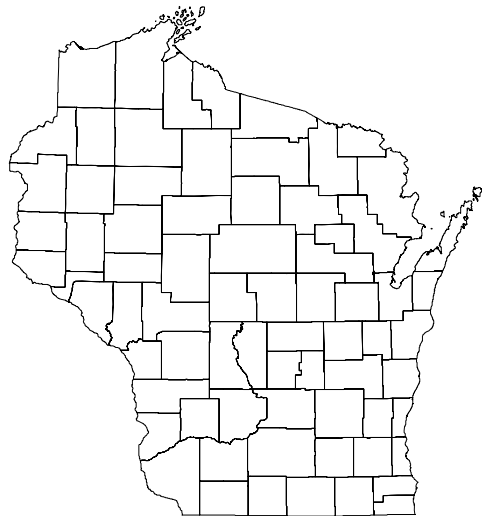


# **Progress and Promise for Strengthening Child Care Data Capacity**

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## University of Wisconsin-Extension

Congress established Cooperative Extension in 1914 as a partnership among federal, state, and local governments.

- It is often cited as a premier example of a successful technology-transfer organization.
- It takes research-based knowledge from the university and makes it useable by the public and by policymakers.

“Quite simply, UW-Extension is the people of Wisconsin and their university working together to apply university knowledge and resources to the current needs of their families, professions, businesses and communities. Its practical, issue-focused, problem-solving education is designed to help local citizens and leaders improve the state's economy, protect its environment, enhance the viability of its communities, and enrich the quality of their lives and work.”

Kevin P. Reilly,  
System President,  
University of Wisconsin

## Public Policy Options Papers

This series of Public Policy Options Papers provides one example of how the Wisconsin Child Care Research Partnership (WCCRP), housed within UW-Extension, puts research-based knowledge into action. Our aim is to be a fair broker of information about early care and education, objectively presenting alternatives, along with the likely public policy consequences of each option.

## Wisconsin Child Care Research Partnership

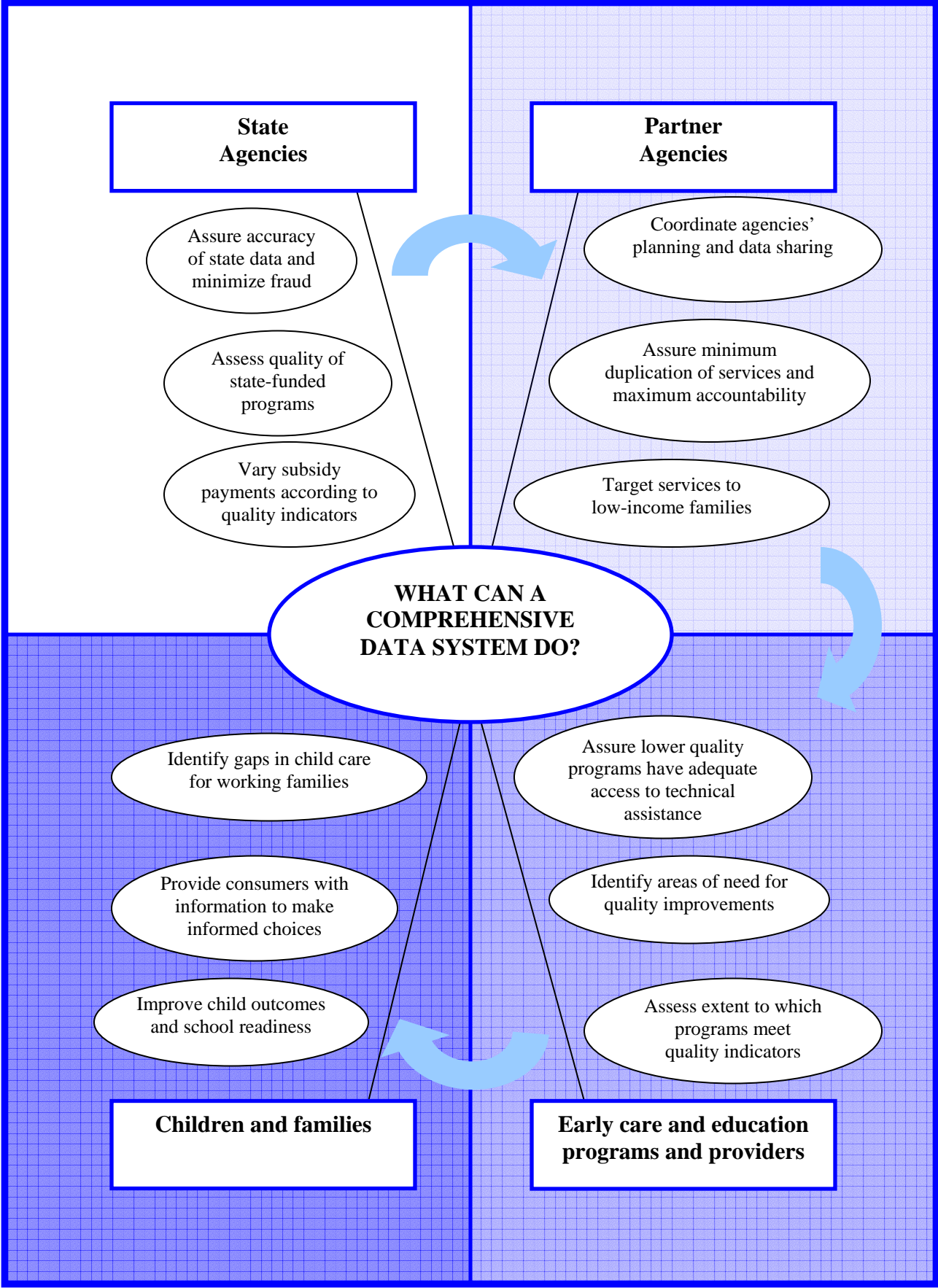
The federal Department of Health and Human Services, Administration for Children and Families, Child Care Bureau awarded two separate grants to Wisconsin:

- *Wisconsin Child Care Research Partnership (WCCRP)* began in 2000 as one of nine Research Partnerships across the United States committed to studying child care quality for low-income children. Results from WCCRP studies are presented in a series of issue briefs and public policy reports.
- *Wisconsin Department of Workforce Development* received funding as one of six states committed to strengthening their state's *Child Care Data and Research Capacity (2002-2005)*.

Under the Data Capacity grant, Wisconsin's Department of Workforce Development-Child Care Section joined with UW-Extension, Wisconsin Child Care Resource and Referral Network, Department of Health and Family Services, *The Registry*, and the Department of Public Instruction's Child and Adult Care Food Program to develop a comprehensive statewide "Provider File" of all regulated child care providers, to be used as a primary resource in collecting and sharing indicators of child care quality. This paper focuses on the value of a strong and effective data system as a tool for program administrators, researchers, and the families who are served by the state's child care programs.

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## SECTION I. INTRODUCTION

Ensuring the health and safety of children in care, preparing children for their transition into the world of formal education, and supporting the efforts of parents to work and provide for their families are goals foremost on the minds of child care policymakers. However, the sheer numbers of programs and the diversity of child care settings within a free market system cause serious challenges. An accurate child care data system with information on the numbers of children in care, the quality of programs in which care is provided, and the characteristics of individuals providing that care could serve as a solid foundation for formulating effective child care policies. Absence of a complete and accurate database places serious limitations on effective decision-making.

This policy report presents one state's progress in developing a child care data system, as well as promise for an enhanced research and data agenda for early care and education over the next few years. With about 70 percent of Wisconsin's mothers in the labor force, child care services have become a normative feature of every community. Approximately two-thirds of Wisconsin's 342,340 children under 5 years of age are enrolled in child care programs, as well as are thousands of 6- to 12-year-old children who attend programs after school and in the summer.<sup>1</sup> Most child care services are delivered in small units, by about 10,000 regulated businesses, with an estimated statewide economic impact of nearly \$1 billion per year.<sup>2</sup> Approximately 87,000 low-income children were served by Wisconsin's child care subsidy system in 2004, which enabled their families to work and to contribute to the economy.<sup>3</sup> By every prediction, the early care and education system is expected to grow.

This paper describes:

- The history of building a state-of-the-art automated child care subsidy payment system in Wisconsin
- The impact of the state's federal Child Care Data Capacity grant on implementing a vision for a merged child care provider file with multiple partners
- Lessons learned from other state Data Capacity projects
- A vision for a data system encompassing the breadth of public and private early care and education (ECE) programs: child care, Head Start, and public preschool programs
- Seven possible options, to build upon the recently completed child care provider file, which are presented as a framework for visualizing a comprehensive early care and education system.

