

CHILD WELL-BEING: AN INDEX BASED ON DATA OF INDIVIDUAL CHILDREN

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May 2011

OVERVIEW

Monitoring child well-being over time or across states can be complex and daunting, but tracking a small number of indicators can make this more feasible. Yet, this is risky if summary indices overlook critical aspects of child well-being. For this brief, we developed research-based indices of child well-being for four child outcome domains (physical, psychological, social, and cognitive/educational) from the 2003 National Survey of Children's Health. For each of the four domains, we produced an index of negative development and an index of positive development. In addition, we created an overall positive index and an overall negative index. Indices are reported for each state and for the U.S. as a whole.

WHAT ARE INDICATORS OF CHILD WELL-BEING AND WHY ARE THEY USEFUL?

Social indicators are quantitative measures of well-being that can be tracked over time. In addition, indicators can be compared across social, economic, and demographic groups.¹ They are used to describe well-being, monitor trends, set goals, increase accountability, and support evaluation of programs². Because of their considerable usefulness, the number of child well-being indicators has significantly increased over the last decade. This has led to efforts to summarize child well-being by creating indices.

Most indices of child well-being have been constructed from macro-level data— data for states, cities or counties. However, micro-level data—data collected from surveying individual children—can also be used. Moreover, disproportionate attention has been placed on indicators of negative child well-being. In this brief, we add to the body of children's indicators by constructing indicators of a child's well-being using micro-level data—data that allow us to describe the circumstances of individual children across multiple developmental domains. Additionally, using these data, we construct indices of positive³ and negative children's well-being and compare and contrast them across U.S. states.

CONCEPTUALIZING AND CONSTRUCTING POSITIVE AND NEGATIVE INDICES OF CHILD WELL-BEING

Research makes it clear that a child's well-being is not one-dimensional, based on single attributes like health or test scores. Rather, well-being is a multi-dimensional construct incorporating all dimensions of individual functioning.ⁱ Common child well-being domains include:

- Physical,
- Psychological,
- Social, and
- Cognitive/educational well-being.

¹ The concept of positive child well-being needs to be distinguished from contextual well-being--the characteristics of the child's environment that affect well-being. In this brief, we focus on domains of well-being. A related brief focuses on children's contextual well-being: Moore, K.A., Mbwana, K., (2011) Children's Developmental Contexts: An Index Based on Data of Individual Children. Washington, DC: Child Trends.

Each domain, in turn, is comprised of multiple constructs. In the indices developed here, four subdomains were developed for each of the domains, and each sub-domain is comprised of multiple measures available in the 2003 National Survey of Children's Health. Sub-domains were defined using as few as one single question to as many as four questions.

Physical well-being includes health status, nutrition, preventive health care, physical activity, safety, and security. Measures of physical well-being identified for index creation include four sub-domains:

- 1) overall and oral health status;
- 2) the presence or absence of chronic conditions such as asthma, diabetes among others;
- 3) health risk behaviors, namely, eating disorders and substance abuse; and
- 4) health promoting behaviors, namely, adequate sleep, exercise, and time spent watching television.

Psychological well-being means the mental and emotional status of individuals. Essentially it addresses how children think about themselves and their future and how they handle and cope with situations. Measures of psychological well-being include four sub-domains:

- 1) assessing internalizing behavior such as depression;
- 2) diagnosed conduct behavior problems;
- 3) self-esteem; and
- 4) coping skills.

Social well-being refers to how well a child is able to get along in the social ecology or in social relationships. It includes basic social skills, time use, and the ability to relate emotionally to people. We assess social well-being measures within four sub-domains:

- 1) parent-child relationships, namely communication and closeness;
- 2) engagement in sporting, community, and club activities;
- 3) positive social behaviors such as respect, getting along with other children, empathy, resolving conflicts; and
- 4) negative social behaviors such as arguing, bullying, disobedience and stubbornness.

Cognitive/educational well-being includes the skills related to a child's ability to learn, remember, and reason adequately for their age. A component of these skills is the ability to apply cognitive skills to be productive and engaged in school. Sub-domains for this domain include:

- 1) assessment of school problems including grade repetition;
- 2) learning difficulties and diagnosed learning disabilities;
- 3) parental concern about a child's achievement levels; and
- 4) a child's interest in reading for pleasure.

