The New
KIDS COUNT Index

JULY 2012

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For more than 20 years, the KIDS COUNT® Data Book has ranked states based on a 10-measure index of child well-being. In the last two decades, there has been an increase in available state-level indicators and advances in the use of domains in indices of child well-being. The 2012 Data Book uses a new index that reflects these advances and better measures how children are doing across the United States. This paper describes the reasons for changing the KIDS COUNT index, the methods used to construct the new index and new opportunities the index provides for state-level child advocacy.

Background on the Current Index

The Annie E. Casey Foundation began the KIDS COUNT project in 1990 with three main purposes: 1. to track the well-being of children over time and across states, 2. to provide high-quality and unbiased information about children's welfare, and 3. to increase the visibility of children's issues. The project accomplishes these goals through effective data-based advocacy and communication about key trends in child well-being via the production and distribution of the annual *KIDS COUNT Data Book*, the online KIDS COUNT Data Center and the work of the network of KIDS COUNT grantees from each state, the District of Columbia, Puerto Rico and the U.S. Virgin Islands who advocate on behalf of children and families.

The most visible product of the KIDS COUNT project is the *Data Book,* which for more than two decades has used more or less the same 10 indicators to track the well-being of children at the state level. Five of the indicators come from the National Vital Statistics System, with the remaining five coming from the American Community Survey (ACS). The *KIDS COUNT Data Book* includes a ranking for each state based on a composite index that combines the 10 key measures into an overall measure of child well-being. Variables in the KIDS COUNT index were chosen because they represent several different dimensions of child well-being, reflect outcomes for children at different stages of life—from infancy through teenage years—and are measured consistently across states and over time.

Indicators of Child Well-Being Historically Included in the KIDS COUNT Data Book

1. Low-birthweight babies

2. Infant mortality

3. Child deaths

4. Teen deaths

5. Teen births

6. Teens not in school and not high school graduates (high school dropout)

7. Teens not in school and not working

8. Child poverty

9. Secure parental employment

10. Children in single-parent families

The 10-measure KIDS COUNT index has provided a clear and concise means of tracking child well-being across states. It has helped policymakers, journalists and others quickly determine whether trends for children are moving in the right direction and how child well-being compares across states.[1] Measures in the index are available for each of the 50 states and the District of Columbia on an annual basis. Most of the 10 measures are also available at the county level, enabling state KIDS COUNT grantees to highlight trends in child well-being for local areas.

Although this index has been very useful, it also has limitations. Most importantly, it does not separate indicators into different domains of child well-being (e.g., health, education, economic well-being). Each of the 10 key indicators is grouped together into a single index, making it difficult to target specific dimensions of child well-being in need of

improvement. The 10-measure index is also limited in scope, focusing primarily on health and economic security while excluding several other factors known to influence children's well-being.

The New KIDS COUNT Index

Since the KIDS COUNT project began, new state-level data have become available, and there have been significant advances in the conceptualization and measurement of child well-being.[2] Many researchers have developed comprehensive indices that capture the multidimensionality of child outcomes. In 2011, Casey Foundation staff began investigating the possibility of revising the KIDS COUNT index to take advantage of new data availability and replacing it with an index that includes multiple domains of child well-being.

A review of the literature identified several important considerations in developing a new measure of child well-being, which were used to guide the selection of domains and indicators for the new index:

- Acknowledge that children's lives are affected by both positive/protective and negative/risk factors;

- Recognize that children are affected by the environment in which they live, including their family, peer relationships, communities, institutions and cultural influences;

- Capture both basic survival (such as mortality and basic health) and quality-of-life measures (e.g., economic security and community and family support);

- Include multiple domains (such as

health, education and material well-being) that have a significant influence on a child's life;

- Incorporate the developmental stages of childhood; and

- Include indicators of current child well-being as well as factors that affect future outcomes as children move into adulthood.

A domain-based index would make it easier for child advocates to pinpoint areas of concern and promote appropriate policy solutions. There is also potential for more media coverage by focusing on a wider range of policy-relevant indicators.

This work is timely because of the growing number of projects that are incorporating domains of child well-being in their research. In a review of 19 studies that used domains to construct child well-being indices, from both the United States and a variety of countries, there were 107 different domains used, with three standing out as being most common: material well-being, education and health.[3] There is no consensus on exactly which domains should be included in an index of child well-being, but these three were used much more often than others.

