School Readiness Report Card

March 2011

Prepared for the Early Childhood Advisory Council

Minnesota Statutes Section 3.197 requires the following:

The 2010 Legislature asked the State Early Childhood Advisory Council (ECAC) to make recommendations on the creation and implementation of a statewide School Readiness Report Card.

The contractors facilitated discussions, conducted public comment meetings, gathered information, and prepared a report.

The following is an estimate of the cost incurred by the Departments of Education and Human Services in preparation of this report:

Participation in committee meetings:	$2,465
Participation in public comment meetings:	$ 852
Report preparation:	$1,058
TOTAL	**$4,375**

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Table of Contents

Background and Purposes

The Early Childhood Advisory Council (ECAC) in Minnesota makes recommendations to the Governor and Legislature, and is responsible for fulfilling the duties required by federal and state statutes. The Council was created in 2008 by the Governor's Executive Order 08-14.

The ECAC consists of 18 members, including the State Director of the Head Start Collaboration, and one representative each from the Minnesota Departments of Education, Health and Human Services. The governor, the Minnesota House of Representatives and the Minnesota Senate each appoint members. At least two appointees are public members who are parents of a child under the age of six.

The 2010 Minnesota Legislature directed Minnesota's Early Childhood Advisory Council to make recommendations on the creation and implementation of a statewide School Readiness Report Card (Minn. Stat. § 124D.141.Subd 2 (5)). The purpose of the report card is to monitor the state's progress toward the goal of having all children ready for kindergarten by the year 2020.[1] (See Appendix A) The report card is to include both child outcomes and indicators of systems and services.

The legislation stated that "costs incurred by the council in making these recommendations must be paid from private funds." Private funds from the School Readiness Funders Coalition covered the costs, and Wilder Research was retained as the contractor to work with the Minnesota Departments of Education and Human Services, and the ECAC on developing the report card.

This report documents the process Wilder Research used on behalf of ECAC to develop the report card indicators, including reviewing literature, working with ECAC committees, gathering feedback and comments from national experts and the public, and obtaining approval from the ECAC. It describes the indicators recommended to constitute the School Readiness Report Card, and the data sources and data collection timelines for each. Finally, the report presents recommendations on benchmarking.

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[1]   ECAC is directed to "make recommendations to the Governor and the Legislature by March 1, 2011, on the creation and implementation of a statewide school readiness report card to monitor progress toward the goal of having all children ready for kindergarten by the year 2020. The recommendations shall include what should be measured including both children and system indicators, what benchmarks should be established to measure state progress toward the goal, and how frequently the report card should be published. In making their recommendations, the council shall consider the indicators and strategies for Minnesota's early childhood system report, the Minnesota school readiness study, developmental assessment at kindergarten entrance, and the work of the council's accountability committee."

Process for Developing Report Card Indicators

Review of possible indicators

Wilder Research first reviewed and built upon the previous work done by the ECAC Accountability Committee related to indicators of school readiness. This assessment included the five dashboard indicators or markers of school readiness and the list of policy and evaluation questions generated by the Committee.

Wilder Research then reviewed current local and national research on indicators of school readiness, including:

■ Getting Ready: Findings from the National School Readiness Indicators Initiative; A 17 State Partnership (Rhode Island KIDS COUNT)
http://www.gettingready.org/matriarch/d.asp?PageID=303&PageName2=pdfhold&p=&PageName=Getting+Ready+-+Full+Report.pdf

■ Indicators and Strategies for Minnesota's Early Childhood System (Wilder Research)
http://www.wilder.org/download.0.html?report=2173

■ Minnesota School Readiness Study: Development Assessment at Kindergarten Entrance (Minnesota Department of Education, Early Learning)
http://education.state.mn.us/mdeprod/groups/earlylearning/documents/report/017119.pdf

■ 40 Developmental Assets for Early Childhood (Search Institute)
http://www.search-institute.org/40-developmental-assets-early-childhood-ages-3-5

■ Taking Stock: Assessing and Improving Early Childhood Learning and Program Quality (National Early Childhood Accountability Task Force)
http://ccf.tc.columbia.edu/pdf/Task_Force_Report.pdf

■ Neighborhoods and the Black-White Mobility Gap (Economic Mobility Project)
http://www.economicmobility.org/assets/pdfs/PEW_NEIGHBORHOODS.pdf

■ Using Data to Promote Collaboration in Local School Readiness Systems (The Urban Institute)
http://www.urban.org/uploadedpdf/412198-collaboration-school-readiness.pdf

■ State Approaches to School Readiness Assessment (National Conference of State Legislatures)
http://www.ncsl.org/documents/Educ/KindergartenAssessment.pdf

■ Village Building and School Readiness: Closing Opportunity Gaps in a Diverse Society (State Early Childhood Policy Technical Assistance Network)
http://www.aecf.org/upload/publicationfiles/ch3624j66.pdf

■ Online indicator resources including Minnesota Compass (www.mncompass.org), National Survey of Children's Health (www.childhealthdata.org), KIDS COUNT Data Center (datacenter.kidscount.org), Child Trends Data Bank (www.childtrendsdatabank.org), among others.

Based on this review of the Accountability Committee's work, existing literature, and the work of other states, Wilder Research prepared a preliminary list of over 100 possible indicators, (See Appendix B) with an initial ranking of the list based on the criteria of strong indicators (see section below). This list was reviewed at an initial meeting with the ECAC Accountability Committee on October 27, 2010. Ten members of that committee rated the indicators based on their top priorities.

The comprehensive list of possible indicators was also sent to the following five national experts on November 1, 2010 for their assessment and advice. [2]

■ Charles Bruner, Ph.D., Child and Family Policy Center

■ Janice Gruendel, Ph.D., Connecticut Early Childhood Education Cabinet, Connecticut Governor's Early Childhood Research and Policy Council, and Yale University Child Study Center

■ Laura Beavers, Annie E. Casey Foundation, KIDS COUNT

■ Elizabeth Isakson, M.D., National Center for Children in Poverty

■ Catherine Walsh, MPH, Rhode Island KIDS COUNT

Identification of top indicators

Based on the ratings provided by the ECAC Accountability Committee, and feedback from the five national experts, Wilder Research identified a list of the top indicators. This list was reviewed again by the ECAC Accountability Committee on November 17, 2010 and by the ECAC Access and Finance Committee on November 18, 2010. Based on this input, the list of indicators was refined for review by the public.