FINDINGS

Table 1 on page 6 summarizes results for both negative and positive child well-being indices for each well-being domain and overall. As noted, the summary index was created across the four child well-being domains for positive and negative well-being. Charts 1 and 2 depict the distribution of children by the number of positive or negative domains of child well-being they have. Charts 3 and 4 present these distributions by age and gender. Both positive and negative indices for child well-being for children aged 6-11 and 12-17 are shown. To illustrate, among 6-11 year old children in Table 1, 58 percent have positive well-being on the measure of physical health—they score positive on three of the four sub-domains measured in the physical health domain.

The key findings from the *positive* child well-being index include:

- When well-being scores are combined across the domains, less than one in three children (31 percent) and adolescents (23 percent) experience well-being in all four positive well-being domains.
- The proportion of children scoring well on <u>all</u> indices is considerably lower than the proportion scoring well on any given domain.
- The level of child well-being in one domain is generally correlated with well-being in other domains (not shown). For example, children with positive social health are more likely to have positive educational and cognitive outcomes and positive physical and psychological health. Correlations are moderate, however, suggesting that each subdomain represents a distinct aspect of child well-being.
- Patterns exist across subgroups. Girls (see charts 3 and 4), white non-Hispanic children (not shown), and younger children (6-11) tend to enjoy higher well-being scores than their counterparts.

Key findings from the *negative* child-well being indices include:

- Less than one in ten children fare poorly on the negative child well-being indices, as shown in Table 1. Specifically, five percent of 6-11 year olds and six percent of children ages 12-17 are identified as children experiencing negative outcomes on the negative child well-being index cumulative summary A score, respectively.
- Younger children are slightly better off than older children, as found in the summary child wellbeing index scores in Table 1.

Table 2 reports data on the individual domains and the summary index, for both positive and negative child well-being, by state, for children 6-11 and 12-17 years old. Charts 5 and 6 map the distribution of overall positive and negative child well-being for children 6-11 years old across the 50 states. Findings at the state level include:

- Analyses of the negative child well-being indices across states provide substantial evidence of validity for the new measures. For example, state rankings of the indices tend to mirror findings of other measures of child well-being⁴, such as state-level poverty and the teen birth rate. States like Vermont tend to have the best outcomes for children, while the challenges faced by states like Mississippi continue to be highlighted in our new indices. These similarities are also found for the positive child well-being index.
- States that tend to score well on the positive index of child well-being also tend to score low on the negative index. For example, children in Vermont and Minnesota do well on both of these indices, while children in Mississippi and Louisiana do poorly on both. Nevertheless, correlations are moderate, and the two indices are not simply interchangeable.

DISCUSSION

The very large sample surveyed in the 2003 National Survey of Children's Health enables us to make important contributions to the field of child indicators and indices. One key advantage is the ability to

create micro-level (individual) indices of children's positive and negative well-being and contexts. Unique micro-level indices are developed for each child in the survey. They allow us to examine each "whole child" to assess whether an individual child is faring well (or poorly) across all domains of functioning, or just a few of them. We have demonstrated that it is possible to create fairly comprehensive indices of positive and negative child well-being using over 40 individual measures across four developmental domains of child well-being.ⁱⁱ

Additionally, by looking at both positive and negative indices of well-being, we are able to offer a more complete picture of children's well-being across the U.S., rather than focusing solely on problems and negative outcomes. While children in some states are among the bottom quartile when considering the overall positive well-being index, these children do not necessarily fare among the worst when considering the negative child well-being index. For example, the percentage of children aged 5-17 in poverty in Massachusetts was among the lowest in the nation in 2003 at 11%.ⁱⁱⁱ Similarly, the percentage of Massachusetts children 6-11 years old with 12 or more positive domains on the positive child well being index, at 58%, was better than the national mean of 53%. However, the percentage of 6-11 year old Massachusetts children with eight or more of 16 domains of negative well being on the negative well-being index was 5.8%, which is worse than the national mean of 5.0%. These findings offer insights on how one number cannot tell the whole story and confirm that additional information can have meaningful implications.

We are, of course, not able to assess causality. Differences could be driven by policy differences, geographical differences, or cyclical differences since the survey offers only a snapshot in time. In addition, contextual differences are also a likely factor. Contexts contribute to a child's well-being through different mechanisms and as such should be assessed separately from individual child development well-being domains. For example, indicators of a child's health are important development measures of well-being. However, indicators assessing poverty and health insurance coverage represent important contexts for understanding the overall well-being of a child. In a companion brief, we use additional data from the NSCH 2003 to explore three contextual domains: the family, community, and socio-demographics. Our findings provide evidence that children's contexts, although complementary, are different from well-being measures.

