

Advancing Investments in the Early Years

Opportunities for Strategic Investments in Evidence-Based Early Childhood Programs in New Hampshire

Lynn A. Karoly

Key Findings

- There is tremendous variability across New Hampshire communities in the extent to which the state's youngest children and their families face risks and stressors that can compromise healthy child development.
- Home visiting programs serve up to 1,100 families and children in New Hampshire each year, far below the estimated 9,200 who could benefit. Further work is needed to map where the gap in services relative to need is greatest.
- There is little information about the nature and quality of school district preschool programs, which reach about 4,000 children annually, including both children with special needs and their typically developing peers. Information from the districts in our focal communities—Claremont, Manchester, Nashua, and Coös County—shows that most of their preschool enrollment is in part-day and part-week programs, with teacher qualifications, class sizes, and teacher-child ratios consistent with high quality.
- Access to district preschool programs is not aligned with the districts where children are most at risk of poor academic performance because of high rates of poverty and other disadvantages.
- To maximize the expected return, there is scope for expanding evidence-based home visiting and preschool programs in a strategic fashion, focusing first on those communities with the greatest need but with current low rates of enrollment.
- Strategic investments going forward should involve public funds at the state and local levels, as well as private contributions from philanthropy and business, to (1) expand access to high-quality evidence-based home visiting and preschool programs, starting in those communities with the greatest access gap; (2) continue strategies to realize an effective and efficient integrated early childhood system; and (3) build the data systems and other infrastructure at the state level to support informed decisions about future investments and to ensure that quality is achieved and expected impacts are realized.

By some measures, New Hampshire's children ages 0 to 5 are relatively well-off compared with their counterparts in other states. New Hampshire ranks first nationally on the 2018 Annie E. Casey Foundation KIDS COUNT composite index of child well-being, which comprises 16 indicators related to economic status, education, health, and family and community.¹ For example, New Hampshire's child poverty rate stood at 8 percent in 2016, compared with the national average of 19 percent and the highest rate of 30 percent in Mississippi and New Mexico. This pattern of better outcomes than the national average holds for each of the indicators in the KIDS COUNT index, several of which are outcomes specific to children younger than age 5, such as the prevalence of low-birth-weight babies, preschool attendance, and the teen birth rate.

At the same time, New Hampshire's consistently high ranking on the Casey Foundation index, which is based on state averages, conceals the high levels of poverty and material hardship for a subset of the state's children living in both rural and urban communities. For example, the state-wide poverty rate for children under age 5 was 11.8 percent in 2017 but was nearly 50 percent in Colebrook, a rural community in Coös County, New Hampshire's largest, least populated, and poorest county (the countywide poverty rate for children under age 5 was 18.7 percent). This rate was 19.9 percent in Manchester, the state's largest city.² These two communities, at opposite ends of the rural-to-urban continuum, are illustrative of the disparities in well-being across a state where children are relatively well-off on average.

With a growing recognition of the importance of the early years and the lifelong detrimental effects of growing up living in poverty, leaders in the public and private sectors across New Hampshire have sought to increase investments in early childhood programs that promote the cognitive, social, emotional, and physical well-being of at-risk children

prior to kindergarten entry, through such early intervention strategies as parent education, home visiting, and early learning programs. New Hampshire benefits from long-standing federal investments in the early years through Early Head Start and Head Start, as well as more-recent federal funding for home visiting services through the Maternal and Infant Early Childhood Home Visiting (MIECHV) program.³ These programs are designed to target at-risk children and families, recognizing that there is more room to improve outcomes for children and families facing greater disadvantages relative to those who are better off.⁴

However, in New Hampshire (as in every other state), these federal programs do not provide sufficient funding to cover all eligible children. For example, Early Head Start has annual funding to reach just under 400 children from birth to age 3 in New Hampshire, an estimated 7 percent of the infants and toddlers in families with incomes below the federal poverty level (FPL) who would qualify to be served. Likewise, Head Start funds about 1,200 3- to 5-year-olds annually for one or two years prior to kindergarten entry, just over one-third of the estimated eligible population of preschool-age children in the state living in families with incomes below the FPL. Similar estimates for the federally funded MIECHV program show that funding stream reaches only about 5 percent of the families in New Hampshire who could benefit.⁵ The shortfalls reflect the capped funding for these programs, which have never been fully funded by the federal government.

Because federal funds for Early Head Start, Head Start, and MIECHV are not sufficient to serve all children and families who could benefit and would choose to participate, most states and, increasingly, many large cities are contributing local funds to serve a larger share of young children in programs designed to promote their school readiness and healthy development. For example, a growing number of states are committing general funds or special funds (e.g., tobacco settlement monies), to support home visiting services. As of fiscal year 2017, 25 states, including New Hampshire, had appropriated state funds for various home visiting programs—although New Hampshire, with \$75,000 in state funds, had the lowest state allocation.⁶ In terms of early learning programs, as of the 2016–2017 school year, 43 states provided funding for preschool for 4-year-olds (4K), and 29 states also extended funding to 3-year-olds (3K).⁷ Most state-funded 4K and 3K programs are targeted to at-risk children, but a growing number of states and cities provide sufficient funding to serve all children, regardless of child or family circumstances. In addition, as state and

local preschool programs have expanded, many jurisdictions have built on the existing mixed-delivery system by subsidizing preschool programs delivered through public schools and through private center-based programs. Amid these expansions, New Hampshire remains one of seven states that does not have a state-funded 4K or 3K program, either through public schools or private programs.⁸

Another policy priority at the federal, state, and local levels has been the development of integrated birth-to-5 or birth-to-8 systems, the latter with a goal of instituting a more effective and coordinated approach to serving children in the early years and the early elementary grades. At the federal level, the U.S. Departments of Education and Health and Human Services have used the latest round of the Preschool Development Grant (PDG) mechanism to provide competitively awarded funds for states to invest in quality improvement and the integration of services across the early years, from home visiting to preschool education. In December 2018, New Hampshire was one of 45 states to receive a one-year PDG award, with funding of \$3.8 million to support planning for a more effective and better-aligned system of early childhood care and education.⁹ This federal award makes it a particularly opportune time for New Hampshire to assess early learning resources in the state and determine how best to advance the current system.

Prior RAND research demonstrates that there is scope for New Hampshire to invest state and local funds in evidence-based early childhood programs, with the expectation of a positive economic return, particularly for evidence-based home visiting in the first few years of a child's life and high-quality preschool.¹⁰ The 2017 RAND report documented the substantial share of children in the state who are at risk of adverse developmental outcomes because of low family resources and other factors that can compromise healthy development. Based on a review of the scientific evidence of the impacts from well-designed and well-implemented home visiting programs and one- or two-year preschool programs, the study estimated the potential economic returns for New Hampshire from investing public funds in expanding access to these programs. Given the evidence of sustained benefits from participation in the Nurse-Family Partnership (NFP) home visiting model, the 2017 RAND study estimated a social return of \$4 to \$6 for every dollar invested to expand services to first-time economically disadvantaged mothers, the target population of the NFP model.¹¹ Likewise, making a high-quality one-year preschool program available to New Hampshire children in families with income up to three times the FPL was estimated to generate

\$2 in benefits to society for every dollar invested. The returns from investing in expanded preschool would be even higher if the program were more narrowly targeted to the lowest-income children.

STUDY OBJECTIVES AND ROAD MAP

The 2017 RAND study offered a statewide view of the early childhood landscape and the scope for further investment with a positive economic return. Given the variation across communities in New Hampshire in economic status and other indicators of disadvantage in early childhood, it is important to understand how geographic variation in the risk factors that can compromise healthy child development compares with where current early childhood services are available. If there is a mismatch between where services are offered and where there is underlying need, future early childhood investments can target those communities with the greatest gaps. Thus, the goal of this report is to examine the geographic variation across New Hampshire in the need for early childhood investments in communities across the state, the current investments under way and how they match with underlying needs, and where there are opportunities to invest further in early childhood programs, particularly home visiting and preschool education. More specifically, the study aims to do the following:

- Assemble local-level data to characterize the variation across the state in the factors that place children and families at risk in the early years and whether current early childhood investments supported by federal, state, or local funds—particularly for home visiting and preschool education—are reaching communities with the greatest need.
- Collect information on a small number of focal communities that are already making advances in early childhood programs to fill in details about the programs that are otherwise not systematically collected and to identify the strategies they are using and the challenges they face in making further investments.
- Make recommendations for a strategic approach future investments in evidence-based home visiting from birth to age 3 and preschool for one or two years before kindergarten entry.

With these objectives in mind, we begin in the next section by summarizing our approach to using indicators to

examine patterns in the early childhood landscape at the local level and to conducting an in-depth assessment of local early childhood initiatives in four focal communities. We then proceed to examine the landscape of need at the local level for early investments using our data base of indicators. Given the areas of need, we first consider investments in home visiting, both from a statewide perspective and then for the four focal communities. We provide a similar statewide and local perspective on investments in preschool. We conclude our analysis by summarizing the key lessons learned—both challenges and opportunities—as identified by stakeholders in the focal communities and interviews with other key informants. The final section offers a discussion of a strategic approach to further investment in evidence-based early childhood programs in New Hampshire.

STUDY APPROACH

We used two strategies to examine early childhood investments in New Hampshire at the local level: (1) a statewide landscape analysis that compiled local-level indicators relevant for understanding where the need for early childhood programs are greatest and whether current services exist to meet those needs and (2) a more in-depth assessment of the early childhood landscape in four focal communities. We provide additional detail for each approach in turn.

Local-Level Indicators and Sources of Data

The statewide landscape analysis brings together a variety of indicators to measure the need for early childhood investments in the community, indicators of current early childhood resources, and indicators of infrastructure to support the early childhood workforce (see Table 1).¹² All indicators come from publicly available sources or administrative databases maintained by federal or state government agencies (see Appendix A at www.rand.org/t/RR2955). Indicators are recorded at the most disaggregated geographic level possible, which typically consists of school districts or counties. In particular, we assemble data for New Hampshire's ten counties and the 154 elementary and unified school districts (i.e., those that have enrollment in the elementary grades).

School districts have the advantage of being a smaller geographic unit, relative to counties in New Hampshire. Thus, we can capture the variation across communities within coun-

Table 1. Illustrative Local Indicators for New Hampshire

Indicators of Need	
• Median family income	• Opioid-related death rate
• Percentage of births to women in poverty	• Percentage of children in households with a single parent
• Percentage of low-birth-weight babies	• Rate of child abuse and neglect
• Teen birth rate	• Rate of out-of-home placements
• Percentage of children in families with income below FPL	• Grade 3 reading and mathematics achievement scores
• Percentage of K–12 students eligible for a free or reduced-price lunch (that is, living in families below 185 percent of FPL)	• Grade 8 reading and mathematics achievement scores
• Percentage of children with no health insurance	• High school dropout rate
Indicators of Current Early Childhood Resources	
• Number of families served by a home visiting program	• Public preschool enrollment and enrollment rate
• Number of funded Early Head Start or Head Start slots	• Districts offering full-day kindergarten
• Licensed child care providers by Licensed Plus status and National Association for the Education of Young Children (NAEYC) accreditation	
Indicators of Infrastructure to Support the Early Childhood Workforce	
• Two- and four-year colleges or universities offering nursing degrees	• Two- and four-year colleges or universities offering degrees in early childhood

SOURCES: See Appendix A for more detail on each indicator and its source (available at www.rand.org/t/RR2955).

NOTES: Bold means that an indicator is recorded at the county level. All other indicators are measured for school districts or using geocoded addresses (which means they can also be aggregated to the county level). Licensed Plus is the higher-quality designation under New Hampshire's current quality rating and improvement system (QRIS). NAEYC is the premier national accrediting organization for early childhood programs.

ties that is otherwise obscured when the focus is on county-level indicators. The school district is also a unit of analysis used by the by the New Hampshire Department of Education (NHDoE) for reporting on education-related indicators and by the U.S. Census Bureau based on the American Community Survey (ACS) and the Small Area Income and Poverty Estimates (SAIPE) Program for reporting on demographic and economic indicators. The 154 districts we examine cover almost all of the geographic area of the state (a few rural areas do not have defined school districts) and 99.4 percent of the state population.¹³ Some districts are relatively small, which means that demographic indicators and some education indicators may not be available.¹⁴ Indicators that capture specific resources, such as the location of programs (e.g., a Head Start center), are geocoded with the facility address. It is important to note that there will be variation across communities within school districts—for example, across neighborhoods in urban districts or across towns in rural areas—that we will not be able to capture with district-level data.

We use the database of indicators to examine patterns in investments in early childhood programming across geographic areas in the state. Such a mapping sheds light on whether communities with higher rates of at-risk children and families are the areas where current early childhood resources are more

concentrated. For example, are communities with higher child poverty rates the ones where districts are making preschool available at a higher rate, or are the higher rates of preschool participation more likely to be found in communities that are relatively better-off? The database of indicators can also support the identification of communities that would be a good fit for new early childhood investments

Four Focal Communities

To obtain a richer understanding of the landscape of early childhood investments in New Hampshire, we collected information for four illustrative communities, identified with input from the study sponsors and advisory group, that are deploying proactive strategies to advance their investments in early childhood programs at the local level. More specifically, we looked for communities where, according to our database of indicators, there were one or more Family Resource Centers (FRCs) providing home visiting services funded through federal MIECHV funds and through a state Comprehensive Family Support Services (CFSS) contract, where there were Head Start programs (including Early Head Start), where the school district funded preschool for children before kindergarten entry, and where an existing local

coalition or partnership, part of the Spark NH community of practice, was focused on advancing the early childhood system.¹⁵

Using these criteria, we focused on three cities and one county:

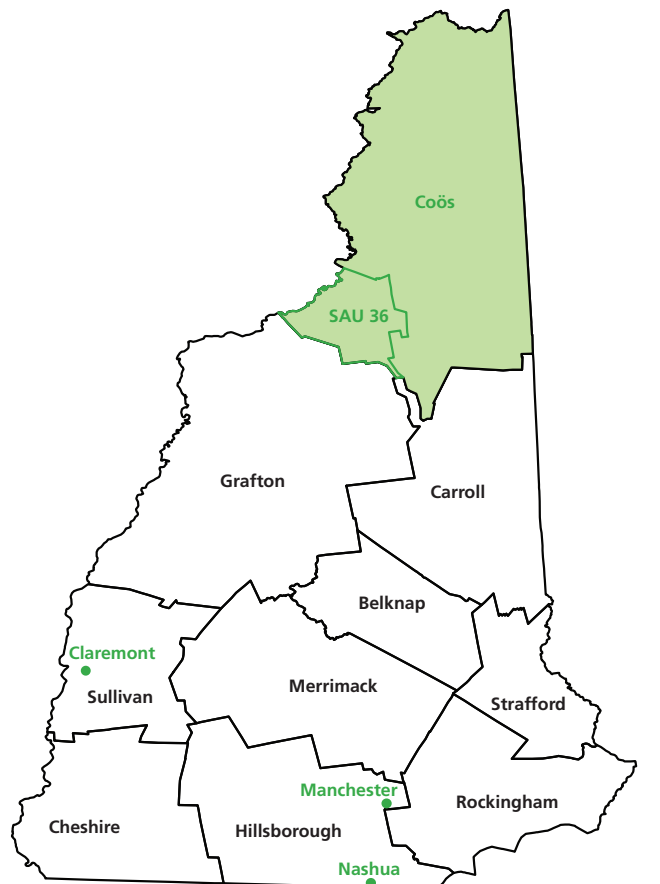
- **Claremont.** A town of about 13,000 persons in Sullivan County, situated on the Sugar River near the border with Vermont.
- **Manchester.** Located in Hillsborough County, the state's largest city (a population of about 111,000), one of its poorest, but also one of its fastest growing.
- **Nashua.** A city of about 88,000, located near the southern border, also in Hillsborough County, that benefits economically from its proximity to the larger Boston area.
- **Coös County.** The state's largest, least populous, and poorest county, situated in the northernmost section of the state, with a population of about 32,000. For district-based services, we focus on White Mountains Regional School District (School Administrative Unit [SAU] 36), the largest of the 11 elementary or unified districts in the county with district-funded preschool enrollment.¹⁶

Figure 1 shows the location of each community, and Table 2 summarizes features related to these communities' early childhood landscape, which will be discussed later in the report.