### OVERVIEW OF A STATEWIDE CHILD CARE DATA SYSTEM

Child care services to families are delivered primarily by the private sector rather than by state government. The state regulates services provided for the protection of children, forms partnerships with local public and private agencies to assure that programs meet standards and statutory intent, encourages quality improvement, and helps low-income families afford child care. The following table illustrates the key sources of child care data, related to four stakeholder groups:

**Table 1: Key Stakeholders and Data Sources for Child Care**

<b>Stakeholders</b>	<b>Data Sources</b>
<p><b>State Agencies</b>            Department of Workforce Development (DWD)</p>	Child care subsidy data; data on certification of small family child care providers
Department of Health and Family Services (DHFS)	Child care licensing data: Centers and family child care homes
Department of Public Instruction (DPI)	Child Care Food Program data
<p><b>Private and Local Agencies</b>            Child Care Resource and Referral Network</p>	Information on child care programs, parent demand, gaps in services
The Registry and WI Early Childhood Association	Data on the child care workforce
Head Start grantees	Data on Head Start programs
Accreditation agencies	Data on accredited programs
<p><b>Early Care and Education Programs</b>            Private child care programs (centers and family child care) and Head Start programs</p>	Data on enrollments, program characteristics, and environments
<p><b>Children and Families</b>            Served in child care and Head Start settings</p>	School readiness of children; work status of parents; long-term success of children

Linking and sharing of data can help state government and its partners deliver more effective oversight, improve public policy, and make more efficient use of available dollars in order to ensure that child care services are meeting the needs of families and children. This paper will outline Wisconsin’s efforts to build a child care data system, and introduce a number of possibilities for building a more comprehensive early care and education system in the future.

**POTENTIAL BENEFITS OF A STATE CHILD CARE DATA SYSTEM**

Child care in Wisconsin enjoys a strong national reputation for leading the way in:

- ✓ Streamlining funding sources into a single fund
- ✓ Ensuring that all subsidized children are cared for in regulated settings
- ✓ Eliminating waiting lists and serving all eligible families that apply
- ✓ Conducting annual market rate surveys and setting maximum rates
- ✓ Making positive efforts to improve the child care workforce
- ✓ Making strides and enjoying successes in automating the subsidy program

Building on this momentum, this paper explores the benefits of strengthening the state’s child care data capacity, and creating a stronger and more sophisticated child care data infrastructure. In at least three distinct areas, a comprehensive data system would help to answer policy questions, such as those shown below in the boxes to the right:

■ **Improve Efficiency of Data Collection and Data Processing**

One inevitable outcome of operating multiple systems and multiple databases is the “silo effect,” with minimal coordination between agencies and between agencies’ databases. Possible results of the silo effect can be unnecessary duplication of effort on the part of independent monitoring agencies, increased potential for error in data entry, and failure to identify elements or patterns in the data that, if recognized, could lead to better systems of communication with families and providers.

A single data system for early care and education could increase the likelihood that state and private agencies would share responsibility for designing programs to meet the needs of families, children, and the provider community. A shared system would support the goal of service integration through a cohesive infrastructure, with organized oversight, and databases with consistent data elements. A cross-agency “data group” could identify potential efficiencies to reduce the incidence of improper payments, minimize opportunities for program fraud, and strengthen data interfaces and data exchanges across agencies.

■ **Identify Trends and Gaps in Services**

An overarching data system could be used to help target training, technical assistance, and other services toward providers and families most in need of high quality care while, maximizing use of funding and resources in these times of budget constraints and cut-backs. Enhancing the state’s child care data infrastructure could also provide a foundation for accurate trend analyses and projections. Examples of topics for which shared data might yield valuable information to help in program planning and policy development designed to better serve programs, providers, families, and children include:

1. Comparison of child care enrollment and child care capacity data could reveal whether there are enough or too many slots to support care for children of all ages in all communities.
2. Linkages between child care quality assessments and percentages of children from low-income families could yield important information as to whether children from low-income families are being served in high quality programs.
3. Interagency partnerships and sharing of information across systems could generate new ways of doing business, more uniform standards, and less administrative time and effort.
4. Integrated systems could assure that technical assistance services were being designed to meet the needs of early care and education providers, and that increasing numbers of programs were providing early learning experiences as indicated in Wisconsin’s Model Early Learning Standards and preparing the children for school.

Are child care programs that receive subsidy payments under complaint investigation?

What do we know about low-income children and characteristics of their families who receive child care subsidies?

In which communities do low-income children have access to high quality care?

Is the supply of child care in a given area adequate to meet the demands of families?

What are the common characteristics among programs that do not serve subsidized families?

What trends are found in regulatory visits to providers?

- **Assure Access and Accountability in Program Administration**

Each private or public agency that participates in the state child care data infrastructure would define, and provide access to, the non-secure data they agree to share. Each agency would have clearly detailed objectives, effective procedures that included accurate records of programs and providers, and measurable short-term and long-term outcomes. The effectiveness of each state investment would then be assessed independently, in order to gauge the relative impact of each agency's efforts as measured against the statewide goal of improving the quality of care for Wisconsin's children. Research and evaluation are critical components if any public program is to succeed. Recognizing the value of early care and education research and building these factors into any comprehensive system would help to provide policymakers with the information they need to make informed decisions. In addition, enhancing the state's child care data infrastructure could improve public access to information for consumers, legislators, businesses, policymakers, and citizens.

Do families have the right information to choose the quality care they need?

Which programs serving low-income children have high educational levels among staff?

## **SECTION II. BUILDING A STATE SUBSIDY DATA SYSTEM (1996-2004)**

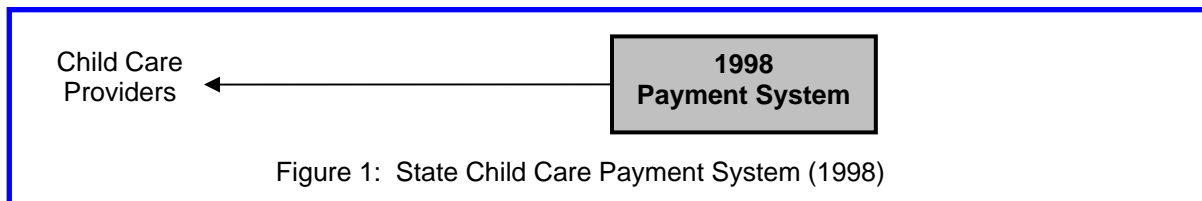
The Wisconsin child care subsidy program has always been a state-supervised program administered at the local (county and tribal) agency level. Although uniform requirements are now imposed by the state, prior to 1996 county/tribal agencies ran their own programs using whatever systems were available to them. Automation was minimal or non-existent; subsidy payments were sent to providers erratically, with providers sometimes having to wait two or three months for a payment for services rendered. Attendance reporting was inconsistent. Payments were based on hourly, weekly, or monthly rates – depending on the county's own system for provider payment.

### **1996: LAUNCHING THE AUTOMATION OF WISCONSIN SHARES**

As part of a major reorganization to support then-Governor Tommy Thompson's landmark welfare reform program in 1996, a decision was made, and a major project initiated, to develop a statewide automated system for administering child care subsidy payments, named "Wisconsin Shares." At that time, all of Wisconsin's child care programs were housed in the Department of Health and Family Services (DHFS). In recognition of the critical role of child care in assisting parents in finding and retaining employment, the state's child care subsidy, certification, and quality improvement operations, along with the Wisconsin Works (W-2) welfare reform program, were moved from DHFS to the Department of Workforce Development (DWD), where they remain today. This change supported uniformity and efficiency in administration of the Wisconsin Shares program, along with ensuring fair and equal treatment of providers and families across all counties and tribes.