The validity of the positive and negative indices of child well-being we have developed is supported by comparison of our findings to 2003 Census data on children's poverty rates, which reveals a similar distribution. States with higher poverty rates generally perform less favorably within the positive and negative indices. Additionally, the positive and negative indices are associated with parent's levels of education. Approximately 63% of 6-11 year old children of parents with at least a high school education have three or four domains of positive well-being, compared with only 43% of children of parents with less than a high school education. A similar relationship is found with the negative child well-being index: 32% of 6-11 year old children of parents with less than a high school education have two to four domains of negative well-being, compared with only 16% of children of parents with at least a high school education.

CONCLUSIONS

ⁱⁱ A second brief in this series also demonstrates the efficacy of developing indices of positive and negative well-being using three contextual developmental domains.

ⁱⁱⁱ U.S. Census Bureau Small Area Income and Poverty Estimates. <u>http://www.census.gov/cgi-bin/saipe/national.cgi?year=2003&ascii=#SA51</u>. Accessed on March 5, 2010.

Theory-based and research-driven indices of child well-being can be constructed and they provide useful information at the state and national levels. Moreover, positive and negative indicators provide different information. In addition, indices of child well-being, while related to indices of children's contexts and environments, appear to be distinct empirically as well as conceptually. These data are drawn from an important new data resource, the National Survey of Children's Health, first conducted in 2003. With the availability of data for 2007, and soon for 2011, trends in child well-being can be examined over time. The availability of child well-being indices will facilitate making comparisons across groups and over time.

ACKNOWLEDGEMENTS

This research was funded by the Annie E. Casey Foundation. We thank them for their support, but acknowledge that the findings and conclusions presented in this report are those of the authors alone, and do not necessarily reflect the opinions of the Foundation.

| Table 1. | Child Well-Being Domain Summary: Percentage Positive and Percentage Negative | | | | | | | | | | | |
|--------------------------------|--|------|-------|-------------------------------------|----------|-------|--|--|--|--|--|--|
| | Positive Well-Being | | | Negative Well-Being | | | | | | | | |
| | | 6-11 | 12-17 | | 6-11 yrs | 12-17 | | | | | | |
| | | yrs | yrs | | | yrs | | | | | | |
| Domains | Definition | | | Definition | | | | | | | | |
| Physical Health Status | 3 of 4 positive subdomains | 58 | 43 | 2 of 4 negative subdomains | 11 | 9 | | | | | | |
| Psychological Health | 3 of 4 positive subdomains | 65 | 60 | 2 of 4 negative subdomains | 11 | 14 | | | | | | |
| Social Health | 3 of 4 positive subdomains | 67 | 64 | 2 of 4 negative subdomains | 16 | 13 | | | | | | |
| Educational/Cognitiv Health | e 3 of 4 positive subdomains | 65 | 59 | 2 of 4 negative subdomains | 28 | 32 | | | | | | |
| Well-being Summary (A) | 12 or more positive of 16 subdomains | 53 | 44 | 8 or more negative of 16 subdomains | 5 | 6 | | | | | | |
| Well-being Summary (B) | 4 of 4 positive domains | 31 | 23 | Negative on 3 of 4 domains | 6 | 6 | | | | | | |

Chart 1: Percentage of children ages 6-11 & 12-17 with 0-4 domains of positive child well-being.







Chart 2: Percentage of children ages 6-11 & 12-17 with 0-4 domains of negative child well-being.



Chart 4: Percentage of children with 0-4 domains of negative child well-being by age and gender