Public Comment

Wilder Research scheduled and convened four public meetings: one each in St. Paul, Duluth, and Rochester, and one webinar. The public meetings were advertised through various state agency and nonprofit listservs, and other interested stakeholder groups.

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[2] The national experts were provided a $1,000 stipend to review indicators and provide feedback.

At each public comment meeting, Wilder Research reviewed the report card legislation and purpose, and presented the top indicators being considered for inclusion. Handouts with the timeline and top indicators were provided. The public was given an opportunity to ask questions or make comments about each indicator.

In addition, Wilder provided comment cards to people in attendance at the in-person meetings, and accepted emailed comments from November 22 to December 3, 2010.

The following summarizes the attendance at each meeting:[3]

- St. Paul: 49

- Duluth: 32

- Rochester: 21

- Webinar: 105 dialed in, 92 participated for the duration, 16 viewed recorded webinar

- Emailed feedback: 10

- Submitted comment cards: 26

The feedback from the public meetings indicated overall satisfaction with the report card framework (see section below). Many people supported the report card's comprehensive approach on all aspects of child development - that it included indicators of child education and health outcomes, family support, and early care, education and health services and systems. Many also supported the indicators' attention to the state's youngest children (those under age 3, including prenatal) and the state's most vulnerable children.

In general, people wanted to see additional indicators to capture the size of specific vulnerable populations, such as children in foster care and out-of-home placement, children experiencing trauma, children of incarcerated parents, children impacted by substance use or fetal alcohol syndrome, homeless children, and children who arrived preterm through medically induced births. While many of these indicators are important to measuring the state's most vulnerable children, in many cases strong data sources are lacking (which may be why indicators were proposed to encourage collection of regular data), or Wilder Research believed their focus was overly narrow for this report card regarding overall statewide school readiness.

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[3] There may be some duplication in attendance, particularly within the webinar recording, and email and comment card submissions.

December ECAC Meeting

The Accountability Committee co-chairs and Wilder Research presented the report card indicators for approval to the ECAC on December 14, 2010. A motion was made on behalf of the Accountability Committee to adopt the report on the statewide School Readiness Report Card including indicators taking the Council comments and reflecting them in the final document. The motion passed unanimously.

This final report encompasses feedback and revisions suggested by the ECAC at that meeting.[4]

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[4] See the ECAC website for meeting minutes: Minutes available after March 8, 2011 meeting. http://education.state.mn.us/MDE/Learning_Support/Early_Learning_Services/Adv_Groups/Early_Child_Adv_Council/index.html

Framework

Wilder Research initially proposed a framework that grouped indicators into five categories: starting early, education, health, family support, and most vulnerable. Based on discussion with the Accountability Committee and feedback from the national experts, the framework was further refined to separate child- and family-level outcome indicators from service and system performance measures, with additional context measures that help to better understand the population of young children, their families and the programs that serve them, as well as the public expenditures that support these programs.

Child and family outcomes

- **Educational preparation** – These child-level outcome indicators relate to children's preparation.

- **Healthy development** – These child-level outcome indicators relate to children's health associated with school success.

- **Supported families** – These family-level outcome indicators relate to supports families need or receive to promote children's healthy development.

Services and systems

- **Health services and systems** – These are performance measures for services that lead to improved child health and development outcomes.

- **Early care and education services and systems** – These are performance measures for services that lead to improved school readiness outcomes.

Context measures

- **Early childhood population profile** – These data provide a demographic and economic profile of the state's population of children under age 6 and their families.

- **Public program access and expenditures** – These measures provide information on the public dollars (federal and state) that fund programs to serve young children and their families, and a count of how many are served by them.

Criteria for Selecting Indicators

The following is a list of criteria generally used for identifying and selecting strong indicators. Wilder Research used these criteria to assess the initial list of indicators to advance to the Accountability Committee members for their input, and to guide the public in their thinking about how to weight alternatives. While few available indicators satisfy all of the following criteria, in general, preference was given to those indicators that have more of these characteristics.

- **Relevant** – The indicator is associated with school readiness.

- **Valid** – The indicator truly measures what it is intended to measure.

- **Research-based** – The indicator reflects evidence-based research about what is associated with stated goals.

- **Time-series** – The indicator is regularly collected the same way (preference will be given to indicators that are collected more frequently).

- **Sensitive** – The indicator has a large enough sample (and small enough error margin) to monitor change over time, if it is dependent on a survey.

- **Leading** – The indicator signals broader changes to come, allowing the community to respond proactively.

- **Policy-responsive** – The indicator can be affected by policy or programmatic changes.

- **Affordable** – The indicator can be easily collected within project budget.

- **Available** – The indicator is already being collected.

- **Outcome-oriented** – The indicator reflects changes "on the ground" or actual impacts on the community, rather than change to inputs, such as funding or policies that could eventually lead to community change.

- **Understandable** – The indicator is easy for our target audience to understand. It has "communication power."

- **Comparable** – The indicator allows for comparisons among different groups (e.g., by age, race, income).

In addition, Wilder Research sought indicators that:

Are comprehensive – to reflect and support the ECAC's comprehensive vision and planning process by addressing all aspects of child development, and included family and system supports.

Focus on starting early – starting with prenatal care, healthy birth outcomes, and indicators that include babies to age 5.

Consider the most vulnerable – included indicators of the state's most vulnerable children, such as those served by child welfare services.

Reflect state-level conditions

School Readiness Report Card

The following are recommended indicators for the report card. Data are currently collected for these indicators and would be reported as both percentage and rate.