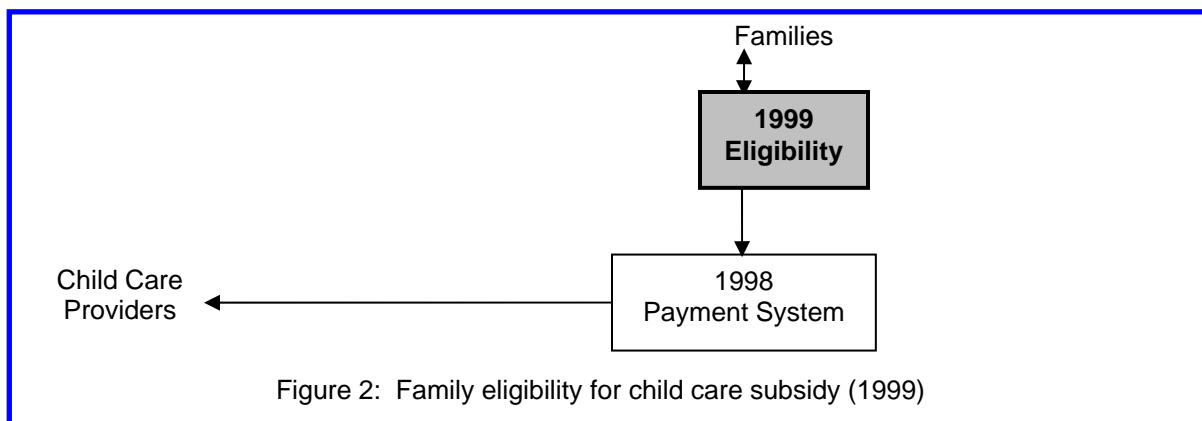
## 1998: DEVELOPING AN EFFICIENT CHILD CARE PAYMENT SYSTEM

A work group made up of state and local staff participated in a structured systems development process designed to define and record the “business requirements” for a centralized state child care payment system. This “requirements” document was used as background information to secure the services of a vendor (Deloitte & Touche, now Deloitte Consulting), already under contract with the state for development and maintenance of the CARES (Client Assistance for Re-employment and Economic Support) welfare reform system. The new Child Care Payment System, or “CCPS,” summarized data on authorizations, attendance, and payments, and also served to generate bi-weekly payments to child care programs (see Figure 1, the first of 6 figures building progressively to the current state subsidy data system).



## 1999: AUTOMATING FAMILY ELIGIBILITY FOR CHILD CARE SUBSIDY

Shortly after successful implementation of the Child Care Payment System for providers, a project was launched to automate eligibility requirements for families seeking to use the Wisconsin Shares child care subsidy program (see Figure 2). Leveraging the highly successful CARES system with its automated eligibility determination system for other assistance programs (e.g., Food Stamps, Medicaid), the plan was to collect and store the family data needed for determination and calculation of eligibility for subsidy on the single DB-2 database on the state’s mainframe computer. Changes entered into CARES for any one program would also be processed and useable across all other applicable programs, with appropriate security and confidentiality guidelines.



## 1999: CREATING A CHILD CARE DATA WAREHOUSE

A Child Care Data Warehouse was then developed to serve as a vital resource for answering current and future inquiries from program administrators, legislators, the media and others, for extracting data, and for constructing data-based reports (see Figure 3). Some examples of reports produced by the Data Warehouse may be found at: (<http://www.dwd.state.wi.us/dws/programs/childcare/wishares/default.htm>). The

Child Care Data Warehouse was designed with the potential to become a versatile tool for conducting research. A set of 86 “business questions” was identified, and the structure of the warehouse evolved, with data stored monthly according to topic area and organized into “universes” placed on an Oracle database. The OLAP (On Line Analytical Processing) tool, built by Business Objects, was designed to be accessible in both a client server and Web-based environment. A unique feature of Wisconsin’s Data Warehouse was a “Funds Management” component, which was designed to both estimate subsidy costs into the future, based on recent payment patterns, and estimate future program participation trends for strategic decision-making. To answer policy requests about the potential of instituting waiting lists, the system could modify expenditure and caseload projections by exempting certain groups, e.g., families with parents participating only in the welfare reform program, families with children with special needs, or foster care families.

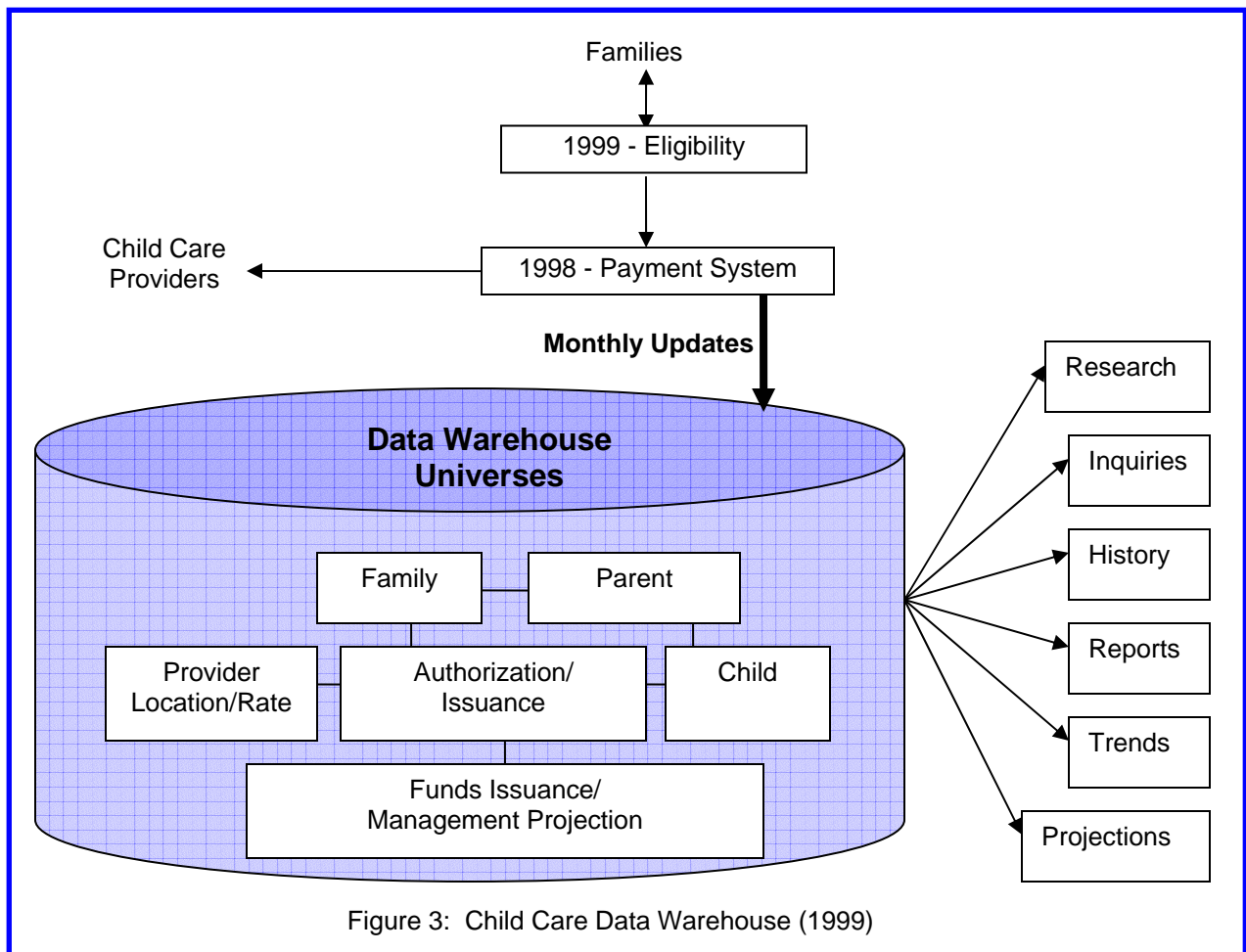


Figure 3: Child Care Data Warehouse (1999)

### 2001: MAKING CHILD CARE INFORMATION AVAILABLE ON THE WEB

Continuing toward the goal of improved customer service, the Department of Workforce Development (DWD) launched a major initiative to make child care information available to child care providers on the Web (see Figure 4). The Child Care Provider Information (CCPI) Web initiative allows providers, after being authorized for a security logon identification and password, to visit and view information relative to their facilities on a real-time basis:

- Verification of provider demographic information, including regulatory and accreditation status
- Current and past authorization data for eligible parents
- Hours of attendance reported
- Detailed subsidy payment history from DWD

The Web application has been further enhanced to allow providers to record each child’s hours of attendance. Implementation of this functionality, named Child Care Web Attendance, or CCWA, was well-received by both providers (who welcomed faster turnaround of attendance data processing) and local staff (who appreciated the workload reduction of no longer having to manually enter attendance data), and represented a hallmark innovation of Wisconsin’s child care automation success. DWD logon records indicate that an estimated 20% of providers who serve children from low-income families currently access this Web feature. Although the majority of providers do not yet access CCPI or CCWA, the technologies they offer provide significant opportunities to strengthen administrative practices.