Children's well-being by State: % Positive and % negative domains of well-being for 6-11 and 12-17 year olds NSCH 2003

| | 6-11 Year Old Children | | | | | | | | 12-17 Year Old Children | | | | | | | | | | | |
|--------|------------------------------|------------------------------|------------------|--|--|------------------------------|-----------------------------------|------------------|---|--|------------------------------|------------------------------|------------------|--|--|------------------------------|------------------------------|------------------|--|--|
| | Positive Child Well-Being | | | | | | Negative Child Well-Being Domains | | | | | Negative Child Well-Being | | | | | | | | |
| | Physical Health Status | Psycholo- gical Health | Social Health | Educationa l Attain. & Cognitive Dev. | Child Well- Being Summary ¹ | Physical Health Status | Psycholo- gical Health | Social Health | Educational Attain. & Cognitive Dev. | Child Well- Being Summary ² | Physical Health Status | Psycholo- gical Health | Social Health | Educationa l Attain. & Cognitive Dev. | Child Well- Being Summary ¹ | Physical Health Status | Psycholo- gical Health | Social Health | Educationa l Attain. & Cognitive Dev. | Child Well- Being Summary ² |
| State/ | 57.9 | 64.6 | 67.6 | 66.5 | 53.1 | 11 / | 11 3 | 16 | 27.6 | 5.0 | 12 9 | 60.2 | 64.4 | 58.9 | 44.3 | 0.2 | 13.8 | 12 7 | 31.6 | 61 |
| AK | 64.3 | 69.4 | 70.4 | 69.3 | 61.6 | 73 | 9.7 | 16.2 | 26.0 | 4.1 | 47.1 | 66.4 | 71.6 | 64.4 | 49.6 | 7.8 | 11.6 | 8.4 | 26.6 | 4.7 |
| AI | 56.5 | 57.3 | 63.5 | 54.9 | 44.6 | 13.1 | 14.6 | 18.4 | 38.6 | 7.8 | 38.6 | 55.4 | 60.7 | 51.4 | 37.8 | 10.6 | 15.8 | 16.9 | 38.4 | 7.2 |
| AR | 51.6 | 57.5 | 63.1 | 56.3 | 43.8 | 12.9 | 11.0 | 18.9 | 36.9 | 5.7 | 39.1 | 56.6 | 63.9 | 51.8 | 38.3 | 11.4 | 16.8 | 10.9 | 38.8 | 6.8 |
| AZ | 53.0 | 62.9 | 60.4 | 66.6 | 50.0 | 11.3 | 12.5 | 22.2 | 27.5 | 4.2 | 42.3 | 60.5 | 62.9 | 61.5 | 44.0 | 8.4 | 12.8 | 16.4 | 29.8 | 5.3 |
| CA | 55.6 | 64.7 | 65.1 | 65.9 | 51.0 | 12.2 | 9.1 | 18.4 | 27.1 | 3.9 | 42.8 | 61.8 | 64.2 | 61.5 | 45.6 | 8.6 | 11.9 | 14.4 | 29.4 | 6.2 |
| CO | 63.8 | 74.1 | 76.1 | 72.7 | 63.1 | 7.2 | 5.7 | 12.9 | 17.4 | 1.7 | 52.9 | 69.8 | 71.5 | 69.2 | 53.5 | 5.7 | 9.1 | 10.5 | 22.8 | 2.3 |
| CT | 63.4 | 69.3 | 73.6 | 68.7 | 57.6 | 9.3 | 8.6 | 10.4 | 22.9 | 4.7 | 45.8 | 68.6 | 65.5 | 62.2 | 45.5 | 8.1 | 9.6 | 6.7 | 29.1 | 4.4 |
| DC | 50.1 | 60.7 | 61.1 | 56.9 | 44.5 | 14.1 | 12.6 | 20.3 | 37.0 | 7.1 | 29.9 | 52.4 | 56.3 | 44.5 | 30.0 | 17.8 | 17.7 | 14.3 | 46.8 | 11.9 |
| DE | 58.2 | 63.3 | 65.7 | 61.1 | 52.3 47.2 | 9.1 | 11.8 | 14.4 | 30.3 | 4.0 | 40.7 | 60.6 59.1 | 60.7 | 59.7 | 43.4 | 10.3 | 14.1 | 13.1 | 30.7 | 6.9 |
