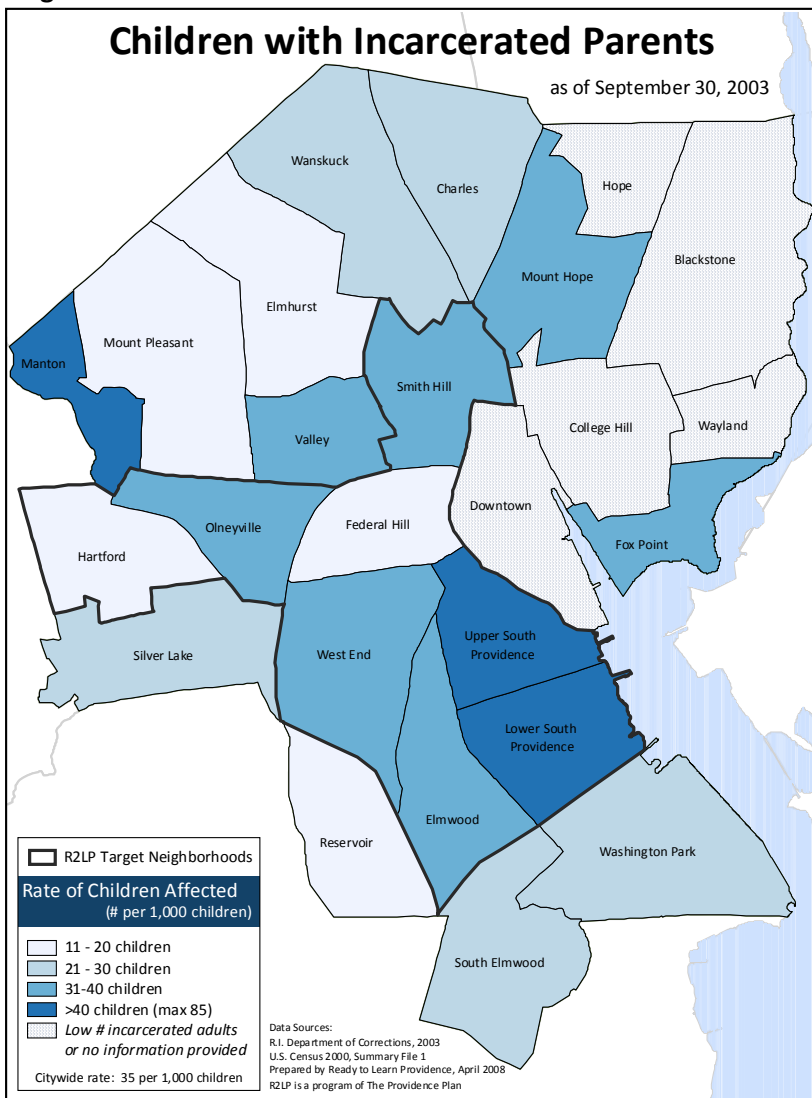
Possible Developmental Effects on Children of Parental Crime, Arrest, and Incarceration ⁵			
Developmental Stage	Developmental Characteristics	Developmental Tasks	Effects
Infancy (0-2 years)	Limited perception, mobility Total dependency	Development of trust and attachment	Impaired parent-child bonding
Early childhood (2-6 years)	Increased perception and mobility Improved memory Greater exposure to environment Ability to imagine	Development of sense of autonomy, independence, and initiative	Inappropriate separation anxiety Impaired socioemotional developmental Acute traumatic stress reactions and survivor guilt
Middle childhood (7-10 years)	Increased independence from caregivers Ability to reason Importance of peers	Sense of industry Ability to work productively	Developmental regressions Poor self-concept Acute traumatic stress reactions Impaired ability to overcome future trauma
Early adolescence (11-14 years)	Organization of behavior in pursuit of goals Increased abstract thinking Puberty Increased aggression	Ability to work productively with others Control expression of emotions	Rejection of limits on behavior Trauma-reactive behaviors
Late adolescence (15-18 years)	Emotional crisis and confusion Adult sexual development and sexuality Formal abstract thinking Increased independence	Development of cohesive identity Resolution of conflicts with family and society Ability to engage in adult work and relationships	Premature termination of dependency relationship with parent Intergenerational crime and incarceration

Source: Adapted from Katherine Gabel and Denise Johnson, *Children of Incarcerated Parents* (New York: Lexington Books, 1997). As summarized in "Families Left Behind: The Hidden Costs of Incarceration and Reentry."

Most children with incarcerated parents live in poverty before, during, and after their parents' incarceration. Children of color are disproportionately affected, and parental substance abuse frequently plays a role in their lives.⁶ Concerned that too little is being done to support children of incarcerated parents, child advocates call for greater collaboration between the child welfare and criminal justice systems. "At this time, the two systems lack formal channels of contact and have not developed methods for information-sharing or coordination of systems," writes Cynthia Seymour, author of *Children with Parents in Prison: Child Welfare Policy, Program and Practice Issues*. "Professionals in both systems acknowledge that increased collaboration between the two systems would certainly enhance outcomes for children and families."⁷

What did we report in 2004?