Together, these four communities offer variation along the rural-urban continuum, in their geographic location within the state, and in their approach to early childhood services (as we discuss more later in the report). The four communities all have one or more FRCs (see Table 2). Manchester has two such centers and is also a Project LAUNCH site (discussed later). There is at least one Head Start center in the four communities; Manchester and Nashua also have Early Head Start slots. Further, the school districts in each community report preschool enrollments as of October 2017, although only a subset of the 11 districts in Coös County do so. Finally, all four have an early childhood coalition or partnership.

Through interviews with multiple key informants in each community, we aimed to document the existing strategies being used to invest in early childhood and the lessons learned from these efforts that might be transferrable to other communities. In particular, we conducted interviews with key informants in each community, such as leaders in agencies providing early childhood intervention and other family support services (including home visiting), Head Start providers, school district leaders and other district staff administering district-funded 3K and 4K programs,

Figure 1. Map Showing Four Focal Communities



and leaders of community-wide partnerships working to create integrated systems of early childhood services in their area.

Seventeen interviews in total were conducted in-person or by telephone in August and September 2018 and typically lasted one hour. The interviews followed a semistructured protocol focused on three broad themes:

- the current need for investments in early childhood program, as evidenced by indicators measuring the size of vulnerable populations, school readiness and school performance, and service gaps in early childhood programs
- the early investments already under way in the local community, including home visiting, 3K or 4K programs, and other early intervention strategies
- readiness at the local level to make additional investments in early childhood in terms of such aspects as infrastructure, availability of a qualified workforce, availability of funding, and leadership.

In addition to our focus on these four communities, we also identified, through interviews with state-level key informants

Table 2. Selected Characteristics of Four Focal Communities

Indicators of Need	Claremont (SAU 6)	Manchester (SAU 37)	Nashua (SAU 42)	Coös County
Total population	13,028	110,601	87,642	32,119
Population under age 5	771	6,238	4,877	1,267
FRC(s)				
Site for MIECHV	Yes	Yes	Yes	Yes
State CFSS contract	Yes	Yes	Yes	Yes
Project LAUNCH site	No	Yes	No	No
Early Head Start and/or Head Start	Head Start	Early Head Start and Head Start	Early Head Start and Head Start	Head Start
Number of elementary and unified school districts	1	1	1	11
Number of elementary and unified school districts reporting preschool enrollment	1	1	1	6
Spark NH early childhood regional coalition or partnership	Yes	Yes	Yes	Yes

SOURCES: Appendix A data sources and interviews (available at www.rand.org/t/RR2955).

NOTES: Population counts are five-year estimates (2013–2017) from the ACS.

knowledgeable about other initiatives in the state, other approaches to early childhood investments. We feature a number of these state- and local-level examples, as well, throughout the report in the text boxes, especially when they relate to the initiatives in the focal communities.¹⁷

LANDSCAPE OF NEED FOR EARLY INVESTMENTS

A large and growing body of research documents the importance of the first five years of children’s lives for their cognitive, social, emotional, behavioral, and physical development, with implications for their school readiness and educational outcomes, as well as their lifelong health and well-being.¹⁸ This same research points to the set of factors that can compromise healthy development. These include risk factors at birth, such as limited family resources (e.g., because of single parenthood, teen parenthood, or low family income more generally) and being born with a low birth weight (specifically, below 2,500 grams). Our prior study, based on state-level indicators, documented that as many as one in three children born in New Hampshire may be considered at risk in terms of a healthy birth outcome or in terms of being born into a low-resource environment.¹⁹ These same risk factors measured at birth, as well as others, such as living in a household where a language other than English is spoken, may continue to be present in the first five years of a child’s life.

Statewide Variation in Risk Factors

Table 3 lists a series of indicators that measure the potential need for early childhood supports, namely those pertaining to birth outcomes, family demographics, economic status, and education performance. Each of these indicators can be measured at the state level (the first column), as well as at the community level, as defined by school district boundaries. To summarize the variation across communities in each indicator, the table records the minimum and maximum value across the 154 districts we captured in our database, as well as the values at the 25th percentile, 50th percentile (or median), and 75th percentile.²⁰

The patterns for the indicators in Table 3 demonstrate that there is tremendous variability across New Hampshire communities in the extent to which the state’s youngest children and their families face various risks and stressors. At one extreme, the indicators for birth outcomes, family demographics, economic status, and school performance show that some communities have no or few new mothers or young children facing adverse circumstances, median family incomes are as much as two times the state median, the child poverty rate is below 5 percent, and student performance indicators approach or reach the goal of having all students proficient in reading and mathematics as of grades 3 and 8 and graduating from high school. At the other extreme, about 40 districts (the 25 percent of districts with the worst outcomes) see half or more of new

Table 3. Indicators of Need Statewide and Across New Hampshire School Districts: 2013–2017

Indicator	Statewide	District Values				
		Minimum	25th Percentile	Median	75th Percentile	Maximum
Birth outcomes^a						
Births to unmarried women (%)	31.9	0.0	0.0	28.8	50.0	100.0
Births to women with income below 100% FPL (%)	10.9	0.0	5.0	8.2	12.9	38.0
Births to women with income below 200% FPL (%)	23.4	0.0	11.9	20.4	30.5	54.9
Family demographics^a						
Children under age 5 in single-parent families (%)	25.5	0.0	6.7	18.4	34.5	92.1
Population age 5 and older speaking a language other than English at home (%)	7.8	0.1	2.4	3.6	5.8	21.1
Economic status^b						
Median income for families with own children under age 17 (\$)	87,894	34,089	69,814	89,410	112,867	250,000 ^c
Child poverty rate (ages 5 to 17)	9.1	1.0	5.1	7.7	12.6	27.6
Free and reduced-price lunch eligibility (%)	–	1.4	12.8	24.3	38.9	82.5
Education performance^d						
Proficient in reading, grade 3 (%)	54	17	47	56	68	100
Proficient in math, grade 3 (%)	55	8	45	59	71	95
Proficient in reading, grade 8 (%)	58	15	50	61	71	90
Proficient in math, grade 8 (%)	45	8	34	46	59	90
Four-year graduation rate (%)	89.0	69.0	86.4	90.6	95.3	100.0

SOURCES: See Appendix A for data sources (available at www.rand.org/t/RR2955).

NOTES: All estimates are for 154 elementary or unified school districts in New Hampshire, except as indicated. – = not reported.

^a Indicators are five-year estimates (2013–2017) from the ACS.

^b Median income is for the same five-year ACS. The child poverty rate is for 2017 based on the SAIPE. Free or reduced-price lunch eligibility is for the 2017–2018 school year.

^c Median income for this district is reported at the maximum allowable value of \$250,000.

^d Education assessments are for the 2016–2017 school year. The graduation rate is for 65 districts with public high schools as of 2016–2017.

births to unmarried women and about one-third or more of new mothers living in near poverty. One-quarter of districts also have more than 1 in 3 children under age 5 in single-parent families. Median family income falls as low as 40 percent of the statewide median, and the child poverty rate reaches up to three times the state average. School performance indicators show that half, at most, of students reach proficiency and as many as 30 percent of high school students do not graduate. At the extreme, up to about 20 percent of children in New Hampshire age 5 and above live in households where a language other than English is spoken at home.

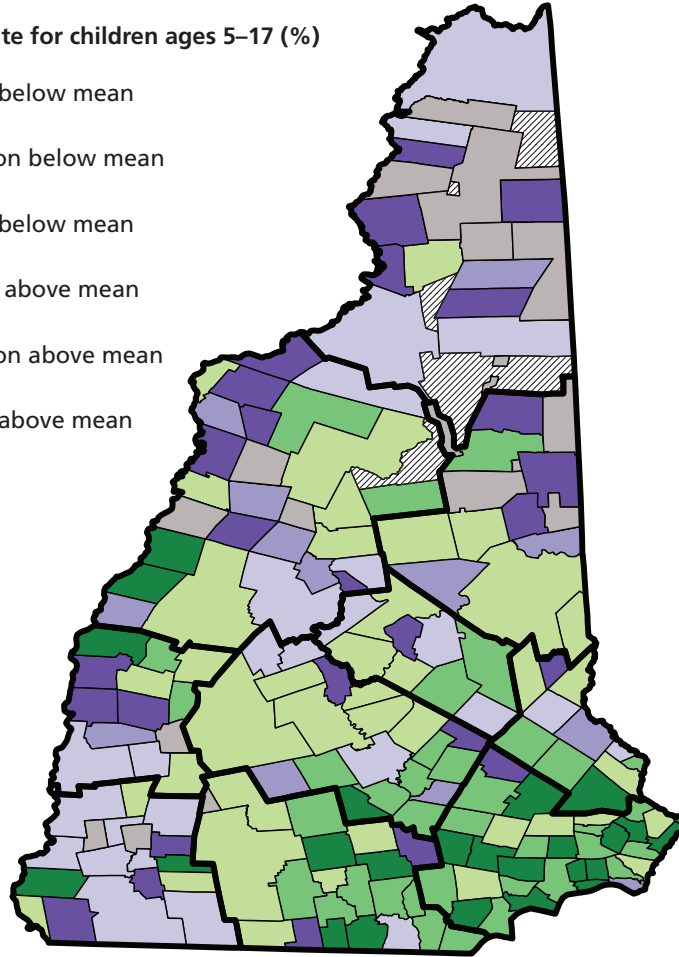
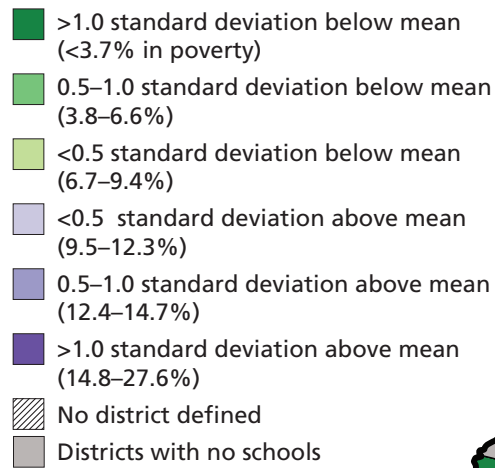
These contrasts are readily apparent in Figure 2, which shows the range of child poverty rates (the second economic status indicator in Table 3) across school districts as of 2017.²¹

Districts with poverty rates below the state average are shown in gradients of green shading, while those with above-average rates are shaded in gradients of purple. Child poverty rates are highest in districts in the northern part of the state (Coös, Carroll, and Grafton counties), the southwestern corner (Cheshire and Sullivan counties), and selected urban districts in other parts of the state, such as Manchester, Nashua, and Rochester. But even within those regions, there are districts with below-average child poverty rates. The reverse pattern holds in the southeastern part of the state (Hillsborough and Rockingham counties), where school districts with below-average child poverty rates are more prevalent, but there are others with relatively high poverty rates.

These patterns are reinforced when viewing multiple indicators. Because the child poverty rate mapped in Figure 2 is highly

Figure 2. District Poverty Rate for Children Ages 5–17, 2017

Standardized district poverty rate for children ages 5–17 (%)

SOURCE: Appendix A data sources (available at www.rand.org/t/RR2955).

correlated with most of the indicators in Table 3 (an exception being the share of non-English speakers), districts with the highest poverty rates also tend to have high levels of the other risk factors, and the opposite is true for districts with relatively low poverty rates.

For those indicators that are available at the county level—the incidence of low-birth-weight babies, teen births, child abuse and neglect, and out-of-home placements (see Table 1)—these same patterns hold, showing Coös, Carroll, and Sullivan counties with consistently higher levels of risk than Grafton, Hillsborough, and Rockingham counties. A similar county-level analysis of a somewhat different set of risk factors conducted as part of a needs assessment by the New Hampshire Home Visiting Task Force also showed that Coös County had the highest levels on the risk factors considered, along with Belknap, Stafford, and Sullivan counties.²²

Indicators of Need for Focal Communities

Considering these same indicators for our four focal communities reveals that—with the exception of Nashua, which tends to fall close to the statewide average—each of the school districts (or its associated city or county) has indicators showing higher risk levels relative to the state as a whole (see Table 4). Again, Coös County tends to have less favorable risk indicators, as do Claremont and Manchester. It is interesting to note that the White Mountains Regional school district in Coös County has school performance indicators—test scores and the graduation rate—that are close to or exceed the statewide average, despite having relatively high levels of some of the risk factors, such as the share of births to women in near poverty and the share of young children in single-parent families

Three additional indicators are included in Table 4 because they are available for larger cities (including Manchester and Nashua) and for counties (we use Sullivan County for Claremont): the prevalence of low-birth-weight births, teen births,

Table 4. Indicators of Need Statewide and for Four Focal Communities

Indicator	Statewide	Communities				
		Claremont (SAU 6)	Manchester (SAU 37)	Nashua (SAU 42)	White Mountains Regional (SAU 36)	Coös County
Birth outcomes						
Births to unmarried women (%)	31.9	78.6	40.4	29.3	33.3	61.9
Births to women with income below 100% FPL (%)	10.9	15.9	18.7	12.4	12.9	18.9
Births to women with income below 200% FPL (%)	23.4	34.1	36.2	26.8	39.1	40.1
Low birth weight births (%) ^a	6.4	7.0	6.7	7.4	–	5.3
Teen birth rate (per 1,000) ^a	8.7	12.4	26.0	15.5	–	16.0
Family demographics						
Children under age 5 in single-parent families (%)	25.5	43.8	36.2	33.7	37.3	36.6
Population age 5 and older speaking a language other than English at home (%)	7.8	4.1	19.8	21.1	3.8	11.6
Economic status						
Median income for families with own children under age 17 (\$)	87,894	57,944	60,764	82,696	59,025	55,159
Child poverty rate (ages 5 to 17)	9.1	17.8	18.2	11.7	11.9	17.3
Free and reduced-price lunch eligibility (%)	26.4	50.0	57.8	40.8	43.4	41.5 ^b
Education performance						
Proficient in reading, grade 3 (%)	54	45	28	47	49	40 ^b
Proficient in math, grade 3 (%)	55	42	30	52	58	38 ^b
Proficient in reading, grade 8 (%)	58	40	28	46	69	51 ^b
Proficient in math, grade 8 (%)	45	34	19	31	64	44 ^b
Four-year graduation rate (%)	89.0	78.5	76.6	87.8	86.3	92.4 ^b
Substance use						
Opioid age-adjusted death rate (per 100,000 persons) ^a	32.8	18.7	72.0	45.2	–	18.4

SOURCES: Appendix A data sources and interviews (available at www.rand.org/t/RR2955).

NOTES: See Table 3. The three additional indicators are for 2016.

^a This indicator is reported at the county or city level. For Claremont, the value is for Sullivan County.

^b This indicator aggregated by the author to the county level based on district data.

and opioid deaths. With a few exceptions, the focal communities face higher levels of risk relative to the state as a whole. The prevalence of speaking a language other than English at home is notably higher for Manchester and Nashua, but much lower in the more-rural school districts of Claremont and White Mountains Regional. The incidence of opioid-related deaths is up to two times higher in Manchester and Nashua than the state average and nearly four times higher in Manchester than in Sullivan County (Claremont) and Coös County.

PUBLICLY FUNDED HOME VISITING PROGRAMS

Evidence-based early intervention programs consist of varied strategies for working with at-risk families or all families universally, starting as early as the prenatal period and into the first few years of a child's life. These early intervention strategies share a common logic model—based on developmental science, neuroscience, psychology, and other fields—which shows that the experiences children have in early childhood and the resources available to them through their parents and other

caregivers, shape their developing brain architecture, which in turn affects their development in multiple domains: cognitive, social and emotional, behavioral, and physical.²³ Early intervention programs—whether focused on the parent(s), child, or both—seek to counteract the potentially detrimental effects of limited family resources, adverse childhood experiences, and other sources of toxic stress. Through varied strategies, such as improving parenting capacity through parent education and other supports and providing children with stimulating and supportive learning environments, early childhood programs are designed to provide families and their young children with access to resources and other supports, in the home or in settings outside of the home, to help them grow and thrive.