The use of domains in children's research has also increased with the availability of new data. Full implementation of the American Community Survey (ACS), starting in 2005, provided more reliable estimates for children and families on an annual basis. At the same time, the growing availability of data for detailed population subgroups enables domain-specific comparisons of child well-being across different racial/ethnic groups.

In addition, data sources such as the National Assessment of Educational Progress have only recently begun to produce estimates for students in all 50 states.

There are also potential drawbacks of moving to a domain-based index. Using domains requires a more complex methodology, which could be more difficult to explain to nontechnical audiences. Adding additional measures to the index could also lead to problems related to data availability—for example, if funding for a particular survey is eliminated or the release of data is delayed. However, KIDS COUNT staff felt that the positives outweighed the negatives of constructing a new index.

Selecting Domains for the New Index

At the onset of the project, Casey Foundation staff highlighted three basic criteria that should be used to select domains for the revised KIDS COUNT index. Domains must be:

- Relevant for state-level policy;

- Focused on children or families with children; and

- Likely to include measures that are regularly updated and comparable across states.

In September 2011, the Casey Foundation and the Population Reference Bureau (PRB) presented these criteria to a group of experts to discuss the possibility of replacing the current KIDS COUNT index with one based on several well-recognized dimensions of child well-being. Participants represented leading organizations focused on the

well-being of children, including the Federal Interagency Forum on Child and Family Statistics, The Foundation for Child Development, Child Trends, the Brookings Institution and state KIDS COUNT organizations. The list of participants is shown in Appendix A.

Several key points and questions were raised during the meeting. First, the KIDS COUNT project currently stresses the need for annual availability of key indicators, but is it necessary to have data every year? A second issue involves the weighting of the indicators within the overall index. Indicators could be equally weighted within domains, but unless each domain has the same number of indicators, the indicators will ultimately have different weights in the overall index. A third point concerns the need for simplicity and transparency in constructing an overall index, which leads to the question: Who is the target audience and what is the purpose of the index? Finally, if comparisons over time are needed, it is important to consider how to carry out statistical tests to measure change—and whether changes are statistically significant.

Participants at the meeting identified the following key domains of child well-being, listed in order of importance:

• Health (Physical/Mental/Emotional)

• Education (Achievement/Attainment)

• Material/Economic

• Family (Environment/Structure/ Context)

• Safety/Risky Behavior

• Community

Selecting Key Indicators for the New Index

The expert advisory group also discussed potential indicators for the revised index of child well-being. Indicators chosen for the new index need to meet the same criteria used for selecting measures for the annual *KIDS COUNT Data Book* and online KIDS COUNT Data Center:

• The indicator must be from a reliable source.

• The indicator must be available and consistent over time and for all states.

• The indicator should reflect a salient outcome or measure of child well-being.

• The indicator must be easily understandable to the public.

• The indicator must have a relatively unambiguous interpretation.

• The indicator should continue to be produced in the near future.

In addition to these criteria, the group of indicators in the revised index should:

• Equitably represent the different domains of child well-being;

• Cover child, family, and community contexts;

• Cover all stages of childhood;

• Allow disaggregation across different racial/ethnic groups;

• Be selected based on its impact on long-term outcomes over the life course; and

• Use the child as the unit of analysis.

Using these criteria as a guide, PRB selected 36 initial indicators for the revised index, covering five different

domains of child well-being: Health, Material/Economic, Education, Safety/ Risky Behaviors and Family/Community (see Appendix B). Indicators were selected based on input from the expert advisory group, state-level data availability and our review of the child well-being literature.

In January 2012, the preliminary list of domains and indicators was shared with key stakeholders at the Annie E. Casey Foundation. The purpose of this meeting was to discuss the reasons for moving to a revised index and to determine how the new index fits into the broader work of the Foundation. At the core of the Annie E. Casey Foundation's theory of change is the notion that children do best when they live in healthy, supportive families, and families need supportive communities to thrive. Therefore, one of the key recommendations from this meeting was that the revised index should be developed in a way that captures these broader family and community influences on children's lives.

In March 2012, Casey Foundation and PRB staff discussed the revised index at the KIDS COUNT Data Workshop. State KIDS COUNT grantees at the meeting provided useful feedback on indicators that they felt should be included or excluded from the index and on how they thought the media and others might react to the proposed changes to the index.

PRB refined the initial list of 36 indicators based on input from expert advisors, including Casey Foundation staff and KIDS COUNT grantees. PRB also constructed a correlation matrix that showed the associations between the different measures. It is widely believed

that highly correlated indicators measure the same underlying dimensions and should not be included in the same index. To avoid this redundancy, indicators that were too highly correlated were discarded in favor of measures with moderately positive associations.