| FL | 58.2 | 59.0 | 65.5 | 55.5 | 44.5 | 13.8 | 16.2 | 10.1 | 36.7 | 7.0 | 40.1 | 56.6 | 65.0 | 54.3 | 40.3 | 0.3 | 13.8 | 12.3 | 35.8 | 53 |
| HI | 54.5 | 59.8 | 70.0 | 64.1 | 49.9 | 9.6 | 15.0 | 13.0 | 28.7 | 4.7 | 40.9 | 50.8 | 65.2 | 49.9 | 35.9 | 9.9 | 18.2 | 10.3 | 39.1 | 5.5 |
| IA | 66.3 | 68.9 | 70.6 | 72.9 | 61.9 | 7.2 | 10.7 | 13.2 | 19.1 | 3.4 | 52.2 | 66.4 | 70.0 | 70.3 | 55.1 | 5.7 | 11.0 | 5.7 | 22.3 | 3.2 |
| ID | 64.6 | 67.9 | 72.6 | 73.7 | 60.3 | 8.9 | 12.1 | 14.3 | 19.1 | 3.9 | 49.0 | 64.9 | 71.1 | 66.4 | 49.9 | 5.5 | 15.4 | 9.3 | 24.8 | 5.3 |
| L | 54.8 | 64.4 | 70.2 | 68.2 | 54.1 | 11.7 | 10.1 | 13.8 | 22.7 | 3.3 | 42.7 | 59.2 | 63.6 | 59.2 | 43.2 | 10.6 | 12.6 | 12.5 | 31.7 | 6.2 |
| IN | 63.1 | 72.9 | 73.0 | 74.2 | 63.8 | 6.9 | 9.5 | 12.2 | 20.1 | 3.8 | 43.1 | 58.9 | 65.3 | 61.7 | 47.8 | 6.3 | 15.0 | 10.6 | 29.2 | 5.4 |
| KS | 63.3 | 69.0 | 67.0 | 70.4 | 61.0 | 8.3 | 11.8 | 12.5 | 23.4 | 5.1 | 49.6 | 66.1 | 69.3 | 67.6 | 55.1 | 7.4 | 11.8 | 7.9 | 22.1 | 5.0 |
| KY | 55.3 | 65.9 | 67.3 | 63.1 | 53.5 | 13.8 | 12.2 | 18.4 | 30.5 | 7.8 | 36.8 | 61.7 | 63.6 | 59.5 | 45.1 | 10.2 | 17.4 | 14.4 | 31.1 | 8.1 |
| LA | 52.3 | 52.7 | 63.1 | 52.8 | 41.2 | 17.7 | 14.7 | 16.7 | 41.1 | 0.3 5.8 | 34.5 | 51.9 | 64.5 | 44.1 | 34.5 47.5 | 12.8 | 14.7 | 10.8 | 45.2 | 0.0 |
| MD | 57.2 | 65.8 | 70.5 | 64.8 | 56.6 | 9.9 | 10.6 | 9.0 | 22.0 | 3.0 | 42.7 | 59.6 | 66.9 | 59.1 | 44.5 | 10.3 | 15.1 | 8.4 | 20.1 | 65 |
| ME | 70.6 | 67.2 | 73.1 | 69.5 | 63.5 | 6.2 | 11.5 | 9.2 | 23.2 | 5.2 | 43.7 | 64 7 | 66.1 | 64.0 | 49.1 | 7.3 | 16.0 | 10.4 | 27.5 | 6.9 |
| M | 58.7 | 72.0 | 73.4 | 68.4 | 58.3 | 10.2 | 8.7 | 10.9 | 24.0 | 2.9 | 43.7 | 63.0 | 63.3 | 60.2 | 46.2 | 10.6 | 14.4 | 13.1 | 31.4 | 7.2 |
| MN | 68.3 | 71.9 | 71.7 | 78.0 | 65.3 | 8.0 | 6.6 | 11.6 | 18.3 | 4.0 | 52.9 | 67.0 | 70.7 | 71.3 | 59.0 | 5.5 | 9.5 | 8.3 | 21.4 | 3.7 |
| MO | 63.4 | 67.8 | 67.1 | 70.4 | 58.0 | 11.1 | 11.9 | 16.5 | 23.2 | 5.7 | 44.0 | 61.8 | 64.0 | 63.1 | 46.0 | 8.2 | 14.4 | 12.0 | 29.2 | 5.8 |
| MS | 46.8 | 50.0 | 60.5 | 47.3 | 37.6 | 18.2 | 14.4 | 20.3 | 45.6 | 9.4 | 36.8 | 44.5 | 59.4 | 42.7 | 29.7 | 17.1 | 22.2 | 16.1 | 47.6 | 9.7 |
| MT | 67.1 | 70.4 | 74.2 | 70.3 | 62.6 | 6.2 | 10.6 | 9.7 | 22.9 | 3.1 | 51.6 | 63.6 | 69.4 | 67.2 | 52.4 | 6.4 | 14.0 | 8.0 | 22.8 | 5.3 |
| NC | 57.3 | 64.6 | 66.6 | 61.5 | 49.0 | 11.9 | 13.4 | 17.5 | 28.7 | 6.5 | 45.3 | 62.7 | 66.4 | 59.4 | 46.1 | 9.0 | 11.6 | 12.6 | 31.3 | 3.7 |
| ND | 71.0 | 73.4 | 74.8 | 75.3 | 63.8 | 5.3 | 9.8 | 7.0 | 18.8 | 1.9 | 50.3 | 66.8 | 68.5 | 69.3 | 52.7 | 6.4 | 11.8 | 6.2 | 23.0 | 2.8 |