Figure 2



There is no consistent source of data about the number of parents in prison or the number of children affected by incarceration. Sentenced offenders serving time in prison and those held while awaiting trial, however, are asked to report whether they have children, and, if so, how many they have. Though the information is self-reported and not verified, it can give an indication of how many children are affected by incarceration.⁸

In September 2003, a total of 1,590 children between the ages of birth and 17, were reported by 1,313 individuals from Providence who were in the custody of the Rhode Island Department of Corrections (DOC).⁹ The Ready to Learn Providence target neighborhoods included children who were among the most likely in the city to have a parent in prison, with the greatest likelihood occurring in Upper and Lower South Providence.¹⁰

While Providence was home to just 17% of the state's general population, a disproportionate 36% (1,313 of 3,657) of the prison population reported a Providence address.¹¹ Similarly, certain

neighborhoods within the city yielded a disproportionately large number of inmates. Nineteen percent of the city's residents (24,977 adults) lived within the four neighborhoods that comprise the Southside of Providence (Upper and Lower South Providence, West End, and Elmwood), yet more than 36% of Providence adults in DOC custody resided in those neighborhoods.¹²

Data reported in 2003 included children of parents both serving a sentence and awaiting trial. Due to the constantly fluctuating nature of the awaiting trial population, further analysis will focus on those children whose parents have been sentenced.

What is happening now?

In the fall of 2007, the prison population in Rhode Island reached 4,000 inmates for the first time.¹³ That mark comes after a 9.4% increase in the total number of people incarcerated in the state during 2006, the third largest percentage increase in the nation.¹⁴

Figure 3

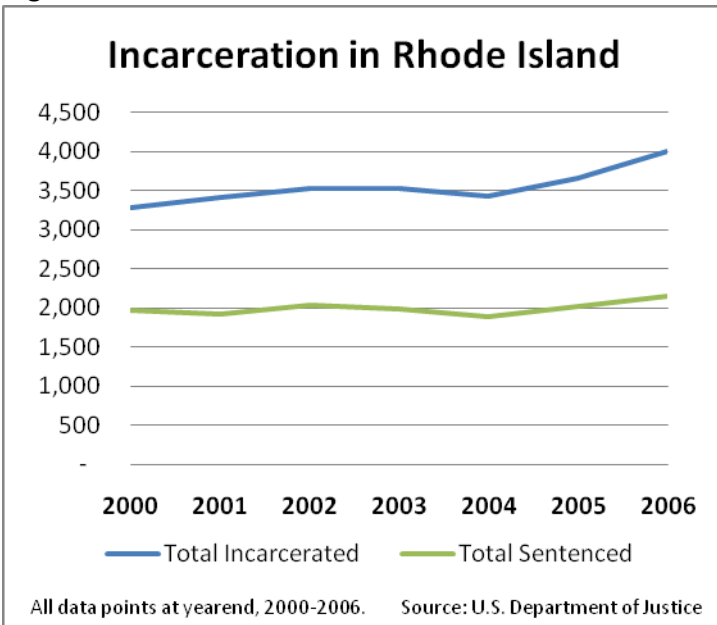
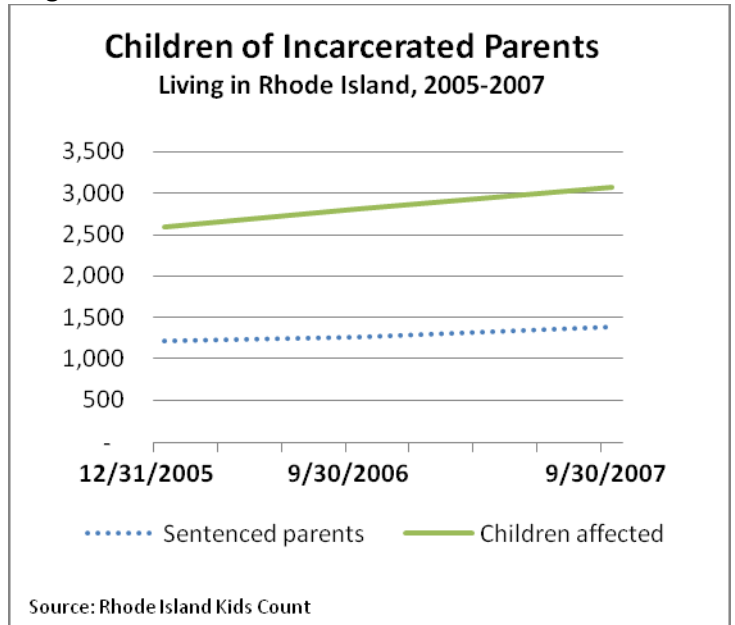


Figure 4



Between 2000 and 2006, the total number of people incarcerated statewide increased nearly 22%, while the number of people sentenced increased over 9%. Nationally during the same period, overall incarceration increased by 17% and sentenced rates by almost 13%.¹⁵

In September 2007, 3,700 children were reported by parents serving a sentence in Rhode Island. Of those children, 83% (3,072) lived in Rhode Island.¹⁶ Based on this figure, nearly 1 in every 81 children in the state had a parent serving a sentence.

