**Recommendation Paper**

Early Childhood Longitudinal Data System

Feasibility Study

Cross-Departmental Project Team:

WI Department of Children and Families

WI Department of Health Services

WI Department of Public Instruction

Identifying Capacity: Demonstration Project and Future Project Work Recommendation Paper

06/14/2012

The Identifying Capacity Work Group

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# Executive Summary

# Note: (added 1/16/2013) – The recommended approach and rationale below was developed prior to WI becoming eligible to apply for the Round 2 Race To The Top – Early Learning Challenge (RTTT – ELC) Grant. WI applied and has received the grant. This is a four-year grant which will allow the design, build and implementation of the EC LDS. Therefore a Demonstration Project, which would have been funded from the current ARRA grant and which would have made use of the current Webservice tool, will not be needed.

# Instead, a robust matching tool choice will be made during 2013. In the testing of this tool, the concepts expressed in this recommendation paper will be used. However, the beginning population of interest will be different due to the programs chosen for the initial Round 2 Race To The Top focus. The beginning population of interest will be chosen from the following, with all four of these involved in the initial matching tool testing:

# Wisconsin Shares/YoungStar

# Wisconsin 4K and 5K

# IDEA Part B

# Wisconsin Immunization Registry or Vital Records Birth Certificates or Public Health (Home Visiting) Data

# The Child Outcomes and Well-Being Indicators of Interest are included within the RTTT - ELC project.

The charge of the Identifying Capacity Work Group was to prioritize underlying research and descriptive questions that will help to answer one or more of the “Key Questions,” and to confirm the quality and availability of the data to answer them. Based on this analysis, the Group was then asked to make a recommendation regarding which question(s) will be the focus of a Demonstration Project for the EC LDS, and what work will follow the demonstration, in what order, for the future development of a full-scale system. The ECAC could also be instrumental in providing and supporting recommendations as data governance processes are defined, and in encouraging the implementation of MOU’s across the three departments to begin this Demonstration Project .

**Recommended Approach and Rationale for Demonstration Project**

**Understanding children’s program participation**

The Identifying Capacity Work Group recommends that initial data linkage efforts should focus on identifying which children currently are and are not served by a subset of early childhood programs. Such a project would help establish data sharing agreements and data matching processes across the three departments and would provide important, basic information about early childhood program participation that will lay the groundwork for addressing the other key policy questions.

The beginning population of interest will be children in either Badger Care or Food Share. Eligibility requirements for these programs suggest that these children are from low-income families. Not only are these the children for which we have the most, high-quality data, but they are the children who, based on research, potentially have the most to gain from participation in high quality early care and education programming.

After identifying the initial population, the Work Group recommends attempting to “find” these children in the following other early childhood programs:

* Wisconsin Shares/YoungStar
* Wisconsin 4K and 5K
* IDEA-Part B

Although there are certainly other early childhood programs of interest, these initial three capture large numbers of children and populations of interest.

As a result of this project, Wisconsin will uncover the following information:

* Descriptive statistics regarding child participation within and across identified programs
* A better understanding of data quality, matching capabilities, and data gaps within and across programs

This initial exercise will also spawn a series of additional research questions that could be investigated:

* How are program populations similar and different, across demographic characteristics?
* Which children are served by multiple programs, in what combination?
* Looking across eligibility requirements, are there children who are not accessing other programs for which they should be eligible? What are potential reasons for not taking up such services?
* Can we find children in these systems longitudinally (i.e., where were they last year)?

The project will also help identify data needs and gaps. Some initial questions may include:

* Are there data fields that could be added or changed to facilitate easier matches across data sets?
* Based on program data quality, which system should be the “authoritative source” for which information?
* What is the “value-add” of matching data across the systems; i.e., what information is gained across programs and for each individual program?

# It is also recommended that the outcomes previously defined as child well-being indicators by the ECAC (see page five of full report) should be considered as possible measures that could be reported annually to the public.

# 1 Charge of the Work Group

One of Wisconsin’s first crucial steps in developing an Early Childhood Longitudinal Data System (EC LDS) was to identify a number of key policy questions to guide the building of the system. The charge of the Identifying Capacity Work Group was to prioritize underlying research and descriptive questions that will help to answer one or more of these “Key Questions,” and to confirm the quality and availability of the data to answer them. Based on this analysis, the Group was then asked to make a recommendation regarding which question(s) will be the focus of a demonstration project for the EC LDS, and what work will follow the demonstration, in what order, for the future development of a full-scale system. In particular, one important next step is the identification of specific child well-being indicators that we can currently track, and those that we would like to be able to track over time.