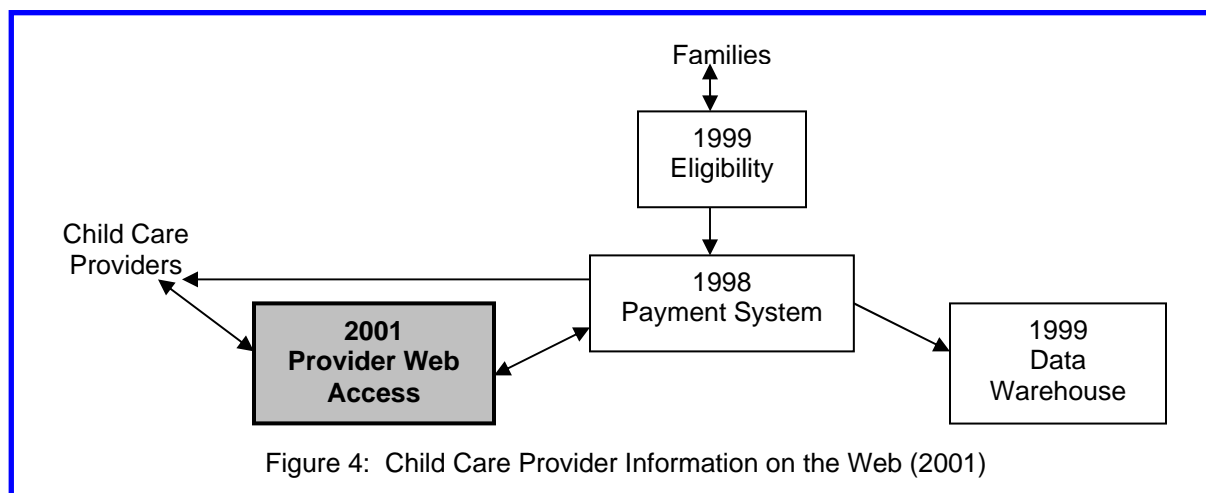
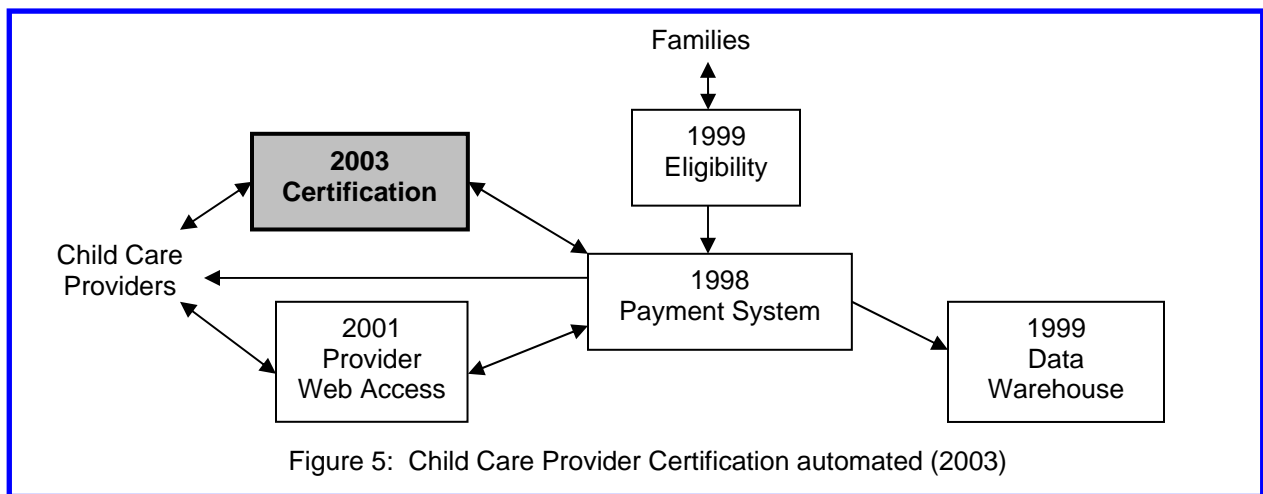


Figure 4: Child Care Provider Information on the Web (2001)

### 2003: AUTOMATING CHILD CARE PROVIDER CERTIFICATION (CCPC)

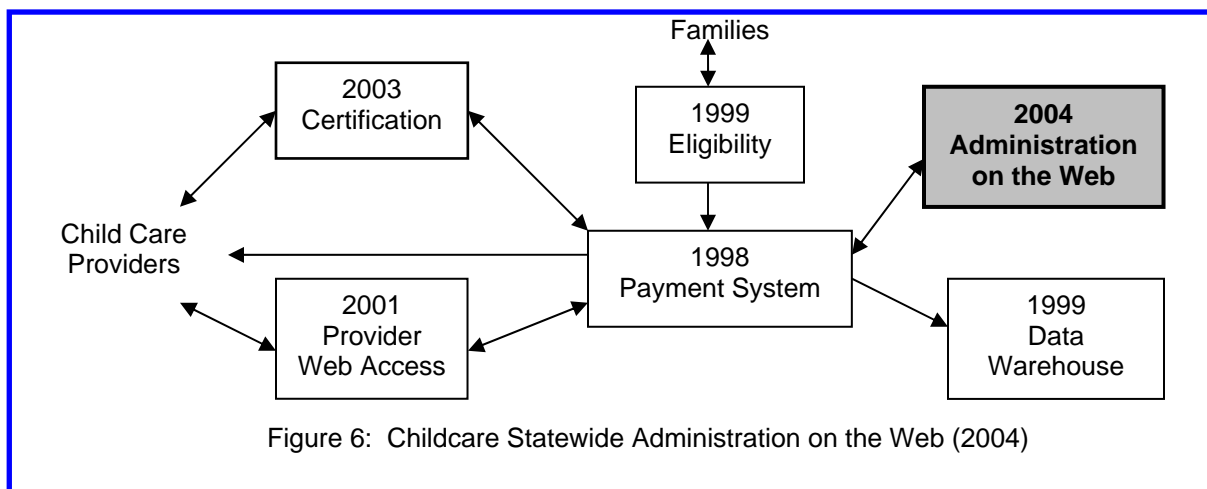
Each state has a unique set of regulatory requirements, and, although many states allow unregulated providers to participate in the subsidy system, Wisconsin passed statutory requirements in the 1980s assuring that providers must be “regulated” in order to receive subsidy payments. Family child care providers who do not meet the threshold for licensing – those caring for no more than three unrelated children under 7 years of age – may become “certified” in order to receive child care subsidy payments. At the time of this automation step, 80 different county, tribal, and non-profit agencies conducted the certification program. The Child Care Provider Certification (CCPC) system merged data from the 80 agencies into one file. CCPC is able to collect applications and process demographic data, site visit dates and results, violation data, criminal background checks, and other data from applicants who wish to become certified (see Figure 5). Upon approval, the statewide Web-based CCPC system produces a certificate for the provider, maintains all new or changed information, and automatically triggers alerts to certifiers regarding renewal requirements. This system also includes reports. Certification information is fully integrated into subsidy program software. Certifying agencies routinely use this system to check providers’ status with

regulations, and assess providers' progress toward becoming certified and thereby eligible to receive Wisconsin Shares subsidy payments. CCPC provided a vision for how other regulatory system data might be merged for efficiency and effective administrative operations.



#### 2004: MOVING CHILD CARE STATEWIDE ADMINISTRATION TO THE WEB

Building on the successes of CCPI, CCWA, and CCPC, the Department of Workforce Development made a commitment to move functionality of the Child Care Payment System from the mainframe to the Web (see Figure 6). Dubbing the project Childcare Statewide Administration on the Web (CSAW or “see-saw”), information technology staff, working with program staff, recoded every screen and data element to a Web-based environment. In all, more than 60 mainframe screens were rewritten and moved to the Web. Among the many advantages of migrating to a Web platform, a power point training guide supported the transition to this more intuitively sensible and efficient data system. The new environment supported features such as remote worker training, a greater capacity for program enhancements, and opportunities for new workers to more easily become proficient users of the system.



## SECTION III. EXPANDING DATA AND RESEARCH CAPACITY

In 2002, Wisconsin became one of six states, with Connecticut, Maine, Massachusetts, Oregon, and Rhode Island, to receive a three-year Child Care Data and Research Capacity grant from the federal Department of Health and Human Services, Child Care Bureau. Wisconsin partners included DWD (lead agency), Wisconsin Child Care Research Partnership at University of Wisconsin-Extension, the state Child Care Resource and Referral (CCR&R) Network, Department of Health and Family Services (DHFS) licensing unit, *The Registry*, and the Child and Adult Care Food Program.