At the end of this process, the Casey Foundation selected 16 measures for the new index, grouped into four separate domains of child well-being: Economic Well-Being, Education, Health, and Family and Community (see Table 1). Correlations between each of these measures are shown in Appendix C.

Constructing the Index

The 16-measure KIDS COUNT index was constructed by first converting the state numerical values for each of the 16 key indicators into standard scores. Standardization was necessary for two reasons. First, some measures differ in units (i.e. percentages, rates per 1,000, or rates per 100,000). Second, the distributions of the 16 measures were quite different from one another. For example, the percent of children without health insurance is highest in Nevada at 17 percent, nearly nine times higher than in Massachusetts and Vermont at 2 percent. The highest teen birth rate (64 births per 1,000 teens in Mississippi) is only four times the lowest rate (16 births per 1,000 teens in New Hampshire). By standardizing these variables, as described below, each measure is given equal weight in the index.

For each variable, standard scores (z-scores) were derived by subtracting the mean state value from the observed state estimate and dividing the amount

by the standard deviation for that distribution of state estimates, as shown in the following formula. In the formula, x represents the state estimate, the Greek letter mu represents the mean across the 50 state values, and the Greek letter sigma represents the standard deviation:

$$z = \frac{x - \mu}{\sigma}$$

We then summed the standard scores across variables within each domain to create domain-specific index values for each of the 50 states. An overall index value was calculated for each state by averaging the four domain-specific index values. Finally, we ranked the states on the basis of their overall standard scores in sequential order from highest/best (1) to lowest/worst (50). State rankings were calculated separately for each of the four domains and for the overall index.

Each of the measures in the index was given the same weight in calculating the sum of standard scores. An equal-weighting strategy is the simplest and most transparent method, and is consistent with the method used to construct the previous 10-measure index. While some researchers have questioned whether an equal-weighting strategy is appropriate for measuring child well-being, given that not all measures contribute equally to children's overall quality of life, there is no consensus at this point on a preferred alternative to equal weighting.[4]

TABLE 1: FINAL LIST OF INDICATORS SELECTED FOR THE NEW KIDS COUNT INDEX

Indicator

ECONOMIC WELL-BEING
Percent of children in poverty (income below $22,113 for a family of two adults and two children in 2010)
Percent of children whose parents lack secure employment (no full-time, year-round work)
Percent of children in households with a high housing cost burden
Percent of teens not in school and not working (ages 16-19)

EDUCATION
Percent of children not in preschool (ages 3-4)
Percent of 4th graders not proficient in reading
Percent of 8th graders not proficient in math
Percent of high school students not graduating on time

HEALTH
Percent low-birthweight babies
Percent of children without health insurance
Child and teen death rate (per 100,000 children ages 1-19)
Percent of teens who abuse alcohol or drugs (ages 12-17)

FAMILY AND COMMUNITY
Percent of children living in single-parent families
Percent of children living in families where the household head lacks a high school diploma
Percent of children living in high-poverty areas
Teen birth rate (per 1,000 teens ages 15-19)

How the New Index Compares with Other Projects Tracking Child Well-Being

The four domains included in the revised KIDS COUNT index are similar to those included in several other national projects that track the well-being of children (see Table 2). The national Child Well-Being Index (CWI), produced each year by Kenneth Land for the Foundation for Child Development, tracks trends in child well-being across 28 indicators and seven different dimensions.[5] The Federal Interagency Forum on Child and Family Statistics produces an annual publication, *America's Children: Key National Indicators of Well-Being*.[6] Measures in the *America's Children* report are categorized into seven domains, similar to those used in the CWI project, and each domain contains approximately five to seven indicators. Child Trends' *Data Bank* provides information about national trends for more than 100 indicators of well-being.[7] Child Trends' indicators are organized by developmental stages and by key dimensions of child well-being.