The initial task of the Work Group was an analysis of the underlying questions to Wisconsin’s Key Questions and the data available across the early childhood programs of the three partnering agencies: the Department of Children and Families (DCF), the Department of Public Instruction (DPI), and the Department of Health Services (DHS). Some of the resources utilized to inform the discussions included the summary of the Wisconsin Data Roundtable Morning Discussion on Underlying Questions, State Longitudinal Data System (SLDS) Early Childhood Planning Guide (a product disseminated by the National Center on Educational Statistics-NCES), and the completed data surveys from 37 early childhood programs across the three partnering agencies.

# 2 Scope

## In-Scope

* All the questions that are listed in the Underlying Questions document can be considered.
* Additional questions may be considered by the project team.
* All the programs and systems that carry data across the three partnering agencies will be considered as sources of data.

## Out-of-Scope

* Any programs or data systems outside of the three partnering agencies will not be considered at this time.

## Constraints and Assumptions

* Assumption: Subject matter experts will form this work group, performing the analysis needed to make the decisions.
* Assumption: The Data Analyst will assist with answers to questions about the data survey information.
* Assumption: Initial recommendations will be presented to the Governor’s Early Childhood Advisory Council (ECAC) during its June 19, 2012 meeting.

# 3 Background

## 3.1 Wisconsin’s Key Policy Questions

Early in the project’s development, the EC LDS project team recommended a set of key policy questions to guide the building of the EC LDS. These questions were also vetted by the Governor’s Early Childhood Advisory Committee (ECAC) and the WI Early Childhood Collaborating Partners in the summer of 2011. The resulting key questions are:

* Are children, birth to five, on track to succeed when they enter school and beyond?
* Which children and families are and are not being served by which programs and services?
* Which children have access to high-quality early childhood programs and services?
* What characteristics of programs are associated with positive child outcomes for which children?
* What are the educational and economic returns on early childhood investments?

Attendees at the Data Roundtable on February 22, 2012, WI EC LDS Project Team members, and national facilitators who assisted the WI Project Team on the Data Roundtable day also developed underlying questions, more detailed in nature, that would help the state arrive at answers to the above five key questions. (See Addendum 1 for comprehensive list of the underlying questions considered).

## 3.2 Wisconsin Early Childhood Data Survey

Concurrently, inspired by the State of New York, whose data survey and successful information gathering process served as a springboard for Wisconsin’s efforts, WI EC LDS data analyst, June Fox, led an effort to gather information about program and system data from the early childhood programs and systems across DPI, DCF and DHS. This was accomplished via a Data Survey that was based on the Early Childhood Data Collaborative’s Ten Fundamentals of Coordinated State Early Childhood and Education Data Systems and the WI School Readiness Indicators as defined in the 2003 study of the WI School Readiness Indicators Initiative. Surveys were completed by data experts across the three agencies, and data were entered into a [Data Survey Summary Spreadsheet](http://wise.dpi.wi.gov/files/ec/xls/ec_lds_summaryofwisurveyresults.xls). (See Addendum 2 for complete survey results.)

Armed with the underlying questions and the data survey summary spreadsheet, the Identifying Capacity Work Group was able to link potential questions with existing data sources, for consideration.

# 4 Decision Process

## 4.1 Composition of Work Group

The Work Group was composed of volunteers from the EC LDS Project Team, including Dave Edie (Wisconsin Council on Children and Families, WCCF), Hilary Shager (DCF), Angela Rohan (DHS), Jill Haglund (DPI), Carol Noddings Eichinger (DPI), and Linda Leonhart (DPI). Additional volunteers from the Data Roundtable also joined the group, including Jared Knowles(DPI) and Ann Terrell, Milwaukee Public Schools (MPS). EC LDS Data Analyst June Fox (DPI) also provided support regarding Data Survey results.

Work was completed over the course of three meetings. The initial meeting, held March 29, 2012, focused on defining of the charge of the group (See Addendum 3), developing Demonstration Project criteria, and doing an initial scan of the underlying questions. The second meeting, held April 16th, 2012, included a deeper analysis of the underlying questions in conjunction with an analysis of survey data results and development of an initial Demonstration Project recommendation (See Addendum 1 for comprehensive list of the underlying questions considered.) The final meeting, held May 22, 2012, focused on defining child well-being indicators and gaps in information, and refining Demonstration Project recommendations (See Addendum 4 for Meeting 3 Agenda).