A 2017 RAND review of early childhood programs identified 115 programs that had been rigorously evaluated to assess their effectiveness in improving outcomes for participating children and their families.²⁴ The early intervention models included three main approaches: home visiting, parent education, and early learning (e.g., preschool or prekindergarten programs), as well as various combinations (e.g., embedding home visiting in a center-based preschool model). Overall, 102 of the programs

reviewed had evidence of favorable effects for participating children or their parents. This evidence base, along with economic analyses showing positive returns for effective programs, has provided a foundation for federal investment in home visiting through MIECHV and the state-funded investments referenced earlier in home visiting and other early intervention services.

Statewide Perspective

New Hampshire has had a long track record of investing in home visiting,²⁵ most recently using the Healthy Families America (HFA) model supported by a federal MIECHV grant (see Table 5).²⁶ The MIECHV Program allocates formula-based grant funds to states and territories to implement voluntary home-visiting models that seek to improve maternal and child health, prevent child abuse and neglect, advance positive parenting, and promote child development and school readiness. In New Hampshire, MIECHV is administered by the New Hampshire Department of Health and Human Services (NHDHHS) Maternal and Child Health Section (MCHS). HFA is one of the approved evidence-based home visiting

Table 5. Home Visiting Services Statewide and in Four Focal Communities

Program	Statewide	Claremont	Manchester	Nashua	Coös County
MIECHV HFA	7 agencies in 11 sites statewide; 291 adults and 249 index children served in 2016	TLC Family Resource Center	Waypoint	Waypoint	Family Resource Center at Gorham
CFSS contracts	8 agencies in 11 sites statewide; 393 prenatal women and children under 48 months served in 2016–2017	TLC Family Resource Center	Waypoint	Waypoint	Family Resource Center at Gorham
Early Head Start	3 agencies in 13 sites statewide; 385 Early Head Start slots funded in 2017–2018 (including Early Head Start–Child Care Partnership grants)	–	Southern New Hampshire Services, Inc.; 64 slots	Southern New Hampshire Services, Inc.; 54 slots	–
FRCs	14 centers across the state	TLC Family Resource Center	Waypoint; Easter Seals Child Development and Family Resource Center	Waypoint	Family Resource Center at Gorham

SOURCES: Author interviews and Community Health Institute and JSI Research and Training Institute, 2018.

NOTES: – = not applicable.

models under MIECHV and was selected for implementation in New Hampshire because of the flexibility of the model to tailor home visiting services to the needs of local communities. The model begins working with pregnant women, usually at-risk first-time mothers, and services continue until their child reaches age 3.

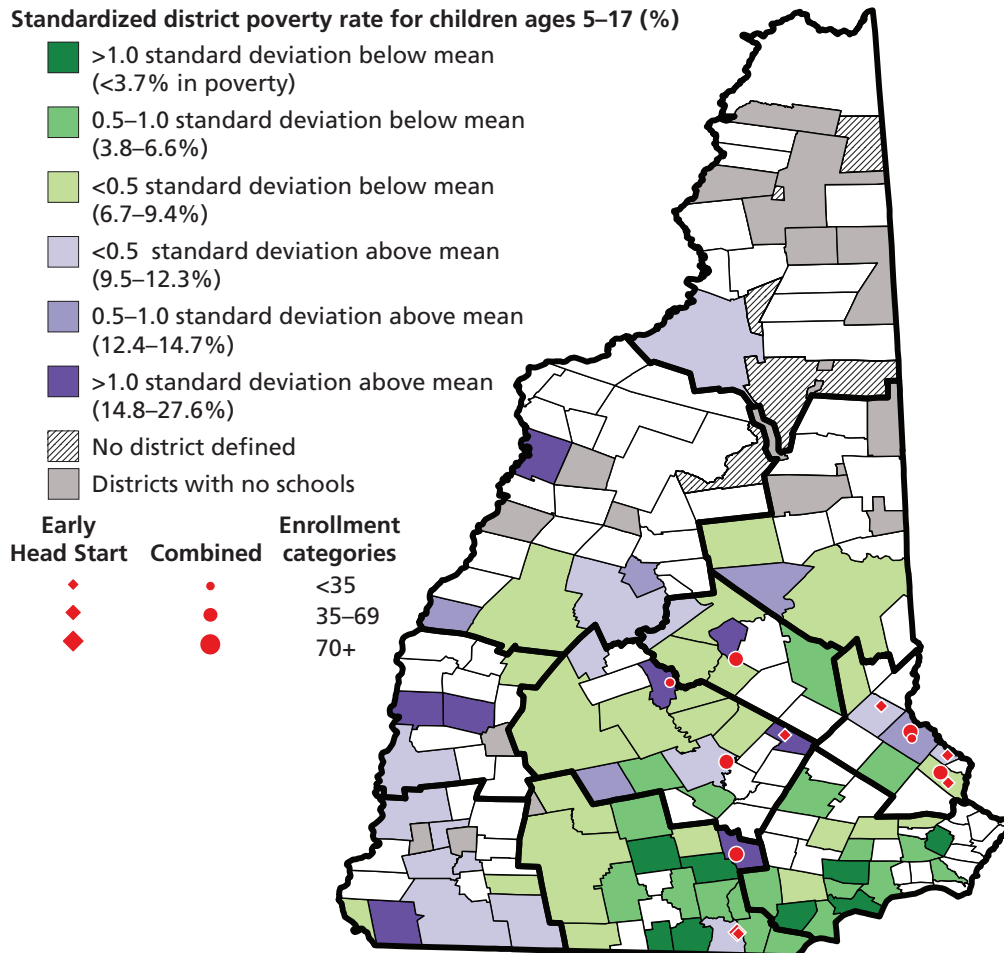
NHDHHS also operates a second home visiting program, with services offered from birth to age 21 under CFSS contracts, which encompass a variety of support services. This program, also referred to as Home Visiting NH, is administered by the Division for Children, Youth, and Families. The home visiting program under CFSS may extend until the child turns age 21. At present, the agencies offering both of these home visiting services operate in all ten New Hampshire counties.

Home visiting services for children prenatally to age 3 are also provided through the home-based option in Early Head Start. In the 2017–2018 fiscal year, Early Head Start grantees in

New Hampshire were funded to serve a total of 341 children and pregnant women, plus another 44 slots through an Early Head Start–Child Care Partnership grant. The home-based option was designated for 231 of the 385 slots. Ten of the total number of slots were funded for pregnant women to participate.

Early Head Start services are delivered through eight Early Head Start programs located in Belknap, Hillsborough, Merrimack, and Strafford counties, six of which are jointly provided with Head Start, while two other programs operate as stand-alone programs. Five other communities have the Early Head Start–Child Care Partnership program (see Figure 3). Early Head Start (and Head Start) programs are required to follow the federal Head Start Program Performance Standards.²⁷ In the case of home-based services, the standards specify the maximum case-load per home visitor (10 to 12 families) and the annual number and duration of the home visits (one visit per week for at least 90 minutes with a minimum of 46 visits per year).

Figure 3. Location of Early Head Start Programs and District Poverty Rate for Children Ages 5–17



SOURCE: Appendix A data sources (www.rand.org/t/RR2955).
 NOTES: The child poverty rate is for 2017.

In most communities, the HFA and CDSS home visiting services are provided by one or more FRCs, which also support other related support services for families with young children. (Some of those services may include a home visiting component.) This potentially allows for a more comprehensive set of services than what any given home visiting funding stream can support. At the same time, the programs are not necessarily following a specific evidence-based home visiting model or even a common model across FRCs.

Statewide service statistics indicate that about 1,100 families and their young children are served by the three home visiting models annually.²⁸ At the same time, estimates from the National Home Visiting Resource Center indicate that about 9,200 families in New Hampshire with young children face two or more risk factors and would potentially benefit from home visiting services.²⁹ Because of limitations on data access, it was not possible for us to map the location of the participating families and determine whether home visiting services in New Hampshire are concentrated in those communities where the need is greatest. Even without this information, given the potential need for home visiting services, it is evident that the current levels of funding are not sufficient to reach all families and children who could benefit.

Strategies in Local Communities

The four focal communities are included in this study in part because they are implementing the HFA model, and three of the four also have agencies providing home visiting services through a CFSS contract (see Table 5). In addition, Early Head Start programs that include home-based services are found in the two large cities, Manchester and Nashua, with enrollment of about 120 children in total. Further, each community has an FRC (Manchester has two), which are the agencies that deliver the HFA home visiting model, among an array of other family support services.

During our interviews with key informants in the four communities, we aimed to obtain a more complete understanding of the home visiting models implemented and the related services offered as part of the CFSS contracts and the FRCs. We also focused on the activities of the each community's community-wide partnership or coalition: the Claremont Learning Partnership, Project LAUNCH in Manchester, the Greater Nashua Smart Start Coalition, and the Coös Coalition for Young Children and Families. The discussions covered challenges and opportunities with these and other related

initiatives. In the discussion that follows, we highlight features of the home visiting services that were common across the four communities.

One-Stop Intake for Home Visiting Services

Across the four communities, home visiting services under HFA and other models are embedded within the same organizations, which allows for a more tailored approach to matching families to the programs that would best meet their needs. In Claremont, the TLC Family Resource Center (TLCFRC) delivers voluntary home visiting for families in Sullivan County and Lower Grafton County through both MIECHV and a CFSS contract. In 2016, the TLCFRC was the first in New Hampshire to receive a designation as a Family Resource Center of Quality (FRC-Q).³⁰ The FRC has its origin as Good Beginnings of Sullivan County, housed in Valley Regional Hospital with one paid staff member available to work with new mothers and their babies through a home visiting model. Along the way, national models such as the Parents as Teachers education program and HFA were added, the latter in 2011. More recently, the TLCFRC has incorporated periodic visits by a professional nurse into its service model. The FRC is now an accredited HFA program. By operating both the HFA home visiting model and offering home visiting services through the CFSS contract, the TLCFRC has the flexibility to deliver whichever program is most appropriate for the family's context. For example, first-time mothers would be more likely to fit the requirements for the HFA model, whereas a woman having a second or higher-order birth would be served under the CFSS contract. The center relies on the same sources of referral to identify potential participants for both home visiting programs.

As a rural county, the FRC in Coös County has two locations, plus satellite operations, to better serve the more widely dispersed families in the service area with both home visiting models.³¹ In delivering home visiting services, the FRC cross-trains its staff so that they can deliver any of the models they implement. Although this incurs additional expense, it is especially valuable in a rural community, where distances make it expensive to have home visitors specialize in one model or another. Because the FRC holds a variety of contracts, as well as grants and other fundraising (e.g., from foundations, other charities, and local businesses), it can prioritize certain groups of families for services (e.g., first-time mothers) but also have the flexibility to serve families who might fall outside of the targeted groups. Further, the FRC has the

resources to deliver more comprehensive strategies than what the HFA grant and CFSS contract support. For example, the FRC has adopted a universal approach to home visiting by offering an initial home visit for all families in their service area with a newborn baby. The visit is used to connect with families and identify who might benefit from additional services.³² The FRC also offers the Positive Solutions for Families parent education program.

A similar approach applies to Waypoint (formerly Child and Family Services of New Hampshire), which provides HFA home visiting services and services through a CFSS contract in Manchester for both Manchester and Nashua (among our focal communities). Waypoint also serves as the FRC in both cities. (Easter Seals Child Development and Family Resource Center operates as a second FRC in Manchester, although it does not deliver home visiting through either HFA or a CFSS contract.) Waypoint is now a fully accredited HFA site, and its program has grown to six full-time staff implementing the HFA model for a caseload of 15 to 18 families per home visitor. Waypoint includes a nurse home visit once per month as part of its model. Given the diversity of the community served by Waypoint, especially in Manchester, an area of emphasis has been improving the cultural competence of its home visitors through the FRC's multilingual staff and use of outreach materials in multiple languages.

A Broader Focus on Integrated Services

Given the multiplicity of potential needs for low-resource families with young children, the FRCs implementing home visiting in our four communities bring a broader focus on integrated services. Manchester is notable for being the New Hampshire pilot site for implementing Project LAUNCH (Linking Actions for Unmet Needs in Children's Health), an initiative of the federal Substance Abuse and Mental Health Service Administration (SAMHSA) and the NHDHHS.³³ With a public health lens, Project LAUNCH aims to advance the social and emotional wellness of children ages birth to 8. In New Hampshire, the program targets young children and their families, pregnant women, and immigrant and refugee families living below 185 percent of FPL. The program incorporates both family-strengthening supports and system-building efforts across mental and behavioral health, early childhood, and other child and family prevention and wellness services. One priority for Project LAUNCH in Manchester has been to increase the number of children with valid developmental screening, assess-

Box 1. Statewide "Watch Me Grow" Universal Screening and Referral Program

Recognizing the important of screenings to identify children with developmental delays, New Hampshire has moved toward a statewide common approach to early screening and referral. This involved identifying common screening tools—the Ages and Stages Questionnaire—Third Edition (ASQ-3) and ASQ-SE-2 (Social-Emotional, Second Edition)—and a database, Watch Me Grow, to track screenings, referrals, and other information; instituting training and technical support to ensure common provider implementation; and expanding the number of places where screenings occur to include child care centers, preschools, and medical practices. Descriptive data indicate increased screenings and referrals following implementation, but the system is still moving toward statewide implementation with fidelity. Initial support for the Watch Me Grow system came from federally funded state programs and the Endowment for Health.

SOURCE: Spark NH, *Promising Practices Guide*, 2018. As of January 10, 2019: http://sparknh.com/site/assets/files/2429/final_promising_practices_guide_05-18.pdf

ment, and referrals. This was accomplished using Watch Me Grow, a statewide initiative for universal child developmental screening, with an emphasis on social and emotional development (see Box 1). Project LAUNCH also spearheaded the use of the evidence-based Pyramid Model in two early care and education (ECE) sites where behavioral support staff worked with staff in the ECE programs.³⁴ The goal of the mental health consultation was to improve ECE staff's understanding of children's social and emotional development and provide the children with tools to increase positive behavior. Among the other services offered through Project LAUNCH is the Positive Solutions for Families, a parent education program drawn from evidence-based practices.

As another example, the Coös Coalition for Young Children and Families—with core support since 2009 from the Neil and Loise Tillotson Foundation (now part of the New Hampshire Charitable Foundation)—has had a dedicated effort to build a more integrated early childhood services system, connecting the FRCs, primary care and mental health providers, Head Start and other ECE providers, public school districts, higher education, and others to collectively address key issues in

supporting children's early development. Eventually forming as the Coös Coalition, the partners identified children's social and emotional development as an issue that cut across all of their objectives for supporting young children and their families. Through a strategic planning process and regular meetings, the Coalition decided to participate in the state's Watch Me Grow system to promote universal developmental and social and emotional screening. Shared training across the partners has been key for achieving buy-in and universal adoption. One aim has been to minimize the need for multiple developmental assessments, as children are often receiving services across multiple providers and organizations. By relying on a common system

and database, the need for duplication is reduced or eliminated. Further, tracking data show an increase in screening rates and referrals across the county.

With its priority on children's social and emotional learning, the Coös Coalition is also seeking to implement the Pyramid Model (see Box 2) using a community-based approach, where the model is implemented by those delivering services in all relevant settings and services such as home visiting programs, primary care, child care, and early education. A federal State Personnel Development Grant (SPDG) (also known as iSocial) has supported implementation of the Pyramid Model in other communities. The Coös Coalition is one of the community collaboratives across the state leading local implementation of the Pyramid Model as part of the FRC's home visiting program, along with White Mountains Regional School District and an ECE center in the county. The future agenda for the Coös Coalition includes adopting a common kindergarten readiness assessment and having a seamless system of early childhood supports and services across the county.

The FRCs also house various other services and support beyond home visiting, services that extend to older children and youth, as well as adults. The TLCFRC in Claremont, for example, offers a broad array of programs for children, youth, and families in its service area that may also benefit those receiving home visiting. These include resources for recovery from substance use disorder, including heroin addiction; comprehensive sexual health education; and developmental screenings as part of Watch Me Grow. Other initiatives of the TLCFRC include a support program for lesbian, gay, bisexual, transgender, queer, intersex, and asexual (LGBTQIA) youth; lactation support; parenting support classes; and parent-to-parent peer groups. This multiplicity of services characterizes the other FRCs in our focal communities. Because families with young children may also have older children, this array of services means that when FRCs provide early childhood service, they can also address other needs in the family. As a result, families often participate in multiple programs over time.