Unlike other national projects tracking child well-being, the new KIDS COUNT index does not include safety and behavioral risk factors as a separate domain. The Foundation considered a domain focused on child safety and risky behaviors, but these indicators were

TABLE 2: TOPICS INCLUDED IN NATIONAL PROJECTS TRACKING CHILD WELL-BEING

FOUNDATION FOR CHILD DEVELOPMENT CWI	AMERICA'S CHILDREN	CHILD TRENDS DATA BANK	KIDS COUNT DATA CENTER	REVISED KIDS COUNT INDEX
Family and Economic Well-Being	Economic Circumstances	Economic Security	Economic Well-Being	Economic Well-Being
Health	Health	Health and Safety	Health	Health
	Health Care			
Safety/Behavioral Concerns	Physical Environment and Safety		Safety and Risky Behaviors	
	Behavior	Behaviors		
Educational Attainment	Education	Child Care and Education	Education	Education
Community Connectedness	Family and Social Environment	Family and Community	Family and Community	Family and Community
Social Relationships				
Emotional/Spiritual Well-Being				
	Demographic Background	Demographics	Demographics	

instead subsumed under other domains in the index. For example, substance use is included in the health domain, and the teen birth rate is listed under family and community influences. One rationale for excluding the child safety and risky behavior domain was that indicators available at the state level for this domain focused only on teens, ignoring children in younger age groups.

The domains selected for the new index are similar to the topics shown on the *KIDS COUNT* Data Center website: Economic Well-Being, Health, Education, Family and Community, Safety and Risky Behaviors, and Demographics.[8]

What distinguishes the KIDS COUNT index from other projects is its focus on tracking child well-being at the state level. Although state-level data on children are more widely available than they were 10 to 20 years ago, there are still gaps in data availability and consistency—especially in areas of environmental health, emotional well-being, and social relationships. The lack of annual, state-level data on childhood obesity is also a concern, given the important implications for children's health. The National Survey of Children's Health provides state-level data on childhood obesity and many other variables of interest, but those data are only available every four years.

Appendix D compares the key indicators included in the national CWI, *America's Children* report, 10-measure KIDS COUNT index and new KIDS COUNT index. In some cases, different

organizations categorize the same indicators under different domains. For example, the teen birth rate is classified as both a behavioral risk factor and an indicator of family environment. Health insurance coverage is listed as an indicator of health as well as economic security. Thus, the lines that are drawn between different domains of child well-being are sometimes blurred.

State Rankings

State rankings based on the new index are shown in Table 3. New Hampshire, Massachusetts and Vermont ranked highest in the new index, while Nevada, New Mexico and Mississippi had the lowest rankings. Across the four domains, Vermont ranked highest in measures of health, Massachusetts ranked highest in measures of education, North Dakota fared the best in terms of economic well-being, and New Hampshire scored highest in measures of family and community influences.

Most state rankings in 2012 were similar to those reported in 2011 based on the 10-measure index. However, there are a few states with significant changes in rankings (defined as shifting 10 ranks or more). California, Oregon and New York moved down in the rankings (suggesting worse outcomes for kids), while Maryland performed much better under the revised index. These changes in state rankings likely reflect the different measures included in the two indices, rather than actual changes in the well-being of youth. The 10-measure index put more emphasis on health and mortality, while the new index provides a more balanced picture of

TABLE 3: STATE RANKINGS, EACH DOMAIN AND OVERALL, 2011-2012

States	Economic Well-Being Rank	Education Rank	Health Rank	Family and Community Context Rank	Overall Rank 2012	Overall Rank 2011	Change in Rank
Alabama	42	44	41	44	45	48	3
Alaska	22	41	35	20	30	32	2
Arizona	46	46	36	46	46	37	-9
Arkansas	39	34	37	45	42	47	5
California	45	43	23	42	41	16	-25
Colorado	16	9	45	25	22	25	3
Connecticut	10	5	6	12	7	6	-1
Delaware	23	22	29	26	23	24	1
Florida	44	35	38	35	38	36	-2
Georgia	43	38	30	37	37	42	5
Hawaii	31	31	21	14	24	26	2
Idaho	26	30	28	11	20	22	2
Illinois	27	17	14	28	21	27	6
Indiana	24	36	34	31	31	31	0
Iowa	3	14	9	8	8	8	0
Kansas	8	12	32	24	16	19	3
Kentucky	37	28	25	38	35	41	6
Louisiana	47	45	39	48	47	49	2
Maine	18	23	3	7	13	11	-2
Maryland	14	6	11	19	10	23	13
Massachusetts	11	1	2	10	2	3	1
Michigan	36	33	22	29	32	30	-2
Minnesota	7	7	7	5	5	2	-3
Mississippi	50	48	48	50	50	50	0
Missouri	21	24	33	27	26	34	8
Montana	20	13	50	13	28	33	5
Nebraska	2	15	12	15	9	9	0
Nevada	49	50	46	41	48	40	-8
New Hampshire	6	4	10	1	1	1	0
New Jersey	19	2	5	9	4	5	1
New Mexico	48	49	49	49	49	46	-3
New York	32	19	15	34	29	15	-14
North Carolina	35	25	26	36	34	38	4
North Dakota	1	16	27	4	6	10	4
Ohio	30	18	24	32	27	29	2
Oklahoma	29	39	44	40	40	43	3
Oregon	41	37	20	22	33	18	-15
Pennsylvania	17	8	8	23	14	20	6
Rhode Island	25	20	19	30	25	17	-8
South Carolina	34	40	40	43	43	45	2
South Dakota	4	21	43	21	17	21	4
Tennessee	38	42	16	39	36	39	3
Texas	33	32	42	47	44	35	-9
Utah	13	27	13	3	11	7	-4
Vermont	12	3	1	2	3	4	1
Virginia	9	11	17	16	12	14	2
Washington	28	26	4	17	18	13	-5
West Virginia	40	47	31	33	39	44	5
Wisconsin	15	10	18	18	15	12	-3
Wyoming	5	29	47	6	19	28	9

