# Workforce Information:

## A Critical Component of Coordinated State Early Care and Education Data Systems

Fran Kipnis and Marcy Whitebook

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Policy Brief

To enhance early learning experiences for young children, states are actively engaged in building systems to strengthen practitioner preparation and professional development programs, to improve wages and decrease turnover, and to implement other quality improvement initiatives. State Advisory Councils (SAC) on Early Education and Care, recently established by the federal government[1], have been mandated to develop recommendations regarding statewide professional development and career advancement plans, leading policymakers to seek information about the approximately two million people who care for and educate nearly 12 million children between the ages of birth and five in family child care homes and early learning programs including child care centers, preschools, and Head Start programs across the country.[2] Policymakers seek answers to questions such as:

1. How prepared is the ECE workforce to provide effective education and care for all children, particularly vulnerable children who are low-income, dual-language learners or have special needs?

2. Which public policies and investments lead to a skilled and stable ECE workforce?

Coordinated, longitudinal data, about such things as education and training experiences, ethnic and linguistic background, compensation and tenure of those who work with and on behalf of young children, are necessary to answer these questions. (See Box 1.)

Many in the early care and education field have long recognized the need for high quality, consistent workforce data as a critical component of an improved early care and education system. States have supported a variety of strategies to build workforce data sets focused on certain sectors of the workforce, and some type of workforce data system exists in most states. These systems can serve as the building blocks for integrated, coordinated early learning workforce data systems, and as the workforce component of states' broader coordinated early care and education data systems which also include information about children and programs as well as the workforce. Building such broader systems is another designated SAC task, as well as a priority in many U.S. Department of Education initiatives.

The Center for the Study of Child Care Employment (CSCCE) receives support from the Birth to Five Policy Alliance and the David and Lucile Packard Foundation to assist states with ECE workforce systems development. Our efforts include membership in the Early Childhood Data Collaborative (ECDC)[3], and our participation in a Workforce Systems Alignment Workgroup (Workgroup) with leaders of the three main ECE workforce systems described below. This brief is an outgrowth of the Workgroup's efforts to align existing workforce systems operating in the

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[1] 42 U.S.C. 9837b (2007 through Pub. L. No. 110-134)

[2] In addition to those working directly with children each day, thousands more provide support in related roles, such as training and educating practitioners and developing and providing technical assistance to early learning programs.

[3] The ECDC is a partnership of seven national organizations that support state policymakers' development and use of data systems to improve early care and education programs and child outcomes. ECDC seeks to build partnerships focused on improving early childhood data systems, offer resources on the development and use of coordinated, longitudinal data, and provide transparency around states' implementation and use of data systems. In addition to CSCCE, ECDC member organizations include: Council of Chief State School Officers, Data Quality Campaign, National Center for Children in Poverty, National Conference of State Legislatures, National Governors Association Center for Best Practices, and PreK Now, a campaign for the Pew Center on the States. http://www.irle.berkeley.edu/cscce/wp-content/uploads/2010/10/DQC-ECDC-White-Paper-Aug11.pdf

**Box 1:** What a state could learn from coordinated, longitudinal early care and education workforce data systems?

*Characteristics of the people caring for the young children in the state including:*

- age, gender, ethnicity, language capacity;
- level of education and training;
- length of time working in the field and at their current workplace, wages and benefits; and
- where they work and which children they serve.

*Variations in access to education and professional development opportunities by:*

- geographic region or characteristics;
- program setting or funding source;
- ages or other characteristics (language, special needs) of children served; and
- practitioner characteristics, such as education/training background, language skills of the workforce, and tenure.

*Impact of workforce investments and other program characteristics, such as:*

- turnover data indicating which practitioners remain in their positions or workplaces or in the field and the characteristics of their work environments;
- in conjunction with additional research, how participation in professional development programs, along with the work environment, contributes to improved practices with children; and
- data to inform public policy related to the effective investment of public dollars.

states in order to expand their capacity to serve as the workforce component of broader state coordinated ECE data systems. The brief describes the early care and education workforce data landscape in the states, focusing on the three main workforce data systems operating across multiple states. It also details the challenges to aligning these systems and current efforts to address these challenges.