Box 2. Statewide Implementation of the Pyramid Model

In 2017, New Hampshire began statewide implementation of the Pyramid Model, an evidence-based approach for supporting the social and emotional development of children from birth to school entry. The model consists of universal practices to employ in working with all children (the base of the pyramid), as well as more targeted or intensive supports for children with persistent challenging behavior (the top of the pyramid). Implementation in New Hampshire included establishing a statewide leadership team, developing of a strategic implementation plan, preparing a cadre of training and technical assistance professionals, and putting data and evaluation systems in place.

The initiative has been supported by a \$3.9 million federal SPDG from the U.S. Department of Education. In addition to building state capacity to implement the Pyramid model, the funds support five competitively selected community collaboratives in the following regions: Central/Northern, Lakes, North Country, Seacoast, and Western. Partners in the collaboratives—such as home visiting programs, child care centers, and school districts—receive professional development and coaching on the Pyramid Model.

SOURCES: New Hampshire Department of Education, "Improving the Social Emotional Outcomes for Infants, Toddlers and Young Children," webpage, 2012. As of January 10, 2019: https://www.education.nh.gov/instruction/special_ed/isocial/index.htm; NH Preschool Technical Assistance Network (PTAN), "Pyramid Model," webpage, undated. As of January 10, 2019: <https://ptan.seresc.net/blog/social-emotional-development-resources>.

Challenges with Family Engagement and Staffing in Programs

One challenge for voluntary home visiting programs is getting families to enroll and then stay in the program, especially given the mobility of the population being served. Families may be affected over time by homelessness, substance use disorder, and interactions with the child welfare system, among other issues

that can affect the ability of families to maintain continuous engagement over time. In delivering the HFA model, the Coös County FRC reports that it is able to maintain services for 20 families, as funded. The FRC credits the use of reflective supervision and other best practices with helping to retain families in the program. At the same time, the population has become more transient because of the availability of low-cost housing in the area, attracting families from the southern part of New Hampshire and New England who are seeking to lower their cost of living. The center uses a variety of marketing strategies to identify and reach out to families who could benefit from home visiting services. This includes open houses, connecting with families through other services (e.g., Special Supplemental Nutrition Program for Women, Infants, and Children [WIC] programs), and offering other services to families without charge (e.g., by providing certified car seat installations).

In the case of the HFA program delivered by the TLCFRC, the program has a capacity to work with up to 19 mothers at a time, but staff reported that the actual caseload was typically around 10 to 15 mothers.³⁵ To promote enrollment in one of the TLCFRC's two home visiting programs, the center has adopted two new strategies. One is the Rocking Chair Project, which provides a glider rocking chair to new mothers who enroll in one of the center's home visiting programs. The other recruitment incentive involves providing enrollees with a cell phone with unlimited data so that participants can use apps, such as Vroom, that are designed to support child development (see Box 3).

As a result of the opioid crisis, Waypoint, especially in Manchester, is seeing more grandparents caring for babies. A grandparent support group has been established in both Nashua and Manchester to address the unique needs of these families and to encourage further use of services. At the same time, parents who receive addiction treatment from the local hospital or other providers may become ineligible for HFA if they age out of service eligibility during treatment. The FRC is also facing challenges in Nashua with meeting its goal for serving Spanish-speaking families.

Recruiting and retaining a high-quality staff is another key challenge mentioned by all the FRCs implementing home visiting. The TLCFRC in Claremont, for example, has made efforts to increase hourly pay rates, but the center cannot be fully competitive, especially because it cannot afford to provide health benefits for all staff, despite efforts to raise funds to support these and other quality-improvement initiatives. The FRC in Coös County is pleased with its ability to attract staff for its home visiting programs who are able to connect with families and support

Box 3. Vroom App for Promoting Children's Early Learning

Child Care Aware of New Hampshire (CCAoNH) was recently selected as one of ten child care resource and referral (R&R) agencies across the country to promote the Vroom cell phone app in collaboration with Child Care Aware of America and the Bezos Family Foundation, which has spearheaded the development of the app with input from early childhood experts. Viewed as a tool for family engagement, the Vroom app offers "brain building" tools and other activities for families to use in their daily interactions with their children to promote their development from birth to age 5. CCAoNH is disseminating Vroom as part of its R&R supports for New Hampshire families and its professional development training and technical assistance services to providers in the state.

SOURCES: Child Care Aware of New Hampshire, "Vroom," webpage, undated. As of January 10, 2019: <http://nh.childcareaware.org/vroom/>; Vroom, homepage, undated. As of January 10, 2019: <https://www.vroom.org>.

retention in the program. But, given the nature of the workforce in their county, it would be challenging to staff the FRC's home visiting programs if home visitors were required to have a four-year degree in nursing or another field.

Other Support Services for Families with Young Children in Focal Communities

As noted earlier, there are varied strategies for supporting young children and families in their early years beyond home visiting or preschool, which we take up next. Our focal communities are engaged in a variety of other initiatives to support families with young children, beyond home visiting models. Two such examples are:

- The Nashua United Way, in partnership with the Great Nashua Smart Start Coalition, holds an annual community Baby Shower to engage new parents with topics of interest. The daylong event offers multiple workshops and other activities designed to educate parents about their children's development and the array of community supports available to them.³⁶ Onsite child developmental screening is also available.

- A collaboration between the Claremont School District and Claremont Learning Partnership identified the need for a drop-in child care center to host play groups for parents and their children ages 0 to 5, as well as an afternoon teen homework space, including for pregnant and parenting teens who are at risk of dropping out of school. This led to the creation of the One-4-All Family Space, a no-fee licensed child care facility located near Claremont's middle and high schools. The same play space for the parent-child drop-in center in the morning is available during the afternoon for teen parents who are able to work on their homework in a dedicated room. A clothing closet is on site to ensure that young children and teens have access to season-appropriate clothing. The morning program has benefited families with young children residing in the local homeless shelter that was not open to them during the day, as well as other families in the community. The Family Space is entirely grant-supported, with funds from the SAU, Title I, and several foundations. The Claremont Learning Partnership is considering other areas of need that can be addressed through a collaborative effort. One such priority is transitional housing for homeless pregnant and parenting teens.

PUBLICLY FUNDED PRESCHOOL PROGRAMS: STATEWIDE PERSPECTIVE

The evidence for the effectiveness of early interventions extends to early learning programs, particularly high-quality preschool programs serving children one or two years before kindergarten entry.³⁷ Real-world programs implemented at scale in states and cities have been rigorously evaluated and shown to improve school readiness and subsequent school performance, including both programs that serve primarily at-risk children and programs made available to all children regardless of their circumstances. The state- and district-level programs that have been shown to be effective share common features that have come to define high-quality such as lead classroom teachers with a bachelor's degree and specialized training in early childhood; classrooms of up to 20 children staffed with a teacher and aid, hence a staff child ratio of 1-to-10; a well-defined and well-implemented evidence-based curriculum; and ongoing professional development and other supports for teachers to learn and improve their practice over time. As with other early intervention models, economic evaluations also show that effective one- or two-year preschool

programs can pay back the initial investment from improvements in both short- and longer-term child outcomes. RAND's 2017 analysis, with conservative assumptions, estimated a potential return of \$2 to \$4 from investing in a targeted one-year pre-school program in New Hampshire.³⁸

Although New Hampshire does not have a state-funded preschool program, there are publicly funded preschool options in the form of Head Start and district-funded preschool programs (see Table 6).³⁹ In addition, some private early learning programs may accept child care subsidies, making them more affordable (but not necessarily fully subsidized) for at-risk children.

Head Start

Head Start, with its origins in the 1960s War on Poverty, is a long-standing federally funded program serving 3- to 5-year-olds and their families in programs for one or two years prior to kindergarten entry. As noted earlier, Head Start programs must adhere to the federal Head Start Program Performance Standards which are designed to strengthen families and promote child development and school readiness. For center-based Head Start programs, the standards specify requirements for group size and the staff-child ratio, staff qualifications, curricula, screening and assessments, parent engagement, and other supports and services, such as a health services component and family and community engagement component.⁴⁰

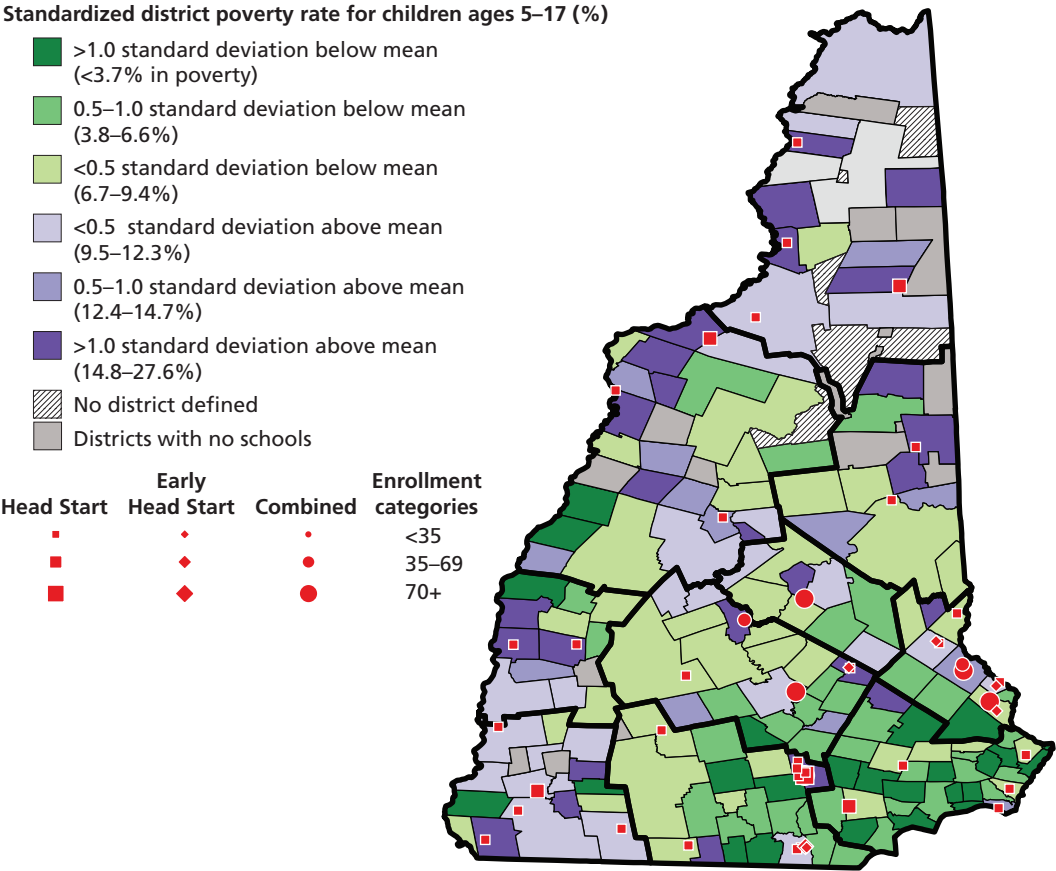
New Hampshire has five Head Start grantee agencies that have programs across 35 communities covering much of the state. Extensive community needs assessments are used to ensure Head Start sites are located where they can serve eligible children in the community and surrounding area. However, because the program is not fully funded to serve all eligible children, when sites are mapped onto school districts shaded based on their poverty rate (see Figure 4), it is evident that there are districts or clusters of districts with above average child poverty rates (purple shading) with no Head Start (or Early Head Start) program, especially districts in Coös, Carroll, and Grafton counties. In addition, a few Head Start sites are located in school districts with relatively low poverty rates (lightest green shading).

Table 6. Preschool and Other ECE Programs Statewide and in Four Focal Communities

Program	Statewide	Claremont	Manchester	Nashua	Coös County
Head Start	5 agencies in 35 communities statewide; 1,183 Head Start slots funded in 2017–2018	Southwestern Community Services, Inc.; 34 slots	Southern New Hampshire Services, Inc.; 199 slots	Southern New Hampshire Services, Inc.; 89 slots	Tri-County Community Action Program, Inc.; 113 slots
District-funded preschool programs and reported October 2017 enrollment	94 districts, enrollment of 3,876	1 district, enrollment of 50	1 district, enrollment of 351	1 district, enrollment of 276	6 of 11 districts, enrollment of 87
Licensed Plus ECE programs ^a	177	1	12	10	10
NAEYC-accredited ECE programs ^a	52	1	4	5	3

SOURCES: Author interviews and data sources in Appendix A (available at www.rand.org/t/RR2955).
^a The Licensed Plus and NAEYC-accredited programs may include the Head Start programs listed in the first row of the table.

Figure 4. Location of Early Head Start and Head Start Programs and District Poverty Rate for Children Ages 5–17



SOURCE: Appendix A data sources (available at www.rand.org/t/RR2955).
 NOTES: The child poverty rate is for 2017.

District Preschool Programs

Enrollment data for New Hampshire’s 154 elementary and unified school districts show that as of October 2017, 94 districts (61 percent) reported enrollment of at least one preschool-age child for a total enrollment of nearly 3,900 children (see Table 7). Further, district enrollment data indicate some increase in preschool enrollments in the past few years, a period of declining K–12 enrollment. Between the 2015–2016 and 2017–2018 school years, six more districts (on net) reported preschool enrollment, adding just over 200 children to the total.

Under the Individuals with Disabilities Education Act (IDEA), school districts are required to provide a free and appropriate education to children with disabilities who need special education and related services. Thus, some of the enrollment reported by districts will include preschool-age children with an Individualized Education Plan (IEP) receiving services under IDEA Part B in 3K or 4K programs. But our focal communities and other examples confirm that typically developing children are also enrolled as part of the mandate to serve children with IEPs in classrooms with typically developing peers for social development and an integrated curriculum.

Although the division of the state-level enrollment total by special education status is not reported, other data indicate that the total preschool enrollment figure is higher than what would be expected if these district programs served only children with identified special needs. Based on data from the U.S. Department of Education, we estimate that at least 2,200 and possible as many as 2,400 3- to 5-year-olds, not yet in kindergarten, were identified with special needs as of the 2017–2018 school year, with approximately 70 percent served in a regular (integrated) early childhood classroom or a separate classroom.⁴¹ If all identified special needs children are counted in the preschool enrollment figure, that leaves the remaining 1,500 to 1,700 children as an estimate of the preschool enrollment for their typically developing peers. If we count only the 70 percent of identified children with special

needs who are served in integrated or separate classrooms, the number of typically developing children enrolled in preschool would equal 2,200 to 2,300.

Using these statewide figures, we estimate the annual combined 4K enrollment rate for children with special needs and typically developing children. (See Appendix B at www.rand.org/t/RR2955 for details on the estimation method.) We use first grade enrollment two years later as the denominator, given that kindergarten enrollment rates are slightly below those for first grade. Thus, the 4K enrollment rate approximates the share of first grade students in the state who were enrolled in a district preschool program the year before they entered kindergarten (or two years before they entered first grade). Given uncertainties in the total enrollment breakdown by age, we produce a lower-bound and upper-bound estimate. For the state as a whole, this calculation suggests that, on average, about one in four first grade students were enrolled two years earlier in a district 4K program (see Table 7) as of the 2016–2017 school year. (A rate for 2017–2018 can be computed once first grade enrollment as of 2019–2020 is known).