Note: The District of Columbia is not ranked.

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child well-being, including measures of socioeconomic status, health, education, family and community influences.

State rankings also varied across the four domains. There were two states that ranked among the top 10 states across all four domains (Minnesota and New Hampshire). Five other states ranked in the top 10 in three domains (Connecticut, Iowa, Massachusetts, New Jersey and Vermont). And there were four states that ranked among the bottom 10 states across all four domains—all located in the South or Southwest (Alabama, Mississippi, Nevada and New Mexico).

It's not surprising that states faring well in one domain tend to do well in other dimensions of well-being. Table 4 shows correlations between state rankings across the four domains and the overall indices for 2011 and 2012. There is a close association between the Economic Well-Being and Family/Community Domains (correlated at .84). Education is also closely linked to Family/Community (.74). The Health Domain stands out because it has the weakest associations with the other domains, ranging from .50 to .66.

The overall state rankings for 2012 are highly correlated with the 2011 state rankings based on the 10-measure index (.90). The close association between the 10-measure index and the 16-measure index confirms results from earlier research indicating that the 10-measure index provides a good approximation of child well-being overall. [9]

Conclusion

The new KIDS COUNT index advances our understanding of state-level differences in child well-being in areas of health, economic well-being, education and family/community influences. State rankings based on the new 16-measure index are highly correlated with those based on the previous 10-measure index. However, by incorporating a wider range of indicators in four separate domains, the new index paints a more complete picture of child well-being for all states, and will make it easier for child advocates to target areas of concern and promote appropriate policy solutions.

TABLE 4: CORRELATIONS BETWEEN DOMAIN RANKINGS AND OVERALL RANKINGS OF CHILD WELL-BEING

Correlations

	HEALTH RANK 2012	ECONOMIC RANK 2012	EDUCATION RANK 2012	FAMILY AND COMMUNITY RANK 2012	OVERALL RANK 2012	OVERALL RANK 2011
HEALTH RANK 2012		0.50	0.66	0.62	0.77	0.80
ECONOMIC RANK 2012	0.50		0.81	0.84	0.90	0.76
EDUCATION RANK 2012	0.66	0.81		0.74	0.89	0.79
FAMILY AND COMMUNITY RANK 2012	0.62	0.84	0.74		0.92	0.84
OVERALL RANK 2012	0.77	0.90	0.89	0.92		0.90
OVERALL RANK 2011	0.80	0.76	0.79	0.84	0.90	

All correlations are significant at p < .0001.