## The ECE workforce data systems landscape in the states

Currently, three very well-developed, but independent, early childhood workforce data systems exist across the country: ECE workforce registries, T.E.A.C.H. Early Childhood®, and NACCRRAWare/T-TAM. Typically, these data systems have been developed and are administered by non-state entities, although they might be supported partially or fully by state or federal dollars. With the exception of two states, every state, including the District of Columbia has at least one of these data systems and more than one-half of the states use more than one. As displayed in Table 1, two states are not using any of these data systems; 13 states are using one; 30 are using two; and six are using all three.

Although all three systems collect similar ECE workforce data, each system was developed for particular program purposes, with its own data elements and definitions, data collection and data sharing protocols, and methods of assigning participant ID numbers. (These differences are discussed in detail on pages 4-5.) However, through the Workgroup, the leaders[4] of these data systems are now working together to align their systems, as they understand the value of coordinated workforce data systems within and across states.

**Table 1.** Early childhood education workforce data systems in the states

| State | State ECE Workforce Registry | T.E.A.C.H. Early Childhood® | NACCRRAware (used by all R&Rs in the state) | Number of cross-state workforce data systems used in the state |
|---|---|---|---|---|
| Alabama | | X | | 1 |
| Alaska | X | | X | 2 |
| Arizona | | X | X | 2 |
| Arkansas | X | | X | 2 |
| California | | | | 0 |
| Colorado | X | X | X | 3 |
| Connecticut | X | | X | 2 |
| Delaware | X | X | X | 3 |
| Florida | X | X | | 2 |
| Georgia | X | | X | 2 |
| Hawaii | X | | X | 2 |
| Idaho | X | | X | 2 |
| Illinois | X | | X | 2 |
| Indiana | | X | X | 2 |
| Iowa | | X | X | 2 |
| Kansas | | X | X | 2 |
| Kentucky | | | X | 1 |
| Louisiana | X | | X | 2 |
| Maine | X | | X | 2 |
| Maryland | | | | 0 |
| Massachusetts | | | X | 1 |
| Michigan | | X | | 1 |
| Minnesota | X | X | X | 3 |
| Mississippi | | | X | 1 |
| Missouri | X | X | | 2 |
| Montana | X | | X | 2 |
| Nebraska | | X | | 1 |
| Nevada | X | X | | 2 |
| New Hampshire | | | X | 1 |
| New Jersey | X | | X | 2 |

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| State | State ECE Workforce Registry | T.E.A.C.H. Early Childhood® | NACCRRAware (used by all R&Rs in the state) | Number of cross-state workforce data systems used in the state |
|---|---|---|---|---|
| New Mexico | | X | X | 2 |
| New York | | | X | 1 |
| North Carolina | X | X | X | 3 |
| North Dakota | | | X | 1 |
| Ohio | X | X | X | 3 |
| Oklahoma | X | | X | 2 |
| Oregon | X | | X | 2 |
| Pennsylvania | X | X | | 2 |
| Rhode Island | | X | X | 2 |
| South Carolina | X | X | | 2 |
| South Dakota | X | | | 1 |
| Tennessee | X | | X | 2 |
| Texas* | X | X | | 2 |
| Utah | X | | | 1 |
| Vermont | X | | X | 2 |
| Virginia | | | X | 1 |
| Washington | X | | X | 2 |
| West Virginia | X | X | | 2 |
| Wisconsin | X | X | X | 3 |
| Wyoming | X | | | 1 |
| District of Columbia | | X | X | 2 |
| **TOTAL** | **32** | **23** | **36** | |
| | | | | |
| *No cross-state workforce data systems* | | | | **2** |
| *One cross-state workforce data system* | | | | **13** |
| *Two cross-state workforce data systems* | | | | **30** |
| *Three cross-state workforce data systems* | | | | **6** |

*Texas has a Trainer Registry. A Workforce Registry is in the planning phase.