EDUCATIONAL PREPARATION
1. Children demonstrating readiness at kindergarten entrance (new overall 75 percent proficiency standard).
2. Children demonstrating proficiency at kindergarten entrance in three domains: language and literacy, mathematical thinking, and personal and social development (reported independently, based on the Minnesota Work Sampling System® (MnWSS) Kindergarten Entry Developmental Checklist).
3. Children ages 3-5 with disabilities who improve their acquisition and use of knowledge and skills.

HEALTHY DEVELOPMENT
4. Minnesota children who are up to date on immunizations by age 3.
5. Reported abuse and neglect among children birth to age 5, by age.
6. Babies born at healthy birth weight (all births).

SUPPORTED FAMILIES
7. Children under age 6 living in families at various poverty intervals (e.g., 50 percent, 100 percent, 185 percent, 200 percent Federal Poverty Threshold).
8. New mothers who report frequent postpartum depressive symptoms.
9. Parents who participate regularly in Early Childhood Family Education (ECFE) or Head Start parenting education programs.

HEALTH SERVICES AND SYSTEMS
10. Children birth to age 5, by age, who receive all well-child check-ups.
11. Births where mother received adequate or better prenatal care.

EARLY CARE AND EDUCATION SERVICES AND SYSTEMS
12. Three-year-old children who received an early childhood health and development screening.
13. Income-eligible children age 0-2 or 3-4 years who participate in Early Head Start, Head Start, or School Readiness programs (reported separately).
14. Eligible families with children under age 6 who receive child care subsidies.
15. Early care and education providers and programs with documented evidence as effective – i.e., incorporating the ECAC's 10 Essential Elements, receiving a high-quality rating under a Quality Rating Improvement System (pilot QRIS/Parent Aware), or accredited.

Additional Context Measures

These context measures provide a picture of the state's early childhood population, the counts of Minnesota's children served by public early childhood programs, and the public expenditures on programs serving young children and their families.

Early childhood population profile
1. Births to teens by age (number and rate per 1,000).
2. Babies born to mothers of various educational levels.
3. Children under age 6 by family/household types and employment status of parents.
4. Children under age 6 by race/ethnicity and nativity (born in U.S. or foreign born).
5. Children under age 6 who live in "severely distressed" localities.

Public program access and expenditures
6. Children under age 6 (duplicated) receiving services from Head Start; Early Head Start; School Readiness; Early Intervention (Infant and Toddler Intervention, Part C); Early Childhood Special Education (Part B); Minnesota Family Investment Program (MFIP, TANF); Women, Infants, and Children (WIC); Child Care Assistance (CCAP); Minnesota Health Care Programs (MHCP); Family Home Visiting, out-of-home care, and Early Childhood Family Education (ECFE), by age and as a share of kids under 6.

Additional indicators (7) proposed by the ECAC Access and Finance committee and adopted by the ECAC:

7.   a) Percentage of 3- and 4-year-olds in publicly funded preschool or prekindergarten programs.

    b) Percentage of 3- and 4-year-olds in state-financed preschool or prekindergarten programs.

    c) Percentage of 3- and 4-year-olds in programs identified as relatively high in quality (e.g., NAEYC accredited).

    d) Total state and federal (public) expenditures per child birth-5 years.

    e) State expenditure per child birth-5 years.

    f) Total state and federal (public) expenditures per enrolled child birth-5 years.

    g) Percentage share of the overall public resources for early childhood programs from birth-5 years contributed by the state.

The next section of the report provides details on data sources and timing, disaggregation by population characteristics and risk factors, and the rationale for selecting each indicator.

Educational Preparation

1. **Children demonstrating readiness at kindergarten entrance (new overall 75 percent proficiency standard)**

Data source(s) and notes: Minnesota Work Sampling System ® (MWSS®), administered by the Minnesota Department of Education. Results will be reported as composite score of overall readiness based on those children who achieve 75 percent of available points across the 32 items (48 or more of a possible 64 points). This composite was analyzed and developed by Dr. Arthur Reynolds, a professor with the Institute of Child Development at the University of Minnesota and member of the ECAC, and approved by ECAC at their December 14, 2010 meeting.

Data frequency: Annual.

Data on at-risk populations: By race/ethnicity, household income, home language, and level of parent education.

Rationale for inclusion: This is a direct measure of a child's school readiness at entrance to kindergarten after eight weeks of observation by kindergarten teachers and measures the total universe of children who are not yet ready for kindergarten, regardless of domain. Proficiency in multiple domains is especially beneficial for smooth transitions to kindergarten. This composite level of proficiency at kindergarten was found to be highly predictive of math and reading proficiency on the MCA-II exams in 3rd grade, while kindergarteners not proficient were twice as likely as their peers to have been in special education or retained by 3rd grade.

Public comments: Some expressed concerns about the subjectivity of the assessment tool based on the MWSS®, whether teachers have been given adequate and consistent training, whether the assessment is appropriate for English Language Learners, and/or whether it is culturally appropriate. There were also some concerns regarding sample size (10 percent) and whether the sample is representative because participation is voluntary and two large districts (Minneapolis and Rochester) do not participate.

(Department note: New research done by Dr. Arthur Reynolds (Institute of Child Development, University of Minnesota), indicates predictive validity of MWSS® Checklist was even greater for all subgroups than for overall population.)
(See Appendix C)

In addition, the study has been found to be representative of the state. (See page 3 of the 2009 Minnesota School Readiness Study: Developmental Assessment at Kindergarten Entrance Technical Report for further information.)
http://education.state.mn.us/mdeprod/groups/EarlyLearning/documents/Report/017120.pdf

2. **Children demonstrating proficiency at kindergarten entrance in three domains: language and literacy, mathematical thinking, and personal and social development (reported independently)**

Data source(s) and notes: MWSS® administered by the Minnesota Department of Education. Results will be reported for the "language and literacy," "mathematical thinking," and "personal and social development" domains. The proportion rated as "proficient" in each domain will be reported and tracked.

Data frequency: Annual.

Data on at-risk populations: By race/ethnicity, household income, home language, parent education.

Rationale for inclusion: This indicator focuses on children's kindergarten readiness in three specific domains. Language proficiency is a key predictor of academic success. Language skills are critical to children's ability to learn, develop cognitive skills, and to interact appropriately with teachers and other children. Dr. Arthur Reynolds found this domain to be the strongest predictor of reading proficiency at 3rd grade.