| | 69.0 | 74.1 | 71.0 | 73.0 | 66.9 | 6.3 | 8.3 | 0.9 | 20.2 | 3.6 | 49.0 | 63.1 | 67.7 | 64.7 | 49.5 | 0.9 | 12.2 | 7.1 | 23.7 | 5.7 |
| | 57.0 | 63.6 | 69.1 | 65.6 | 53.1 | 11 1 | 11.0 | 12.6 | 20.2 | 4.1 | 47.2 | 56.5 | 65.1 | 55.5 | 42.9 | 11.2 | 16.2 | 10.3 | 35.3 | 8.8 |
| NM | 55.1 | 60.0 | 62.9 | 64.4 | 51.7 | 11.2 | 14.3 | 18.9 | 30.1 | 5.1 | 39.4 | 57.7 | 64.3 | 56.1 | 43.1 | 12.1 | 16.4 | 11.1 | 34.2 | 7.0 |
| NV | 55.0 | 63.5 | 62.5 | 63.7 | 49.2 | 14.0 | 12.0 | 19.7 | 26.3 | 5.9 | 40.9 | 62.4 | 63.3 | 58.6 | 42.9 | 6.5 | 12.4 | 14.9 | 31.5 | 5.1 |
| NY | 56.2 | 64.6 | 71.9 | 65.4 | 52.7 | 12.7 | 11.7 | 13.2 | 28.3 | 5.0 | 40.5 | 58.6 | 60.3 | 54.5 | 37.7 | 8.4 | 15.8 | 14.3 | 35.1 | 7.9 |
| OH | 60.7 | 62.5 | 70.2 | 62.5 | 53.8 | 13.4 | 12.3 | 12.4 | 28.5 | 4.8 | 44.6 | 61.2 | 64.8 | 58.8 | 45.0 | 11.1 | 14.3 | 12.1 | 30.1 | 6.7 |
| OK | 58.0 | 61.9 | 65.2 | 61.6 | 51.1 | 9.7 | 12.7 | 13.7 | 31.8 | 4.7 | 40.4 | 58.8 | 62.8 | 56.9 | 41.9 | 14.5 | 15.7 | 14.6 | 31.0 | 9.8 |
| OR | 64.4 | 69.1 | 72.2 | 73.7 | 62.7 | 8.6 | 9.8 | 14.7 | 19.3 | 3.2 | 49.8 | 64.4 | 67.4 | 64.1 | 50.3 | 7.4 | 15.7 | 11.0 | 27.3 | 5.8 |
| PA | 60.1 50.4 | 67.0 | /1.1 | 67.8 | 52.8 | 8.0 | 11.9 | 11.4 | 24.4 | 3.7 | 41.8 | 61.7 | 66.1 | 59.6 | 40.1 | 9.1 | 14.2 | 13.7 | 29.9 | 5.4 7.3 |
| RI | 56.9 | 57.1 | 66.6 | 56.9 | 45.6 | 12.8 | 10.3 | 17.7 | 27.4 | 5.7 | 42.0 | 51.5 | 62.9 | 48.3 | 35.3 | 9.0 | 15.6 | 12.1 | 34.7 | 5.8 |
| 30 | 67.5 | 76.1 | 73.0 | 79.5 | 65.6 | 4 7 | 7.6 | 11.0 | 14.4 | 2.7 | 52.2 | 64.4 | 69.4 | 67.6 | 52.3 | 4.9 | 13.4 | 7.5 | 22.2 | 3.2 |
| TN | 55.5 | 61.6 | 64.0 | 57.4 | 46.9 | 12.6 | 12.3 | 18.4 | 33.4 | 8.5 | 38.6 | 57.5 | 64.8 | 55.6 | 43.8 | 13.7 | 15.9 | 13.9 | 35.3 | 9.7 |
| TX | 50.1 | 59.7 | 56.9 | 59.7 | 47.4 | 15.8 | 13.7 | 24.4 | 31.6 | 7.1 | 38.8 | 54.7 | 60.7 | 54.9 | 39.2 | 9.0 | 12.3 | 15.0 | 36.2 | 5.0 |
| UT | 62.5 | 66.8 | 72.0 | 74.7 | 60.2 | 8.8 | 10.8 | 9.9 | 19.9 | 2.6 | 50.2 | 57.9 | 68.4 | 65.0 | 48.9 | 7.7 | 16.4 | 7.5 | 26.8 | 4.8 |
| VA | 61.8 | 69.3 | 66.9 | 66.9 | 58.5 | 8.6 | 9.3 | 15.2 | 23.5 | 3.5 | 44.4 | 63.0 | 65.7 | 59.6 | 45.3 | 7.9 | 12.6 | 10.7 | 32.0 | 5.7 |
| VT | 71.7 | 74.7 | 74.8 | 79.6 | 70.7 | 5.5 | 7.3 | 9.7 | 14.3 | 2.3 | 51.1 | 69.6 | 71.4 | 70.8 | 57.2 | 6.0 | 12.7 | 7.5 | 20.8 | 6.8 |
| WA | 66.1 | 69.0 | 70.5 | 74.1 | 59.7 | 6.9 | 12.4 | 14.4 | 20.5 | 4.5 | 48.5 | 65.9 | 65.7 | 63.8 | 51.4 | 8.0 | 14.8 | 11.8 | 27.0 | 5.1 |
| WI | 67.1 | 74.0 | /1.9 | 75.0 | 52.2 | 7.3 | 8.4 | 13.3 | 19.1 | 3.7 | 50.4 | 64.7 | 65.6 | 67.3 | 51.5 | 7.2 | 13.8 | 11.6 | 22.2 | 5.1 |
| WVV | 58.5 | 66.4 | 68.3 70.8 | 62.6 73.1 | 59.3 | 12.0 | 14.9 | 11.9 | 31.3 | 4.1 | 43.0 | 66.0 | 65.9 71 / | 60.2 | 55.2 | 8.0 | 12.9 | 9.1 | 20.2 | 2.6 |