The purposes of this federal grant program were to increase the capacity for child care research at national, state and local levels, and to address child care policy questions with particular implications for children from low-income working families. In this section, we describe Wisconsin's Data Capacity agenda and lessons learned from the other Data Capacity grantees in their efforts to build integrated systems, strengthen partnerships between state government and the university, and develop a framework for increasing child care quality.

### WISCONSIN'S DATA CAPACITY AGENDA

The Data Capacity grant served as a catalyst for Wisconsin to build upon the visionary automation of its child care subsidy data system. Wisconsin used its grant to:

- Create an integrated statewide provider file that included all regulated child care providers to serve as the foundation for a central state child care data system
- Develop an early care and education Web mapping project
- Build partnerships between agencies in order to share data and provide a platform for conducting efficient state-level policy research, including development of mechanisms for improving child care quality statewide.

### Creating an Integrated Statewide Child Care Provider File

Wisconsin statutes require that child care subsidy payments be made only to providers who are regulated, i.e., either licensed or certified. Approximately 80% of regulated providers have served subsidized families; thus 20% of the state's child care providers were originally not part of DWD's child care subsidy database. DWD was determined to address this situation by constructing a single statewide database of all regulated child care providers in the State of Wisconsin, using a common identifier. With funding from the Child Care Data Capacity grant, an interface was built between the provider data at DWD and the provider data housed in the Children's Licensing Information Computer (CLIC) system at the Department of Health and Family Services (DHFS) Bureau of Regulation and Licensing (BRL). A common index (referred to as the "DWD number") comprised of 13 numeric characters was used to link data in the two systems. The first ten numbers were assigned randomly by the computer and referred to as the "provider number." In the case of providers with multiple locations (e.g., a national center such as Kinder Care), three digits were assigned in numerical sequence by the computer following the provider number. For example:

Luv Kids at 123 Main Street, Madison  
Luv Kids at 456 Bayfield Road, Milwaukee

# 1357924680-009  
# 1357924680-021

Many discrepancies were encountered in efforts to link provider data across DWD and DHFS systems. Frequently, basic identifying information (e.g., name, address, or tax identification number) did not match, thus creating a daunting challenge to un-duplicate records during the match/merge process. This process was finally completed in August, 2005, after intensive technical work, using established decision protocols, by personnel at DWD, DHFS, and the Wisconsin Child Care Research Partnership (see Figure 7).

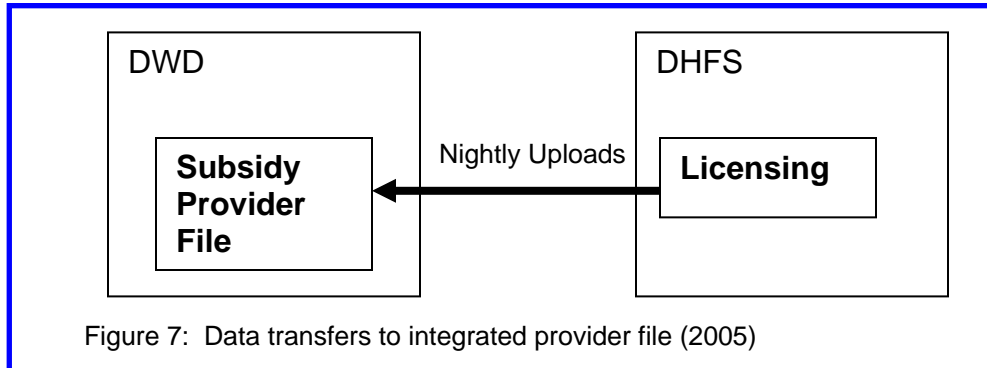


Figure 7: Data transfers to integrated provider file (2005)

### **Launching an Early Care and Education Web Mapping Project**

The Wisconsin Child Care Research Partnership at UW-Extension, a partner in the state Child Care Data Capacity grant, used the DWD child care provider file as a foundation to create a website (<http://ecemap.uwex.edu>) designed to aggregate data on all early care and education programs across the state, including licensed and certified child care programs, child care food program participants, school districts offering 4-year-old kindergarten programs, and Head Start programs. The mapping portion of this website was developed by the Applied Population Laboratory, University of Wisconsin-Madison. It gives a pictorial view of early care and education within the state of Wisconsin. Features include the ability to zoom and pan to different geographical areas, display and hide various types of early care and education, and shade the background according to census data. In addition to the map, both standard reports and custom reports are possible, displaying hard numbers and exact definitions for designated geographical areas. This website will be updated quarterly, using the statewide provider file as the platform for making changes. Program names and addresses will not be displayed. The site will be particularly useful to social services or school planners as they consider child care at a census tract, municipality, school district, or county level. Reports and aggregate summaries will be available on the Wisconsin Child Care Research Partnership website ([www.uwex.edu/ces/flp/wccrp](http://www.uwex.edu/ces/flp/wccrp)).

### **Building Partnerships with Other Data Groups and Agencies**

An important goal of the Wisconsin Child Care Data Capacity grant was to build partnerships with other agencies that had key data on child care providers and programs, develop a shared database, and use quality indicators to assign quality ratings to child care programs and providers – ultimately assisting consumers, including low-income families, in their selection of higher quality care (see Figure 8). The current Governor, Jim Doyle, proposed a statewide quality rating system as part of his “KidsFirst” agenda in 2004.<sup>4</sup> The Data Capacity grant allowed resources to be used to explore the viability of this proposal.

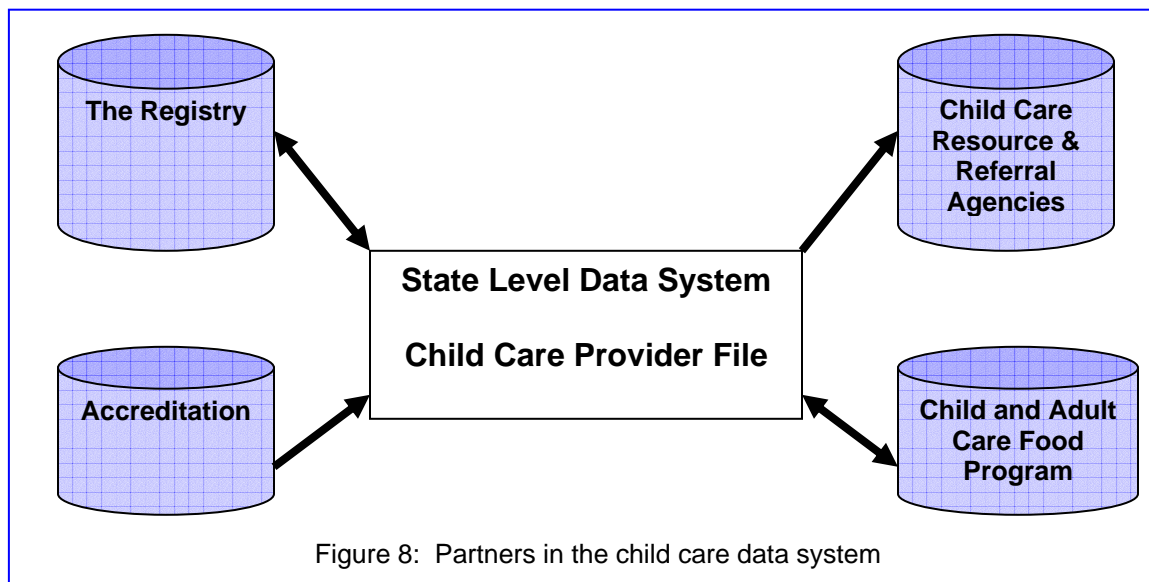


Figure 8: Partners in the child care data system

The proposed child care quality rating system focused on spending subsidy dollars differentially by rewarding higher quality providers and reducing funds to lower quality programs. The process of developing a quality rating system received a setback in the 2005 legislative session, however, groundwork can still be laid for consideration in the next biennial budget. Because state agencies see merit in a more efficient child care data system, the following partnerships are continuing to be strengthened, even if the data are not immediately being used to “rate” programs and providers:

- **Child Care Resource and Referral**

The National Association of Child Care Resource and Referral Agencies (NACCRRRA), the Wisconsin Child Care Resource and Referral (CCR&R) Network (<http://www.wisconsinccrr.org>), the 16 individual CCR&R agencies in the state, and the Wisconsin Child Care Research Partnership at UW-Extension have collaborated with DWD to develop an interface between the DWD Provider File and the NACCRRRAware system. Testing of the interface and actual transfer of data from DWD to the CCR&Rs is expected to take place later in 2005. NACCRRRA will be closely monitoring the outcomes of this groundbreaking interface since no other state has yet entered into such an arrangement, although many states have expressed considerable interest.