"Mathematical thinking" measures emerging abilities in number, quantity, spatial relations, and geometry. Children demonstrating proficiency in this area were consistently more likely to be proficient on MCA math tests at grade 3. Finally, social-emotional skills help children build relationships with peers and teachers in the classroom. Children lacking in these skills will likely struggle to follow directions, interact with peers and adults inappropriately, show little curiosity, and lack problem-solving skills. One expert commented that kindergarten teachers in her state have called this indicator among the most important, because of its impact on the classroom learning environment.

Public comments: Similar comments as noted for indicator 1 above. Also public comments provided strong support for focusing on social-emotional domain.

3. **Children ages 3-5 with disabilities who improve their acquisition and use of knowledge and skills**

Data source(s) and notes: Minnesota Part B of the Individuals with Disabilities Education Act (IDEA) Annual Performance Report, submitted by the Minnesota Department of

Education to the Federal Office of Special Education. "Children ages 3-5 with disabilities" are defined as those receiving early childhood special education services. Specifically, this measures: "Of those children who entered or exited the preschool program below age expectations, the percent that substantially increased their rate of growth by the time they turned 6 years of age or exited the program." This includes growth in early language/communication and early literacy, as well as thinking, reasoning, remembering, problem-solving and early number concepts.

Data frequency: Annual.

Data on at-risk populations: Indicator already relates to an at-risk population.

Rationale for inclusion: Children with disabilities improve their skills through individualized intervention including participating in early care and education programs which help them be more prepared for school success.

Public comments: Several early childhood special educators supported including this measure.

Healthy Development

4. Minnesota children who are up to date on immunizations by age 3

Data source(s) and notes: Minnesota children age 19-35 months up to date on immunizations, from the National Immunization Survey, Centers for Disease Control and Prevention. This measure is based on the 4:3:1:3:3:1 series, which includes four or more doses of diphtheria and tetanus toxoids and pertussis (DTP) vaccine, three or more doses of poliovirus vaccine, one or more doses of measles-containing vaccine, plus three or more doses of Haemophilus influenzae type b (Hib) vaccine, three or more doses of hepatitis B vaccine (HepB), one or more doses of varicella (chickenpox) vaccine.

Data frequency: Annual.

Data on at-risk populations: None.

Rationale for inclusion: Up-to-date immunizations indicate a child has regular access to primary and preventive care. Children who are not immunized on schedule are at risk for acquiring preventable illnesses and transmitting those illnesses to others.

Public comments: Some would like to see this for all children under age 6, but current data source does not permit this.

5. Reported abuse and neglect among children birth to age 5, by age

Data source(s) and notes: Minnesota Department of Human Services, Child Welfare Report; U.S. Census Bureau, Population Estimates. Data will be expressed as a unique number of reports and also as a rate per 1,000 children.

Data frequency: Annual.

Data on at-risk populations: By race/ethnicity, Native American tribe, type of maltreatment suspected.

Rationale for inclusion: Children who have been abused or neglected are more likely to have cognitive and emotional problems that may result in poor school performance and grade retention. Reports will be used rather than substantiation of abuse, which is highly dependent on availability of county resources to investigate. One expert noted that neglect is also viewed as an indicator of family stress, risk and disorganization, which negatively impact school readiness.

Public comments: Some proposed tracking number of children in out-of-home placement.

6. Babies born at healthy birth weight

Data source(s) and notes: Minnesota Department of Health, Minnesota Center for Health Statistics. Birth weight for all live births will be reported, including share of singletons and multiple births.

Data frequency: Annual.

Data on at-risk populations: By race/ethnicity, native or foreign-born.

Rationale for inclusion: Low birth weight is associated with an increased likelihood of physical health and cognitive and emotional problems that can persist into adulthood. Serious physical disabilities, grade repetition, and learning disabilities are more prevalent among children who were low birth weight as infants. Low birth weight is also a key risk factor for infant mortality.

Public comments: Some appreciated the focus on health and starting early.

Supported Families

7. Children under age 6 living in families at various intervals of the federal poverty threshold

Data source(s) and notes: U.S. Census Bureau, American Community Survey. Data will be reported for 100 percent Federal Poverty Threshold (traditional poverty line), as well as 50 percent of poverty (extreme poverty), 185 percent of poverty (income-eligibility for reduced-price school lunch), 200 percent of poverty (low-income), and those above 200 percent.

Data frequency: Annual for one-year estimates, but may consider using three-year estimates for sub-groups (by race/ethnicity).

Data on at-risk populations: By race/ethnicity, native or foreign-born.

Rationale for inclusion: Experiencing poverty, especially early in life, is associated with a host of negative academic, social, and health outcomes for children.

Public comments: Support was expressed for this indicator.

8. New mothers who report frequent postpartum depressive symptoms

Data source(s) and notes: Pregnancy Risk Assessment Monitoring System (PRAMS), Centers for Disease Control and Prevention.

Data frequency: Annual.

Data on at-risk populations: By maternal race/ethnicity, family income, but large sampling error.

Rationale for inclusion: Mother's mental health impacts the healthy parent-child attachment. One expert commented that this indicator is getting more attention at the national level as an early and powerful contributor to developmental challenges.

Public comments: While important to include some measure of maternal depression, some expressed interest in information on both parents and beyond first year of child's life. Currently, no data sources exist.

9. Parents who participate regularly in ECFE or Head Start parenting education programs

Data source(s) and notes: Early Childhood Family Education (ECFE) Annual Report and Head Start Program Information Report (PIR).

Data frequency: Annual.

Data on at-risk populations: By family income and risk factors.

Rationale for inclusion: Parents involved in ECFE have a better understanding of how children develop and report improvement in parenting skills as well as increased confidence.

Public comments: Some concern about whether parent education through these programs has been shown by research to directly affect children's school readiness.

[Department note: Recent federal reauthorization of Head Start makes school readiness the primary purpose of the Head Start program. ECFE law includes requirement to promote early literacy skills.]

