

Missouri's Early Childhood Workforce and Professional Development System

A background paper prepared for the

Early Childhood and Youth Development Education Summit
Sponsored by the Missouri P-20 Council

June 29, 2009
Columbia, Missouri

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Acknowledgements

The authors would like to acknowledge the support of a number of individuals in the development of this paper. We express our appreciation to these members of the Early Childhood and Youth Development Education Summit planning team who reviewed and edited the document, as well as verified much of the data:

Kathy Thornburg, University of Missouri Center for Family Policy & Research
Wayne Mayfield, University of Missouri Center for Family Policy & Research
Beth Ann Lang, Missouri Child Care Resource and Referral Network
Denise Mauzy, OPEN Initiative
Terri Foulkes, OPEN Initiative
Brian Crouse, Missouri Department of Higher Education
Tim Gallimore, Missouri Department of Higher Education

We are grateful to these individuals for their assistance with providing detailed information:

Christy McCord, OPEN Initiative
Stacey Owsley, Missouri Head Start-State Collaboration Office
Cindy Reese, Missouri Department of Social Services Children's Division

We also thank Mrudhula Vajjha, staff member of the University of Missouri-Kansas City Institute for Human Development, for her assistance with formatting elements of the paper.

We especially extend our thanks to Tim Gallimore, Executive Director of the Missouri P-20 Council, for his leadership and support in this effort.

This paper was developed in fulfillment of responsibilities to the Missouri P-20 Council. Points of view or opinions do not represent official positions of the Missouri P-20 Council or the University of Missouri-Kansas City.

Contents

Acknowledgements.....	1
Early Childhood: A Field Coming into Its Own	3
Trends	4
State-Supported Preschool	5
Missouri’s Early Childhood Workforce	5
Demographics of the Missouri Early Childhood Workforce	5
Compensation	7
Educational Attainment of Teachers	7
Competency-Based Personnel Preparation.....	8
Core Competencies.....	8
Career Pathways in Early Care and Education.....	8
Higher Education.....	9
A Case for Formal Education.....	9
Formal Education Offerings in Missouri	10
Certification of Early Childhood Teachers	11
Articulation of Early Childhood Education Programs	12
Professional Credentials	13
Workforce Supports for Teachers Pursuing Higher Education.....	13
Community-Based Training.....	14
Coaching and Technical Assistance.....	14
Data Systems in Early Care and Education	15
Aligning Academic and Workforce Standards	15
Standards for Early Childhood Professional Preparation Programs.....	15
Program Standards and Quality Initiatives	16
Program Accreditation	16
Quality Rating Systems	16
Appendix. Missouri’s Education Matrix.....	18
Endnotes	19

Early Childhood: A Field Coming into Its Own

After decades of advocacy and public awareness groundwork, early childhood care and education has recently been recognized as a value-laden enterprise with potential to infuse vitality into the nation's struggling economy and to serve as a force for reversing trends in a widening achievement gap. Leading economists have demonstrated that the benefits of investing public dollars in quality early childhood care and education can significantly impact costs to society by reducing the school dropout rate, lessening dependence on welfare, and decreasing crime. Supporting children during their early years leads to success in school and a meaningful contribution to society later in life. Longitudinal data of high quality early childhood programs show an economic return on investment ranging from \$3 to \$17 for every dollar invested. Adjusted for inflation, this represents an annual rate of return between 7 and 18 percent.¹ Crime alone is a tremendous drain on American society, with an estimated cost of \$1.3 trillion per year or \$4,818 per capita and no expectation that spending on the criminal justice system will decrease.² Economic leaders are urging governments to institute universal pre-kindergarten programs to meet the challenges of the nation's fiscal crisis and to strengthen America's education system.³