Providence is disproportionately represented in both the prison population and in the number of children with an incarcerated parent. Based on the most recent estimates from the U.S. Bureau of the Census, Providence accounts for 16% of the state's total population and approximately 19% of the

under-18 population.¹⁷ However, 38% of prisoners in 2007 were from Providence,¹⁸ and 42% of children with a parent serving a sentence lived in Providence.¹⁹

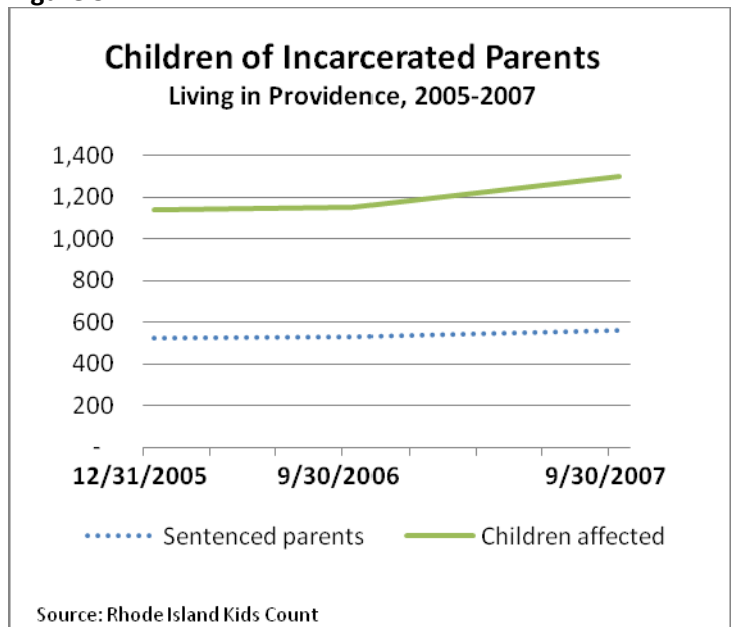
Children in Providence are the most likely in Rhode Island to have a parent behind bars. Roughly 1 in 35 children in the city has a parent serving a sentence. Between year-end 2005 and September 2007, the total number of children in Providence with a parent serving a sentence increased by 14%, rising to 1,300 by September 2007.²⁰

Similarly, some neighborhoods in Providence are even more affected than the rest of the city. Yet again in 2007, over 36% of Providence residents in state custody were from Southside neighborhoods. Children in Upper South Providence were by far the most likely to be affected, with over 3% of the adult population in that neighborhood in DOC custody.²¹

As compared to 2003, the rate of children affected by parental incarceration increased in seven neighborhoods around the city - Silver Lake, Wanskuck, Mount Hope, Federal Hill, Mount Pleasant, Elmhurst, and Hope. The rate also decreased in three other neighborhoods - Lower South Providence, South Elmwood - though Lower South Providence remains among the most impacted neighborhoods in the city.²²

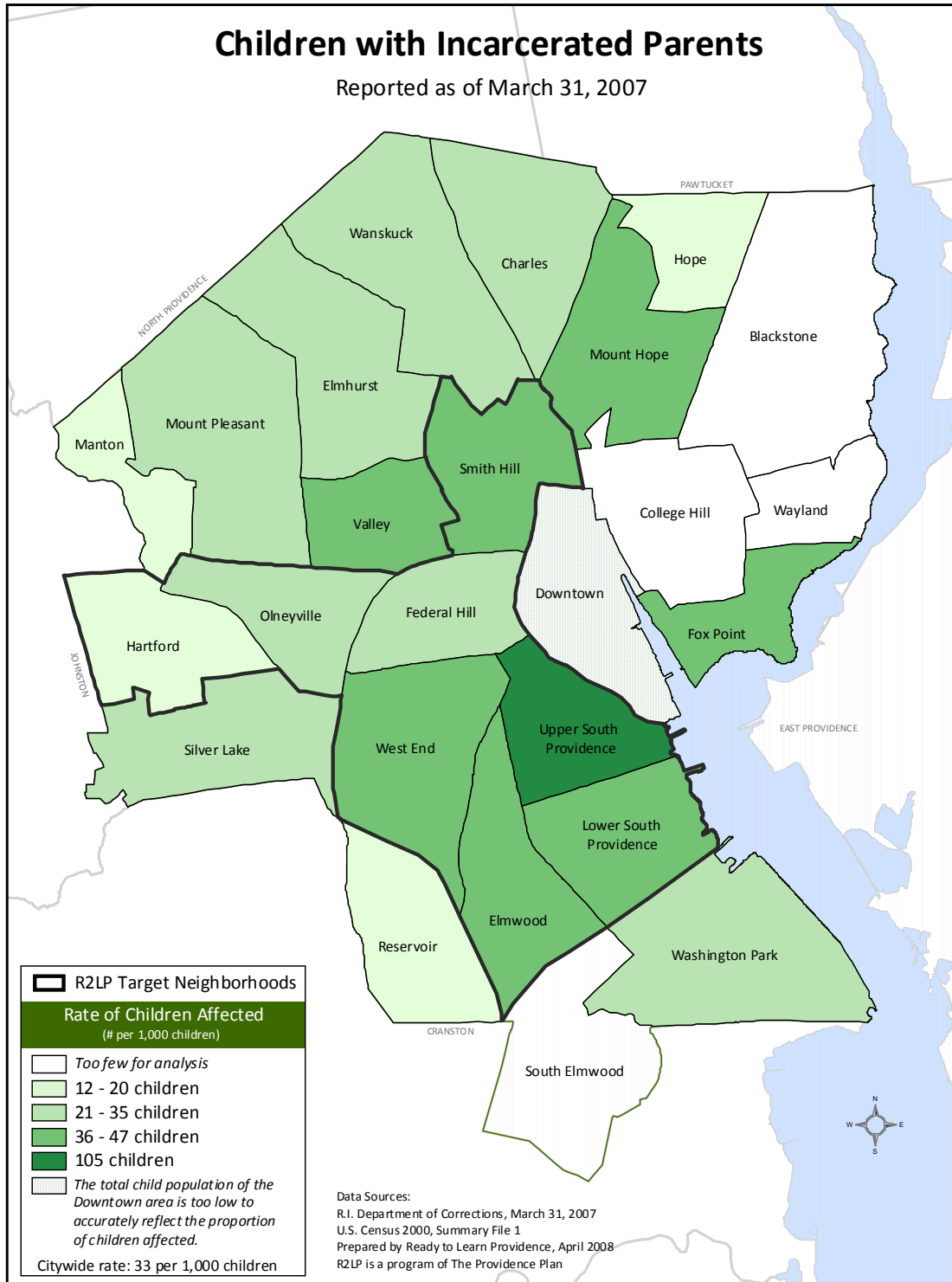
An even greater number of children are affected every day by incarceration than the available data would suggest. These numbers do not include children whose parents are in custody awaiting trial. The data also do not take into account other adults in a child's life who may be in prison. Furthermore, there are many more adults who are not currently in prison but who are on probation or parole, most of whom had served time in prison at least once in the past.²³