Health Services and Systems

10. Children birth to age 5, by age, who receive all well-child check-ups (including an oral health exam)

Data source(s) and notes: Minnesota Department of Human Services based on claims data from Minnesota Health Care Programs (MHCP) providers. Indicator will initially examine MCHP-enrolled (low-income) children.

Data frequency: Annual.

Data on at-risk populations: Uncertain, likely by race/ethnicity.

Rationale for inclusion: Well-child visits monitor children's physical and behavioral health and development, make referrals to needed interventions, and provide guidance to parents on child development.

Public comments: Some would like this data for all children when possible.

11. Births where mother received adequate or better prenatal care (GINDEX)

Data source(s) and notes: Minnesota Center for Health Statistics, Minnesota Department of Health. The GINDEX is a prenatal care index determined by combining measures of the month or trimester prenatal care began the number of prenatal visits, and the gestational age at birth.

Data frequency: Annual.

Data on at-risk populations: By maternal race/ethnicity and place of birth.

Rationale for inclusion: Quality of prenatal care is related to birth outcomes (such as low birth weight), which in turn affect subsequent development.

Public comments: One expert noted that nationally Hispanic/Latino women make less use of prenatal care but have better birth outcomes.

Early Care and Education Services and Systems

12. **Three-year-old children who received an early childhood health and development screening**

Data source(s) and notes: A count of three-year-olds screened from Minnesota Department of Education, student data from school districts submitted to the Minnesota Automated Reporting Student System (MARSS); U.S. Census Bureau Population Estimates for total count of three-year-olds.

Data frequency: Annual.

Data on at-risk populations: By race/ethnicity and home language.

Rationale for inclusion: Screening identifies factors that may interfere with a child's learning, and connects families with specific resources; young children's hearing, vision, immunizations, coordination, speech, and development are included. Screening at age three provides most opportunity to intervene for better outcomes at school entry.

Public comments: Some three-year-old children cannot sit still for the duration of the screening, making it necessary to come back a second time, which can delay the age at which children are screened. Some noted scheduling screening is difficult for working parents.

13. **Income-eligible children who participate in Early Head Start, Head Start, or School Readiness programs (reported separately)**

Data source(s) and notes: Head Start Program Information Report and the School Readiness Annual Report for enrolled child counts; U.S. Census Bureau, American Community Survey for total count of income-eligible population. Measure would exclude those children participating in Head Start who are above the income guidelines.

Data frequency: Annual.

Data on at-risk populations: By family income and risk factors.

Rationale for inclusion: A measure of the reach of these three programs targeted to at-risk children.

Public comments: Some note it would be helpful to see the gap between income-eligible children and those not receiving services. There are wait lists. Some ECAC members expressed concerns that programs may not meet all the 10 Essential Elements of Effective Programs, especially duration and intensity. (See Appendix D)

14. **Eligible families with children under age 6 who receive child care subsidies (CCAP)**

Data source(s) and notes: Minnesota Department of Human Services for Child Care Assistance Program (CCAP) enrollment by families U.S. Census Bureau, American Community Survey to estimate eligible population based on income and workforce participation by parents.

Data frequency: Annual.

Data on at-risk populations: By family income.

Rationale for inclusion: Subsidies contribute to ability of families to remain in or enter the workforce.

Public comments: Some would find it helpful if we can see the gap between eligible children and those not receiving services. Wait lists are long in some counties.

15. **Early care and education providers and programs with documented evidence as effective (i.e., incorporating the ECAC's 10 Essential Elements, receiving a high-quality rating under a Quality Rating and Information System (pilot QRIS), or accredited)**

Data source(s) and notes: Minnesota Child Care Resource and Referral Network for QRIS.

Data frequency: Annual.

Data on at-risk populations: None.

Rationale for inclusion: Measures the supply of quality formal child care and early education settings.

Public comments: Some are interested to know how many children are enrolled in these quality/effective settings. Currently there is no way to know if a program has incorporated the 10 Essential Elements. Some are interested in geographic disparities.

Context Measures

Early childhood population profile

Births to teens by age

Data source(s) and notes: Minnesota Center for Health Statistics, as collected from birth certificates; U.S. Census Bureau, Population Estimates. Data will be reported separately for teens under age 15, ages 15-17, and ages 18-19. Both a count of births and rate per 1,000 teen girls will be shown.

Data frequency: Annual.

Data on at-risk populations: By race and ethnicity.

Rationale for inclusion: Children born to teenage mothers are more likely to live in poverty, be born at a low birth weight, and experience poor health and behavioral problems. Teen mothers lack financial resources, parenting skills, and social support.

Public comments: Some endorsed inclusion of this indicator.

Babies born to mothers of various educational levels

Data source(s) and notes: Minnesota Center for Health Statistics, as collected from birth certificates. Data is currently available as years of education (rather than specific degree or diploma), so will be reported as births to mothers with and without 12 years of education.

Data frequency: Annual.

Data on at-risk populations: By race and ethnicity.

Rationale for inclusion: Higher levels of maternal education are associated with better childhood health, better school performance and higher likelihood of high school and college completion. Higher education levels among parents contribute to more supportive early home learning environments, including higher likelihood of subsequent school involvement.

Public comments: A few members of the public noted this indicator was important; a few felt that father's educational level should also be considered.

Children under age 6 by family/household types and employment Status of parents

Data source(s) and notes: U.S. Census Bureau, American Community Survey.

Data frequency: Annual.

Data on at-risk populations: By race and family income.

Rationale for inclusion: Young children's living situations have implications for family income, family stress, availability of caregivers, etc. Employment data reveals both the financial stability of the family and need for child care.

Public comments: Some noted this indicator was important, and specifically requested the inclusion of employment status to show the need for care based on workforce participation.

Children under age 6 by race/ethnicity and nativity (native or foreign-born)

Data source(s) and notes: U.S. Census Bureau, American Community Survey.

Data frequency: Annual.

Data on at-risk populations: Data are available by race and income level.

Rationale for inclusion: This measure is helpful for understanding the cultural and ethnic heritage of young child population, the diversity and cultural competency and tailored interventions required by systems.