Appendix A: List of Participants at Advisory Group Meeting

Traci Cook, *National Center for Health Statistics*

Jean D'Amico, *Population Reference Bureau*

Genevieve Dupuis, *Population Reference Bureau*

Robert Goerge, *Chapin Hall at the University of Chicago*

Florencia Gutierrez, *The Annie E. Casey Foundation*

Ron Haskins, *Brookings Institution*

Don Hernandez, *City University of New York*

Linda A. Jacobsen, *Population Reference Bureau*

Robert Kominski, *U.S. Census Bureau*

Vicki Lamb, *North Carolina Central University*

Kenneth Land, *Duke University*

Jennifer Madans, *National Center for Health Statistics*

Mark Mather, *Population Reference Bureau*

David Murphey, *Child Trends*

William P. O'Hare, *The Annie E. Casey Foundation*

Kelvin Pollard, *Population Reference Bureau*

Laura Speer, *The Annie E. Casey Foundation*

Isabel Sawhill, *Brookings Institution*

Nick Zill, *Consultant*

Appendix B: Initial List of Indicators Under Consideration for KIDS COUNTS Index

Indicator	Year(s)	Source	Category
MATERIAL/ECONOMIC			
Children living under 100% OR 200% of poverty level	2010	ACS	Material/Economic
Children who are food insecure	2009-2010	CPS	Material/Economic
Children in households with a high housing cost burden	2010	Internal ACS	Material/Economic
Children in families earning below 50% of state median income	2010	Internal ACS	Material/Economic
EDUCATION			
Freshman graduation rate OR high school dropout rate	2009/2010	NCES/ACS	Education
Fourth graders not proficient in reading/math	2011	NAEP	Education
Children not attending preschool (ages 3-5)	2010	Internal ACS	Education
HEALTH			
Infant death per 1,000	2009	NCHS	Health/Mortality
Child and teen deaths per 100,000 children (ages 1-17)	2009	NCHS	Health/Mortality
Low-birthweight OR preterm babies	2009	NCHS	Health/Mortality
Children with disabilities	2010	ACS	Health/Mortality
Children without health insurance	2010	ACS	Health/Mortality
FAMILY/COMMUNITY			
Children living in distressed OR high-poverty areas	2006-2010	5-yr ACS	Family/Community
Children living in linguistically isolated homes	2010	Internal ACS	Family/Community
Children in families where household head lacks a high school diploma	2010	Internal ACS	Family/Community
Children living in single-parent families	2010	ACS	Family/Community
Children living in crowded housing	2010	Internal ACS	Family/Community
SAFETY/RISKY BEHAVIORS			
Teen births per 1,000 (ages 15-19)	2009	NCHS	Safety/Risk
Teens who used illicit drugs in past month (ages 12-17)	2008-2009	SAMSHA	Safety/Risk
Teens who smoked cigarettes in past month (ages 12-17)	2008-2009	SAMSHA	Safety/Risk
OTHER VARIABLES UNDER CONSIDERATION			
High school students who are obese	2009	YRBSS	Health/Safety
High school students with limited physical activity	2009	YRBSS	Health/Safety
Teen suicide rate per 100,000 (ages 15-19)	2004-2009	CDC (WISQARS)	Health/Safety
Child maltreatment rate (per 1,000 children)	2009	NCANDS (KCDC)	Health/Safety
Teens not in school and not working (ages 16-19)	2010	ACS	Education
Young adults without a bachelors degree (ages 25-29)	2010	Internal ACS	Education
Teens who binge drink (ages 12-17)	2008-2009	SAMSHA	Health/Safety
Youth in juvenile detention facilities (ages 10-21)	2006	CJRP (KCDC)	Health/Safety
Children whose parents lack secure employment	2010	Internal ACS	Material/Economic
Births to mothers receiving little/no prenatal care	2009	NCHS	Health/Safety
Pupil/teacher ratio	2009-2010	NAEP	Education
Children with inadequate immunization	2010	CDC	Health/Safety

Revised 2/13/2012

Appendix C: Correlations Between Indicators of Chid Well-Being

	Percent of children without health insurance	Child and teen death rate (per 100,000 children ages 1-19)	Percent of low-birthweight babies	Percent of teens who abuse alcohol or drugs (ages 12-17)	Percent of children living in poverty	Percent of children in households with a high housing cost burden	Percent of teens not in school and not working (ages 16-19)	Percent of children without secure parental employment
Percent of children without health insurance		0.33	-0.04	0.23	0.30	0.07	0.47	0.20
Child and teen death rate (per 100,000 children ages 1-19)	0.33		0.33	0.06	0.50	-0.59	0.50	0.20
Percent low-birthweight babies	-0.04	0.33		-0.49	0.60	0.10	0.47	0.47
Percent of teens who abuse alcohol or drugs (ages 12-17)	0.23	0.06	-0.49		-0.23	-0.10	-0.17	-0.26
Percent of children living in poverty	0.30	0.50	0.60	-0.23		-0.04	0.61	0.77
Percent of children in households with a high housing cost burden	0.07	-0.59	0.10	-0.10	-0.04		0.11	0.31
Percent of teens not in school and not working (ages 16-19)	0.47	0.50	0.47	-0.17	0.61	0.11		0.63
Percent of children without secure parental employment	0.20	0.20	0.47	-0.26	0.77	0.31	0.63	
Percent of children not in preschool (3-4 year olds)	0.57	0.42	-0.29	0.26	0.25	-0.40	0.34	0.15
Percent of 4th graders not proficient in reading	0.46	0.60	0.24	0.00	0.67	-0.09	0.70	0.58
Percent of 8th graders not proficient in math	0.16	0.44	0.56	-0.27	0.72	0.08	0.69	0.64
Percent of high school students not graduating on time	0.50	0.36	0.55	-0.12	0.59	0.31	0.72	0.63
Percent of children living in high-poverty areas	0.16	0.41	0.59	-0.22	0.84	0.01	0.43	0.59
Percent of children living in single-parent families	0.10	0.35	0.73	-0.33	0.76	0.18	0.50	0.74
Percent of children living in households without a high school diploma	0.52	0.13	0.38	-0.05	0.67	0.41	0.55	0.61
Teen birth rate (per 1,000 ages teens 15-19)	0.51	0.73	0.55	-0.12	0.79	-0.23	0.73	0.54