Figure 5



Further analysis of Providence data is forthcoming. The Department of Corrections will be providing stock data files for each year 2003-2007 to allow for a more in-depth analysis of neighborhood-level change.

Figure 6



¹ Mumola, Christopher J. "Incarcerated Parents and Their Children." (NCJ 182335). United States Department of Justice, Bureau of Justice Statistics, August 2000.

² Sabol, Ph.D, William J., Heather Couture, and Paige M. Harrison. "Prisoners in 2006." (NCJ 182335). United States Department of Justice, Bureau of Justice Statistics, December 2007.

³ La Vigne, Nancy G., Elizabeth Davies and Diana Brazzell. *Broken Bonds: Understanding and Addressing the Needs of Children with Incarcerated Parents*. Washington, DC: The Urban Institute, Justice Policy Center, February 2008.

⁴ Seymour, Cynthia. "Children with Parents in Prison: Child Welfare Policy, Program, and Practice Issues." *Child Welfare: Journal of Policy, Practice, and Program*, Special Issue: Children with Parents in Prison. Washington, DC: Child Welfare League of America, 1998.

⁵ Travis, Jeremy, Elizabeth Cincotta McBride, and Amy L. Solomon. "Families Left Behind: The Hidden Costs of Incarceration and Reentry." Washington, DC: The Urban Institute, Justice Policy Center, June 2005. Adapted from Katherine Gabel and Denise Johnson. *Children of Incarcerated Parents*. New York: Lexington Books, 1997.

⁶ Seymour, Cynthia. *Children with Parents in Prison: Child Welfare Policy, Program and Practice Issues*. Sept/Oct 1998.

Cynthia Seymour, "Children with Parents in Prison: Child Welfare Policy, Program, and Practice Issues," *Child Welfare, Special Issue, Children with Parents in Prison*, Child Welfare League of America, Vol. LXXVII, September/October 1996, p. 472.

⁷ Ibid.

⁸ Individuals may have reported more or fewer children than they actually have (e.g., an individual may report having no children if they are concerned that the information will be used to enforce payment of child support). Children may be of any age, and they may live at an address that is different from the reported address.

⁹ From The Providence Plan's analysis of DOC stock file data for the sentenced and awaiting trial populations.

¹⁰ Rates were calculated by dividing the number of children reported by adults in DOC custody who come from each neighborhood by the total number of children age 0 to 17 living in each neighborhood and multiplying by 1,000. Rates were not calculated for the Blackstone, College Hill, Hope and Wayland neighborhoods, as fewer than ten incarcerated adults reported living at addresses in these neighborhoods, a number deemed too small for valid analysis. A rate was not calculated for Downtown, as the number of individuals who reported a downtown address was deemed unreliable given the low number of residential units that exist downtown.

¹¹ General population statistics are from the 2000 U.S. Census, Summary File 1. Statistics for individuals in the custody of the Rhode Island Department of Corrections (DOC) are from The Providence Plan's analysis of DOC stock file data pertaining to individuals who were either being held while awaiting trial or were sentenced and serving time in prison as of September 30, 2003. Of the 1,313 Providence adults in the custody of the DOC, 351 (27 percent) were being held while awaiting trial and 962 (73 percent) were sentenced and serving time in prison.

¹² Ibid. 1,313 individuals from Providence were in DOC custody as of September 30, 2003. Address information could be matched to neighborhoods for 1,251 (95 percent) of them. Of those individuals for whom the neighborhood of residence could be determined, 453 (36 percent) were from Southside neighborhoods. 117 of those 453 individuals (26 percent) were being held while awaiting trial and 336 (74 percent) were sentenced and serving time in prison.