Public comments: Some expressed this measure is critical to include.

Children under age 6 who live in "severely distressed" localities

Data source(s) and notes: U.S. Census Bureau, American Community Survey five-year estimates. "Severely distressed" localities are defined as census tracts that have at least three of the four following characteristics: 1. High poverty rate; 2. High percentage of single-parent families; 3. High percentage of high school dropouts; and, 4. High percentage of working-age males not in labor force. "High" is defined as more than one standard deviation above the mean. This measure would first identify those census tracts that are severely distressed, and then identify how many children under age 6 live in those tracts, out of the total under 6 populations. Data by census tracts span the entire state, including rural areas, with the geographic size of the tract dependent on population density.

Data frequency: Annual data released beginning December 2010; community survey estimate data spans five years.

Data on at-risk populations: By race/ethnicity possible, but may have large sampling error.

Rationale for inclusion: Research indicates children growing up in severely distressed neighborhoods are less likely to perform well in school (among other negative outcomes[5]). Children in these neighborhoods are especially vulnerable because there is often a dearth of strong community institutions, positive role models, and neighborhood norms that support healthy child development and stable families.

Public comments: Several participants appreciated effort to gather information on neighborhood influences.

Public program access and expenditures

Children under age 6 (duplicated) receiving services from Head Start, Early Head Start, School Readiness, Early Intervention (Infant and Toddler Intervention, Part C), Early Childhood Special Education (Part B), MFIP (TANF), WIC, CCAP, MHCP, home visiting, foster care, ECFE and any other publicly funded early childhood programs, by age and as a share of children under age 6

Data source(s) and notes: Relevant state departments.

Data frequency: Annual.

Data on at-risk populations: By race/ethnicity and family income.

Rationale for inclusion: This measure shows the number of children being served by each program.

Public comments: Some want an unduplicated count of how many children under age 6 are served through state early childhood care and education programs.

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[5] O'Hare, William; Mather, Mark; *The Growing Number of Kids in Severely Distressed Neighborhoods: Evidence from the 2000 Census* (2003), The Annie E. Casey Foundation and the Population Reference Bureau;

Sharkey, Patrick, *Neighborhoods and the Black-White Mobility Gap (2009)*, Economic Mobility Project, The Pew Charitable Trusts;

Bruner, Charles; Wright, Michelle Stover; Tirmizi, Syed Noor; and the School Readiness, Culture, and Language Working Group of the Annie E. Casey Foundation, *Village Building and School Readiness: Closing Opportunity Gaps in a Diverse Society* (2007), State Early Childhood Policy Technical Assistance Network.

Additional indicators proposed by the ECAC Access and Finance committee and adopted by the ECAC:

a) Percentage of 3- and 4-year-olds in publicly funded preschool or prekindergarten programs.

b) Percentage of 3- and 4-year-olds in state-financed preschool or prekindergarten programs.

c) Percentage of 3- and 4-year-olds in programs identified as relatively high in quality (e.g., NAEYC accredited).

d) Total state and federal (public) expenditures per child birth-5 years.

e) State expenditure per child birth-5 years.

f) Total state and federal (public) expenditures per enrolled child birth-5 years.

g) Percentage share of the overall public resources for early childhood programs from birth - 5 years contributed by the state.

Recommendations about Data Collection and Frequency of Publication

Annual publication of the statewide School Readiness Report Card is recommended. Nearly all of the recommended data indicators are updated annually so progress at the state level could be monitored annually and stakeholders could respond to changes. Some survey data for at-risk populations, however, may require three-year estimates and/or have larger sampling error, so that several years of data may be required to see change. Several years of data, at a minimum, should be collected to identify recent trends, and assist with the setting of benchmarks, where appropriate.

Recommendations about Benchmarking

The legislation authorizing the creation of a statewide School Readiness Report Card specifically states that "recommendations shall include what should be measured including both children and system indicators, what benchmarks should be established to measure state progress toward the goal…." (Section 5, Minn. Stat. 2008, section 124D.141, subdivision 2).

The ECAC Access and Finance Committee has made recommendations about implementing a process around benchmarking, including "analysis of cost of program components, analysis of effectiveness of programs and components in Minnesota and other states, cost-effectiveness documentation and analysis, the identification of magnitudes of the gaps between current levels of school readiness and the 2020 goal, and feasibility." The Committee also proposed examining Minnesota relative to seven peer states (Georgia, Illinois, Michigan, Pennsylvania, Oklahoma, Washington and Wisconsin) for the seven indicators advanced by the Access and Finance Committee.

It is important to note, however, that not all of the indicators proposed for the report card are appropriate to benchmark. Some indicators - such as children living in poverty or distressed neighborhoods, for example - monitor community-level risk factors that result from a complex interplay of factors, including broad economic, social, migration, and policy trends and may not be appropriate to benchmark.

Other Indicators to Consider

The indicators recommended for inclusion in the statewide School Readiness Report Card were selected because they were supported by the ECAC's Accountability and Access and Finance Committees, and were well-received by the public during the public comment meetings. Furthermore, all of these indicators met most of the "Criteria for Strong Indicators."

However, during the course of review and discussion, numerous other indicators emerged that were not included because of lack of data sources, infrequent data collection and reporting, or small sample sizes with large sampling error that would not show incremental changes. These indicators include:

- Children entering kindergarten with undiagnosed hearing, vision or developmental problems that require treatment or special education services.

- Children whose parents read to them five or more days per week and provide other activities in the home that support early learning.

- Parental reports of child health and mental health status (e.g., excellent, good, fair, poor).

- Parental reports of own health and mental health status (e.g., excellent, good, fair, poor).

- Parents of young children who report symptoms of depression or other mental health concerns, and whether they are receiving services/treatment.

- Diet and nutrition information such as hunger.

- Neighborhood factors or social determinants of health, including social supports that promote family well-being.

- Children with a medical and/or dental home.

- Early care and education use and settings, especially Family, Friend and Neighbor (FFN) care.

- Actual cost-burden of child care to families, as a percent of annual income.

