The sixth Kids Count publication from New Hampshire, this report departs from past work in that, in addition to updating state data on child health and well-being, it looks at that information in relation to data on the New Hampshire economy. Through detailed statistical analysis, the report explains how the status of children in New Hampshire directly affects the bottom line for government, businesses, and individuals in the state. The report introduces a Child Potential Index for over 200 New Hampshire communities, summarizing the degree to which risk factors that limit children from realizing their full potential are present in each community. The index combines seven community-level measures of child risk known to be highly correlated with poor outcomes for children: (1) teen births as a percentage of all births; (2) percentage of mothers who smoked during pregnancy; (3) percentage of births to single mothers; (4) percentage of births to mothers with less than 12 years of education; (5) percentage of children receiving free or reduced lunch; (6) percentage of births to mothers not receiving prenatal care; and (7) unemployment rate. Appended are: How Child Potential Index Scores are Derived; and Child Potential Index Scores for NH Cities and Towns. (Contains 47 endnotes.) (EV)
The Bottom Line: Kids Count to New Hampshire's Future

Children's Alliance of New Hampshire

Fall 2001
The Bottom Line:

Kids Count to New Hampshire's Future
KIDS COUNT New Hampshire is a project of the Children’s Alliance of New Hampshire, in partnership with the Annie E. Casey Foundation. The Children’s Alliance is a multi-issue child advocacy organization working to move public policy to make New Hampshire one of the best places anywhere for a child to grow up – a place where every child is valued and no child is left behind.

Additional copies of The Bottom Line: KIDS COUNT to New Hampshire’s Future may be purchased from the Children’s Alliance of New Hampshire for $15 per copy. To purchase copies of the book, please contact:

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Letter from the President:

The Bottom Line: KIDS COUNT to New Hampshire's Future is the sixth KIDS COUNT publication from the Children's Alliance of New Hampshire. KIDS COUNT is a national effort to measure, monitor, and improve the health and well-being of America's children. This special report departs from past KIDS COUNT work in that, in addition to updating state data on child health and well-being, it looks at that information in relation to data on the New Hampshire economy. Through detailed statistical analysis, this report explains how the status of children in New Hampshire directly affects the bottom line for government, businesses and individuals in the state.

Children's health and well-being are important factors in New Hampshire's strong economy. New Hampshire has the resources to continue to place highly on national rankings of the health and well-being of children, to be a desired place to raise children and also, as highlighted here, to make needed improvements. The intent of this report is to present the economic rationale for investing in children and families, and to build a stronger statewide coalition of advocates for children.

We hope this KIDS COUNT report will inform you about children's issues and leave you with a deeper understanding of why children count not only personal, social and ethical reasons, but also for economic reasons. And we hope the analysis presented here will be a catalyst for increasing public and private sector engagement in efforts to improve child health and well-being.

Ellen Shemin, President
Children's Alliance of New Hampshire
October, 2001

I. KIDS AND THE ECONOMY: STUDIES IN CONTRAST

The New, New Hampshire Economy

Over the past decade, the New Hampshire economy has boomed as the "new economy" has taken hold—an economy based on ideas and knowledge rather than manufacturing. Over the past quarter century, the state has outperformed the other five New England states on growth in employment, growth in productivity, gross state product, and per capita income. Since the 1988-1992 recession, New Hampshire has been an economic leader in New England and the nation as a whole, and continues to lead the nation on a number of important economic measures. New Hampshire ranks:

- First in the Northeast and fifth nationally in overall quality of life ranking
- First in the Northeast in the percentage of the population that has moved to the state since 1980
- First nationally in change in gross state product per worker (productivity) over the last two decades
- Second nationally in the percentage of employment in high technology industries
- Fifth nationally in venture capital dollars as a percent of gross state product
- Sixth nationally in per capita income—a significant improvement from eleventh in 1990 and twenty-fifth in 1975

The state's recent growth in high technology and substantial entrepreneurial activity has resulted in an "economic boom" in different regions of the state and among families with different levels of educational attainment. This has led to economic prosperity for many, economic decline for others, and subsequent increasing economic inequality throughout the state.

New Hampshire's strong economic performance and economic prosperity have been concentrated in the so-called "Golden Triangle" (southern tier of the state) between Nashua, Manchester and Portsmouth and among those with a four-year college degree and beyond. Many areas of the state have not experienced the economic transformation to the "new New Hampshire economy" seen in the southern tier. On any economic measure, Rockingham, Hillsborough, Merrimack and Belknap Counties fare well, while
Coos, Cheshire, Sullivan and Carroll Counties lag behind. So too, poverty varies widely across the state and is highly correlated with broader economic measures.