¹³ Edgar, Randal. "Racial disparity clear in prisons." Providence Journal, March 21, 2008. Accessed online (http://www.projo.com/news/content/PRISON_PANEL_03-21-08_OF9F704_v91.3812f2d.html), April 24, 2008.

¹⁴ Sabol, Ph.D, William J., Heather Couture, and Paige M. Harrison. "Prisoners in 2006." (NCJ 182335). United States Department of Justice, Bureau of Justice Statistics, December 2007.

¹⁵ Ready to Learn analysis of United States Department of Justice, Bureau of Justice Statistics Annual Bulletins.

¹⁶ 2008 Rhode Island Kids Count Factbook. "Children of Incarcerated Parents," p. 94-95.

3,072 children had a parent who reported a Rhode Island address. Child residency is assumed based on the address reported by their parents.

¹⁷ U.S. Bureau of the Census, American Community Survey, 2006.

¹⁸ Edgar, Randal. "Racial disparity clear in prisons." Providence Journal, March 21, 2008.

¹⁹ 2008 Rhode Island Kids Count Factbook. "Children of Incarcerated Parents," p. 94-95.

²⁰ Ibid.

²¹ General population statistics are from the 2000 U.S. Census, Summary File1. Statistics for individuals in the custody of the Rhode Island Department of Corrections (DOC) are from The Providence Plan's analysis of DOC stock file data pertaining to individuals who were either being held while awaiting trial or were sentenced and serving time in prison as of March 31, 2007. Of the 1,351 Providence adults in the custody of the DOC, 258 (19%) were being held while awaiting trial and 1,093 (81%) were sentenced and serving time in prison. 1,351 individuals from Providence were in DOC custody as of March 31, 2007. Address information could be matched to neighborhoods for 1,245 (92%) of them. Of those individuals for whom the neighborhood of residence could be determined, 482 (36%) were from Southside neighborhoods.

²² This comparison includes children whose parents were both sentenced and awaiting trial. While the awaiting trial population is difficult and unreliable to track over time, those children are included here to compare data to 2003. Data were organized into the same ranges the 2003 data were reported in (11-20, 21-30, 31-40, and >40 children affected per 1,000 children in each neighborhood). Based on these comparative categories, the rate of children affected decreased in Lower South Providence, South Elmwood, and Manton and increased in Silver Lake, Wanskuck, Mount Hope, Federal Hill, Mount Pleasant, Elmhurst, and Hope. The rate remained the same or was not applicable (due to a low number of residents incarcerated) in the rest of the neighborhoods.

²³ The number of children for individuals on probation or parole is not available.

Children with Unintentional Injuries

Why is it important?

In 1989, appearing before the U.S. Senate, Surgeon General Everett Koop stated, "If some infectious disease came along that affected children [in the proportion that injuries do], there would be a huge public outcry and we would be told to spare no expense to find a cure and to be quick about it."¹

Since that time the fatality rate among children ages 14 and under has declined by a remarkable 45% from 15.4 per 100,000 to 8.5² thanks to increased awareness and design improvements in car seats, bicycle helmets, toys, playground equipment and smoke alarms. Still, unintentional injury remains the number one killer of children from birth to age 14³ and many in the child safety field believe that 90% of all unintentional injuries could be prevented.⁴

According to the Centers for Disease Control, more than 2.6 million children from birth through 5 years received medical treatment for unintentional injuries in 2006.⁵ And more than 45% of these injuries were from falls.

What did we report in 2004?

At the time of our previous report, available baseline data were hospital discharge data collected by the Rhode Island Department of Health. These data represent the most serious injuries that required hospitalization, not only those that resulted in a visit to the emergency department.

In calendar year 2002, a total of 57 Providence children ages birth to five were hospitalized as a result of unintentional injuries. This represents 31% of all unintentional injuries in children statewide (182 injuries). The rate of hospitalization for children in Providence was higher than that of children living elsewhere at 3.74 per 1,000 children in Providence versus 2.11 elsewhere in Rhode Island.⁶

What is happening now?

The most recently available data from the Rhode Island Department of Health indicate that fewer Providence children required hospitalization as a result of unintentional injuries in 2005 than had in 2002. Forty Providence children ages birth through five required hospitalization, a rate of 2.63 per 1,000 children in the city.