## ECE state workforce registries

An ECE workforce registry is a database that stores and tracks a variety of information about the demographics, completed and on-going education, and employment status of the ECE workforce. Currently, 32 states have established their workforce registries. States have created registries independently of one another, but most participate in The National Registry Alliance (TNRA).

TNRA is a private, non-profit, voluntary organization comprised of state early childhood and school-age workforce registries and professional development staff. TNRA has developed a series of voluntary standard data elements, definitions, and data collection procedures for its member states to address the variability in registry design stemming from their state-specific characteristics. TNRA is developing a Program Eligibility Review (PER) process to determine which states' data can be aggregated and which states are eligible to participate in various partnerships with national organizations, such as the National Association of the Education of Young Children and the National Association for Family Child Care.

States use registries to determine the placement of individual practitioners on a state's career ladder[5] based upon verified information. Some registries are also designed to approve and track training offerings and compile the qualifications of approved trainers. These systems can also record and track training attendance. Some registries are also used to maintain calendars of training offerings for a state, region, or local area.

The degree of participation by members of the ECE workforce in workforce registries varies widely by state. Most registries only require a practitioner to participate if their workplace is receiving public funding or participating in a specific program, such as the state's Quality Rating and Improvement System. In five states (Hawaii, Nevada, Oklahoma, Wisconsin and Wyoming), registry participation is required for licensing and many states are working towards establishing similar requirements.[6]

## T.E.A.C.H. Early Childhood®

T.E.A.C.H. Early Childhood® is an umbrella for a variety of educational scholarship and wage enhancement programs for early childhood teachers, directors and family child care providers working in regulated child care programs in states across the country. Currently T.E.A.C.H. programs, which are managed by a variety of early childhood education organizations, operate in 23 states, although not all practitioners in a state participate in the program. Child Care Services Association, a nonprofit organization housed in North Carolina, which licenses the T.E.A.C.H. program and provides resources and technical assistance to the T.E.A.C.H. sites, developed the database as part of the overall program.

Each T.E.A.C.H. Early Childhood® administrative home receives the proprietary T.E.A.C.H. database. The database is a management tool that serves as a repository for a variety of participant and program data. The categories of data collected by the T.E.A.C.H. database are similar to registry data, including demographics, previous and on-going education, training, experience and professional activities, and current employment.

## NACCRRAWare and T-TAM

The National Association of Child Care Resource and Referral Agencies (NACCRRA) designed and hosts NACCRRAWare (NW) for the child care resource and referral (CCR&R) agencies across the country[7]. The original NW module, which is a web-based proprietary database, collects information about the regulated or licensed early care and education center-based programs and family child care home providers within a CCR&R's service area. Currently, all the CCR&Rs in 36 states use NW. Thus, in these states, the NW database has information about all the regulated or licensed early care and education settings in the state. In an additional 11 states, only some of the CCR&Rs in the state use NW, rendering regional, but not statewide, information.

Although NW is not focused on workforce-specific information, such as demographics and

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[5] A career ladder identifies the education, training, and experience necessary to qualify for particular job roles and positions.

[6] National Child Care Information and Technical Assistance Center. (2010). Required Registry Participation. Retrieved from hhs.gov/poptopics/registry-participation.html?&printfriendly=true

[7] CCR&R centers help families find, evaluate, and pay for child care, provide technical assistance and training to child care providers, and participate in a variety of ECE initiatives in their communities.

on-going training and education, it includes essential program information that provides the context for a practitioner's work environment, such as ages of children served, adult-child ratio, group size and available services for children and families.

NACCRRA has also recently developed Training and Technical Assistance Management (T-TAM) which has three modules: Training Tracking system, Technical Assistance Tracking and the Training Registry Tracking system. These modules include similar information on the workforce as the registries and T.E.A.C.H., such as demographics, current employment, previous and on-going education, and training, experience and professional activities.

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**Box 2:** What would alignment look like at the state level?