As a result of these variations in economic growth and prosperity, the gap between rich and poor in New Hampshire is growing more rapidly than the national average. Over the last two decades, the average income in the top income quintile in New Hampshire increased 50% (in real dollars) compared to a decline in real income for the lowest fifth.²

**Children and Families Left Behind**

The increasing economic disparity in the state is reflected in data on children’s health and well-being. National Kids Count reports consistently rank New Hampshire as one of the top states for children, based upon aggregate data on ten key indicators of child health and well-being.³ Yet, New Hampshire children are falling behind on some key measures of economic security. Greater proportions of New Hampshire children are living in poverty, living in single-parent families, and living with underemployed parents.⁴

The deleterious effects of living in poverty last a lifetime—and often extend to the next generation. Children growing up in poverty are far more likely to experience health problems, school failure, substance abuse, early parenting, court involvement, a lifetime of lower wages, lower earning capacity, and a greater likelihood of needing public assistance.

Despite what is known about the impact of child poverty, and despite the state’s increasing percentage of children living in poverty, New Hampshire has failed to increase investments in children during the favorable economic climate of the past decade. Today, New Hampshire ranks 42nd among the states for per capita spending on child development and family support efforts.⁵ Indeed, over the past decade, New Hampshire has decreased its investments in services for children and families (by 23% per capita) while increasing spending on corrections (by 44% per capita) and on the retirement system (by 45% per capita).⁶

**II. SEEING THE CONNECTIONS:**

**KIDS AND THE ECONOMY**

It is not a coincidence that there is both good and bad news about the economy and about child well-being in New Hampshire. The new New Hampshire economy refers to the collective experience of individuals—in families, in communities, and across the state. It is easy to see the impact of economic conditions on children’s well-being—parents are laid off, housing becomes unaffordable, health insurance is dropped. Although the impact of the health and economic security of children on the broader statewide economy may be harder to see, it is no less real. The sections below illustrate the connections between the economy, low educational attainment, and quality of life.

**Low Educational Attainment**

In the new economy, the best jobs go to those with higher education. The recession of the late 1980s and early 1990s was a key factor in the growing gap between the top and middle income groups in New Hampshire. During this recession, many
New Hampshire workers lost jobs in traditional manufacturing and related industries—jobs that paid good wages and did not require advanced education. These types of employment opportunities have not returned, and never will. Structural changes in global, national and state economies mean that good wages are more dependent than ever before on higher levels of educational attainment. And yet, New Hampshire youth are lagging behind in high school completion and matriculation in higher education.

**Declining High School Completion Rates**

A negative ripple effect of New Hampshire's strong economy over the past few years is the increased high school non-completion rate of students who are motivated by short-term economic considerations. Students who drop out prior to completing high school are acting without full cognizance of the lost lifetime earnings that result from not having a high school or post-secondary degree. Teenagers are at a developmental phase that often precludes thinking about their ability to earn money as they get older or how they will fare in a different economic climate. Given this perspective, working for $10 an hour at a job that doesn't require a high school degree seems like a good idea. Add to this the fact that students may need or want to supplement family income and don't find school engaging, and it seems like an even better idea.

During the period of strong economic growth from 1993 to 2000, high school completion rates in New Hampshire decreased from 84% to 73%. As a result of this decline, New Hampshire currently ranks 35th nationally in public high school graduation rates (with a current rate of 64.9%). This rate is not only lower than the national average of 67%, it is approximately 20% lower than northern New England neighbors Maine (81.2%) and Vermont (79.7%). New Hampshire ranks only 14th in the percent of adults with a high school degree, which is well below its potential given its 6th rank in per capita income and relatively homogenous population.

**Low Post Secondary Graduation Rates**

What about New Hampshire students who do graduate from high school? In New Hampshire today, approximately 66% of public high school graduates go on to post-secondary education, compared to 75% in New Hampshire's economic peer states.

Youth who end their education with a high school degree have limited prospects in the New Hampshire economy. For example, average annual income is 40% lower for high school graduates than for those with a four-year college degree. The strong connection between education and income at the county level and the individual level can be seen in Figures 4 and 5. Figure 4 ranks counties in terms of both per capita income and percent of adults with a four-year college degree or higher. Figure 5 illustrates how mean income is strongly affected by educational attainment for individuals.

**The State Response**

New Hampshire's relatively low high school completion and post-secondary matriculation rates reflect, in part, New Hampshire's continuing support of education at levels significantly below that of other states. In per capita spending on education at both the local and state level, New Hampshire ranks 14th nationwide, below its northern New England neighbors (Maine and Vermont), and in sharp contrast to its 6th place ranking in per capita income.

At the post-secondary level, local and state support for New Hampshire's public colleges ranks 49th in the nation—about half the national average. As a result of this under-funding, the total college costs for in-state students is the third highest in the nation. And New Hampshire funds scholarships and student aid at the lowest rate in the nation. The low level of state support for public colleges and for in-state students has resulted in New Hampshire ranking 46th among all the states in the percentage of high school graduates going on to college in state. This has resulted in a "brain drain," with the best and brightest New Hampshire students leaving the state.