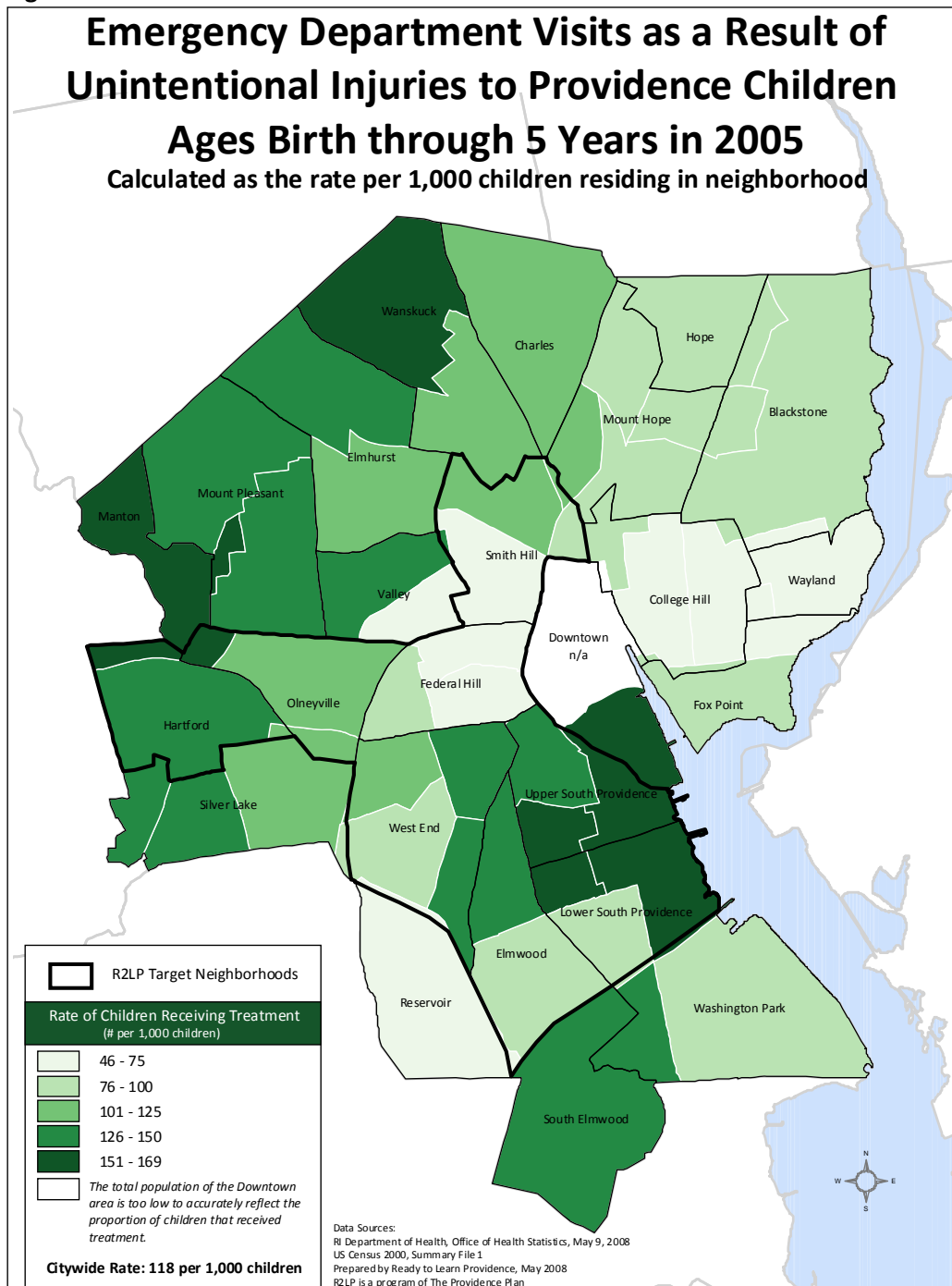
Unavailable previously, the Health Department now has a database of all Emergency Department visits, including the many visits that do not require hospitalization. In 2005, a total of 1,791 children under six year of age received treatment in a hospital Emergency Department. Thirty-nine percent (39%) of these visits were as a result of falls. This is an overall rate of 118 per 1,000 Providence children ages birth through five.⁷

Emergency Department data were made available by number of injuries per census tract. Figure 1 depicts these data as a rate for each of the 38 census tracts in Providence. Neighborhood boundaries are

overlay for geographic reference and ease of comparison. As portrayed, rates vary significantly, from fewer than 75 per 1,000 children in seven census tracts to rates more than twice that in four tracts.

Sixteen census tracts comprise R2LP's target area. As shown, the rates of injury also vary considerably within these tracts. For example in the Smith Hill and Valley neighborhoods the rate is 64 per 1,000. In Upper and Lower South Providence it is a rate of 159 per 1,000. Exactly eight of the R2LP tracts are below the citywide rate and eight are above.

Figure 1



Emergency Department visits resulting from unintentional falls were also made available at a census tract level. However, in more than half of all tracts fewer than twenty such incidents were reported, complicating small area geographic interpretation of the data. Of the remaining fifteen census tracts with more than 20 falls reported, rates ranged from 28% to 50% of all unintentional injuries that required an Emergency Department visit.

Likewise, data on the 40 unintentional injuries that required hospitalization were provided at the tract level. These 40 incidents were spread across 22 of the city's 38 census tracts with anywhere from one to four incidents per tract.

Statewide rates for 2005 were not available in time for submission of this report but will be included in the final release of this brief.

¹ The Future of Children Unintentional Injuries in Childhood Volume 10 Number 1 Spring/Summer 2000
http://www.futureofchildren.org/information2826/information_show.htm?doc_id=69726

² Report to the Nation: Trends in Unintentional Childhood Injury Mortality and Parental Views on Child Safety. Safe Kids USA, April 2008. Available at <http://www.usa.safekids.org>. Accessed on May 20, 2008.

³ Ibid.

⁴ Cole, Kelly A. Protecting Children from Unintentional Injuries, 2004.

⁵ Centers for Disease Control, National Center for Injury Prevention and Control WISQARS. Available at: <http://webappa.cdc.gov/sasweb/ncipc/nfilead.html> Accessed on May 20, 2008.