The benefits of quality early care and education are most dramatically seen when investing in disadvantaged young children. Ramey and Ramey recently reported that upon school entry, children from low resource environments show delays of 1 to 2.5 years in overall academic and intellectual competence, reduced vocabulary and language skills, fewer skills in interacting with teachers and peers, and a lack of support for learning at home.⁴ Their analysis of the longitudinal study of the Abecedarian (ABC) Project demonstrates that early childhood education can alter the life course of disadvantaged children, indicated by the prevention of a decline in IQ classification, significantly higher language scores, higher reading achievement scores, and a reduction in grade repetition and special education placement. The authors note, however, that not all preschool programs in the field are able to close the achievement gap, identifying these reasons for the failure:

- “Teachers not well prepared or supported in classrooms;
- Dosage of pre-K is too low;
- Inadequate instruction to promote cognitive, language, early literacy, and early math skills;
- Ineffective communication with and engagement of parents and other key service providers; [and]
- Instruction is too harsh or rigid.”⁴

Ramey and Ramey cut to the heart of the issue regarding early childhood's inability to garner public will, sufficient for lawmakers to allocate resources that would clearly be a good investment based on the literature. The field has the attention of the nation and has generally established a public belief that investing in young children has the potential to redress many of the nation's domestic problems, yet inconsistencies in the delivery of high quality early care and education diminish its credibility and act as a barrier to implementation. The reasons for

failure to close the achievement gap are applicable to the status of early childhood care and education in Missouri and should be considered in planning initiatives for the State.

Leaders from within the early childhood care and education community have noted the disparity between their convictions about high quality interventions and their effectiveness in delivering them. Goffin and Washington examine these challenges in *Ready or Not, Leadership Choices in Early Care and Education* and charge early childhood leaders to clarify their purpose, identity, and responsibility.⁵ While early childhood care and education offers promise for addressing America's challenges, these authors state, "The gulf is widening between promises made and promises realized (p. 1)." They also refer to a credibility gap marked by the desire of some early childhood practitioners to be recognized as professionals when they lack the credentials or certification to validate their competency. This inconsistency among personnel undermines the credibility of the early childhood profession.

In 1994, the National Association for the Education of Young Children (NAEYC) published a conceptual framework for an early childhood career lattice.⁶ Missouri responded to this national attention on career development systems by implementing several projects to address the need. In 1995, collaborative partners began planning a career development system that became the OPEN Initiative in 1999.⁷ From this, a bi-state collaborative produced the *Kansas and Missouri Core Competencies for Early Care and Education Professionals* in January 2001. This document was designed to identify the competencies required for early childhood teachers, to serve as a foundation for program practices and decisions, and to establish standards for the professionalization of the field. The OPEN Initiative also established the Professional Achievement and Recognition System (PARS), a professional development database, collecting and verifying educational achievement and training for early childhood teachers and administrators. The PARS system helps practitioners identify their placement on Missouri's Education Matrix (see Appendix). Concurrently, OPEN created a trainer registry to collect and verify the education, credentials and experience of those providing community-based training to early childhood personnel in Missouri. Also in 1999, the Teacher Education and Compensation Helps (T.E.A.C.H.) program was implemented through the Missouri Child Care Resource and Referral Network (MOCCRRN). T.E.A.C.H. MISSOURI is a quality initiative that provides a multi-level scholarship program for licensed child care programs and teachers based on education, compensation, and retention.⁸

Trends

Despite an increase in educational requirements for several sectors in early childhood care and education, disturbing national trends indicate that the level of qualified early childhood teachers declined between 1983 and 2001.⁹ Administrators and teachers, working in private and public, child-care centers, Head Start programs, and stand-alone preschools, with a Bachelor's degree fell from 47% in 1983 to 30% in 2004. School-based early childhood programs and child care family homes were not included in this study. This decline is even more pronounced when compared to the educational attainment of the total U.S. workforce, in

which workers with a college degree increased from 22% to 30% during that same period. The most qualified teachers and administrators in early childhood education are aging, with 43% over 50 years old. The 2005 report stated that only slightly more than one-fourth of teachers and administrators ages 24 to 36 have college degrees, and 36% have degrees for the group 40 to 50 years old. These statistics raise concern regarding the field's capacity for an educated workforce in the coming years.