Beyond the preschool enrollment count and counts of children identified with special needs, we know very little about the nature or quality of district 3K and 4K programs. This is because districts are not required to report this information, nor are there state standards regarding 3K or 4K program features as there are in other states, counties, or cities that use their own funds to support preschool programs in public schools and private centers. This leaves districts in New Hampshire with considerable discretion to design their preschool offerings. For example, we do not know the breakdown for New Hampshire of total district preschool enrollment by age or special education status. Thus, we cannot directly measure whether enrollment extends beyond children with special needs, especially for the 4K year. We do not know which enrollments by age or special education status are for part-day or part-week programs versus full-day, full-week programs. Anecdotal cases further indicate that at least some districts charge a fee to parents for

Table 7. District Preschool Enrollments, by School Year

Program	2015–2016	2016–2017	2017–2018
Districts with preschool enrollment (N)	88	91	94
District preschool enrollments (N)	3,670	3,894	3,876
Statewide estimated 4K district enrollment rate (%)	20 to 24	22 to 27	–

SOURCE: NHDoe enrollment data and author’s estimates. See Appendix B (available at www.rand.org/t/RR2955).

NOTES: Enrollment figures are as of October 1 in each school year. – = unable to estimate.

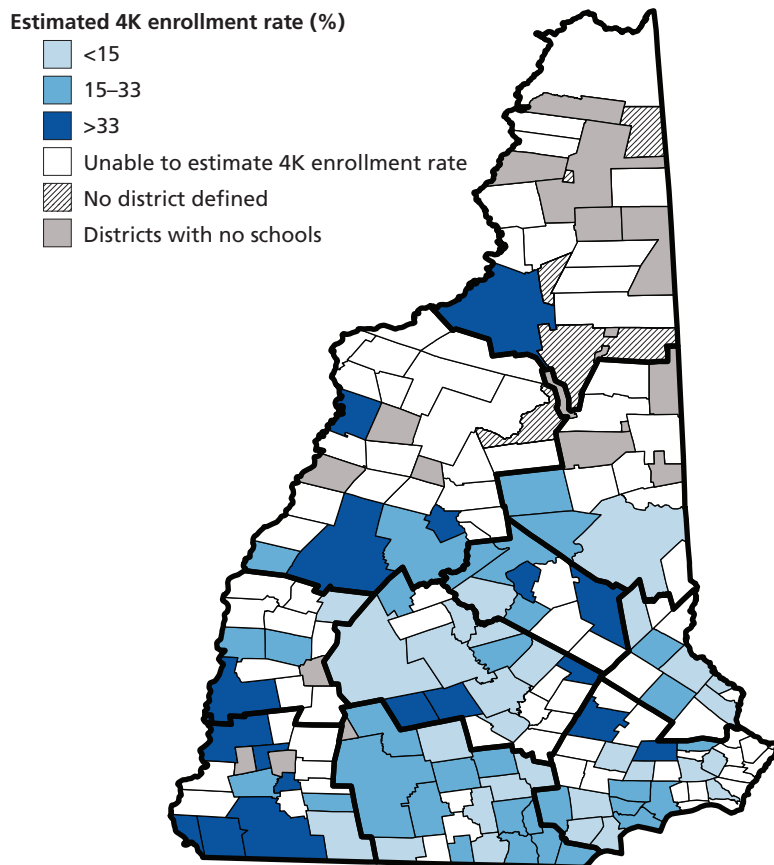
preschool enrollment of typically developing children, often a sliding-scale fee tied to family income, to help cover at least some of the costs of the district preschool program.

As noted, some districts report no preschool enrollment. Given the mandate to serve children with identified special needs, this may mean that no children were identified, that children with special needs were served in other settings, or that the district did not report enrollment for children with special needs. A comparison with district special education profiles reported by NHDoe for 2016–2017 confirms that the majority of the districts with no preschool enrollment had ten or fewer children with special needs in the same year.⁴² This includes many of the smaller districts based on total enrollment. Indeed, there is a relationship between district size and reporting preschool enrollment. For the 26 districts with total enrollment below 100, 11 districts (42 percent) reported preschool enrollment greater than zero. In contrast, 47 of the 52 districts (90 percent) with enrollment greater than 1,000 reported preschool enrollment greater than zero. The lowest rate of reporting preschool enrollment is for the districts with

enrollment from 100 to 400 students, where just 9 of the 40 districts (22 percent) reported preschool enrollment. Of the remaining 36 mid-size districts with enrollment of 400 to 1,000, 75 percent (27 districts) report preschool enrollment.

We replicated our methodology for estimating the state-wide 4K enrollment rate as of 2016–2017 for 69 districts with nonzero preschool enrollment and counts of the number of preschool-age children identified with special needs (see Appendix B at www.rand.org/t/RR2955).⁴³ Among districts where the enrollment rate can be estimated, the districts with higher 4K enrollment rates are found throughout the state (see Figure 5). Mapping the estimated 4K enrollment rate against the district poverty rate (see Figure 6) indicates that 4K enrollment is positive across the spectrum of districts based on their child poverty rate. In other words, it is not the case that higher rates of 4K enrollment (i.e., a larger red circle in Figure 6) are mostly found in districts with higher poverty rates (i.e., darker purple shading) as would be the case if districts with the highest poverty rates had the resources to boost 4K enrollments. Nor is it the case the higher 4K enrollment rates are mostly found in more

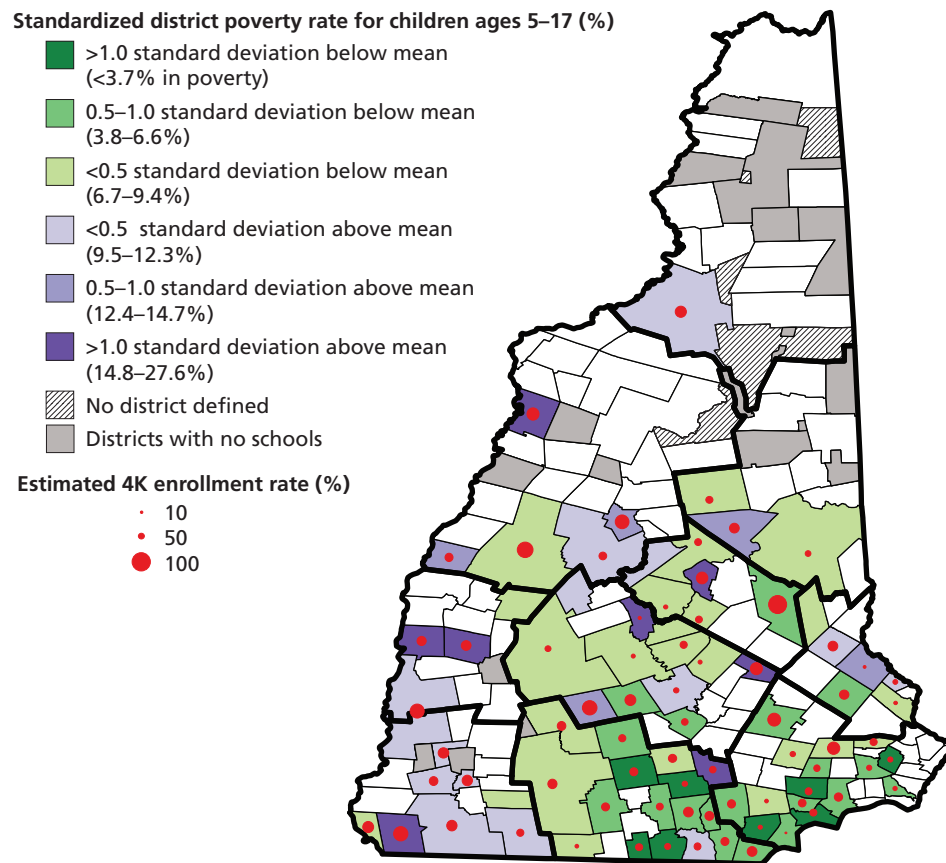
Figure 5. Estimated District 4K Enrollment Rate



SOURCE: Appendix B enrollment rate estimation method (www.rand.org/t/RR2955).

NOTES: The estimated 4K enrollment rate is for 2016–2017.

Figure 6. Estimated District 4K Enrollment Rate and District Poverty Rate for Children Ages 5–17



SOURCE: Appendix A data sources and Appendix B enrollment rate estimation method (www.rand.org/t/RR2955).

NOTES: The estimated 4K enrollment rate is for 2016–2017, and the child poverty rate is for 2017.

economically advantaged communities that might be expected to have the resources to invest in district 4K programs.

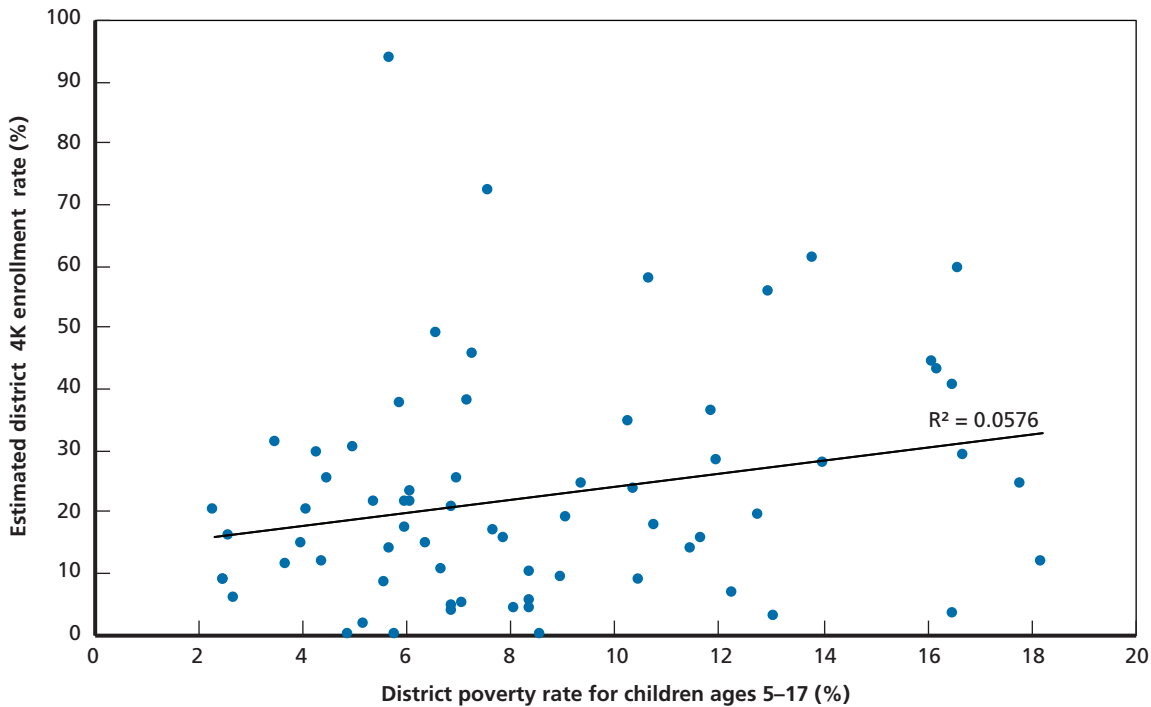
Indeed, as illustrated in the scatterplot in Figure 7, there is almost no correlation between the district poverty rate and the estimated 4K enrollment rate for the districts where this comparison can be made.⁴⁴ Further, given the evidence that high-quality 4K programs can improve academic performance,⁴⁵ districts with lower performance indicators might seek to increase 4K enrollments. Yet, the estimated 4K enrollment rate at the district level is not correlated with district rates of proficiency in reading and mathematics as of grades 3 or 8 nor with the high school dropout rate. This indicates that that current enrollment in district-funded preschool programs is not aligned with the districts where children are most at risk of poor school performance (as indicated by the poverty rate) or with those districts where student performance indicators are below average and thus increased preschool attendance could improve academic performance. This suggests that there is scope for expanding preschool access in a strategic fashion, focusing on those dis-

tricts with the greatest need—as measured by indicators such as the child poverty rate or student performance on statewide assessments—but with current low rates of enrollment.

Private Early Learning Programs

In addition, to Head Start and district-funded preschool programs, licensed private home- and center-based child care and early learning programs also serve 3- to 5-year-olds prior to kindergarten entry, some in programs that provide high-quality learning environments (see Table 6). At present, information is not systematically collected from each licensed provider to record annual enrollments of preschool-age children, along with various program features (e.g., hours per week, weeks per year) and indicators of program quality. Children who received Child Care Scholarship subsidies can be linked to the provider(s) where they receive care, but children who are not receiving subsidies are not tracked to know about their early learning program enrollment. Further, children may be partici-

Figure 7. Scatterplot of Estimated District 4K Enrollment Rate Versus District Poverty Rate for Children Ages 5–17



SOURCE: Appendix A data sources and Appendix B enrollment rate estimation method (www.rand.org/t/RR2955).

NOTES: The data are for 69 New Hampshire districts where the 4K enrollment rate could be estimated. The estimated 4K enrollment rate is for 2016–2017 and the child poverty rate is for 2017.

participating in more than one subsidized program, for example, both Head Start for a part-day program and a Child Care Scholarship for the remainder of the day or both a district-funded part-day program and a Child Care Scholarship. New Hampshire's data systems do not readily allow creating a unduplicated count of children being served across these programs.

At the provider level, there is limited information about program quality. As of December 2018, 177 programs were designated as Licensed Plus statewide, the second-tier quality designation under New Hampshire's current quality rating and improvement system (QRIS). This represents about 26 percent of the number of licensed center-based programs in the state.⁴⁶ However, Licensed Plus status indicates that a program has been evaluated against eight domains of quality based on a document review,⁴⁷ no observational assessment of quality is made, a common requirement to reach high-quality tiers in other state QRISs.⁴⁸ A third tier of quality is to receive national accreditation. As of December 2018, 53 ECE programs in New Hampshire had been accredited by the National Association for the Education of Young Children (NAEYC), the premier national accrediting organization for early childhood programs. These programs have undergone a more extensive assessment of quality

based on a set of high standards. They represent about 8 percent of all licensed centers and total enrollment in these programs is not tracked for preschool-age children on an annual basis.

In sum, at least some of the private programs are providing publicly subsidized high-quality preschool for their enrolled children, but the number of additional children served beyond those in Head Start and district programs is not readily known. Further, because Child Care Scholarship funds are not an entitlement, funding is not sufficient to reach all income-eligible children. In fact estimates indicate that at most one in five 3- and 4-year-olds who meet the income requirement receives a child care subsidy.⁴⁹ Those who receive a Child Care Scholarship may not be fully subsidized, as many families still face parent co-pays and provider fees to make up for the difference in the provider's fee rate and the reimbursement they receive from the Child Care Scholarship program. These fees may be unaffordable for some families or consume a large share of their budget.

PUBLICLY FUNDED PRESCHOOL PROGRAMS: FOCAL COMMUNITIES

Our four focal communities were selected, in part, because they already have district-funded preschool programs. Each has Head Start as well. Interestingly, with the exception of Coös County, each community had a greater number of preschool-age children enrolled in district-funded preschool programs as of 2017 than in Head Start (see Table 6). The communities also have some higher-quality private options, as indicated by the number of providers with Licensed Plus status and NAEYC accreditation.

In collecting information from key informants in the four communities, one interest was in learning more about the history and nature of each district’s preschool program, because information on the features of these programs is not systematically collected. We further aimed to understand the reach of district programs, current challenges, and the opportunities for further expansion. We also obtained information, where relevant, on other initiatives that pertained to early learning programs, more generally. In the discussion that follows, we focus on a series of key aspects of these local preschool offerings and related programs. Information about the district programs is summarized in Table 8.

Evolution from Special Education to Inclusive Preschool Classrooms

For the most part, the preschool programs in the four districts evolved over time, from an initial focus on serving children with special needs to more broadly serving children in the community. For example, the Manchester School District, the state’s largest, has had a district-provided preschool program since 1980, originally exclusively for children with special needs and funded by IDEA. By 1991, the district began enrolling typically developing children and served children in integrated classrooms. The number of children served continued to increase over time. As of October 2017, the district reported to NHDoE preschool classrooms in 7 of 14 elementary schools, for a total reported enrollment of 351 students.⁵⁰ The district serves 3- to 5-year-olds with special needs in integrated 3K and 4K classrooms, along with 4- to 5-year-old typically developing children in the 4K classrooms. The Nashua School District has also had a long-standing commitment to early education for children with special needs and typically developing children. Indeed, the district’s program, known as Play Pals, has served as a national demonstration site for inclusive preschool education since 1989.