⁶ In 2000 the US Census Bureau Summary File 1 reported a total 15,210 children under the age of six residing in Providence. In 2004 R2LP reported this as a rate of 374 per 100,000.

⁷ Current injury rates are calculated using the same Census 2000 figure of 15,210 children under the six residing in Providence. This is the only 100% count available and appropriate for rate estimation.

Methodology and Preliminary Findings of An Investigation into the Impact of Revised Eligibility Requirements for the Child Care Assistance Program (CCAP) in the State of Rhode Island

General Description

Under the Family Independence Act, which went into effect May 1, 1997, families in Rhode Island who earned up to 225% of the federal poverty level (FPL)¹ were eligible to receive child-care assistance when they enrolled their children in approved center- or family-based settings. These subsidies were (and still are) administered by the Rhode Island Department of Human Services through its Starting Right Child Care Assistance Program (CCAP). For the 2007-08 fiscal year, however, Rhode Island legislators trimmed state expenditures by cutting eligibility for child-care subsidies from 225% to 180% of FPL.

In the spring of 2007, in anticipation of these subsidy cuts, Ready to Learn Providence (R2LP) administered a survey to child-care center directors and family child-care providers, as well as conducted focus groups with parents, to gather perceptions about the looming impacts of the cuts.

Between February and April 2008, R2LP conducted a follow-up survey with 482 child care providers to document the actual impacts of the cuts since they became effective on September 1, 2007. The study was led by principal investigator, Dr. Jeff Priest, R2LP Research and Evaluation Specialist. Dr. David Robinson, consulting evaluator for R2LP, submitted the research plan to the Institutional Review Board at Simmons College which approved both the study design and the participant recruitment process. The Care for Kids Coalition (which includes membership by the Poverty Institute at Rhode Island College, Rhode Island Kids Count, the Rhode Island After School Alliance Plus, among others) participated in the survey design process. Members of the Poverty Institute assisted with survey implementation.

The primary research questions guiding the study include:

- (a) Which effects, if any, have the child care subsidy cuts had on families and children in Rhode Island who lost some or all of the subsidy, including impacts on child care, employment, household finances, and children's development?,
- (b) What percentage of licensed child care centers and homes serve families who have lost some or all of the child care subsidy?, and
- (c) Which effects, if any, have the child care subsidy cuts had on licensed child care centers and homes in Rhode Island who serve families who lost some or all of the child care subsidy?

We conducted phone interviews state-wide of licensed child care centers and homes, using a proportionate stratified random sampling approach. Through the random sample of centers and homes contacted by telephone who agreed to identify families, we selected and recruited families who have lost some or all of their child care subsidy and conduct phone interviews of these families.

Survey Methodology

The target numbers of licensed child care centers and homes we sought to recruit were determined by calculating sample sizes using a simple random sampling approach and the following formula:

$$n = \frac{(z^2 * p * q) + ME^2}{\frac{(z^2 * p * q)}{N} + ME^2}$$

where $z = 1.96$ (i.e., the critical value for which the cumulative probability = $1 - \alpha$, using a 95% confidence interval), p = the proportion of licensed centers and homes serving children who lost some or all of their child care subsidy, $q = (1-p)$, ME = margin of error, and N = population of licensed centers or homes in the state. Since we did not know the proportion of child care providers actually affected by the subsidy cuts, we used a conservative proportion of 0.50. We selected a margin of error of +/- 4% (0.04). Using these values, we calculated sample sizes of 158 licensed centers and 317 licensed homes to be considered a representative sample of their respective populations in the state.

Rather than use a simple random sampling process, however, we selected licensed centers and homes using a proportionate stratified random sampling process, based on geographic location in the state, believing there are differences in the experiences of child care providers and children/families between those living in Providence, those living in other urban areas of the state, and those living in all of the state's remaining towns. Thus, we created three strata, including (a) Providence, in which the total number of child care subsidies used in 2006 (i.e., 4,976) far exceeded any other single city or town, (b) six other urban areas in which the total numbers of child care subsidies used in 2006 were relatively large (i.e., Central Falls, Cranston, East Providence, Pawtucket, Warwick and Woonsocket), and (c) all other cities and towns in the state in which child care subsidies were used.² Tables 1 and 2 present plans for selecting proportionate stratified random samples of licensed centers and homes respectively.

Table 1. Proportionate Stratified Random Sampling of Licensed Child Care Centers in RI

	N_h	W_h	f_h	n_h
Stratum	Licensed centers	Proportion of population	Stratum sampling fraction	Stratum sample size
Providence	68	0.16	0.37	26
6 other urban areas	135	0.32	0.37	50
Rest of RI	222	0.52	0.37	83
Total	425	1.00		159

Source: Database of licensed child care centers as of August 2007 from the Rhode Island Department of Children, Youth & Families (DCYF)

Table 2. Proportionate Stratified Random Sampling of Licensed Child Care Homes in RI

Stratum	N_h Licensed homes	W_h Proportion of population	f_h Stratum sampling fraction	n_h Stratum sample size
Providence	780	0.58	0.24	188
6 other urban areas	323	0.24	0.24	78
Rest of RI	234	0.18	0.24	57
Total	1337	1.00		323

Source: Database of licensed child care homes as of October 2007 from the Rhode Island Department of Children, Youth & Families (DCYF)

Although using a proportionate stratified random sampling approach reduced our sampling error, by recruiting the same sample sizes called for using a simple random sampling approach, we ensured sufficient precision of our results.