**Child Well-Being and Quality of Life**

Quality of life has become an increasingly important criterion for businesses when deciding where to relocate or expand. With a tight skilled labor market, businesses increasingly locate where their most valued employees (i.e., skilled workers) want to live. When Scott McNealy, the CEO of Sun Microsystems, was asked why his company opened a major new facility in Massachusetts, he explained: "That's where my workforce wants to live. In the old days workers lived where companies wanted them to work, today companies locate where their workers want to live and raise
a family. Baby boomer workers are a central component of today's labor force, and they care a lot about the well-being of children. They are drawn to locations perceived to have a high quality of life, and business follows. The strong correlation between the well-being of children and overall quality of life is clearly illustrated in Figure 6, which maps the fifty states including New Hampshire (in bold) according to its KIDS COUNT rank and its Morgan Quitno Quality of Life Rank.

Social Capital and Child Well-Being

Social capital refers to the web of relationships between and among people that allow a community, economy, and state to function. The stronger and more positive relationships are in a community, the greater the social capital and thus the higher the trust and cooperation among residents, both in their communities and at their workplaces. Social capital is strongly correlated with many social conditions—including the status of children. Robert Putnam of Harvard University has created an index to measure social capital for every state in the nation. Figure 8 illustrates the high correlation between social capital and the conditions of children in New Hampshire and elsewhere. New Hampshire ranks high with respect to both social capital (seventh nationally) and child well-being (first nationally).

While difficult to quantify, social capital is an asset for businesses that can result in improved recruitment and retention of business and labor, as well as higher productivity and lower absenteeism at workplaces. So too, child well-being can be an asset that plays a vital role in weaving together the social fabric of communities. The character of social interactions and the level of trust among community members in New Hampshire are strongly influenced by the well-being of children. Families in the state with children are more likely to know their neighbors and assume leadership positions. The conditions of children affect social capital, and social capital contributes to the efficiency of communities and businesses, and to the efficiency of the overall state economy.

The Workforce: Today and Tomorrow

The shortage of skilled labor is an issue of great concern among New Hampshire businesses. As shown in Figure 9, New Hampshire's overall unemployment rates have been among the lowest in the nation throughout the late 90s. An increasing number of New Hampshire businesses have a high technology orientation and require high skilled workers. Over 50% of all new job openings today require a college-educated worker. In the past, New Hampshire businesses—particularly in high technology industries—relied heavily on domestic in-migration for skilled workers. Approximately three-quarters of adults with a four-year college degree or higher in New Hampshire were born...
elsewhere. Many of these in-migrants are highly educated baby boomers who moved to New Hampshire with young children—drawn by the state's scenic beauty, social capital, robust economy, and overall desirability. New Hampshire ranks first in the northeast in the percentage of the population that has moved to the state since 1980, and has the second highest percentage of baby boomers among the fifty states.

These baby boomers, in their high income and high spending years, helped fuel New Hampshire’s economic growth over the past two decades and provided the state with a strong pool of workers. But the strategy of “importing” a skilled workforce is not sustainable. The New England states that provided us with skilled labor are experiencing their own labor market shortages as well as relatively slow growing and aging populations. New Hampshire’s shortage of skilled labor is reflected in the recent loss—to Colorado—of its number one rank in the percentage of total employment in high technology industries. Today in New Hampshire, the size of the entry level workforce age group (age 25–44) is decreasing at a faster rate than the national average. This phenomenon is occurring throughout New England, and is a serious economic concern.

Longer-term demographic trends together with current educational shortcomings suggest the likelihood of increased labor supply constraints and lost opportunities for both New Hampshire businesses and residents. Businesses will not have the skilled workers they need, and too many residents, lacking skills, will fall behind as the gap between New Hampshire’s “haves” and “have nots” continues to widen—thus continuing the cycle of poverty and its significant social and economic costs.

There is, however, an important bright spot in New Hampshire’s demographic picture: New Hampshire ranks 11th in the nation and first in New England in the percent increase in 5-17 year olds over the last decade. Indeed, New Hampshire has the youngest median age in the region. These children and youth are the state’s future workers, innovators and business owners and thus its most important economic asset. The growth in the 5-17 year old group represents a significant opportunity if New Hampshire can take advantage of it by ensuring that all children and youth in the state have the opportunity to develop to their full potential and contribute to the economy as productive citizens. Just as the state invests in other economic resources—such as physical infrastructure, roads and highways and information technology—it needs to invest in its human capital—children and youth. Sound investments today will ensure that New Hampshire has a skilled workforce tomorrow.

For those who are not child advocates, trying to draw firm conclusions from a large number of data elements can be difficult, making it seem that measuring child well-being—let alone developing an agenda to address it—may simply be too complex and daunting a task. Building on previous national and state KIDS COUNT work, this section introduces a Child Potential Index. The Child Potential Index offers a unique way to assess the degree of child risk in a community and the relationship that exists between child well-being and economic well-being at both the state and local level.