- Children under age 6 who live in households with severe or toxic stress.

One of the national experts proposed an annual statewide survey in Minnesota, perhaps modeled on items in the National Survey of Children's Health, which would provide more timely and sensitive data on some of these topics. The state of Arizona's "First Things First Family and Community Survey" could be another model. View survey: http://www.azftf.gov/PublicNoticeAttachmentCenter/01-27-2009%20Board%20Attachment%2014.pdf

Other indicators were mentioned during public comment meetings and identified by the ECAC Accountability Committee, but are currently unavailable:

1. Unduplicated counts of children receiving public services and those receiving multiple services (for example, children participating in child welfare services, Early Childhood Special Education and Head Start).

2. Data about the reach and effectiveness of family home visiting.

3. Professional development competencies of early care and education providers.

Regarding family home visiting data, no single indicator was identified to assess the impact of these programs, as the 91 public health department programs that currently provide home visiting vary based upon the needs of local communities. However, despite this heterogeneity, all programs have begun reporting statewide outcomes in 2009. This nascent data collection effort may yield a valuable indicator for the statewide School Readiness Report Card in future years.

Efforts to expand and improve the Minnesota Early Childhood and School-Age Professional Development System administered by DHS are in progress.

Revision of the practitioner competencies required to provide high-quality early care and education is planned. Once these updated competencies are agreed upon for all types of practitioners, relevant indicators should be considered for tracking within the statewide School Readiness Report Card.

Finally, the indicators proposed for the statewide School Readiness Report Card reflect the current understanding of the available data on these topics. Over time, existing data may improve or degrade in quality, or new data sources or modes of measurement may become available that permit better understanding of the state of Minnesota children's school readiness. Therefore, the appropriateness of each indicator should be reassessed periodically.

Appendix A: Legislation

2010 Minnesota Statutes
124D.141 STATE ADVISORY COUNCIL ON EARLY CHILDHOOD EDUCATION AND CARE.

Subd. 2.**Additional duties.**

The following duties are added to those assigned to the council under federal law:

(5) to make recommendations to the governor and the legislature by March 1, 2011, on the creation and implementation of a statewide school readiness report card to monitor progress toward the goal of having all children ready for kindergarten by the year 2020. The recommendations shall include what should be measured including both children and system indicators, what benchmarks should be established to measure state progress toward the goal, and how frequently the report card should be published. In making their recommendations, the council shall consider the indicators and strategies for Minnesota's early childhood system report, the Minnesota school readiness study, developmental assessment at kindergarten entrance, and the work of the council's accountability committee. Any costs incurred by the council in making these recommendations must be paid from private funds. If no private funds are received, the council must not proceed in making these recommendations.

Appendix B: Other Indicators Considered

Indicators	Data source	Reasons for excluding
Children birth to age 5, by age, who received a developmental screening.	Department of Human Services, claims data from Minnesota Health Care Programs	Similar to other selected indicators, not available for all children.
Children under age 6 without health insurance.	American Community Survey	Currently high and likely to increase with federal health care legislation. Does not account for quality of insurance. Opted for other health measures.
Children who have no concerns that require referral (health or education) during early childhood screening.	Minnesota Department of Education	Direction toward goal is less clear, as more screenings could be a sign that more children are being identified. Could create a disincentive to identify children in need of referral.
Children under age 6 with unintentional injuries requiring an ER admission.	Minnesota Department of Health	Opted for other measure on abuse and neglect.
Children under age 6 with lead poisoning (blood lead levels ≥ 10 micrograms per deciliter).	Minnesota Department of Health blood lead surveillance system	Not all children are screened, so results can be misleading.
Children under age 6 who had both a medical and dental preventive care visit in the past 12 months.	National Survey of Children's Health	Infrequent data, large error margin due to small sample size.
Children under age 6 whose parents rate their child's health as fair or poor.	National Survey of Children's Health	Infrequent data, large error margin due to small sample size.
Children age 4 months-5 years with moderate or high risk of developmental, behavioral or social delays.	National Survey of Children's Health	Infrequent data, large error margin due to small sample size.
Children under age 6 with Special Health Care Needs with any unmet need for specific health care services.	National Survey of Children with Special Health Care Needs	Infrequent data, large error margin due to small sample size. Opted for another measure about children with disabilities.

Indicators	Data source	Reasons for excluding
Births to mothers living in households with income below the federal poverty threshold.	Pregnancy Risk Assessment Monitoring System (PRAMS): Home	Opted for other, broader family economic measures.
Children under age 6 whose parents read to them five or more days of the week.	National Survey of Children's Health	Infrequent data, large error margin due to small sample size.
Children under age 6 living with mothers whose overall physical and mental health status is excellent or very good.	National Survey of Children's Health	Infrequent data, large error margin due to small sample size. Opted for postpartum depressive symptoms.
Children under age 6 living in cost-burdened households (paying more than 30 percent of monthly income towards housing costs).	American Community Survey	Opted for other family economic measures.
Children exclusively breastfed through 3 months of age.	National Immunization Survey (NIS)	Indirect impact on school readiness. Debate about any versus exclusive breastfeeding.
Children under age 6 living with mothers/fathers whose overall physical and mental health status is excellent or very good.	National Survey of Children's Health	Infrequent data, large error margin due to small sample size. Less evidence about connection to school readiness.
Eligible children under age 6 who participate in Food Support (SNAP).	Minnesota Department of Human Services for enrollment data; American Community Survey (ACS) for eligible child population	Some error associated with estimation involved in calculating eligible population. Opted for other family economic measures.
Percentage of all early care and education funding expended on at-risk children.	Unknown	Unclear about usefulness. Difficult measure to construct.
Licensed early childhood teachers with a bachelor's degree in early childhood.	Minnesota Department of Human Services licensing or Minnesota Center for Professional Development	An indirect measure of quality early childhood care and education. Debate about the impact of teacher education on child outcomes.
Women of childbearing age (18-44 years) with health insurance.	American Community Survey	Opted for other health measures.