*Karen is a teacher in City Preschool. Because she is a participant in the T.E.A.C.H. program and has participated in many community-based trainings tracked by the local R&R in her community, her information is included in both the T.E.A.C.H. and T-TAM databases. She wants to sign up with the state's new workforce registry as well, because the registry will track her training and education as it relates to the state's career ladder. Because these three systems are aligned, Karen's relevant information is easily imported into the registry database from either the T.E.A.C.H. or T-TAM database. She does not need to sign up again. Her ID number is the same in all three systems so she is not double-counted. In addition, Karen's personal record is linked to the information about her workplace contained in NACCRRAWare, so relevant workplace information does not have to be re-entered into the registry. When her center applies to renew its license or for placement on the QRIS, relevant information about her professional characteristics will be included in reports to the licensing or QRIS agency about the program's staff characteristics.*

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## Challenges to alignment across existing workforce systems at the state level

Because the major workforce data systems, T.E.A.C.H., NW/T-TAM and workforce registries were developed independently and for particular program purposes, many important data elements are defined differently. In addition, standard data collection and data sharing protocols, as well as a uniform method of assigning participant ID numbers, are not in place across the three systems.

### *Lack of standard data elements and definitions*

Currently, the three systems collect similar categories of information that are essential to understanding the characteristics and professional preparation of the current workforce:

- demographic and contact information, such as age, race/ethnicity language capacity;
- facility – workplace information, such as type of setting, accreditation status, ages of children served;
- employment information, such as job title, tenure, compensation, past employment history;
- educational attainment, degree/no degree, subject of degree, ECE credits, permits, credentials, such as the Child Development Associate Credential; and
- educational/training tracking – on-going education and professional development.

However, definitions of many of the individual data elements vary across the three systems, making it impossible to share and aggregate data. For example, while gender, age, and race/ethnicity are defined similarly for T-TAM, T.E.A.C.H. and the TNRA standards, the systems vary in the way they collect data on language capacity, workplace type, job position/title, wages, and education and training. (See Box 3.)

### *Lack of data collection and sharing protocols*

The three systems have developed their own data collection and data sharing protocols. Each system has its own protocols for verifying data, ensuring accurate data entry, storing data, allowing third parties to view and access data, transferring data across systems, and ensuring privacy and security.

*Lack of unique workforce ID number*

Each of the data systems has their own method of assigning ID numbers to individual members of the workforce. However, without a unique ID assigned across programs or a system of linking ID numbers across programs, it is very challenging, if not impossible, to track individuals across systems, generate an unduplicated count of participants, or transfer participant information from one system to another without duplicate data entry.

## Addressing the challenges to alignment

The Workforce Systems Alignment Workgroup is now tackling the obstacles described above that impede or complicate alignment for their affiliates at the state level.

*Developing common definitions for the essential workforce data elements*

We began our work by determining which of the workforce data elements are essential to answering the key workforce policy questions described above (page 1). Our next step, still in progress, is to agree on standard definitions for these data elements. This will allow the three data systems to respond to important policy queries with similar information that can be aggregated. For example, if a policy maker wants to know the educational attainment of ECE teachers in the state, the three systems would have the capacity to aggregate their data, knowing the definitions for 'teacher' and the different levels of education are standard across data systems. For T.E.A.C.H. and T-TAM, the standardized definitions would be built into the database and used by their state affiliates. Any new definitions would be incorporated into the TNRA best practices.

*Implementing a unique ID number across systems.*

The Workgroup will next turn to developing a system of assigning unique IDs to all participants in the data systems or establishing guidelines for linking IDs across systems. As stated above, this will facilitate the electronic transfer of practitioner information, eliminate double-counting of practitioners, and enable practitioners to be tracked across systems.

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**Box 3:** Variation in definitions: language capacity of the practitioner

*State registries*

Language capacity is an optional data element for state registries.

Best practice: Collect primary and secondary language.

*T-TAM*

Does this person speak a language other than English at home? Yes/No

If yes, what language?

How well does this person speak English?