Valid summary measures like the Child Potential Index can communicate a large amount of information in a compelling manner. In addition, by helping to create a shared understanding of the degree of child risk in a community, the Child Potential Index can serve as a catalyst for developing an agenda to address child well-being at the local level.

A Child Potential Index score was calculated for over 200 New Hampshire communities, summarizing the degree to which risk factors that limit children from realizing their full potential are present in each community. The index combines seven community-level measures of child risk known to be highly correlated with poor outcomes for children. A high incidence of these risk factors among children in a community can be expected to limit the long-term social and economic success of children as well as the long-term social and economic success of the community as a whole. Scores range from a potential high of 100 (if no child risk factors were present in the community) to a theoretical but unlikely score of 0 (if all child risk factors were present among all children in a community).

The factors comprising the index affect the well-being of children from the earliest days of life. These factors focus attention on the importance of early interventions that not only impact longer-term health and behavior patterns, but also have the greatest potential for long term economic and social paybacks. The seven components of the Child Potential Index are:

- Teen births as a percentage of all births
- Percentage of mothers who smoked during pregnancy
- Percentage of births to single mothers
- Percentage of births to mothers with less than 12 years of education
- Percentage of children receiving free or reduced lunch
- Percentage of births to mothers not receiving prenatal care
- Unemployment rate

Scores for New Hampshire communities on the Child Potential Index range from a high of 98.7 in South Hampton (indicating a low presence of child risk factors and a greater chance that children in that community will realize their full potential) to a low of 67.1 in Franklin. A listing of high and low scoring towns is presented in Table 1 (next page) and a complete listing of scores by community and quintile is presented in Appendix B.
Table 1: There are Significant Differences in the Presence of Child Risk Factors Among NH Communities

<table>
<thead>
<tr>
<th>Index of Child Potential Scores</th>
<th>Top Score</th>
<th>Bottom Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Hampton</td>
<td>98.72</td>
<td>Franklin</td>
</tr>
<tr>
<td>Waterville</td>
<td>98.03</td>
<td>Irwin</td>
</tr>
<tr>
<td>Dover</td>
<td>97.01</td>
<td>Westfield</td>
</tr>
<tr>
<td>East Kingston</td>
<td>97.69</td>
<td>Winchester</td>
</tr>
<tr>
<td>Sharon</td>
<td>97.32</td>
<td>Sunapee</td>
</tr>
<tr>
<td>New Castle</td>
<td>97.23</td>
<td>Claremont</td>
</tr>
<tr>
<td>Bedford</td>
<td>97.04</td>
<td>Barrington</td>
</tr>
<tr>
<td>Durham</td>
<td>96.98</td>
<td>Newport</td>
</tr>
<tr>
<td>Lyme</td>
<td>96.89</td>
<td>Farmington</td>
</tr>
<tr>
<td>Brookline</td>
<td>96.60</td>
<td>Lebanon</td>
</tr>
<tr>
<td>Rollins</td>
<td>96.58</td>
<td>Derry</td>
</tr>
<tr>
<td>Bow</td>
<td>96.08</td>
<td>Greenfield</td>
</tr>
<tr>
<td>Plainfield</td>
<td>96.07</td>
<td>Osage</td>
</tr>
<tr>
<td>Amherst</td>
<td>96.07</td>
<td>Lancaster</td>
</tr>
<tr>
<td>Exeter</td>
<td>96.00</td>
<td>Lisbon</td>
</tr>
<tr>
<td>Kensington</td>
<td>95.66</td>
<td>Pittsfield</td>
</tr>
<tr>
<td>Atkinson</td>
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<td>Brookfield</td>
</tr>
<tr>
<td>Newfields</td>
<td>95.84</td>
<td>Stewartstown</td>
</tr>
<tr>
<td>Windham</td>
<td>95.81</td>
<td>Dover</td>
</tr>
</tbody>
</table>

Regional Differences

Significant variation in Child Potential Index scores occurs throughout the state. Grouping community scores on the Child Potential Index by county (Figure 10) confirms that while some north versus south disparities do exist—Rockingham has the highest scores while Coos has among the lowest—the pattern is more complex. For example, northern counties such as Grafton and Carroll score as high or higher than more southern counties such as Strafford. Communities with high levels of child risk are located in the southern as well as the western part of the state. Similarly, many communities in the north and west have relatively lower levels of child risk.

Community level scores can be aggregated in other ways such as by labor market area, hospital service area, school administrative unit, or non-geographic groupings such as the “wealth clusters” used in prior New Hampshire KIDS COUNT analyses. As Figure 11 shows, communities in higher wealth clusters have higher Child Potential Index scores.

What Child Potential Index Scores Tell Us About a Community

Child Potential Index scores provide significant insight about a community’s overall economic and social health and its long-term economic prospects. Child Potential Index scores for over 200 New Hampshire communities suggest that child risk factors are strongly correlated with economic and social indicators such as population and business growth, unemployment, educational achievement scores, per capita income, and the percentage of children receiving public assistance.