## 4.2 Developing Demonstration Project Criteria

The Work Group developed a set of criteria that would be utilized to pare down the numerous underlying questions proposed through the Data Roundtable discussions, input from Collaborating Partners, the national State Support Team, and the EC-LDS project team.

**Criteria for choosing initial questions for the Demonstration Project:**

* Addresses an issue that stakeholders care about;
* Includes data from all three partnering agencies;
* High quality data to answer the question exists and can be easily attained;
* Initial data connections already exist, and there are department staff available to implement the project;
* The number of children involved is significant, or includes a population of special concern;
* Knowing the answer to the question(s) could potentially influence policy, practices, or funding, and
* Knowing the answer will add value to what we already know, with the potential to improve the lives of children and families in Wisconsin.

# 5 Recommended Approach and Rationale

# Note: (added 1/16/2013) – The recommended approach and rationale below was developed prior to WI becoming eligible to apply for the Round 2 Race To The Top – Early Learning Challenge (RTTT – ELC) Grant. WI applied and has received the grant. This is a four-year grant which will allow the design, build and implementation of the EC LDS. Therefore a Demonstration Project, which would have been funded from the current ARRA grant and which would have made use of the current Webservice tool, will not be needed.

# Instead, a robust matching tool choice will be made during 2013. In the testing of this tool, the concepts expressed in this recommendation paper will be used. However, the beginning population of interest will be different due to the programs chosen for the initial Round 2 Race To The Top focus. The beginning population of interest will be chosen from the following, with all four of these involved in the initial matching tool testing:

# Wisconsin Shares/YoungStar

# Wisconsin 4K and 5K

# IDEA Part B

# Wisconsin Immunization Registry or Vital Records Birth Certificates or Public Health (Home Visiting) Data

# The Child Outcomes and Well-Being Indicators of Interest are included within the RTTT - ELC project.

## 5.1 Understanding Children’s Program Participation

Using the above criteria, the Identifying Capacity Work Group decided that initial data linkage efforts should focus on identifying which children currently are and are not served by a subset of early childhood programs. Such a project would help establish data sharing agreements and data matching processes across the three departments and would provide important, basic information about early childhood program participation that will lay the groundwork for addressing the other key policy questions.

The beginning population of interest will be children in either Badger Care or Food Share (whichever population is largest). Eligibility requirements for these programs suggest that these children are from low-income families. Not only are these the children for which we have the most, high-quality data, but they are the children who, based on research, potentially have the most to gain from participation in high quality early care and education programming. This is also the focus population for the Race to the Top-Early Learning Challenge grant for which Wisconsin will be applying in the fall.

After identifying the initial population, the Work Group recommends attempting to “find” these children in the following other early childhood programs:

* Wisconsin Shares/YoungStar
* Wisconsin 4K and 5K
* IDEA-Part B

Although there are certainly other early childhood programs of interest, these initial three capture large numbers of children and populations of interest.

As a result of this project, Wisconsin will uncover the following information:

* Descriptive statistics regarding child participation within and across identified programs
* A better understanding of data quality, matching capabilities, and data gaps within and across identified programs

This initial exercise will also spawn a series of additional research questions that could be investigated:

* How are individual program populations similar and different, across various demographic characteristics?
* Which children are served by multiple programs, in what combination?
* Looking across eligibility requirements, are there children who are not accessing other programs for which they should be eligible? What are potential reasons for not taking up such services?
* Can we find children in these systems longitudinally (i.e., where were they last year)?

The project will also help identify data needs and gaps. Some initial questions may include:

* Are there data fields that could be added or changed to facilitate easier matches across data sets?
* What is the quality of data for each program? Which system should be the “authoritative source” for which information?
* What is the “value-add” of matching data across the systems; i.e., what information is gained across programs and for each individual program?

## 5.2 Proposed Project Process

The Identifying Capacity Work group recommends that the Demonstration Project described above be considered by the Early Childhood Advisory Council, and that implementation begin across the three departments, to link the data that would answer the questions proposed. Data Governance decisions, to ensure proper use and protection of this data, and determine how and to whom the data is provided, will need to precede the actual sharing of data. The Early Childhood Longitudinal Data System Project Team has begun a process of researching and recommending steps to institute a cross department governance process. The ECAC could also be instrumental in providing and supporting recommendations as data governance processes are defined, and in encouraging the implementation of MOU’s across the three departments to begin this Demonstration .