Indicators	Data source	Reasons for excluding
Families living in poverty who received a home visit following the birth of a child.	Data available through public health nurses, Early Head Start and Early Childhood Family Education	Concern that data is not comparable across systems/agencies. Home visiting can be method to deliver an intervention and not an intervention itself; not necessarily evidence-based.
Share of early childhood care and education providers and programs that are in geographic coverage area of Minnesota's Quality Rating and Improvement System (QRIS).	Parent Aware, Child Care Resource & Referral Network.	Measure of reach of a Quality Rating and Improvement System (QRIS) in Minnesota. Opted for a more inclusive quality measure.
Eligible low-income families with dependents claiming the Earned Income Tax Credit (EITC) or Child Tax Credit (CTC).	Numerator: IRS-SPEC return information database. Not possible to calculate a reliable denominator.	Cannot examine participation among just families with children under age 6. Complicated eligibility rules make it difficult to estimate the universe of eligible households. Data already indicates it's in high use.
Average and median staff ratios in early childhood classrooms.	Minnesota Department of Human Services	Uncertainty about data availability. Subject to regulation and licensing.
Among those enrolled in Head Start, children with a medical or dental home and/or health insurance.	Head Start Program Information Report	Narrowly focused, and difficulty to interpret because it reflects a fluctuating denominator based on those enrolled in Head Start.
Children under age 6 in out-of-home placement who have more than two placements in a 24-month period.	Minnesota Department of Human Services	Opted for other measures of abuse and neglect.
Average age of child referred to Early Intervention and/or Early Childhood Special Education system.	Minnesota Department of Education	Can be difficult to interpret. Opted for other measures of disability.
Children under age 6 who are known to be homeless.	Wilder homeless study; every three years	Infrequent data.

Indicators	Data source	Reasons for excluding
Children born to teen moms/with special health care needs/with serious emotional disturbances/in Alternative Response/in out-of-home placement served by Head Start.	Head Start	Narrowly focused, and too complicated to be meaningful. Uncertainty about whether some data exists.
Total state and federal expenditures per child enrolled in early childhood programs, and share of each (in real dollars over time).	Minnesota Management and Budget General Fund Balance Analysis; Government Accountability Office; enrollment data from Minnesota Department of Human Services and Minnesota Department of Education	Opted for other expenditure measures.
Births by race/ethnicity and mother's place of birth [Note: include fathers if available].	Minnesota Center for Health Statistics; annual	Opted to examine entire under 6 population, not just births.
Children under age 6 who live in families where parents do not speak English well or at all.	American Community Survey one-year or three-year estimates, Integrated Public Use Microdata Series International (IPUMS); 1 or 3 years	Opted for children's race and place of birth.
Average cost of full-time care as a percentage of median family income for full-time working parent(s).	Child Care Resource & Referral Network for numerator; American Community Survey for denominator; annual	Doesn't capture actual cost-burden of families. Indirect impact on school readiness.
Children with known disabilities (0-2 and 3-5) as a percent of the population, by type of disability among those 3-5.	Minnesota Department of Education, Part B and C Annual Performance Reports, ideadata.org	Low use of services does not mean low-incidence rate. Opted for other measures of disability.
Births paid for by Medical Assistance (Medicaid).	Minnesota Department of Human Services	Only captures those connected to system. Opted for other measures of income.

Appendix C: 3rd Grade Reading Proficiency by Kindergarten Proficiency

Minnesota School Readiness Study: Developmental Assessment at Kindergarten Entrance

Human Capitol Research Collaborative Longitudinal Study through Grade 3
Meet or Exceeds 3rd Grade Reading Proficiency by Kindergarten Proficiency (K in 2006, 3rd in 2010): Select Subgroups

3rd grade	K Proficient (75% standard)	K Not Proficient (< 75% of total)
Males	82%	54%
Females	82%	66%
Whites	85%	69%
Blacks	57%	33%
Hispanics	77%	32%
Native American	53%	33%
Asian/Pacific Islander	74%	35%
Title I Schools	80%	64%
Other Schools	83%	55%

Appendix D:

The 10 Essential Elements of Effective Early Care and Education Programs

During Phase I of the Minnesota Governor's Summit on School Readiness, two early childhood research experts, Arthur Reynolds of the University of Minnesota and Susan Neuman of the University of Michigan, presented 10 essential elements of effective early childhood programs as defined by research. The researchers concurred that a significant body of evidence exists to support these findings.

The 10 Essential Elements: Definitions

1. **Target children at risk**. The effects of early education on school performance and social adjustment are greater for children that are at risk of school failure than for children at low risk.

2. **Begin early**. The earlier that education intervention begins, the larger the impact and the more likely those effects will be sustained.

3. **The number of years of preschool and the length of program services** is positively associated with children's learning and development.

4. **Intensity of instruction**. The instructional content and activities should be of sufficient length and intensity to address learning needs adequately. A teacher's organization and use of time does matter.

5. **Small class sizes and low child-to-staff ratios**. Class sizes of fewer than 20 and child-to-staff ratios less than 10-to-1 are associated with greater learning gains. These should be lower for 3-year-olds (i.e., class sizes of less than 19 and ratios less than 9-to-1).

6. **Highly trained professionals and ongoing professional development.** Children taught by teachers who are well trained are more likely to experience high-quality programs. Teachers and staff should have regular opportunities with sufficient time allocated to participate in professional development activities to keep current on best practices in the field.

7. **Comprehensive services**. Programs that provide a full range of education and family services are more responsive to children's needs and will be more likely to impact child development outcomes. Attention to children's education and social development, family needs, health, and social services are important. Opportunities for parent involvement are especially important.

8. **Compensatory services**. Instruction that accelerates literacy and language development in an appropriate manner is a major need for many children at risk.

9. Coordination of transitions to kindergarten and the early grades. The extent to which the preschool program is integrated with kindergarten and the elementary grades leads to smoother transitions to school. Attention to coordination and the provision of services across ages can help sustain the positive effects of preschool.

10. Strong accountability system. Programs should have well-documented learning standards. There should be formative assessments of children's progress on well-validated indicators. Careful monitoring of program quality also is important.