Preliminary Findings

Impact on Programs

- Statewide, 158 of the 197 providers (80%) who served families affected by the child care subsidy cuts said the cuts had an extreme or major impact on their programs.
- In Providence, 14 of 17 centers (82%) and 57 of 61 homes (93%) said the subsidy cuts had an extreme or major impact on their programs.
- In six other urban communities, 27 of 37 centers (73%) and 22 of 28 homes (79%) said the subsidy cuts had an extreme or major impact on their programs.

Impact on Quality of Care

- Statewide, 91 of the 197 providers (46%) who served families affected by the child care subsidy cuts said the quality of their programs had suffered since the cuts went into effect.
- In Providence, 8 of 17 centers (47%) and 43 of 61 homes (70%) said the quality of their programs had suffered.
- In the six other communities, 14 of 37 centers (38%) and 15 of 28 homes (54%) said the quality of their programs had suffered.

Financial Viability

- Statewide, 154 of the 197 providers (78%) who served families affected by the child care subsidy cuts said the financial viability of their programs had been hurt by the cuts.
- In Providence, 16 of 17 centers (94%) and 55 of 61 homes (90%) said the financial viability of their programs had been hurt by the child care subsidy cuts.
- In the six other communities, 26 of 37 centers (70%) and 21 of 28 homes (75%) said the financial viability of their programs had been hurt.

Impact on Employment of Staff

- Statewide, 50 of the 197 providers (25%) who served families affected by the child care subsidy cuts laid off employees after the cuts went into effect.
- In Providence, 7 of 17 centers (41%) and 20 of 61 homes (33%) laid off employees.
- In the six other communities, 9 of 37 centers (24%) and 6 of 28 homes (21%) said the financial viability of their programs had been hurt.

Possible Closure

- Statewide, 82 of the 197 providers (42%) who served families affected by the child care subsidy cuts said it is possible they will have to close their programs based on the impact of the cuts. These 82 providers are licensed to serve a total of 1,783 children.
- In Providence, 3 of 17 centers (18%) and 47 of 61 homes (77%) said it is possible they will have to close their programs, representing a total capacity of 558 children.
- In the six other communities, 6 of 37 centers (16%) and 14 of 28 homes (50%) said it is possible they will close, representing a total capacity of 596 children.

Response Rates

- The overall response rate of 76% is strong (366 providers of 482 selected). Response rates ranged from 86 - 96% of centers and 63 - 73% of homes.
- Of 482 providers in the original, randomly selected group, 378 providers were successfully contacted. One hundred providers could not be contacted because of disconnected phone numbers or a failure to reach someone after eight phone call attempts, and 16 providers refused to participate in the survey, including 12 who served families affected by the cuts. A remaining 366 providers participated in the survey. Of these, 197 served families who were affected by the child care subsidy cuts and completed the entire survey.
- Fifty-four of 188 homes (29%) in Providence could not be contacted because of disconnected phone numbers or a failure to reach someone after eight attempts. Likewise, 17 of 78 homes in the six other communities (22%) and 18 of 57 homes in the rest of the state (32%) could not be contacted for the same reasons.
- Of the 378 providers interviewed, 209 (55%) serve (or served) families who lost all or part of their child care subsidy. A total of 197 of these 209 providers (94%) completed the entire survey.

Next Steps - Family Recruitment

After conducting the survey of child care providers initially, we asked providers to help us contact families who are or have been served by their programs and who have been affected by the subsidy cuts. We employed a passive consent process whereby we requested provider respondents if they were willing to send a letter to any and all families served (or formerly served) by their programs asking that families allow providers to share their contact information with us.

Recruitment of families using this process did not necessarily generate a statistically representative sample of families affected by the subsidy cuts. We were prepared to interview at least 250 families, and we believe information generated from these interviews is too important to the debate of child care subsidies in the state to ignore, even if not statistically representative. Without assistance from the Rhode Island Department of Human Services, we had no other alternative for recruiting families affected by the subsidy cuts than to rely on the help of the child care providers who participate in our project.

As of the time of this report more than 90 surveys have been completed with families who lost all or part of their child care subsidy.

¹ The federal poverty level (FPL) actually encompasses two related measures, the poverty *thresholds* and the poverty *guidelines*. The poverty *thresholds* were initially developed in 1963-64 by the Social Security Administration based on the costs of a food plan created by the Department of Agriculture. The poverty thresholds are now updated each year by the Census Bureau and are used to calculate population poverty statistics. The poverty *guidelines* are published in the *Federal Register* every year by the Department of Health and Human Services as a simplified version of the poverty thresholds for administrative use, such as determining eligibility for federal or state programs. In 2007, a family of four living in the 48 contiguous states or Washington, D.C. earning no more than \$20,650 would be considered a family living in poverty. (Retrieved from <http://aspe.hhs.gov/poverty/07poverty.shtml>)

² Rhode Island Kids Count (2007). *2007 Rhode Island Kids Count Factbook*. Providence, RI: Author.