The data exchange will involve a batch-processed, nightly download of all new and changed provider records from the DWD Provider File to Wisconsin’s NACCRRRAware server at NACCRRRA headquarters. Data sent for each provider will include 23 standardized fields. NACCRRRAware will then run the records through a special interface software program, resulting in updated records appearing on the desktops of all CCR&R referral specialists across Wisconsin each morning. A special report will identify all providers with new or changed information. To ensure consistency between the DWD database and NACCRRRAware, and to affirm the DWD Provider File as the “official” source for provider information, local CCR&R staff will not change data in the standardized fields, although configurable data elements may be changed at the local agency level. A two-way data exchange from NACCRRRAware to the Wisconsin DWD might be implemented at a later time. A

fully-automated CCR&R system linked to the state child care provider file will relieve CCR&R staff of routine data-entry tasks, thus allowing them to redirect their efforts toward activities which will better serve families and providers in their service delivery areas. Examples of such activities might include obtaining current enrollment data from providers, reporting accurate supply and demand data, increasing the number of credit-based or continuing education offerings, or assisting programs with quality improvements.

#### ■ **Accreditation**

Accreditation is a verification system designed to improve the quality of early care and education by promoting high quality standards. National research has confirmed a link between high levels of program quality and positive child outcomes. University of Wisconsin – Extension, lead agency for the Wisconsin Child Care Research Partnership (WCCRP), has developed a database of all accredited child care providers in the state of Wisconsin, and rigorously maintains the list of accredited programs. This database, residing in an Access environment, is updated monthly with information from the following accrediting agencies:

- ✓ National Association for the Education of Young Children (NAEYC)
- ✓ National Association for Family Child Care (NAFCC)
- ✓ National AfterSchool Association (NAA)
- ✓ City of Madison accreditation program (similar to NAEYC)

The accreditation database is used in a match/merge function to ensure that the DWD statewide provider file represents accurate and current information on program accreditation status since, in Wisconsin, accreditation may trigger increased subsidy payments to providers. Sharing of information about accredited providers is useful for parents, Child Care Resource and Referral agencies, any public website to be developed, the WCCRP Early Care and Education Data Mapping project, and would eventually be an essential component of a statewide quality rating system.

#### ■ **The Registry**

*The Registry* is a private, non-profit agency which serves as “Wisconsin’s Professional Recognition System for the Childhood Care and Education Profession.” Wisconsin’s administrative code requires all new child care center administrators, directors and teachers to submit their credentials to *The Registry* (<http://www.the-registry.org>) at least once. Registration on this system for licensed and certified family child care providers and for assistant child care teachers is optional. Approximately 30,000 records currently reside on the agency’s computer system (a Web-based platform, SQL Server database). Data on individuals include unique identification numbers assigned by computer, provider and address; facility name and address, history of employment; educational levels; credit-based training; and non-credit continuing education. In addition, *The Registry*:

- ✓ Awards certificates verifying that individuals have met all state licensing entry level and continuing education requirements
- ✓ Maintains a statewide database of scheduled child care training events and records individuals’ attendance at each event

- ✓ Provides a career ladder for child care professionals with unique levels of achievement based on education and training
- ✓ Develops and maintains credentials relating to individuals' achievements as child care administrators and providers of infant and toddler care, with a new "preschool credential" to be offered in 2005
- ✓ Serves as the "home base" for the National Registry Alliance, a group that currently includes 36 individual state child care registries.

In order for *The Registry* to link regulated child care providers with the programs in which they currently work, DWD plans to send to *The Registry* a weekly list of all currently regulated providers, each record identified according to its DWD provider number. *The Registry* will then match that list of programs against its own database of providers, updating as appropriate, so that information on individuals can be aggregated by the provider facilities in which they are employed. In the event that Wisconsin establishes a child care quality rating system, verified data relating to each provider's educational attainment would likely be included as an essential quality indicator. The DWD/Registry interface would then be modified to allow two-way data exchange, accepting provider data from *The Registry* into the Provider File, thereby making it possible to routinely ascertain descriptive data as well as to identify possible trends in provider professionalism over time.

#### ■ **Child and Adult Care Food Program**

The Wisconsin Department of Public Instruction (DPI) is the state agency responsible for supervision and administration of the federal Child and Adult Care Food Program (CACFP, or the "Food Program"). Food Program reporting requirements include the need for program sponsors to report on which child care providers and programs serve families that also participate in Wisconsin Shares. This reporting historically was done manually by the provider, collected by Food Program sponsor agencies, and compiled by DPI on a statewide basis for reporting to the U.S Department of Agriculture. In 2002, an interface between an extract file from the DWD provider database and the DPI system automated this burdensome manual reporting process. The DWD provider number is used as the key identifier for records on both databases. When a quality ratings system resumes development in Wisconsin, one likely feature will include a system-to-system interface between DWD and DPI in which subsidy program data and Food Program participation data, as a key quality indicator, are exchanged. Trends in Food Program participation could be tracked over time by individual sponsoring agencies. Functionality could be included to assist Food Program staff and licensors to coordinate site visits, and data could be reviewed by state agencies interested in improving child care quality.

#### **LESSONS LEARNED FROM OTHER CHILD CARE DATA CAPACITY STATES**

Although a leader in automated child care data systems, Wisconsin could learn from other states that are gathering data across early care and education settings for purposes of inter-agency planning. The following is a brief synopsis of major activities in the five other states that received federal Child Care Data Capacity grants to increase their child care data and research capacity through Child Care Bureau grants. This overview compares governmental structures for delivering regulation, subsidy, and quality services as well as mechanisms for sharing data across agencies. It is safe to

say that no state is able to use all data efficiently for planning and implementation of quality care for low-income children; however, Data Capacity Grants in these states have enabled exploration of new possibilities.

- **Connecticut – Early Investment Cabinet**

In an effort to strengthen the statewide research infrastructure for well-informed, effective, and efficient program and policy development at state and local levels, the Department of Social Services (DSS) and the Child Health and Development Institute (CHDI), a public-private partnership collaborated to design the Early Childhood DataCONNECTIONS Project. Connecticut took on a broad early childhood scope in building state data and research capacity, involving eight state agencies, researchers, and numerous advocacy and community stakeholders.

DataCONNECTIONS' approach was:

1. To demonstrate how state administrative data can be used for policy-relevant research, by inventorying administrative databases, publishing reports on early care and education workforce data and school readiness indicators, and creating an early care and education data plan
2. To facilitate building an agency and interagency research and data infrastructure, by convening state data and policy staff, and by developing a conceptual framework for policy-relevant research, while giving guidelines to state agencies on how to improve the quality of data and establish research partnerships
3. To promote leadership and commitment for a long-term investment in data enhancements and a research agenda, by embedding the work in the state early childhood comprehensive systems strategic plan and the agenda of the new Early Childhood Education Cabinet and establishing an enduring partnership with state funding. The work of Early Childhood DataCONNECTIONS is transitioning to a permanent partnership and funding following the federal grant project. Website: (<http://www.chdi.org>)

- **Maine – Inventory of Child Care Data and Research**

The Maine Child Care Data Capacity Project partnered with university researchers at the University of Southern Maine and with the state Office of Child Care and Head Start to conduct an assessment of child care data collection capacity within state agencies. This assessment was used to develop an inventory of all child care data, research projects, and reports in order to make it easier for policymakers to access key information through a new website. Several new venues have been implemented for communicating child care research and information to legislators and to the state's Attorney General. Maine recently migrated its subsidy/voucher program to a Web platform. The partnership will be mapping the types of child care providers that serve low-income families across the state, in order to assist with planning, monitoring, and measuring quality. In addition, a recent statewide survey of parent experiences with child care, that examined parent preferences, quality, affordability, availability, and work concerns, is being summarized and will provide information about children and families for policymakers. Many of these activities are aimed toward possible development of a quality rating system.

Website: (<http://www.state.me.us/dhs/ochs.htm>)

- **Massachusetts – Research Analysis and Evaluation Unit**

In July, 2005, a new unit of government called the Department of Early Education and Care (EEC) was established in Massachusetts. This department has comprehensive responsibility for child care licensing, financial assistance for low-income families, family support and parenting, grants to help improve child care, and child care resource and referral. Within the EEC department exists a new early education and care Data Warehouse designed to integrate data sets from many sources including state administrative databases, census data, and state-initiated research efforts. Integration of data in Massachusetts has been further enhanced by systematic efforts to gather and analyze information about early education and care from stakeholders, producing reports on topics such as subsidy waiting lists, the child care workforce, and community needs. A Research Analysis and Evaluation Unit within EEC further supports policy-relevant research and evaluation of all state quality program initiatives in order to study the longitudinal impact of child care program enhancements on the outcomes of children in school, and the effects of specific policies (e.g. tiered rate increases) on families, providers and communities across the state. An interagency research advisory group, representing child care stakeholders across the state, helps to define public policy issues and recommend evaluation approaches for specific child care policy analysis.