State-Supported Preschool

The Committee for Economic Development—an independent, nonpartisan organization for business and education leaders—issued a report in 2002; *Preschool for All: Investing in a Productive and Just Society* called upon federal and state governments to institute universal pre-kindergarten programs.¹⁰ Approximately 250 leading national experts in business and education serving on the Committee continue to advocate for universal access to free, high-quality pre-kindergarten programs available to families on a voluntary basis. The report recommended that states should be responsible for expanding preschool, ensuring that adequate teachers and facilities are available to support the expansion, and maintaining the diversity of the early childhood workforce as they are integrated into a coherent system of care and education.

The Missouri Coordinating Board for Early Childhood began to consider state supported pre-kindergarten programs by convening a committee and commissioning a study. The report, presented in October 2008, included nine recommendations from the Missouri Panel on School Readiness: Focus on Pre-Kindergarten Education (Pre-K Panel) to guide the development of pre-kindergarten education in Missouri.¹¹ The Coordinating Board accepted the report in November 2008 and included in their 2009 Work Plan to develop an implementation plan based on the framework proposed by the Pre-K Panel, by fall 2012.¹²

It is reasonable to anticipate that the expansion of state-funded pre-kindergarten programs would require additional capacity of Missouri's early childhood workforce. Since many states that offer state-funded preschool programs require that teachers have at least a Bachelor's degree in early childhood education, an increased workforce would at minimum need pre-service formal education in early childhood education or child development with the possibility of state teacher certification.

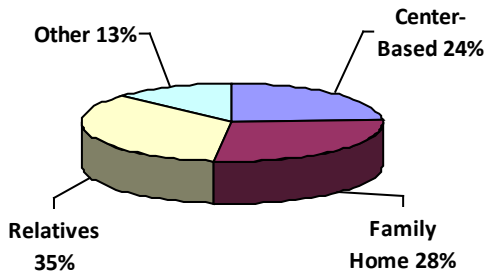
Missouri's Early Childhood Workforce

Demographics of the Missouri Early Childhood Workforce

There are 2.3 million individuals paid to care for children birth to age 5 in the United States. In addition to the paid workforce, an additional 2.4 million individuals care for children without pay, of which 93% are relatives.¹³ The Missouri Department of Economic Development (DED) estimates that in 2008, there were 31,420 child care workers by standard occupational classifications.¹⁴ Of these, it is estimated that nearly 19,000 early childhood professionals work

in over 3,700 licensed programs.⁷ Currently, PARS has updated data on 4,305 administrators and teachers working in licensed programs. Missouri’s early childhood workforce also includes approximately 2,826 subsidy-receiving unlicensed providers caring for four or fewer children¹⁵, as well as 589 license-exempt programs in the state, but the number of teachers working in these programs is unknown.

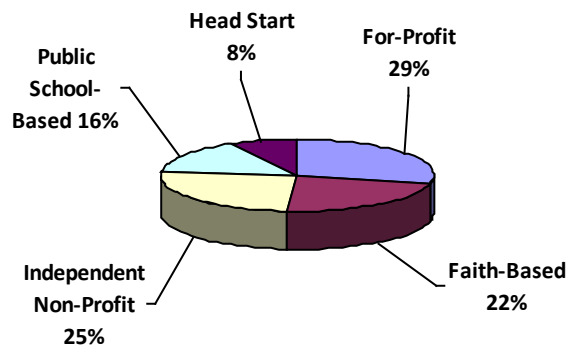
Figure 1. Types of Paid Early Childhood Workers in the U.S.



Early childhood workers vary by the type of services they provide, which adds to the complexity of the field and their professional development needs. Meaningful differences exist in the philosophy, purpose and delivery of services among different sectors of the early childhood workforce. Relatives receiving payment for child care make up the largest group, followed by child care family homes, center-based care, and other paid workers, such as nannies. Figure 1. shows the percentage of early childhood workers in the U.S. by type.¹⁶

Additional fragmentation of the early childhood workforce occurs in the various settings for center-based early childhood programs. The wages, educational attainment, and work environment of teachers and administrators can differ greatly across program types. For-profit programs (29%), independent non-profit centers (25%), and faith-based centers (22%) account for three-fourths of the programs. Public school-based (16%) and Head Start (8%) comprise the remaining types of centers.¹⁶

Figure 2. Center-Based Early Childhood Programs by Setting in the U.S.