Linkage of data across the three departments to discern the services a specific child is receiving will require creation of matching algorithms or the application of a shared unique ID across programs, which are new processes for Wisconsin. DCF has demonstrated some success with linking data across programs through

projects with the Institute for Research on Poverty (IRP) at the University of Wisconsin-Madison and is currently engaged in a pilot project and grant writing effort with DPI focused on understanding the educational outcomes of children in foster care. MOU’s have been created for each of these projects, and could be used as a template for MOU’s across the Departments for this Demonstration Project. However, initial delegation of personnel to perform the technical tasks of mining the data to answer these queries will be required.

## 5.3 Use Of Webservice For Linking Data

DPI currently has a webservice in use for linking data for individuals. It is recommended that initially the webservice be utilized for the Demonstration Project, though it is recognized this would not be the long term solution for sharing data across the programs. This will allow, during the Demonstration Project, that all programs involved in sharing Early Childhood data across agencies will retain the unique identifiers they use today within each individual program. The webservice will be used to find linkages between the various programs involved in data sharing. This is a free webservice in use today in DPI and for DPI/DCF cross-agency data and is a proven product. Some minimal cost may be involved for personnel/enhancements to adapt the webservice to this project’s needs.

## 5.4 Budget Considerations

The Work Group believes that the value indicated by this initial Demonstration Project will lead to enthusiasm to define additional questions that programs, policy makers, and the public would like to see answered about the welfare and success of the children of Wisconsin. The demonstration of Wisconsin’s dedication to linking and sharing data to improve outcomes for young children will be essential for our fall application for the next round of the Race to the Top-Early Learning Challenge, which could support expansion of this data sharing potential.

## 5.5 Advantages of Recommended Approach

### The Identifying Capacity Work Group believes that the Demonstration Project described above is the best match with existing state resources and needs, and has the best chance of being successful. Although we would like to be able to address more of the key questions (see page 1 for Key Policy Questions), and include more early childhood programs, limiting the project to fewer data sets presents a number of advantages:

### Fewer queries will need to be written to retrieve the data.

* Cost will be reduced, with fewer program data technicians required to connect the data linkages.
* The first questions specific to children’s program participation may be easier to answer, with higher quality data available.
* The last two key questions appear to require initial data on the first three questions, and the longitudinal process of seeing results over time.

Exploration of the last two questions will need to be tabled until the demonstration has exhibited success and merit, and more research funds have been accrued. Further analysis of other potential “underlying questions” will proceed through the EC-LDS Project Team work, and future recommendations will be forthcoming about the prioritization of questions the data should answer, once the demonstration displays potential to link data across the three systems.

# 6 Definition of Outcomes/Child Well-being Indicators

## 6.1 Child Outcomes and Well-being Indicators of Interest

Although the Demonstration Project described above will provide Wisconsin with important information about what types of programs and services the state’s children and families are and are not accessing, it will not answer the key policy question, “Are children, birth to five, on track to succeed when they enter school and beyond?” A second task of the Identifying Capacity Work Group was to identify which key outcomes/indicators of “success” the state can and should aspire to track over time.

The Work Group recommends that the outcomes previously defined by the ECAC (listed below) be considered as possible measures that could be reported annually to the public. Further analysis of these measures to define the program data and data elements required to provide this information will be necessary. Some may be already available; it will be important to verify if this data is currently retrievable, and where potential data gaps may exist. Some data may be available for particular populations, but not others; e.g., the State may have information for children in public early education programs, but not private ones. Other terms will need to operationalized (e.g., “high quality,” “appropriate,” etc.), and points of comparison provided. Data Governance polices will define any release of information and will need to be accompanied by a careful explanation of terms, data sources, and population included or not included.

One clear area of concern is the absence of any kindergarten entry assessment (KEA) data. To remedy this, the Work Group proposes a strong recommendation that the choice and implementation of a comprehensive KEA be a key priority for Wisconsin.

We also recommend that these measures be reported not only as aggregated data at the state level, but also at the local level, so communities can readily access data pertinent to their own location and programs.