Website: (<http://www.eec.state.ma.us>)

- **Oregon – Outcomes-Based Approach**

The Oregon Child Care Research Partnership, a collaborative structure that includes the state child care administrator and representatives from other state agencies, two universities and independent research organizations, the CCR&R Network and others, has made a commitment to “outcomes-based” child care improvement efforts, and requires that all projects funded with quality dollars from the Child Care Development Fund be constructed using a logic model, with clearly designated inputs, and outputs, as well as an ability to evaluate outcomes. Partners have created a child care system logic model that graphically displays how each organization and initiative contributes to its goals. The Oregon Child Care Research Partnership continuously analyzes administrative and population data, prepares benchmark reports on quality indicators, and assures a comprehensive research base for policy decision-making. It also maintains a strong focus on increasing accountability for core components of the child care system through performance measurement and program evaluation. The Research Partnership works directly with child care partners, including non-profit agencies, to help them develop methodologies for results accountability. Engagement of parents in policy-making is an additional focus of this project. Primary research components include assessment of continuity and stability of child care subsidy usage and child care supply and demand. These analyses require considerable data sharing and linkages have been established between the child care subsidy program, the state regulatory database, data from a biennial household survey, data on supply from the CCR&R Network, as well as several other administrative databases.

Website: (<http://www.hhs.oregonstate.edu/familypolicy/occrp>)

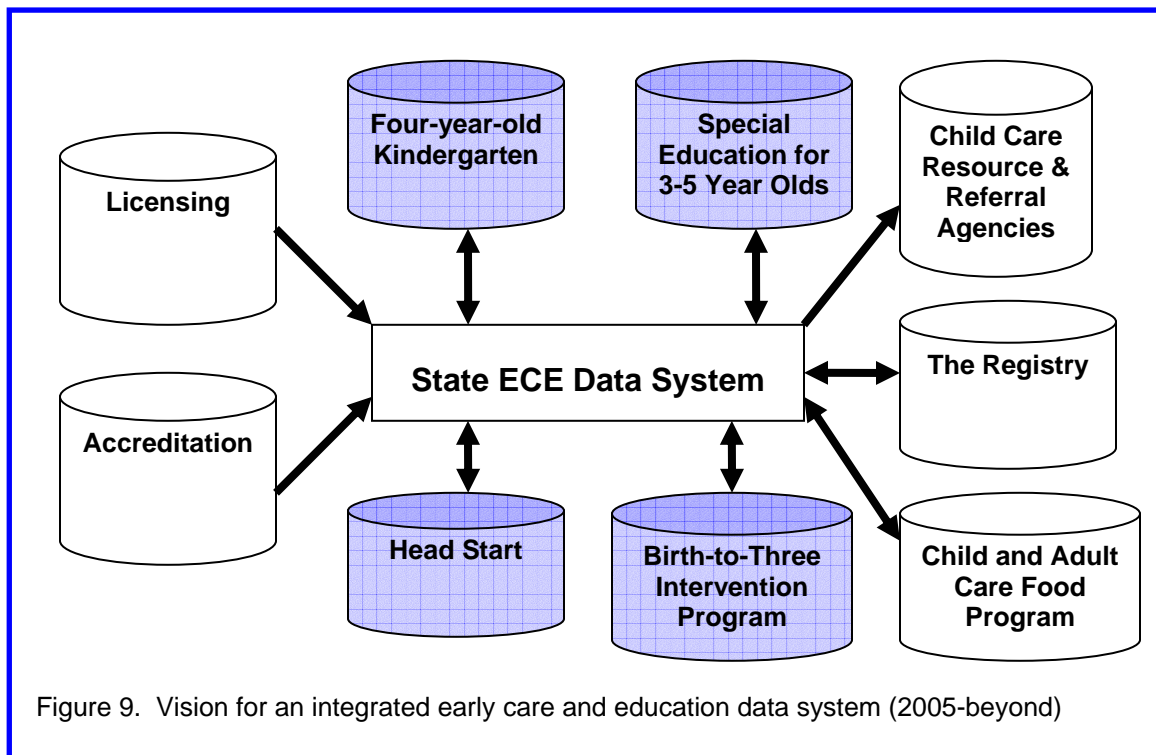
- **Rhode Island – Policy Options Model**

Rhode Island’s Child Care Policy Research Partnership represents a collaboration among the Department of Human Services, researchers at Wellesley College, and Rhode Island KIDS COUNT. In an effort to increase knowledge, increase internal data analysis capacity, and inform policymakers about state child care subsidy programs, access to the statewide integrated databases for child care, Medicaid, Food Stamps, and child support is made available for administrative data research and evaluation. Longitudinal research using econometric modeling techniques to assess the child care choices of low-income parents has led to considerable policy reform, including modification of the state’s child care tuition assistance program, and restructuring of eligibility. Using a “policy options” model, the Rhode Island Data Capacity Project highlighted mechanisms for improving child care quality, including professional development for providers, compensation initiatives for the child care workforce, early learning standards, an emphasis on accreditation, and a statewide quality rating system. Website: ([www.dhs.ri.gov](http://www.dhs.ri.gov))

## **SECTION IV. VISION FOR AN INTEGRATED ECE DATA SYSTEM**

Continued growth of early care and education programs and their potential impact on school and life readiness for Wisconsin’s youngest citizens calls for good information for public policy purposes at state and local levels. Wisconsin has made impressive progress toward a comprehensive child care data system, with initial steps at combining data across three state departments and multiple private entities. With modest investments, and continued administrative support and commitment from state agencies (DWD, DHFS, DPI), Wisconsin could build on the current child care data system to incorporate information across the spectrum of early care and education (see Figure 9). Indeed, to be fully functional, this data system would need to include key information about the full range of early care and education (ECE) programs serving young children beyond child care:

- Four-year-old Kindergarten (DPI)
- Head Start
- Birth to Three Intervention Program (DHFS)
- Special Education for 3- to 5-year-olds (DPI)



A complete data system would allow state and local planners and policymakers to answer essential questions such as those cited earlier in this paper, but from a broader perspective, making the best use of our resources in meeting the needs of children and families. In an era of tightening fiscal pressures on state and local budgets, policymakers want assurances that their investments of tax dollars are yielding positive results. A future early care and education data system may be able to track children from setting to setting, with quality indicators tied to each setting, helping to determine the extent to which multiple settings contribute to child outcomes.

## SECTION V. POLICY OPTIONS FOR AN INTEGRATED DATA SYSTEM

Multiple opportunities exist to build upon the successes of Wisconsin's data capacity efforts. Presented below is a representative *menu* of possible options from which policymakers might choose to build upon the recently completed child care provider file, to integrate data across programs and agencies, or to strengthen the statewide data and research infrastructure for child care. These options are offered as conceptual possibilities, without including fiscal estimates or detailed technical analyses.

### Menu of Policy Options

1. No Change
2. Enhanced regulation system
3. Incorporate partner data
4. Develop quality rating system
5. Share data on public website
6. Broaden ECE data system
7. Coordinate research and policy

## **Option 1: Make no change in current data systems**

The three primary state agencies involved with child care (DWD, DHFS, DPI) have traditionally worked independently, managing their own program data in their own data systems with minimal cross-agency connections:

- DWD certifies providers to care for children from subsidized families, determines eligibility of families for subsidy, creates monthly reports on subsidy usage, and sends subsidy payments to providers.
- DHFS licenses child care programs, makes sure that programs meet health and safety standards, records licensing visits, and internally documents information about licensing violations.
- DPI records pre-kindergarten enrollments and maintains a database of all providers participating in the federal nutrition program.

As a result of the Child Care Data Capacity Grant, DHFS now shares some of its data on licensed providers with DWD, helping to create the statewide child care provider file. This merged database has already proved to be useful in informing child care policy, and a realistic option would be to consider the Provider File as a final phase in the child care data system. State agencies could continue to conduct business as usual with normal operational costs for maintenance, data cleansing, accuracy checking, and modest technology budgets. However, there is currently no estimate of the actual costs of continuing inefficiencies with each agency independently collecting and verifying data about child care programs, with little cross-agency communication.