In the case of Claremont Preschool Center (also known as the Claremont Early Childhood Program), the preschool classrooms moved out of their home in Maple Elementary as of the 2016–2017 school year, where there were two self-contained special education preschool classrooms. Its current

Table 8. Features of District Preschool Programs in Four Focal Communities, 2017–2018 School Year

Indicators of Need	Claremont	Manchester	Nashua	White Mountains
	(SAU 6)	(SAU 37)	(SAU 42)	Regional School District (SAU 36)
Reported pre-K enrollment (October 2017)	50	351	276	51
Number of sites with pre-K classrooms				
Number of stand-alone centers	1	0	1	0
Number in elementary schools	0	7 of 14	5 of 12	2 of 3
Number in high schools	0	0	1	0
Ages of children enrolled				
Children with special needs	3K and 4K	3K and 4K	3K and 4K	3K and 4K
Typically developing children	3K and 4K	3K and 4K	4K	4K
Classroom size	12	16	–	15
Program hours and days	Part-day and part-week	Part-day or full-day and part-week or full-week	Part-day and part-week	Part-day and part-week
Families pay sliding scale fee	No	No	Yes	No

SOURCES: Appendix A data sources and interviews (available at www.rand.org/t/RR2955).

NOTES: – = not available.

facility (shared with the Sugar River Valley Regional Technical Center) has three early childhood classrooms, serving both 3- to 5-year-olds with special needs and typically developing children of the same ages. With capacity up to 72 children, if the enrollment is evenly divided between 3K and 4K children, the preschool program would reach about 28 percent of the combined fall 2018 kindergarten and first grade class with 130 students in each grade (72 divided by 260). Together with the Head Start enrollment of 34 in the 3K and 4K year, the two programs combined can serve about 40 percent of an entering kindergarten or first grade class. If the 4K group is more than half of the enrollment in either the district preschool or Head Start, the 4K enrollment rate would be even higher.

Finally, the White Mountains Regional District had been operating self-contained preschool classrooms since the 1990s for special education students with an IEP. Around 2010, recognizing that best practice for special education services was integrated classrooms, the district began enrolling typically developing children, a move widely supported by the district and community. The resulting integrated classrooms usually have 30 to 40 percent of enrollment consisting of special education students. There is no income-eligibility requirement for the non-special needs children. As of October 2017, two of the three elementary schools in the district housed one preschool classroom each, for a total enrollment of 51 children. With a first grade class of about 70 students, the pooled enrollment rate for 3K and 4K would be about 36 percent (51 divided by 140). Heading into the 2018–2019 school year, the smallest of the three elementary schools (the one without a preschool classroom and declining enrollment) was closing. The two other schools would continue to offer one preschool classroom at each site.

High-Quality Structural Features

The district programs have structural features—teacher qualifications, class size, ratio of teachers to children—consistent with standards for high-quality programs. For example, as public schools, all lead preschool classroom teachers are certified, many with training in special education. Across the four districts, the preschool rooms all have at least two classroom staff: a lead teacher and an assistant. The program at Claremont is even more staff-intensive, with each classroom staffed with a state certified early childhood special education teacher and two paraprofessionals. The maximum class

size ranges from as few as 12 in Claremont to as many as 16 in Manchester. These program features for teacher qualifications, class size, and teacher-child ratio are all consistent with the standards for high-quality preschool enumerated by the National Institute for Early Education Research⁵¹

Part-Time Programs for Lower Cost and Extended Reach

With the exception of Manchester, all of the district-based programs operate with a part-day schedule, and often for only part of the week (two, three, or four days per week) (see Table 8). For example, in the case of the Claremont program, classrooms operate with a morning session for three days per week and an afternoon session for four days per week. With the exception of the stand-alone preschool center, each Nashua school-based site operates a part-day (2.5 hours), part-week (three days) program. Morning sessions are for the 3K program, while 4K children attend the afternoon session. The Nashua Title I stand-alone center operates a single morning session for 3.5 hours per day and five days per week. Manchester sites operate half-day programs (about 2.5 hours per day) for two, three, four, or five days per week, as well as full-day (5 hours) programs that operate four or five days per week.

The dominance of part-day and part-week programs across the four focal communities means that these 3K and 4K programs operate at a lower cost per child, which may be of necessity given funding constraints. Further, by running two sessions a day, a greater number of children can be served. At the same time, many working parents prefer programs that offer longer hours per day and more days per week. Or they need assistance with transportation as a result of the part-time schedule (discussed later). One concern when school districts consider expanding full-day 3K or 4K options is possible competition with private providers. For example, expansion of publicly subsidized full-day preschool spaces in public schools may reduce enrollments in private center-based programs. However, as in most state-funded preschool programs, publicly subsidized preschool can be implemented using a mixed delivery model such that children may enroll in school-based sites or private center-based sites, an approach that may even increase enrollment in private centers if the program is subsidized and the reimbursement levels are sufficient to support a high-quality program in a private center-based setting.

Varied Use of Facilities

The preschool programs in the four focal communities have different configurations regarding the sites where the preschool classrooms are located. In most cases, the preschool rooms are part of an elementary school, although not every elementary school in the districts we examine had preschool classrooms. Nashua's preschool offerings include a site at one of the district high schools that is used for field experience for high school students attending the Careers in Education program through the Nashua Technology Center.

Exceptions to the school-based sites are the use of a stand-alone center in Claremont and one stand-alone Title I center in Nashua. In addition, the Manchester district, through a partnership with Head Start, provides space at one of its elementary schools—one that otherwise does not have a preschool room—for the Head Start program to use. The Manchester district also pays for some special needs children to attend preschool programs operated by three private early childhood centers.

Multiple Sources of Funding from the Public and Private Sectors

Districts have been drawing on multiple funding streams for their preschool programs, largely federal IDEA Part B or federal Title I funds, as well as district general funds. In some cases, external funding has also been received. The Claremont Preschool Center, for example, supports its preschool center with funds for special education and district general funds. Claremont is a Title I district, but those funds have not been allocated for preschool classrooms in the past. (Title I funds have been used to support a full-day summer program for entering first graders who struggled in kindergarten, along with other educational supports in the Claremont elementary schools.)

The director of the Claremont Preschool Center has been particularly successful in raising private funds and in-kind donations (e.g., from foundations and local businesses) to add features that enhance program quality, such as a Sensory Room, a safe and accessible playground area and playground materials, and staff trainings. The Sensory Room, in particular, grew out of a desire to provide a setting that would accommodate children's need for a physical space that allows them to explore various senses, an approach that is therapeutic for children with an array of special needs. Funds were raised expressly for the purpose of preparing and equipping the room, which now serves as a model for other school districts across the state.

Manchester's preschool program is largely supported with federal Title I monies and local district funds, although a small amount of federal IDEA dollars support the program as well. (A small number of families pay a modest fee.) Funding for the White Mountains Regional preschool classrooms is integrated into the overall budget for each elementary school, with no line item for the preschool classrooms. Federal grant funds through IDEA Part B contribute toward the costs of specialized resources for children with IEPs. Title I funds are used for expenditures for the district's long-standing full-day kindergarten program, but not for preschool.

Nashua is an interesting model for charging a sliding scale fee for its preschool program. As of the 2018–2019 school year, tuition is \$90 per month for children in families that qualify for a free or reduced-price lunch (i.e., families with incomes less than 185 percent of the FPL) and \$180 per month otherwise. Free tuition may be granted when justified. Placements are made based on a lottery that honors the parents' location preference until sites reach full enrollment. Reported total enrollment reached 276 students as of October 2017.

Supporting Attendance and Continuous Enrollment

A common concern with preschool programs across the country is the high rates of chronic absenteeism.⁵² In Claremont's program, for example, the number of children in attendance fluctuates throughout the year because of the contingent of homeless children and children experiencing other instabilities in their lives. To facilitate participation, the program provides transportation to and from the center for all children (rather than just those with special needs, as required by IDEA), as well as meals and other services (e.g., dental checks) to support the whole child.

Barriers to Expansion

Ultimately, districts reported that program expansion is constrained by facilities, workforce, and funding. Manchester district staff, for instance, noted that new classrooms would require expensive retrofitting to be suitable for preschoolers. In a more rural community such as Claremont, a consideration is the available opportunities for local residents to obtain the required education and training to qualify as a state certified teacher in the public school system. The state's 11 community college campuses are distributed across the state, but there

are fewer public colleges and universities that offer a four-year degree in early childhood and teacher certification. Private colleges are another option, but the costs may be prohibitive for individuals in the current ECE workforce or prospective workforce members, especially in the state's low-income communities. Finally, for all districts, without a dedicated source of funding beyond federal Title I and IDEA, districts are limited in their ability to expand the current preschool offerings in a way that would be sustainable.

Other Initiatives

With the goal of continuing to improve quality and to meet the needs of the children served, the four focal districts have adopted several specific strategies for their preschool programs. As one example, the Claremont School District has been a participant in the state's iSocial initiative since 2015; the initiative focuses on improving the social and emotional development of preschool-age children with disabilities using the Pyramid Model (see Box 2). Guided by a five-year State Systematic Improvement Plan, the Claremont Preschool Center has engaged in activities to build infrastructure, improve program quality, and add staff and support their professional development. Manchester is also considering adopting the Pyramid Model to strengthen its social and emotional learning component.

On behalf of the Coös Coalition for Young Children and Families, the White Mountains Regional District is the sponsoring SAU for one of the five NHDoe SPDG Community Collaboratives (discussed earlier in the context of home visiting). The Pyramid Model provides the overall guiding framework for a focus on social and emotional development in the preschool classrooms, as well as a transition to a more rigorous evidence-based curriculum. The district was also selected to be part of the Substance Abuse and Mental Health Services Administration's (SAMHSA's) System of Care approach, which provides a framework for developing a coordinated network of community-based services and supports design to meet the physical, mental, social, emotional, educational, and developmental needs of children and their families. ECE is one of the focal areas, and the district has developed a set of intensive wraparound services to address preschool-age children at risk of being expelled from a public or private preschool program because of mental or behavioral health issues.

Another novel initiative at White Mountains Regional, developed in collaboration with the Coös Coalition for Young Children and Families, is known as SAU 36 Connects. Start-

ing in December 2017, monthly or bimonthly meetings have brought together leaders and practitioners from early intervention services, private ECE providers, Head Start, and public school preschool programs to discuss issues of mutual interest, such as staff training and professional development, child developmental screenings, and the transition from preschool to kindergarten, among other critical topics. Community connections are also being fostered through a planned annual spring preschool fair that will bring parents of preschool-age children together with the range of school- and community-based providers, as well as medical providers, to raise awareness of parent options (including options for those who need full-day care) and to register children for programs in the following fall.

A number of other initiatives in our focal communities demonstrate the wider array of initiatives related to early learning in New Hampshire. Examples include:

- In addition to the Coalition, Coös County is also home to the Coös County Director Network, composed of directors in about a dozen private ECE programs in the Berlin, Colebrook, Gorham, Groveton, and Lancaster areas. The network provides a learning community for the directors themselves to focus on quality program implementation. As members of the Coös Coalition for Young Children and Families, the Director Network also aims to integrate their ECE programs into the larger county network of comprehensive services and supports for children from birth to age six and their families.
- The Coös Coalition for Young Children and Families and Greater Nashua Smart Start Coalition has been promoting the use of the Vroom app as part of its family engagement activities (see Box 3).

Initiatives are also under way in other parts of the state or statewide that pertain to preschool and other early learning programs. This includes bringing expanded preschool to a vote (see Box 4), ensuring a smooth transition from preschool to kindergarten (see Box 5), and adopting a shared services model to reduce the cost for private home- and center-based providers to deliver preschool services (see Box 6). These cases illustrate varied practices that may serve as models for other communities.

Box 4. A Community Votes for Universal 4K

In March 2018, voters in Bartlett, New Hampshire, approved a ballot measure to convert a private preschool operating on Josiah Bartlett Elementary School (a Title I school) into a public 4K program for both children with special needs and typically developing children. Bartlett was the first school district to offer full-day kindergarten, and now it appears it is the first in the state to offer district-funded 4K for all children in the district. The small district expects to enroll 18 to 29 students in the first year for a 6-hour-per-day program. The district expects to spend about \$7,500 per student.

SOURCE: Lloyd Jones, "Bartlett Overwhelmingly Passes Integrated Preschool," *Conway Daily Sun*, March 7, 2018. As of January 10, 2019: https://www.conwaydailysun.com/news/local/bartlett-overwhelmingly-passes-integrated-preschool/article_bc7b01da-2244-11e8-8a2f-ef5c03cf8cb0.html.

Box 5. Somersworth Ready Together

Somersworth Ready Together! (SRT)/Early Childhood Coalition is one of the state's regional initiatives to support early childhood development. With funding from the United Way of the Greater Sea Coast and the New Hampshire Charitable Foundation, a major focus of the initiative is engaging families as part of early learning programs. One example of the initiative's approach is to support the transition to kindergarten by having teachers conduct a home visit prior to the start of the kindergarten year. These visits provide individualized attention to concerns about entering kindergarten on the part of children and their families. Teachers are offered a stipend for the additional workload.

SOURCE: Somersworth Ready Together, homepage, undated. As of January 10, 2019: <http://somersworthreadytogether.org/>; United Way of the Greater Seacoast, "This Somersworth Program Is Changing the Playbook on Kindergarten Readiness," 2017. As of January 10, 2019: <http://www.uwgs.org/2017/09/06/somersworth-program-changing-the-playbook-on-kindergarten-readiness>.

Box 6. State Early Learning Alliance Shared Services Model

With support from the United Way of the Greater Seacoast, the New Hampshire State Early Learning Alliance (SELA) has instituted a shared services model for center- and home-based ECE programs to strengthen their business practices, improve quality, and realize savings on critical services (e.g., commercial insurance) through the combined buying power of the SELA members. Savings may then be directed toward services that directly benefit children in the program. SELA maintains a web-based platform with resources for members.

SOURCE: United Way of the Greater Seacoast, "New Hampshire State Early Learning Alliance," webpage, 2017. As of January 10, 2019: <http://www.uwgs.org/sela>.

INSIGHTS FROM THE FOCAL COMMUNITIES REGARDING LOCAL INVESTMENTS IN EARLY CHILDHOOD PROGRAMS

The prior discussion demonstrates that the four focal communities have approached investing in early childhood at the local level in varied ways. Despite their differences, a number of commonalities stand out, both in the strategies they employed and in the ongoing challenges they face.

Promising Strategies

A synthesis of the results of our interviews with local and state key informants and other information we collected point to a number of promising approaches that could be adopted in other communities seeking to expand early childhood programs. We highlight three strategies in particular:

- **Combining universal strategies with targeted approaches.** The offer of an initial home visit to all families with newborns—one of the strategies employed in Coös County—and the movement toward universal developmental screening through Watch Me Grow are based on the recognition that developmental delays may affect any child, regardless of their background. Children identified as facing potential challenges based on a universal home visit soon after birth or a universal screening are

then referred to the specialized services to meet their needs. For preschool-age children, the mandate to serve children with special needs in the “least restrictive environment” has reinforced the use of inclusive classrooms for preschool-age children, and therefore the enrollment of typically developing children in classroom with their special education peers. Again, the children with special needs may receive specialized services that meet their particular developmental needs. This approach of combining universal and targeted services broadens the group of children and families who could benefit from early childhood programs, raises the likelihood of community-wide support for the programs, and reduces the stigma that can be associated with participating in targeted programs.