Measures Defined by ECAC to Track Well-being of Children in Wisconsin:

**Early Learning**

* % of children enrolled in high quality early childhood programs
* % of children referred for IDEA Part C, Part B, mental health, or other specialty services
* % of Kindergarten students assessed using PALS that met or exceeded the benchmark
* % of children proficient on the 3rd grade reading test

**Health**

* % of young children who are obese
* % of children with all recommended well child visits
* % of children fully immunized (will be carried in the SSIS)
* % of children with health insurance

**Families/Communities**

* % of children in foster care
* % of children with substantiated child abuse or neglect cases
* % of children in poverty
* # of communities with an early childhood council

# 7 Conclusion

The Demonstration Project will be an excellent first start in representing the possibilities of sharing data across departments. Next steps include further analysis of other potential “underlying questions” through the EC-LDS Project Team work, and future recommendations will be forthcoming about the prioritization of questions the data should answer, once the demonstration displays potential to link data across the three systems.

# The child well being outcomes previously defined by the ECAC (above) should additionally be considered as possible measures that could be reported annually to the public. Further analysis of these measures to define the program data and data elements required to provide this information will be necessary

List of Addendums:

Addendum 1: Comprehensive List of the Early Childhood Data Roundtable Underlying Questions:

<http://wise.dpi.wi.gov/files/ec/doc/ec_lds_roundtableunderlyingquestions.docx>

Addendum 2: Data Survey Summary Spreadsheet: <http://wise.dpi.wi.gov/files/ec/xls/ec_lds_summaryofwisurveyresults.xls>

Addendum 3: Early Childhood Longitudinal Data System Project Identifying Capacity Work Group (p. 11)

Addendum 4: WI EC Longitudinal Data System Identifying Capacity Work Group Agenda (p. 12)

Addendum 3

**Early Childhood Longitudinal Data System Project**

**Identifying Capacity Work Group**

**April 16, 2012**

|  |  |
| --- | --- |
| **Name of Sub-Committee** | **Identifying Capacity** |
| **Co-Chairs** | **Carol Noddings Eichinger (DPI), Hilary Shager (DCF)** |
| **Other ECLDS Project Team Members** | **Dave Edie (WCCF), Angela Rohan (DHS), Jill Haglund (DPI), Linda Leonhart (DPI), June Fox (DPI)** |
| **Goal or Charge** | **Prioritize research and descriptive questions that will help to answer one or more Wisconsin Key Questions, and confirm the quality and availability of the data that will answer those questions. The Identifying Capacity Work Group will make a recommendation regarding which question(s) will be the focus of a pilot project for the EC LDS, and what work will follow the pilot (in what order) for the future development of a full-scale EC LDS.** |
| **Brief Rationale** | **Smaller working group is necessary to define initial programs and populations, to analyze capacity to retrieve and link data to answer specific questions.** |
| **Initial Charge** | **Analysis of relationship of the underlying questions to the Five Policy Questions, the data available across the three agencies’ programs (using Data Survey results), leading to recommendations regarding which questions to focus on first, second, etc. and the metrics used to answer those questions.** |
| **Potential Resources to Guide the Work** | **SLDS Early Childhood Planning Guide (NCES)** |
| **Potential Additional Members or Consultants** | **Janice Liebhart, Jared Knowles, Ann Terrell** |
| **Deliverables** | **Recommendation Paper: Pilot Projects and Future Project Work Increments** |

Addendum 4



[](http://dcfweb/brand_toolbox/images/dcf_logo_bw.jpg)

**WI Early Childhood Longitudinal Data System**

**Identifying Capacity Work Group AGENDA**

**May 22, 2012 (Third meeting)**

**DPI CR 419**

* Define the Outcomes/Child Well Being Indicators
  + Review the ECAC original set of measures (page two)
  + Track over Time
  + Establish recommendations
* Determine from June’s Data Survey—which of these can we answer already?
  + Which require linkages?
  + Which data elements are not yet collected---data gaps?
    1. For example, kindergarten entry/assessment not yet available
* Demonstrate the potential linkages across departments/potential pilot
  + Where are the children? Which children are in which programs?
  + Which programs are serving children of low income? Potential data sources?
    1. BadgerCare
    2. 4K
    3. Birth to 3
    4. SHARES-YoungStar
* Potential recommendations to consider:
  + Each department evaluating current processes for sharing data internally, linking data internally (“Getting our own houses in order”)
  + Reporting data BOTH from a selection of the ECAC “well being” indicators AND reporting data that requires linking data across programs/departments
* Next steps