Appendix C: Correlations Between Indicators of Chid Well-Being (continued)

	Percent of children not in preschool (3-4 year olds)	Percent of 4th graders not proficient in reading	Percent of 8th graders not proficient in math	Percent of high school students not graduating on time	Percent of children living in high-poverty areas	Percent of children living in single-parent families	Percent of children living in families where the household head lacks a high school diploma	Teen birth rate (per 1,000 teens ages 15-19)
Percent of children without health insurance	0.57	0.46	0.16	0.50	0.16	0.10	0.52	0.51
Child and teen death rate (per 100,000 children ages 1-19)	0.42	0.60	0.44	0.36	0.41	0.35	0.13	0.73
Percent low-birthweight babies	-0.29	0.24	0.56	0.55	0.59	0.73	0.38	0.55
Percent of teens who abuse alcohol or drugs (ages 12-17)	0.26	0.00	-0.27	-0.12	-0.20	-0.33	-0.05	-0.12
Percent of children living in poverty	0.25	0.67	0.72	0.59	0.84	0.76	0.67	0.79
Percent of children in households with a high housing cost burden	-0.40	-0.09	0.08	0.31	0.01	0.18	0.41	-0.23
Percent of teens not in school and not working (ages 16-19)	0.34	0.70	0.69	0.72	0.43	0.50	0.55	0.73
Percent of children whose parents lack secure employment	0.15	0.58	0.64	0.63	0.59	0.74	0.61	0.54
Percent of children not in preschool (3-4 year olds)		0.51	0.17	0.14	-0.02	-0.10	0.14	0.39
Percent of 4th graders not proficient in reading	0.51		0.75	0.62	0.54	0.47	0.59	0.76
Percent of 8th graders not proficient in math	0.17	0.75		0.70	0.57	0.63	0.60	0.67
Percent of high school students not graduating on time	0.14	0.62	0.70		0.51	0.68	0.71	0.62
Percent of children living in high-poverty areas	-0.02	0.54	0.57	0.51		0.74	0.64	0.64
Percent of children living in single-parent families	-0.10	0.47	0.63	0.68	0.74		0.60	0.60
Percent of children whose parents lack a high school diploma	0.14	0.59	0.60	0.71	0.64	0.60		0.62
Teen birth rate (per 1,000 ages teens 15-19)	0.39	0.76	0.67	0.62	0.64	0.60	0.62	

Appendix D: Detailed List of Key Indicators for Projects Tracking Child Well-Being