In addition, although DWD currently receives licensing data about child care program capacity and location, it does not receive information on licensing violations or the quality of the care found on DHFS licensing visits.

## **Option 2: Implement an enhanced child care regulation system**

A unified data system that included a limited core of shared data elements would allow independent agencies to collect, process, and display regulatory information on the more than 10,000 child care programs and providers in Wisconsin. Following the successful roll-out of the Child Care Provider Certification (CCPC) system, there was considerable interest on the parts of both the Department of Health and Family Services and the Department of Workforce Development to expand the system to enhance child care licensing. Information system analysts from both departments agreed that the data system for child care licensing needed substantial upgrading to improve efficiency and accountability. Several business requirements sessions were conducted, led by Deloitte Consulting, and a deliverable document outlined the scope, conceptual design, cost estimate, and detailed requirements. Subsequently, some preliminary work was done to begin construction of the system, although budget constraints and departmental separations for data functions prevented its completion.

If a decision were to be made to build the comprehensive regulatory system, to be known as Child Care Provider Regulation (CCPR), the current nightly interface of licensing records with the provider file would no longer be necessary. All licensors and certifiers would have access to an expedited data entry and analysis system that would serve to improve application processing, monitoring, and enforcement activities, and would result in a highly useful database for administrative decision-making, budget development issues, and research on quality indicators.

### **Option 3: Incorporate partners' data into the provider file**

In addition to state agencies, several non-profit and public agencies conduct work that is closely aligned with the child care data system. Merging selected data from these agencies into the child care provider file currently in place could lead to greater accountability for use of Child Care and Development Fund dollars, stronger interagency communication, greater efficiencies in data collection, systematic reporting of child care data, and a much deeper understanding of child care in Wisconsin. Under this option, the following enhancements could be considered:

- Unique identification numbers for individual child care teachers, directors, and family child care providers in *The Registry* could be linked to the Provider File. This would provide useful information about the state's success in striving for a stable, high quality, early care and education workforce.
- Data on educational levels of all child care personnel, housed at DWD, could promote a foundation for sophisticated workforce studies, analyses of trends in hiring and staff turnover, and greater understanding of the provider impact on quality. It could also be the basis for assigning "quality indicators" to any sort of rating system Wisconsin would develop in the future.
- T.E.A.C.H. Early Childhood® WISCONSIN and R.E.W.A.R.D.™ WISCONSIN are the state's child care scholarship, bonus, and wage supplementation programs. Merging data from these programs into the child care provider file could allow analyses of the extent to which these initiatives reach programs serving children from low-income families, and could lead to a more cohesive and targeted effort to increase educational qualifications of child care staff.
- CCR&Rs typically collect detailed information on regulated programs in their service areas in order to enhance their work of consulting with families seeking child care. Without diminishing the importance of this consultative role, a merged provider data file could also, for example, provide CCR&Rs with the tools and data necessary to conduct surveys and studies of market rates across the state.
- The Child and Adult Care Food Program maintains information on which early care and education programs participate in the Food Program. Importing Food Program data into the Provider File would allow determination of which programs serving low-income families offer nutritious meals and snacks, another potential indicator of quality care.

Links to data from these and other agencies could help improve accountability for federal and state child care spending by setting data-based outcome measures and evaluation for quality improvement efforts, thus expanding on the original set of goals for the Data Warehouse. Similar to the efforts of the Oregon Child Care Research Partnership, Wisconsin could create benchmarks for outcome-based evaluation, drawing on the richer, more robust, database. While creation of such a comprehensive provider file has exciting potential, an unknown financial commitment from the state to these agencies may be necessary in order to carefully integrate selected components of their data and protect the data from unlawful or unethical use. To ensure proper stewardship, DWD may wish to appoint a database administrator with authority to oversee all access to the data.

#### **Option 4: Continue work toward a statewide quality rating system**

At least ten states use quality ratings to help parents make informed choices in the child care market.<sup>5</sup> In addition, a growing number of states use quality indicators and ratings as a way to measure the quality of settings from which they purchase child care, often building in fiscal incentives to improve early learning, especially for low-income children.

In the last two years, child care planners, advocates, and public officials have considered the possibility of a child care quality rating system in Wisconsin, tied to a consumer information system, and linked to a differential subsidy payment system, thereby providing fiscal incentives to improve quality. Although a final approach to a quality rating system was not agreed upon in the 2005-2007 biennial budget process, the concept remains an intriguing one, as more and more states find such systems to be effective in providing systematic incentives for quality improvement tied to consumer demand for a better product.

This option proposes to populate the provider file database with currently available quality indicator data, so that it would be possible to support a range of future quality rating system proposals. The cost of using existing information from partners' databases could be minimal, while the savings involved in assuring quality when subsidy dollars are used more efficiently could be significant.

#### **Option 5: Share child care data on a public website**

Development of a merged child care provider file represents a major accomplishment that has the potential to transform into a public information system. As a first step, data from the current child care provider file, including provider name and location could be made accessible directly by consumers on the Web, as is currently being done in the "find child care" section of Massachusetts' website (<http://www.eec.state.ma.us>). Development of a statewide public website at DWD would greatly assist consumers in their search for quality child care. If a public website is established, it could also be possible to enhance the data available to consumers. For example:

- CCR&R agencies do not routinely collect and make available information about “openings” (available slots) in child care programs. If information about program name, location and capacity were freely available on the Web, CCR&R agencies could enhance these data by collecting and sharing enrollment and vacancy data, making it easier for parents to find care.
- DHFS licensing data currently do not provide consumers with any information about licensing violations or compliance with standards. Florida’s Broward County posts regulatory violations on a website so that parents have access to this information prior to choosing care, and a recent study reported that it improved licenser practices, as well as offered greater satisfaction to consumers.
- A public website could provide consumers with specific information on a program’s compliance with regulations, accreditation status, provider qualifications, or other information as part of a rating system designed to make it easier for consumers to find and select high quality care.

Although many decisions would need to be made about what data to display and how confidentiality issues should be addressed, a public website could be a valuable tool for empowering parents and others trying to differentiate among the many child care programs available in the state.

### **Option 6: Move toward a broader early care and education system**

A thorough inventory of all data on young children held by state agencies was recently conducted by the Wisconsin Council on Children and Families as part of a school readiness initiative.<sup>6</sup> The final report noted many instances of “missing data,” which stymied development of a statewide school readiness agenda. An effort to pursue an integrated, child-specific database, including information from DWD, DHFS, DPI, Public Health, Justice, and other agencies could lead to a system capable of tracking children from their early years in child care through their school experience, possibly incorporating foster/kinship care information. A merged set of school readiness data, including health care and physical development, family resources, early care and education, and community conditions, collected regularly, could help the state monitor progress in its efforts to improve developmental outcomes for young children.

DPI is currently introducing use of a unique identifier for each child in the public school system. Linking this number with the child-specific data in the DWD Data Warehouse and with the unique provider identifier that is currently in the Child Care Provider File could begin to facilitate the connection between child care quality and child outcomes in school. Research designed to enhance the quality of state agency data for purposes of data sharing could lead to closer working relationships and a joint determination that the cost-savings realized would more than make up for any inconveniences encountered in efforts to bring other agencies into the “data loop.”

## **Option 7: Coordinate ECE research and policy**

A specialized unit could coordinate early care and education policy research and data sharing in Wisconsin. This option would require commitments by the Governor, departments, and the legislature. Such an effort might also require a statutory basis to promote continuity from one administration to another. Policymakers could consider dedicating public and private resources to a unit attached to the state university system, supported by federal, state, and corporate dollars, bringing together some of the best data and analysis personnel in the state. This option could have the positive outcome of keeping data and research on early care and education in the forefront of public policy.

A high-level research and policy group could develop an integrated plan for children, one aligned with early learning standards, professional development of the child care workforce, school readiness, and employment goals for low-income families. Under this option, public policy reports and data could reflect the entire early care and education system, aiding planning efforts to develop joint strategies to improve the lives of young children. Expanded interagency use of a merged provider file could lead to more efficient planning of technology needs, and could guide workflow within and across departments.

## **CONCLUSION**

These seven options are illustrative of different approaches to building on the strong child care information systems in place that have been developed, with a concentrated effort, over the past decade. The options range from no change to a future vision of an interagency early care and education research and policy coordination unit. Wisconsin has one of the most sophisticated, complete child care data systems in the country, under the leadership of the Department of Workforce Development. History tells us that information is power, and that good information, thoughtfully merged and analyzed, can lead to extraordinary breakthroughs in public policy and service delivery. This paper has tried to promote careful consideration of the possibilities. Much progress has been made; the promise waits for action.

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