Child Trends analysis of the National Survey of Children's Health 2003 dataset

¹ Percentage of children with a cumulative child w ell-being score of 12 or more out of a possible 16.

 2 Percentage of children with a cumulative child w ell-being score of 8 or more out of a possible 16.

Chart 7.



DATA SOURCE AND DEFINITIONS

2003 NATIONAL SURVEY OF CHILDREN'S HEALTH (NSCH 2003)

The National Survey of Children's Health (NSCH) was conducted in 2003 in all 50 states and the District of Columbia by the National Center for Health Statistics, with funding from the Maternal and Child Health Bureau. Telephone numbers from a random sampling process were used to contact households, and one child in each household with children was randomly selected to be the focus of the study. An adult in the household knowledgeable about the child answered questions about the child and themselves. The survey is representative of children under 18 nationwide and also within each state. A total of 102,353 surveys were completed. (A 2007 NSCH has also been conducted, but became available after these analyses were completed.)

CONSTRUCTING THE POSITIVE AND NEGATIVE CHILD WELL-BEING INDICES

Measures of children's positive and negative well-being indices were constructed using 38 and 41 questions, respectively, from the NSCH 2003. These indices were adjusted with age-appropriate questions for children ages 6-11 and adolescents aged 12-17. However, rather than conceptualizing a negative index as a mirror opposite of the positive child well-being index, where appropriate, sub-domains were re-defined based on available research in the field and consultation with experienced researchers in the field. For example, the absence of chronic health conditions such as asthma, diabetes, and skeletal or muscular disability was defined as a positive well-being indicator. However, a broader and more detailed measure was needed to assess chronic negative health. Thus, we used the Children with Special Health Care Needs construct developed by The Child and Adolescent Health Measurement Initiative (CAHMI). This construct defines a child experiencing one of five conditions for medical reasons for at least one year as a child with special health care needs. Finally, taking advantage of the survey's micro data collected across the different states, positive and negative indices are also constructed for each state. Children's positive and negative well-being across these domains reveals different but complementary perspectives on what contributes to children's outcomes of well-being.

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