- **Institutionalizing collaboration across birth-to-5 service areas.** The work of the Coös Coalition for Young Children and Families is illustrative of the collaborative approach to strengthening early childhood systems by building opportunities for leaders and practitioners in the same community to work together and advance their respective services in a coordinated, high-quality fashion. However, it can be costly in terms of time and other resources to build bridges across agencies and organizations, and it can be challenging to sustain a collaborative once it is in place. For example, the Greater Nashua Smart Start Coalition had high levels of participation in the early planning phase, but it could not sustain the same level of engagement more recently in moving toward implementation of the identified initiatives. This reflects the underlying need for funding to support the leadership team and offset some of the costs for participating members, both in the planning stage and even into implementation. Once initiatives become institutionalized, such as performing a developmental assessment as part of routine services, there may be less likelihood that a new practice is eventually abandoned should the funding come to an end.
- **Leveraging multiple resources in the public and private sectors.** In most cases, the home visiting services, preschool programs, and other early childhood services being provided in our focal communities relied on multiple sources of funding from both the public and private sectors. The FRCs, for example, had multiple sources of government funding. District preschool programs often tapped federal and local public funds. Members of the Coös Coalition for Young Children and Families and outside observers credit the multiyear core funding from the Tillotson Fund,

which has supported coalition leaders and partner organizations, as a critical factor in the progress that the county has made in moving toward a well-integrated and supportive early childhood system. Government funding for Project LAUNCH provided a similar influx of resources to support planning for and implementing new initiatives in Manchester. Even modest amounts of funding from charitable organizations and the business community can support incremental improvements in program services. Thus, in addition to public-sector funds, there is a role for philanthropy or other forms of private funds for supporting add-on services or core support beyond what the publicly funded programs can offer, building infrastructure to support a well-integrated early childhood system, and helping to scale up successful local models. These uses of private funds can leverage the public monies and further strengthen the system without duplicating efforts.

Beyond this set of tactics that have helped to support the local initiatives we reviewed, the important role played by program and community leaders also stands out as a critical success factor. In the four communities, individual programs, as well as cross-cutting initiatives, were all supported by strong leaders in various roles—executive directors, district superintendents, school principals and assistant principals, program directors, and others—who were dedicated, creative, resourceful, and inspired to implement programs to benefit young children and their families. At the same time, attracting and retaining talented leaders can be a challenge, especially in more-rural parts of the state, where the issues facing families are more complex and the available resources to address those issues may be more limited. High rates of turnover in leadership positions in some communities may hamper the ability to build and sustain strategic initiatives, as well as the quality of the services children and families receive. Recognizing the importance of leadership suggests that workforce development in the early childhood sector needs to go beyond program staff to include a focus on identifying and supporting the pipeline of talented leaders through education and training, professional development, on-the-ground experience, and appropriate compensation.

Common Challenges

Given our focus on four focal communities with a high incidence of at-risk children, it may not be surprising that there are

also commonalities in the challenges they face as they implement early childhood initiatives on a local level:

- **Engaging children and families in programs.** The families and children who can benefit most from early childhood programs are, by definition, vulnerable populations that may be the most challenging to engage with the program. Some may be wary about participation in a program given past experiences with the social services system or may feel stigmatized if they are singled out for services. This calls for concerted efforts and creative strategies to identify and enroll families who can benefit from early childhood programs and support their ongoing participation to ensure the maximum possible benefits. Because risk factors are likely to persist throughout early childhood, it is also important to facilitate the transition from one early childhood intervention to another (e.g., from a home visiting program to a high-quality early learning program) to ensure participation in a continuum of services during the early childhood years.
- **Recruiting and retaining qualified program staff.** In addition to the critical role of program leaders, program staff, such as home visitors and preschool classroom teachers, are a critical factor in a program's quality and impact. Thus, it is important to address difficulties with recruiting and retaining the qualified staff needed to implement early childhood programs. Workforce development is a larger system-level issue that requires assessing the location and features of postsecondary certificate and degree programs across the state, the cost to individuals to obtain the required training, the ability to recoup that investment through adequate compensation, and the working environment for those providing services, including opportunities for professional development. Failure to address these workforce-related issues may hamper local efforts to expand programs or improve their quality.
- **Addressing potential displacement of services.** The collaborative approach to building early childhood systems may lessen competitive forces, but it will not preclude possible displacement of services as early childhood programs expand or change their program structure. This is potentially most relevant when expanding district-based preschool programs, either in terms of the number of slots overall or in moving toward full-day programs. Many stakeholders in a community place a value on having a diversity of service options for families to choose from, given their diverse needs and preferences. Thus, with any efforts to expand school district 4K or 3K programs, the potential for displacement should be considered at the planning phase, and strategies for mitigating adverse consequences put in place.
- **Need for appropriate facilities.** Because of the nature of home visiting services, the issue of the availability of appropriate facilities is less salient. For preschool programs, having high-quality indoor and outdoor space is essential. Dedicated funds to support expansion of preschool facilities can overcome barriers facing individual school districts or private ECE providers who seek to expand their programs. Facility investment funds may be more challenging to establish at a local level but could be a regional or state-level resource.⁵³
- **Using evidence.** Starting with evidence-based programs or proven program models is a first step toward implementing high-quality and effective early childhood interventions. However, what works in one community may not translate to the same level of effectiveness in another community depending on the population served, the broader system of early childhood supports, and other factors. As part of program implementation, it is important to track program process measures to ensure adherence to the proven model approach or to documented best practices. Ideally, once fully implemented, programs would undertake rigorous evaluation to confirm that the program is having its expected impacts and that any local refinements to an evidence-based model are consistent with producing the desired program outcomes.
- **Building useful data systems.** Local initiatives focused on expanding home visiting, preschool, or early childhood systems more broadly have a need for efficient and informative data systems to track progress in implementation, monitor quality and fidelity to evidence-based models, and measure their results. It is challenging for any one community to have the resources to develop and maintain such data systems in one area (e.g., home visiting), much less to have a system that is integrated across the full array of early childhood programs. For this reason, data systems are best viewed as a statewide resource that can facilitate common metrics and measurement, as well as a broader view of the system of early childhood supports and services. New Hampshire is especially in need of data systems that capture program participation across early childhood programs, across geography, and across time.

A STRATEGIC APPROACH TO ADVANCING EARLY CHILDHOOD INVESTMENTS

The combination of statewide data disaggregated to the local level and in-depth understanding of home visiting and district-funded preschool programs in four focal communities demonstrates the following key findings:

- Across New Hampshire communities, defined in this study by school districts, there is considerable variability in the risks and stressors facing young children and their families. This variation occurs within counties and in within both urban and rural communities.
- Data challenges preclude firm conclusions about the relationship between the underlying need at the community level for each childhood programs and the services currently available. It is clear that current funding for home visiting programs reach only a small fraction of those who could potentially benefit. Likewise, funding for preschool programs does not reach all who could benefit. Further, with estimates of preschool enrollment rates across districts, there is no strong relationship (positive or negative) between the risk factors facing children and families in early childhood and access to preschool through school districts. Head Start programs are more targeted, but funding is not sufficient to have programs in all disadvantaged communities.
- Early childhood investments in New Hampshire are dominated by programs funded by the federal government: MIECHV and Early Head Start for home visiting, Head Start, Title I, and IDEA for preschool education. New Hampshire has fallen behind other states that have invested state funds to expand access to home visiting and preschool programs.
- For district preschool programs, there is a dearth of information about which children are served, the features of the preschool programs they attend, and the quality of those programs. Enrollment in these programs, which at a minimum serve children with special needs but often typically developing children as well, is now substantial enough that information on these programs is vital for understanding their potential impact on children's early learning experiences. The programs in our focal communities suggest that many of these programs may be part-day and part-week, in which case there is the potential to increase access overall

and to also increase the amount of time children attend programs to ensure the strongest potential benefit.

- The four focal communities demonstrate that local implementation of early childhood programs is associated with a number of challenges, from engaging families to attracting a qualified workforce, and from finding facilities to funding. But the focal communities also demonstrate experimentation with evidence-based and novel strategies to address these issues. There is a clear interest in building an early childhood system that spans distinct programs to provide a continuum of supports across service areas that can meet the needs of vulnerable families.

The 2017 RAND study showed the expected economic returns from expanding evidence-based home visiting programs and high-quality preschool programs, also informed by research evidence. The findings in this study point to a strategic approach to these investments, namely focusing first on those communities with the greatest need but with current low rates of access to early childhood programs. This approach has the potential to maximize the return on the investment by starting with those children and families where there is the greatest potential to improve outcomes.

This approach is effectively targeting communities for future investment. However, targeting in this way does not preclude the implementation of universal programs within the identified communities, such as the universal home visiting strategy in Coös County. The targeted communities could also seek to reach high rates of enrollment of preschool-age children in high-quality school district programs or private programs, using a mixed delivery approach. Within the universal programs, there may also be varied intensity of service options depending upon a child's or family's need, such as continued home visiting services or more specialized learning supports in a preschool program for children with special needs. Communities may also seek to tailor the evidence-based programs they offer to the context in their community. For example, the NFP model may not be appropriate across New Hampshire, but there may be some communities, such as more-urban areas, where the need is great and qualified nurses could be recruited to deliver the program model.

A strategic approach to new investments in early childhood programs should include the following features:

- **Investments from the public and private sectors.** The focal communities demonstrate that federal and local funding can support some investment in early childhood

programs. But without new funding from the state, it is unlikely that significant investments in early childhood programs can advance. New Hampshire policymakers should look to other states and their use of state funds to both expand home visiting and preschool programs. Funding may start small to launch a set of pilot communities (discussed next) and increase through time as challenges to program implementation are addressed and evidence of impact is confirmed. Private-sector funds from philanthropy and the business sector could further add to the early childhood initiatives, leveraging the public-sector funds for greater impact.

- **Funding for pilot communities.** State funds could be used to collaboratively or competitively award funds to local communities to invest in adding or expanding evidence-based early childhood programs, including home visiting and preschool education. Community proposals could address the needs of families with young children in their community, the existing services available to them and the corresponding service gaps, the proposed strategy for expanding evidence-based early childhood services, and the local funds that would be available for investment. Challenges with respect to leadership, workforce, facilities, data systems, and other infrastructure could be identified, along with strategies to address those issues as part of implementation. Ideally, a plan for evaluation would be required as well, either for each community or as part of a pooled evaluation across the pilot sites. Depending on how services are made available, it may be possible to use rigorous experimental or quasi-experimental designs to identify lessons from implementation, measure the impact of the expanded services, and identify areas for quality improvement.
- **Continuation of a community of practice.** The Spark NH regional initiatives, several of which operate in our focal communities, demonstrate the value of collective efforts to address the need for a well-integrated and effective early childhood system within cities, counties, or the state as a whole. The present set of regional initiatives cover a portion of the state, and some are more active than others. With the award of the federal PDG focused on

birth-to-5 systems, it is timely to consider how the existing initiatives can be strengthened and where new initiatives may be formed. For example, the pilot communities could be required to participate in order to benefit from the experience of other regional or local efforts and to share their experiences with others.

- **Support for local-level investments with improved state-level infrastructure.** As noted earlier, infrastructure components such as data systems and accountability systems are best implemented at the state level, for a number of reasons. First, it is considerably more efficient to have a well-designed statewide data system or accountability system than it is to have each community develop its own. Further, a common statewide system supports common metrics and measurement, which provide both a local perspective on various indicators and the vantage from the state level. In addition, in the case of a data system, a statewide system better supports the tracking of families over time and across geography. Finally, such statewide systems are increasingly common, in many cases integrating data that are already being collected at the state level by various agencies. In this regard, New Hampshire again stands out for its lack of progress in building the data systems needed to support an effective early childhood system.⁵⁴ Some needed data elements would be relatively straightforward to collect, such as having schools report on the use of Title I funds and parent fees for preschool classrooms along with preschool enrollment by part- versus full-day and part- versus full-week programs and by special education status. Having a data system that allows measurement of participation in multiple early childhood programs at a point in time or over time would be a more complex undertaking. Both types of information would be extremely valuable. The planned revision to New Hampshire's QRIS is another example of state-level infrastructure that is needed to support local investments. The early childhood workforce development system should be another priority for infrastructure building at the state level. Finally, the early childhood governance system is another area that merits consideration for advancement.⁵⁵

NOTES

¹Annie E. Casey Foundation, *The 2018 KIDS COUNT Data Book: State Trends in Child Well-Being*, Baltimore, Md., 2018. As of January 10, 2019: <https://www.aecf.org/m/resourcedoc/aecf-2018kidscountdatabook-2018.pdf>.

²The poverty rates are based on the 2013–2017 American Community Survey (ACS). The rates for Colebrook and Manchester are based on their respective school districts by the same name. U.S. Census Bureau, “American Fact Finder,” website, undated. As of January 10, 2019: <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>.

³The federal government also supports Title I funding for high-poverty school districts, which can be applied to preschool programs; the Individuals with Disabilities Education Act (IDEA) Part B and Part C programs for children ages 0 to 5 with special needs; and the Child Care and Development Fund child care subsidy program, known as the Child Care Scholarship program in New Hampshire. See Lynn A. Karoly, *Investing in the Early Years: The Costs and Benefits of Investing in Early Childhood in New Hampshire*, Santa Monica, Calif.: RAND Corporation, RR-1890-EH, 2017. As of January 10, 2019: https://www.rand.org/pubs/research_reports/RR1890.html.

⁴Universal programs—those available to all children and families, regardless of their circumstances—may be effective as well, especially if they encourage higher rates of participation among more disadvantaged children and families because of a reduction in the stigma that may accompany programs targeted to those who are least well-off. For a discussion of targeted versus universal approaches, see Jill S. Cannon, M. Rebecca Kilburn, Lynn A. Karoly, Teryn Mattox, Ashley Muchow, and Maya Buenaventura, *Investing Early: Taking Stock of Outcomes and Economic Returns from Early Childhood Programs*, Santa Monica, Calif.: RAND Corporation, RR-1993-RWJF, 2017. As of January 10, 2019: https://www.rand.org/pubs/research_reports/RR1993.html.

⁵For estimates of the reach of these programs in terms of the percentage of eligible children (or families) potentially served, see Karoly, 2017.

⁶Colorado had the largest state allocation, with \$23 million from its tobacco settlement fund. National Conference of State Legislatures, *Early Care and Education State Budget Actions FY 2017*, April 2017. As of January 10, 2019: <http://www.ncsl.org/research/human-services/early-care-and-education-state-budget-actions-fy-2017.aspx>. Although not recorded by the National Conference of State Legislatures tally of funds for home visiting for New Hampshire, the state also allocates several million dollars per year to the Comprehensive Family Support Services (CFSS) program, which provides home visiting among the various family support services offered.

⁷Allison H. Friedman-Krauss, W. Steven Barnett, G. G. Weisenfeld, Richard Kasmin, Nicole DiCrecchio, and Michelle Horowitz, *The State of Preschool 2017: State Preschool Yearbook*, New Brunswick, N.J.: National Institute for Early Education Research, 2018. As of January 10, 2019: <http://nieer.org/state-preschool-yearbooks/yearbook2017>. We refer to preschool programs that serve children one year before kindergarten as 4K programs, even though the children in the program will typically be ages 4 and 5, depending on their birthdate and the time of year. Likewise, 3K programs are those that serve children two years before kindergarten entry, with children who may be ages 3 or 4.

⁸The six other states are Idaho, Montana, North Dakota, South Dakota, Utah, and Wyoming. Friedman-Krauss et al., 2018.

⁹Office of Senator Maggie Hassan, “Shaheen & Hassan Announce \$3.8M to Support Early Childhood Care & Education,” press release, January 3, 2019. As of January 10, 2019: https://www.hassan.senate.gov/news/press-releases/shaheen-and-hassan-announce-38m-to-support-early-childhood-care_education.

¹⁰Karoly, 2017.

¹¹NFP was well suited to the benefit-cost analysis because it has multiple experimental evaluations with evidence of both shorter- and longer-term benefits for participating children and adults. The economic returns to other home visiting models, many of which have limited evidence of effectiveness, will not necessarily be the same as those found for NFP. See Karoly, 2017, for additional detail.

¹²We had aimed to collect information for an even broader set of indicators, but, in many cases, the information was not currently collected in a systematic fashion across communities in the state. Examples include the location of families receiving home visiting services; the use of Title I funds by school districts to expand preschool programs; and measures of the size, characteristics, and compensation of the early childhood workforce. There are plans to collect at least some of these indicators. These and other indicators may be added as part of the needs assessment for the recent PDG award.