Grouping New Hampshire communities into quintiles according to their Child Potential Index scores (with the 1st quintile having the highest scores) reveals the relationship between the Child Potential Index and key social and economic variables. Figures 12 and 13 show how Child Potential Index scores are related to population growth and business growth.

Figure 10: The Pattern of Risk in NH is More Complex than "North vs South"

Figure 11: Child Potential Index Scores and the Kids Count "Wealth Clusters" are Highly Correlated

Figure 12: Child Well-Being is a Powerful Attraction at the Community Level

Figure 13: Business Growth Follows Population Growth
and business growth. In addition to the higher rates of population and business growth in communities with higher Index scores, a relationship between employment growth and Index scores was also evident.  

Figure 14 highlights the relationship between the Child Potential Index and educational test scores, as reflected in scores on the third grade NHEIAP language test. Figure 15 presents the relationship between child risk factors and negative social circumstances for children as measured by community poverty rates and the percentage of children receiving public assistance (food stamps, TANF, free or reduced lunch).

Communities with high Child Potential Index Scores also have higher income levels. Figure 16 presents per capita income of New Hampshire communities by Child Potential Index score quintiles. The relationship of Child Potential Index and income helps explain many of the other relationships between child well-being and key economic and social variables because income is strongly correlated with a variety of socioeconomic variables. Looking at the correlates of the Child Potential Index shows that income strongly influences child well-being. But child well-being also exerts an influence on socioeconomic variables in a community that translate into higher or lower levels of income, suggesting that improvements in child well-being may yield improvements in the economic and social prospects of communities.

Evidence From the Fifty States

Using data on public assistance expenditures, economic performance, and child well-being for each of the fifty states, models were developed to estimate the relationship between various aspects of child risk and economic variables at the state level. Because the underlying components of the national KIDS COUNT index are highly correlated with several important variables, KIDS COUNT is a measure of child well-being that reveals a great deal of information about the relative social and economic conditions of each state.

Among the important economic variables showing a relationship with KIDS COUNT rankings are child poverty and various measures of household and personal income, including income disparity. The KIDS COUNT national ranking is also a valuable indicator of social ills such as child abuse, juvenile crime, and overall crime rates.

A state’s national KIDS COUNT ranking is also highly correlated with the state’s educational attainment (Figure 17)—reinforcing once again the critical role that education plays in creating positive economic and social circumstances (and outcomes) for children, including raising overall income levels. Both high school graduation rates and the percentage of adults with at least a four-year college degree are higher in states with higher national KIDS COUNT rankings. It is not surprising then, that income levels are also generally higher in states with higher KIDS COUNT national rankings (Figure 18, next page).
IV. THE ECONOMIC IMPACT OF CHILD RISK IN NEW HAMPSHIRE

The impact of child well-being on the economy can be measured in another way: the cost to the state of child risk. This research suggests that large economic benefits would accrue to New Hampshire and its communities by reducing child poverty and child risk.

Data from the fifty states indicates that child poverty is the single best predictor of a number of child risk factors and is highly correlated with both state per capita income and state public assistance expenditures. Applying econometric models to the state level data suggests that every 10% increase or decrease in child poverty is associated with changes in state per capita personal income of $219. This implies that a sustained 10% reduction in child poverty in New Hampshire could increase personal income by $262 million annually. An additional $262 million in personal income could result in increased state and local revenue of approximately $10 million.

State-level data also suggest that a 10% reduction in child poverty would decrease overall state and local public assistance expenditures by 1.13% or about $116 million in New Hampshire (including federal matches and pass-throughs) in 1998. Assuming that the state and local share represents about one-half of these expenditures, the savings from a 10% reduction in child poverty in 1998 would have been about $58 million. These savings would accrue annually and would increase or decrease depending on changes in the child poverty rate. Adjusted to 2001 dollars, current year savings would be about $63 million (Figure 19).

These data suggest that if the cost of reducing child poverty in New Hampshire by 10% is less than $73 million annually ($63 million in public expenditure savings plus $10 million in revenue) there would be a positive benefit/cost outcome.

So too, the Child Potential Index is highly correlated with per capita income in New Hampshire communities. On average, a one-point change in the Child Potential Index is associated with a $608 change in per capita income. This implies that a one-point increase in the statewide Child Potential Index would be associated with reductions in child risk factors enough to increase personal income by $722 million annually, moving New Hampshire from 6th to 5th nationally in per capita income rank and yielding an additional $28 million annually in estimated state and local revenue. This suggests that a one-third reduction (33%) in child poverty in a community would increase that community’s Child Potential Index score by about 1.5 points and increase per capita income in the community by about $900. Reducing other risk factors, such as births to mothers who smoke and births to single mothers would increase Child Potential Index scores by a similar amount. A one-third reduction in child poverty may be difficult to achieve. However, reducing child poverty and other key risk factors by even a relatively small percentage could have a huge impact on economic and social variables because risk factors tend to co-occur.