Ken Land's 28-Measure CWI*	America's Children Report*	KIDS COUNT 10-Measure Index*	Revised KIDS COUNT Index*
Family/Economic Well-Being	**Economic Circumstances**	**Economic Well-Being**	**Economic Well-Being**
1. Child Poverty 2. Secure Employment 3. Median Annual Income 4. Health Insurance	1. Child Poverty 2. Secure Employment 3. Food Security	1. Child Poverty 2. Secure Employment 3. Idle Teens	1. Child Poverty 2. Housing Cost Burden 3. Idle Teens 4. Secure Employment
Health	**Health/Health Care**	**Health**	**Health**
1. Child Deaths 2. General Health Status 3. Activity Limitation 4. Infant Mortality 5. Low Birthweight 6. Obesity	1. Low Birthweight 2. Infant Mortality 3. Behavioral Difficulties 4. Adolescent Depression 5. Activity Limitation 6. Diet Quality 7. Obesity 8. Asthma 9. Health Insurance 10. Usual Source of Care 11. Childhood Immunization 12. Oral Health	1. Infant Mortality 2. Low Birthweight 3. Child Deaths 4. Teen Deaths	1. Health Insurance 2. Child and Teen Deaths 3. Low Birthweight 4. Alcohol/Drug Abuse
Safety/Behavioral Concerns	**Physical Environment and Safety/Behavior**	**Physical Environment and Safety/Behavior**	**Physical Environment and Safety/Behavior**
1. Violent Crime Victims 2. Violent Crime Offenders 3. Cigarette Smoking 4. Alcohol Use 5. Illicit Drug Use 6. Teen Births	1. Air Quality 2. Drinking Water Quality 3. Lead in Blood 4. Housing Problems 5. Violent Crime Victims 6. Child Injury/Deaths 7. Adolescent Injury/Death 8. Cigarette Smoking 9. Alcohol Use 10. Illicit Drug Use 11. Sexual Activity 12. Violent Crime Offenders		
Educational Attainment	**Education**	**Education**	**Education**
1. Reading Achievement 2. Math Achievement	1. Family Reading 2. Math Achievement 3. Reading Achievement 4. Advanced Coursework 5. High School Completion 6. Idle Teens 7. Idle Teens 8. College Enrollment	1. High School Dropouts	1. Preschool Enrollment 2. Math Achievement 3. Reading Achievement 4. On-Time Graduation
Community Connectedness/ Social Relationships	**Family and Social Environment**	**Family and Community**	**Family and Community**
1. Single-Parent Families 2. Residential Mobility 3. Preschool Enrollment 4. High School Completion 5. Idle Teens 6. College Completion 7. Voting	1. Family Structure 2. Nonmarital Births 3. Child Care 4. Foreign-Born Parents 5. English Ability 6. Teen Births 7. Child Abuse	1. Single-Parent Families 2. Teen Births	1. High-Poverty Areas 2. Single-Parent Families 3. Parental Education 4. Teen Births
Emotional/Spiritual Well-Being	**Emotional/Spiritual Well-Being**	**Emotional/Spiritual Well-Being**	**Emotional/Spiritual Well-Being**
1. Suicide Rate 2. Religious Attendance 3. Religion Very Important			
Demographics	**Demographic Background**	**Demographics**	**Demographics**
	1. Child Population 2. Racial/Ethnic Composition		

* Some measures span multiple domains.

Endnotes

[1] Mark Mather, William O'Hare, and Dia Adams, "Testing the Validity of the KIDS COUNT State-Level Index of Child Well-Being," accessed online at www.aecf.org/KnowledgeCenter/Publications.aspx?pubguid=%7BA3DEEDC2-8727-4B60-8045-337C0449F031%7D (May 21, 2012).

[2] Laura Lippman, "Indicators and Indices of Child Well-being: A Brief History," accessed online at www.aecf.org/upload/publicationfiles/da3622h1258.pdf (May 21, 2012).

[3] William O'Hare and Florencia Gutierrez, "The Use of Domains in Construction of a Comprehensive Composite Index of Child Well-Being" *Child Indicators Research 5*, DOI 10.1007/s12187-012-9138-6.

[4] Michael R. Hagerty and Kenneth C. Land, "Constructing Summary Indices of Quality of Life: A Model for the Effect of Heterogeneous Importance Weights," in *Sociological Methods & Research 35*, no. 4 (2007): 455-96; and Nicholas Zill, "Are All Indicators Created Equal? Alternatives to an Equal Weighting Strategy in the Construction of a Composite Index of Child Well-Being," accessed online at www.fcd-us.org/PDFs/ZillPaper.pdf, on Nov. 21, 2006.

[5] See Foundation for Child Development, "Child Well-Being Index (CWI)," accessed online at http://fcd-us.org/our-work/child-well-being-index-cwi (May 21, 2012).

[6] See Federal Interagency Forum on Child and Family Statistics. America's Children: *Key National Indicators of Well-Being, 2011*. Washington, DC: U.S. Government Printing Office. (www.childstats.gov).

[7] See Child Trends DataBank at www.childtrendsdatabank.org/.

[8] See Annie E. Casey Foundation, KIDS COUNT Data Center, accessed online at http://datacenter.kidscount.org/data/acrossstates/Default.aspx (May 21, 2012).

[9] Mark Mather, William O'Hare, and Dia Adams, "Testing the Validity of the KIDS COUNT State-Level Index of Child Well-Being," accessed online at www.aecf.org/KnowledgeCenter/Publications.aspx?pubguid=%7BA3DEEDC2-8727-4B60-8045-337C0449F031%7D (May 21, 2012).