*T.E.A.C.H.*

*Currently does not collect language data*

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*Implementing standard data collection and sharing protocols*

The Workgroup will also develop standard data collection and data sharing protocols. These will include procedures for verifying data, ensuring accurate data entry, storing data, allowing third parties to view and access data, transferring data across systems, and ensuring privacy and security

In 1993, Governor Hunt of North Carolina, a firm supporter of quality early care and education, re-organized and elevated the child care responsibilities, (licensing, child care subsidies, and workforce standards) housed throughout the Department of Human Resources into the Division of Child Development. Since 1993, under the leadership of the Division and with the support and expertise of the ECE community, North Carolina has built a coordinated professional development system. This process relied on workforce data, collected through various programs and statewide surveys that documented the characteristics of the workforce.

This effort has culminated in a new law, passed in June 2010, requiring teaching staff, administrators and family child care providers working in or operating a licensed child care facility to be certified as of July 1, 2012. Staff newly hired on or after October 1, 2010 must be certified within 60 days of hire.

The law authorized the North Carolina Institute for Child Development Professionals, formed in 1993 and a non-profit organization, to certify those working in the field. As the official agency certifying providers, the Institute will serve as the hub of verified workforce data. Their data will flow to other programs and agencies as needed, including T.E.A.C.H., WAGE$, the Division of Child Development and the Office of Early Learning, which administers the state's PreK program.

*http://ncicdp.org/certification-licensure/ eec-overview/*

*http://www.ncicdp.org/documents/Education, Compensation & Recognition Adv Committee 2010-2011.pdf*

## Beyond technical challenges to alignment

Resolution of the technical obstacles to coordination constitutes the first step toward strengthening state workforce data systems. But additional policies must be developed to ensure that these data systems provide a comprehensive picture of the workforce. Currently, the three data systems collect information about different sectors of the workforce. Thus, even when aggregated, data available from these systems do not represent the full spectrum of the workforce, either because certain sectors are not included or not fully represented.

- Only T.E.A.C.H. participants are included in the T.E.A.C.H. database.

- NACCRRAWare includes program information for individual family child care home providers; however, information on center-based programs does not include individual-level data on staff.

- The training tracking modules in T-TAM currently focus on practitioners participating in non-credit bearing training offered by local community agencies outside of the formal higher education system.

- The categories of practitioners included in work force registries vary widely by state. Most registries only require practitioners to participate if they work in a publicly funded program or participate in a specific professional development or quality enhancement initiative.

Full inclusion of the workforce in data systems first requires a common definition of the population of interest. The Workgroup has agreed that all practitioners working in programs regulated or licensed by the state and all providers receiving public subsidies, including license-exempt providers, should be included in state workforce data systems. This would encompass those working in such roles as aides, assistant teachers, teachers, directors, other administrators and home based providers and assistants. Over time, data systems should be expanded to include those working in infrastructure organizations that support the workforce, such as CCR&Rs, those working directly with children such as mental health consultants and home-visitors, and those providing education and training to the workforce. State policies, which mandate that practitioners participate in data

systems are necessary to accomplish this goal. Policies in place in Nevada, Wisconsin and North Carolina serve as models for full inclusion. (See Box 4.).

Federal action can support the promising efforts underway to build workforce data systems within states. For example, strengthening and standardizing reporting requirements about the workforce in federally-funded quality improvement and workforce development projects across all federal funding sources will help to set workforce data system development as a state priority. Allowing federal resources to enhance existing state workforce systems and integrate them with other systems such as licensing, child care resource and referral databases, quality rating and improvement systems, early childhood health data, and K-12 data will also help to integrate workforce data into coordinated state early care and education data systems.

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The changing conversation about the importance of data systems, and the efforts by many states to build integrated workforce data systems, marks an important conceptual and strategic advance toward using evidence to inform policy focused on addressing long standing workforce problems that hamper efforts to meet the needs of young children. Check the CSSCE website for updates on our efforts to align early care and education workforce data systems and for resources to help guide state data system development. *http://www.irle.berkeley.edu/cscce/index.html*