V. THE BOTTOM LINE: INVESTING IN KIDS TO FUEL THE NEW ECONOMY

How can we make such reductions in child risk factors? Significant reductions can be achieved by focusing on educational attainment and workforce enhancement. If New Hampshire is to sustain its current strong economic position and produce an adequate pool of skilled workers, the state will have to improve the supply and the skill level of future workers educated in New Hampshire schools. Such improvements cannot begin at the high school level—or even at middle school. Enduring and systemic improvement in educational
attainment and workforce preparedness will require early investments in education and family support that will have cumulative effects throughout the school career. Research in human development, the new economy and changing demographics indicates that early investments in education and family support must begin in the first days of life. There is a continuum of learning that begins at birth and requires sustained supports to ensure that each child in this state will be able to reach his or her full potential.

1. Investments in Early Care and Education

Childcare is a fundamental issue that connects child well-being, education, and the present and future workforce. Between birth and age five, children develop foundational capabilities critical to a successful school career and a healthy and productive adult life. A large and growing body of research details what kind of environments and relationships young children need to develop such capabilities. Private sector investment in creating those environments and nurturing those relationships is essential to the development of the New Hampshire workforce.

Such investments will also have short-term benefits. In 2001, three-quarters of children six weeks to thirteen-years-old in New Hampshire had working parents.39 On average, working parents miss at least half a day of work nearly three times a year because of childcare-related absences.40 Childcare-related absences are estimated to cost New Hampshire businesses $12-$24 million annually.41

The dual benefits of quality childcare have been recognized by one of the nation's largest employers: the United States Military. In 1989, Congress enacted legislation to improve the quality of care for the over 200,000 military children in approximately 300 centers worldwide. Recognizing that compensation and training of childcare staff was directly linked to the quality of care provided, the Military Childcare Act of 1989 standardized childcare worker salaries, provided opportunities for training and advancement, and added a child development specialist to the staff of each center. In four years, the annual turnover rate at military childcare centers went from 48% to 24%. Within ten years, military childcare became a model nationwide.42

In contrast, quality childcare in New Hampshire today is both difficult to find and difficult to afford. Nearly one-quarter of New Hampshire families spend over 25% of their pre-tax income on childcare, with an average family spending approximately 18%.43 Only 10% of families with incomes under $18,000 in New Hampshire receive public support to help pay for childcare, ranking the state among the bottom half nationally for making low-income families eligible for childcare assistance. Approximately one-eighth of New Hampshire parents wanted childcare in 1999 but could not afford it.44

Businesses can create a "win-win" situation by investing in family support services at the workplace and in communities, thereby avoiding the loss of millions of dollars annually from the reduced productivity, absenteeism, and turnover that result from unstable arrangements.45 The peace of mind and stability these supports bring make parents better workers and make workers better parents.

2. Investments in Public Education

New Hampshire's relatively low high school completion rate poses a challenge to the state and jeopardizes its future economic prosperity. According to the state Commissioner of Education, "the challenge lies not simply in increasing graduation rates, but in increasing the rate of prepared graduates." To do this, investments in public education need to begin early, with a focus on preschool through grade 12 as a continuum of learning, and with a recognition of the need for a quality education for all children, irrespective of where they happen to live.

Preschool education is critical to the process that enables children to enter school "ready to learn." 43 But to succeed, children need to enter schools that are ready to teach, and live in communities that are ready to support. Just as training and expertise are the key to quality childcare, research shows that well-trained classroom teachers with opportunities for professional development are a key factor in student achievement. So too, parental and community involvement contribute to the vitality of the school environment as a place to grow and learn. The business community and schools can work together to facilitate both parental involvement and professional development for educators. Community-wide strategies linking the world of school to the world of work will motivate students, enhance workforce preparedness and build social capital. There is a connection between healthy communities and high performing schools,44 and New Hampshire's future workforce—the next generation of doctors, teachers, entrepreneurs, and government leaders—will emerge from that connection.

3. Investments in Higher Education

If New Hampshire's high school completion rate, post-secondary matriculation rate and percentage of high school graduates attending in-state colleges were improved to levels similar to peer and border state averages, the result would be an annual increase of 1200 new entrants to New Hampshire's skilled labor force (a 34% increase).45 Over a ten-year period, these changes would increase the overall pool of skilled workers in the state by approximately 6%. The cumulative impact of these improvements would boost output in New Hampshire by nearly $500 million after eight years. The potential revenue increases for New Hampshire institutions of higher education are over $30 million annually.46 Figure 20 (next page) shows that the biggest "payoff" of these improvements will come from increased school completion rates.