¹³ U.S. Census Bureau, “American Community Survey,” undated, as of January 10, 2019: <https://www.census.gov/programs-surveys/acs/>; U.S. Census Bureau, “Small Area Income and Poverty Estimates (SAIPE) Program,” undated, as of January 10, 2019: <https://www.census.gov/programs-surveys/saipe.html>. New Hampshire has 15 areas on the district map that are not numbered as SAUs and have no Census or NHDoe data. These areas have hatch marks on the maps in Figures 2–6. In analyses of NHDoe data, we omit 14 school districts and one combined SAU (98) that are in the SAIPE data for New Hampshire but have no operating schools and hence no NHDoe data on enrollments or other indicators. The omitted individual districts are Albany, Benton, Chatham, Clarkesville, Columbia, Dummer, Eaton, Ellsworth, Goshen, Hales, Hart’s Location, Sullivan, Surry, and Windsor. In the maps presented in the report, these districts are shaded gray. One interstate district with Vermont—Orford/Rivendell—also has no NHDoe data and is shaded gray. Finally, we omit eight districts that have no elementary grades: Exeter Regional Cooperative, Winnacunnet Cooperative, Souhegan Cooperative, Profile, Hollis-Brookline Cooperative, John Stark Regional, Pemi-Baker Regional, and Prospect Mountain. The remaining 154 elementary and unified districts cover all other parts of the state.

¹⁴ As of October 2017, 26 districts had total enrollment of fewer than 100 students (the smallest was 16). In reporting on district-level student assessment results in reading and mathematics starting in grade 3, test results are not reported by NHDoe if the number of test takers in the district for a given grade is ten or fewer. In addition, for these and other more sparsely populated districts, the ACS does not have sufficient sample, even pooled over five years, to generate precise values of the demographic or economic indicators we capture. Thus, some differences across districts, especially smaller ones, are the result of errors in measurement rather than true differences in the value of the indicator.

¹⁵ Spark NH, the governor-appointed Early Childhood Advisory Council for New Hampshire, has gathered the directors of the state’s 11 regional early childhood initiatives to participate in a community of practice. These initiatives, which focus on better coordinating the early childhood system for young children and their families, currently cover the following communities or regions in the state: Carroll County, Claremont, Concord, Coös County, Laconia, Manchester, Monadnock, Nashua, Rochester, Somersworth, and Tilton. See Spark NH, “Regional Initiatives,” website, 2018. As of January 10, 2018: <http://sparknh.com/regional-initiatives>.

¹⁶ As of September 2017, White Mountains Regional School District represented about 60 percent of preschool enrollments across the 11 districts in the county, but about 35 percent of enrollment in the elementary grades.

¹⁷ RAND’s Institutional Review Board for the protection of human subjects in research reviewed the interview protocol and determined that the data collection was exempt from further review.

¹⁸ Center on the Developing Child, *A Science-Based Framework for Early Childhood Policy: Using Evidence to Improve Outcomes in Learning, Behavior, and Health for Vulnerable Children*, Cambridge, Mass.: Harvard University, 2007; James J. Heckman, “The Economics, Technology, and Neuroscience of Human Capability Formation,” *Proceedings of the National Academy of Sciences*, Vol. 104, No. 33, 2007, pp. 13250–13255; M. Rebecca Kilburn and Lynn A. Karoly, *The Economics of Early Childhood Policy: What the Dismal Science Has to Say About Investing in Children*, Santa Monica, Calif.: RAND Corporation, OP-227-CFP, 2008, as of January 10, 2019: https://www.rand.org/pubs/occasional_papers/OP227.html; Center on the Developing Child, *The Foundations of Lifelong Health Are Built in Early Childhood*, Cambridge, Mass.: Harvard University, 2010.

¹⁹ Karoly, 2017.

²⁰ At the 50th percentile or median, half of the districts have values of the indicator below that cutpoint and half have values above that cutpoint. The other percentiles are defined in a parallel fashion. The 25th percentile, for example, is the point in the distribution at which 25 percent of the districts have values below that cutpoint and 75 percent have values above that cutpoint.

²¹ To identify districts by name, the NHDoe publishes a map that shows the layout of all districts in the state. See New Hampshire Department of Education, “State of New Hampshire School Administrative Units,” map, December 2018. As of January 10, 2019: https://www.education.nh.gov/data/school_sau.htm.

²² Community Health Institute and JSI Research and Training Institute, *2018 New Hampshire Maternal, Infant, and Early Childhood Home Visiting Program Needs Assessment*, October 2018.

²³ Cannon et al., 2017.

²⁴ Cannon et al., 2017.

²⁵ In addition to the home visiting services discussed in this section, home visiting may also be a component in the Family-Centered Early Supports and Services (FCESS), which is implemented by NHDHHS using federal IDEA Part C funds. The program provides early intervention services to families with children under age 3 who have a diagnosed, established condition that has a high probability of resulting in delay, who are experiencing developmental delays, or who are at risk for substantial developmental delays if supports and services are not provided.

- ²⁶ Karoly, 2017. In an earlier period, the NFP model was implemented. HFA and NFP are among the evidence-based home visiting models approved under MIECHV.
- ²⁷ U.S. Department of Health and Human Services, Head Start Program Performance Standards, 45 CFR Chapter XIII, Washington, D.C.: Administration for Children and Families, U.S. Department of Health and Human Services, 2016. As of January 10, 2019: <https://eclkc.ohs.acf.hhs.gov/policy/45-cfr-chap-xiii>.
- ²⁸ Community Health Institute and JSI Research and Training Institute, 2018.
- ²⁹ The risk factors are having a child under age 1, being a single mother, being a parent with no high school diploma, being a pregnant or parenting mother younger than age 21, or having low family income. National Home Visiting Resource Center, *2018 Home Visiting Yearbook*, Arlington, Va.: James Bell and Associates and the Urban Institute, 2018. As of January 10, 2019: https://www.nhvrc.org/wp-content/uploads/NHVRC_Yearbook_2018_FINAL.pdf.
- ³⁰ The FRC-Q designation, established by the New Hampshire legislature in 2015, is made by the Wellness and Primary Prevention Council. Achieving this distinction, a goal for all of the FRCs, requires a process of self-study and an on-site visit by a review team, among other steps. FRCs are evaluated against standards pertaining to the diversity of families served, the nature of the services provided, staff qualifications, and sustainable funding, among other criteria. New Hampshire Children's Trust, "Family Resource Centers of Quality," website, 2019. As of January 10, 2019: <https://www.nhchildrenstrust.org/FRCQ>.
- ³¹ The service area for their HFA program includes northern Grafton County and Coös County.
- ³² This is similar to the evidence-based Durham Connects program, a universal nurse home visiting program first implemented and evaluated in Durham, North Carolina, and now disseminated as the Family Connects program. See Kenneth A. Dodge, W. Benjamin Goodman, Robert A. Murphy, Karen O'Donnell, and Jeannine Sato, "Randomized Controlled Trial of Universal Postnatal Nurse Home Visiting: Impact on Emergency Care," *Pediatrics*, Vol. 132, Suppl. 2, November 2013, pp. S140–S146; and Kenneth A. Dodge, W. Benjamin Goodman, Robert A. Murphy, Karen O'Donnell, Jeannine Sato, and Susan Guptill, "Implementation and Randomized Controlled Trial Evaluation of Universal Postnatal Nurse Home Visiting," *American Journal of Public Health*, Vol. 104, Suppl. 1, February 2014, pp. S136–S143. See also Family Connects, homepage, undated. As of January 10, 2019: <http://www.familyconnects.org>.
- ³³ Federal funding for Project LAUNCH ended in 2018, but some activities will continue through funding from the New Hampshire Charitable Foundation.
- ³⁴ The Pyramid Model has been evaluated in two randomized control trials to determine its effects on teachers' classroom practices and children's social skills and problem behavior. These studies show improvement on these teacher and child outcomes, although the effects are not consistent across the two studies. Mary Louise Hemmeter, Patricia A. Snyder, Lise Fox, and James Algina, "Evaluating the Implementation of the Pyramid Model for Promoting Social-Emotional Competence in Early Childhood Classrooms," *Topics in Early Childhood Special Education*, Vol. 36, No. 3, 2016, pp. 133–146.
- ³⁵ HFA and NFP each target a caseload of 25 families per home visitor. National Home Visiting Resource Center, "Home Visiting Models," website, 2019. As of January 10, 2019: <https://www.nhvrc.org/discover-home-visiting/models>.
- ³⁶ United Way of Greater Nashua, "2018 Community Baby Shower," webpage, undated. As of January 10, 2019: <http://www.unitedwaynashua.org/2018-community-baby-shower>.
- ³⁷ In addition to Cannon et al. (2017), see Lynn A. Karoly and Anamarie Auger, *Informing Investments in Preschool Quality and Access in Cincinnati: Evidence of Impacts and Economic Returns from National, State, and Local Preschool Programs*, Santa Monica, Calif.: RAND Corporation, RR-1461-CBC/UWGC, 2016. As of January 10, 2019: https://www.rand.org/pubs/research_reports/RR1461.html.
- ³⁹ Karoly, 2017.
- ³⁹ We focus on preschool enrollment through public school districts. As of October 2017, there was no reported preschool enrollment in New Hampshire charter schools.
- ⁴⁰ U.S. Department of Health and Human Services, 2016.

⁴¹ Special education status is reported by age not grade. For New Hampshire, as of 2016–2017, there were 939, 1,248, and 1,332 3-, 4-, and 5-year-olds, respectively, identified with special needs according to the U.S. Department of Education. The lower-bound estimate of 2,200 children with special needs assumes a smaller 3K cohort (3-year-olds as reported) plus the 4-year-olds as the 4K cohort. The upper bound assumes that the 3K and 4K cohorts are about the same size, using the 4-year-old cohort as the base (i.e., about 1,200 children in each cohort). U.S. Department of Education, “IDEA Section 618 Data Products: State Level Data File,” website, 2018. As of January 10, 2019: <https://www2.ed.gov/programs/osepidea/618-data/state-level-data-files/index.html>.

⁴² Of the 63 districts that reported zero preschool enrollment, the information on the number of children with special needs was suppressed for 53 districts (i.e., the count was 10 or fewer). Thus, ten districts had 11 or more children with special needs and no reported preschool enrollment. New Hampshire Department of Education, “District Data Profiles,” website, 2012. As of January 10, 2019: https://www.education.nh.gov/instruction/special_ed/data_profiles/index.htm.

⁴³ Appendix B is available at www.rand.org/t/RR2955. The 69 included districts account for 91 percent of public elementary school enrollments across the state and 83 percent of total public school enrollments as of 2016–2017. Of the 85 districts where we could not estimate a 4K enrollment rate for 2016–2017 using the methodology described in Appendix B, 21 reported preschool enrollment greater than zero but information on the number of children identified with special needs was not reported by NHDoE because of disclosure rules. One other district had nonzero preschool enrollment and had data on the number of special education children, but the estimated enrollment rate using our methodology was negative. The other 63 districts reported no preschool enrollment.

⁴⁴ This finding of only a small correlation is replicated when we include all 154 districts, i.e., we add those with no reported preschool enrollment or with missing information on children with special needs.

⁴⁵ Karoly and Auger, 2016.

⁴⁶ As of 2017, there were 684 licensed center-based providers. Child Care Aware of New Hampshire, “2018 State Child Care Facts in the State of New Hampshire,” 2019. As of January 10, 2019: <https://info.childcareaware.org/state-fact-sheets-download>.

⁴⁷ The eight domains are regulation, administration and business practices, learning environment, parent/family involvement, children with special needs, professional development, staff qualifications and compensation, and program evaluation.

⁴⁸ Build Initiative, “QRIS Compendium,” website, 2019. As of January 10, 2019: <http://qriscompendium.org>.

⁴⁹ Karoly, 2017.

⁵⁰ District staff explained that the reported enrollment is for children receiving special education preschool. Another 160 typically developing children were also enrolled in the same school year.

⁵¹ Friedman-Krauss et al., 2018.

⁵² Dahlin, Melissa, *Being There: Absenteeism Undermines Pre-K Benefits*, New Brunswick, N.J.: National Institute for Early Education Research, 2016. As of January 10, 2019: <http://nieer.org/2016/09/20/being-there-absenteeism-undermines-pre-k-benefits>.

⁵³ National Academies of Sciences, Engineering, and Medicine, LaRue Allen, Emily P. Backes, and Sheila Moats, eds., *Transforming the Financing of Early Care and Education*, Washington, DC: The National Academies Press, 2018.

⁵⁴ Child Trends, “2018 State of Early Childhood Data Systems Interactive Map,” website, 2018. As of January 10, 2019: <https://www.childtrends.org/publications/2018-state-of-early-childhood-data-systems-interactive-map>.

⁵⁵ Bruce Atchison and Louisa Diffey, *Governance in Early Childhood Education, Denver, Colo.: Education Commission of the States*, 2018, as of January 10, 2019: <https://www.ecs.org/wp-content/uploads/Governance-in-Early-Childhood-Education.pdf>; Bipartisan Policy Center, *Creating an Integrated Efficient Early Care and Education System to Support Children and Families: A State-by-State Analysis*, Washington, D.C., 2018, as of January 10, 2019: <https://bipartisanpolicy.org/wp-content/uploads/2018/12/Creating-an-Integrated-Efficient-Early-Care-and-Education-System-to-Support-Children-and-Families-A-State-by-State-Analysis.pdf>.

About This Report

A 2017 RAND report, *Investing in the Early Years: The Costs and Benefits of Investing in Early Childhood in New Hampshire*, documented the substantial share of children in New Hampshire who are at risk of adverse developmental outcomes because of low family resources and other factors that can compromise healthy development in the first few years of life. The report also indicated that New Hampshire would benefit from further investments in two types of evidence-based early childhood interventions: home visiting and preschool education. The goals of the follow-on study documented in this report were to examine the variation in the need for early childhood investments in communities across New Hampshire, the current investments under way at the local level and how they match with underlying needs, and where there are opportunities for further strategic investments in the state's early childhood system, particularly evidence-based home visiting and preschool education. The author accomplished these goals by (1) assembling local-level indicators to characterize the variation across the state in the factors that place children and families at risk in the early years and to determine whether current early childhood investments are reaching communities with the greatest need and (2) collecting information on four focal communities to identify the strategies they are using to advance their early childhood programs and the challenges they face in making further investments. The analysis of the indicators and focal communities provides a basis for recommending a strategic approach to investments in evidence-based home visiting from birth to age 3 and preschool for one or two years before kindergarten entry.

The author would like to thank Kim Firth from the Endowment for Health for overall guidance and support for the project. In addition, a project advisory group provided input at key junctures, as well as access to data and information. The author also appreciates the information provided by multiple key informants in the four local communities examined in this report. At RAND, Ashley Muchow assisted with preparing the maps. The author also benefited from the thoughtful reviews of the draft report by RAND colleague Becky Kilburn and by Lisa Ranfos, executive director of the Child Study and Development Center at the University of New Hampshire.

This research was funded by the Endowment for Health, the New Hampshire Charitable Foundation and its Neil and Louise Tillotson Fund, and the New Hampshire Children's Health Foundation.

This study was undertaken by RAND Education and Labor, a division of the RAND Corporation that conducts research on early childhood through postsecondary education programs, workforce development, and programs and policies affecting workers, entrepreneurship, financial literacy, and decisionmaking.

More information about RAND can be found at www.rand.org. Questions about this report should be directed to karoly@rand.org, and questions about RAND Education and Labor should be directed to educationandlabor@rand.org.



The RAND Corporation is a nonprofit institution that helps improve policy and decisionmaking through research and analysis. RAND focuses on the issues that matter most, such as health, education, national security, international affairs, law and business, the environment, and more. As a nonpartisan organization, RAND operates independent of political and commercial pressures. We serve the public interest by helping lawmakers reach informed decisions on the nation's pressing challenges. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors. **RAND**® is a registered trademark.

Limited Print and Electronic Distribution Rights

This document and trademark(s) contained herein are protected by law. This representation of RAND intellectual property is provided for noncommercial use only. Unauthorized posting of this publication online is prohibited. Permission is given to duplicate this document for personal use only, as long as it is unaltered and complete. Permission is required from RAND to reproduce, or reuse in another form, any of our research documents for commercial use. For information on reprint and linking permissions, please visit www.rand.org/pubs/permissions.

© Copyright 2019 RAND Corporation

For more information on this publication, visit www.rand.org/t/RR2955.

www.rand.org

RR-2955-EH