Increased in-state need-based aid will improve the post-secondary matriculation rate by making higher education more accessible to New Hampshire youth. If New Hampshire's in-state need-based aid were raised to a level equivalent to that of Maine, for example, in-state enrollments would increase from 50% to 53%; and
level equivalent to Vermont's would raise New Hampshire's in-state matriculation rate to nearly 56%. Need-based aid could be targeted so that students seek the training and degrees most in demand. Aid could also be made contingent upon students committing to live and work in New Hampshire for a specific period of time.46

There are many opportunities for the public and private sectors in New Hampshire to work together to ensure that the state has the skilled workers it needs, and, at the same time, to help young people develop the tools they need to build healthy and successful lives and become productive adults who contribute to the economic and social life of our state.47

**Conclusion**

Investing in children is good business. To the extent we can improve community and state rankings in the Child Potential Index, we can reap significant economic benefits. To move those indices, we need to invest in education at all levels—from quality infant-care to incentives for college graduation. This report tells us that the existing discrepancy between our ability to invest in children and families and our actual investments must be addressed if the state is to prosper. The data and research presented here explain what needs to be done and how to do it. The course is set. What is needed is the public and political will to adopt that course.

**Appendix A**

**How Child Potential Index Scores are Derived**

The New Hampshire Child Potential Index is one of numerous techniques that could be used to create a summary measure of child well-being for communities. As a first effort to create a new measure and a new use for child well-being indicators, refinements and improvements are both encouraged and expected. Some specific concerns include the fact that data for small areas can be unreliable (this is somewhat minimized by using three years of data for most indicators). Data is also not the most current (but the most current that is available). Although the data is collected annually it is not yet reported that way. In addition, some of the risk factors in the index co-occur so the Child Potential Index should not necessarily be interpreted as the percentage of children in a community who are at risk. Nevertheless, we believe it is a valid summary measure of child risk in a community that yields insights about the condition of children in a community and that can be used to build support for greater focus on child well-being.

Each of the seven child risk components of the Child Potential Index was converted to a score from 0 to 100, with 100 meaning that "child potential" was being fully realized (the risk factor was not present among any children in a community) and 0 (the child risk factor was present among all children).

For example: The Index component % of Births to Teenage Mothers in a community may reveal that such births represent 10% of all births. The Child Potential Index value for this component is calculated as: (1-.10)= .90 * 100 = 90.

Individual Index components are all calculated in this manner and three of the components (% births to teen mothers, % births to mothers who smoked during pregnancy, and the % of children in the community receiving free or reduced price school lunch) are counted twice (or "double weighted") because of their strong association with child risk and poor outcomes.

Scores for individual components are then summed (a maximum of 1000) and the totals are divided by 10 to yield the Child Potential Index score which is an average of the weighted scores.

The final Child Potential Index formula is thus:

Child Potential Index = \[\frac{(2*\text{births to teens score})+(2*\text{births to mother who smoke score})+(2*\text{% receiving free or reduced lunch score})+(\%\text{ births to mothers with less than 12 yrs education})+(\%\text{ births to mothers without prenatal care in first 3 months})+(\%\text{ births to unmarried mothers})+(\text{unemployment rate score})]}{10}.\]
## Appendix B

### Child Potential Index Scores for NH Cities and Towns

<table>
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<th>Quotile 1</th>
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ENDNOTES

1. The Morgan Quitno Quality of Life measure is a widely used composite index made up of forty-three variables measuring both positive and negative factors. A full list of the forty-three variables is available at www.statestats.com/sr01mflac.htm.

2. In the decade prior to the late 1990s, the middle-income group in New Hampshire also experienced a decline in real income, a decline more pronounced than the national average, while the top income group continued to do well.


4. The federal poverty level for 1998, the most recent year for which there is KIDS COUNT data, was $13,650 for a family of one adult and two children. The financial ceiling for "working poor" is set at 200% of the federal poverty level, which, in 1998, was $27,300 for a family of one adult and two children.

5. Map and Track: State Initiatives for Young Children and Families, 2000 Edition, National Center for Children in Poverty, Mailman School of Public Health, Columbia University, New York. This includes programs that promote nurturing parent-child relationships, help children enter school ready to learn, and support adults in their dual role as parents and wage earners. Research has shown that these types of programs improve parenting skills and improve children's chances for academic success. Yet New Hampshire is among fourteen states that spend $20 or less per capita on these types of initiatives. Only eight states spend less.


7. The completion rate is calculated by comparing the number of entering students in 9th grade to the numbers graduating four years later. This is not the same as dropout (or non-dropout) rate that documents the percentage of students who leave high school before graduating. The completion rate time series starts after the 1988-1992 recession—a period in which the New Hampshire economy was strengthening. Both dropout and completion rates are difficult to estimate precisely and subject to potential errors. Sources: New Hampshire Public High School Graduates information from a yearly report of the New Hampshire Department of Education, Division of Educational Improvement, State Office Park South, Concord. University System of New Hampshire, Office of Policy Analysis, Lee, NH.


9. The apparent contrast between a high rank in per capita income and the lower ranking for high school completion is due to the significant immigration to the state of highly educated residents who fuel the workforce.


11. New Hampshire's economic peer states (such as Colorado, Maryland, and Massachusetts) are those with high per capita income and a similar concentration of high-technology activity.

12. The increases in high school non-completion rates and child poverty rates likely reflect the same populations. In a recent survey of New Hampshire adults, lower income families were one-third less likely to expect their children to go to college than high-income families (UNH Survey Center, 2000). In these families, low high school completion and low college graduation rates are particularly acute. Children from low-income families without college-educated parents face many challenges in their daily lives, including a wide range of risk factors known to be associated with poor outcomes in adulthood.

13. In addition to educational attainment, gender also creates a wage differential. In 1997, women in New Hampshire earned about 70.2% of what men earned, compared with the national average of 73.5%. Considering the increases in single-parent households over the past decade, most of which are headed by women, this earnings inequality hurts children as well as their working mothers.


16. "Baby Boomers" include the 76 million people born between 1946 and 1964.

17. High technology workers have a strong interest in working and living in desirable places to raise a family. These workers and their preferences—because the demand for highly skilled workers is significantly greater than the supply—strongly influence the location of high technology businesses and thus the strong correlation between quality of life and the percentage of employment in high tech industries.

18. The correlation statistic can vary from 0 to 1. Zero indicates no relationship (correlation) between two variables. Close to 1 (such as .884) indicates strong relationship.


23. Only Alaska has a higher percentage, 33.3% compared to New Hampshire's 32.8%.


25. A Child Potential Index was calculated for 207 communities. No Child Potential Index score was calculated for communities for which a complete set of data was not available. These were primarily unincorporated places and small communities.

26. A more complete description of index components and the simple mathematics used to calculate index scores is included in Appendix A.

27. Job loss is a significant stress factor for children but accounts for little in the index—by design—because free lunch is also a measure of economic situation.

28. Depending on whether weighted or unweighted scores are used for each county, counties change their score and rankings. Figure 10 lists counties in descending order using weighted scores, but also reports unweighted scores for comparison. Weighted scores differ in that communities with larger populations count more (are weighted) toward a county's score than do smaller communities. Weighting does not affect any individual community's score, which are the same.
The Children's Alliance of New Hampshire's KIDS COUNT project groups every city and town in the state into one of five clusters according to its ranking on each of four factors that create an "economic environment": per capita income, median family income, percent of children living below poverty, and percent of children living below 185% of poverty. Cluster 1 towns are the wealthiest and cluster 5 towns are the poorest.

Statistical correlations show an association, not a causal relationship. It is beyond the scope of this study to determine if the relationship between low Child Potential Index scores and high scores on social and economic measures is a result or a cause of child risk factors.

The correlation coefficient for NHEIAP 3rd language scores is .64, accounting for 41% of variation in scores. The correlation coefficient for the percentage of children receiving public assistance is .80, accounting for 64% of the variation. The correlation coefficient for population change (1990-1999) is .55, accounting for 30% of the variation. And the correlation coefficient for per capita income is .65, accounting for 42% of the variation.

Communities with the highest Child Potential Index scores are an exception to the pattern of high Child Potential Index scores being highly correlated with employment growth. These highest scoring communities include many so-called "bedroom communities" that have traditionally had limited employment opportunities and growth.

Depending on whether weighted or unweighted Child Potential Index scores are used, the statistical relationship suggests that between 30% and 43% percent of the difference in NHEIAP 3rd grade language test scores can be explained by the underlying socioeconomic variables measured by the Child Potential Index.

Third grade scores were used because most communities have at least one elementary school.

Per capita income figures used for New Hampshire communities were calculated by the New Hampshire Department of Revenue using data from 1996 federal tax returns. This procedure is different than the smaller area income estimates produced by the US Census Bureau, Bureau of Economic Analysis (it leaves out certain types of income). The result is a somewhat lower state and local per capita income figure than reported elsewhere.

The Child Potential Index accounts for 64% of the variation in public assistance caseloads (R^2 = .60) and for nearly 50% of the variation in per capita income in New Hampshire communities.

Recent research by, among others, the Rand Corporation suggests that certain types of public expenditures that improve conditions for children can also yield substantial returns on investment. The Rand Corporation conducted evaluation research on a number of early intervention programs around the country, and concluded that taxpayers can reap a benefit of over seven dollars for every dollar spent. Karoly, Lynn A., Greenwood, Peter W., Everingham, Susan S., et al., Investing in Our Children: What We Know and Don't Know About the Costs and Benefits of Early Childhood Interventions. Rand Corporation, Washington, D.C., 1998.

Interestingly, a 33% reduction in child poverty yields similar estimates of economic benefits using both the Child Potential Index estimated models, and the fifty state data models. This convergence suggests that the methodology has promise as a reliable estimator.

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