Missouri Department of Health and Senior Services (DHSS), Section for Child Care Regulation, reports that there are 4,341 regulated child care facilities in the state serving nearly 150,000 children.¹⁷ Table 1. lists the number of licensed and license-exempt child care facilities in the state.

Table 1. Child Care Facilities and Capacity in Missouri by Type

Facility Type	Number of Facilities	Capacity
Licensed Centers	2,033	129,734
Licensed Group Homes	171	3,327
Licensed Family Homes	1,551	15,296
License-Exempt Centers (inspected)	586	Unknown
Statewide Total of Regulated Facilities	4,341	148,357

The Missouri Department of Economic Development disseminates occupational employment projections that anticipate future hiring needs by standard occupational classifications. During the decade between 2006 and 2016, the Missouri Economic Research and Information Center projects that the child care workforce will grow by 6.7%, increasing by 2,016 individuals.¹⁴ While this may seem modest, when considering turnover and other reasons for replacing existing staff, child care workers are ranked 11th highest among other occupational classifications for the number of projected openings in Missouri during the decade. In addition to growing by 2,016, it is projected that 8,617 positions will need to be replaced, bringing the total number of openings to 10,633. There is no evidence to suggest that these projections account for an increase in qualifications or the aging of the workforce, as previously discussed.

Compensation

Low worker compensation contributes to the problems of attracting qualified personnel and retaining them. The 2006 Occupational Employment Statistics Survey, conducted by the Missouri Department of Economic Development reported that child care workers ranked in the lowest 25 paid occupations in Missouri.¹⁴ Child care workers were ranked as the 17th lowest paid occupation with an average annual wage of \$17,340. The 25 lowest paid occupations accounted for 361,110 total jobs or 13.4% of the workforce. When considering type of program, there is a significant wage gap among early childhood educators. The average wage for kindergarten teachers is \$42,000 in Missouri, while other early childhood teachers with 4-year degrees earn \$25,800 and the average annual pay for all lead teachers is \$21,450.¹⁷ The average annual salary for Head Start teachers is \$21,199 and \$14,763 for assistant teachers.¹⁸ Head Start data also revealed that of the 227 teachers who left during the 2008 program year, 26% left for higher compensation in the same field.

Educational Attainment of Teachers

Findings from a 2007 meta-analysis of early childhood teachers conducted by the National Institute for Early Education Research (NIEER), confirmed that there are more positive outcomes in classrooms where teachers have a higher education level, especially those with a Bachelor's degree.¹⁹ In Missouri, 36% of early childhood professionals enrolled in the PARS registry have a Bachelor's degree.²⁰ Since the PARS registry is voluntary, it is likely that this is higher than the actual percentage of the total population of early childhood teachers and administrators. Of the 3,128 early childhood workers that are registered with the PARS system,

75% of directors, 46% of teachers, and 25% of assistant teachers have an Associate's degree or higher.¹⁷ In the past several years, Head Start grantees have directed some of their staff to seek additional education, in order to meet the requirements of the Head Start Act, amended in 2007.²¹ The Missouri Head Start State Collaboration Office reports that 85% of classroom teachers and 37% of assistant teachers have obtained an early childhood education related degree, Child Development Associate credential (CDA), or state teaching certificate.¹⁸

Competency-Based Personnel Preparation

Core Competencies

The *Kansas and Missouri Core Competencies for Early Care and Education Professionals* documents core knowledge needed in eight content areas: (1) child growth and development, (2) learning environments and curriculum, (3) child observation and assessment, (4) families and communities, (5) health, safety, and nutrition, (6) interaction with children, (7) program planning and development, and (8) professional development and leadership.²² The core competencies are further grouped into five progressive skill levels ranging from minimal specialized training or education to advanced degrees in early childhood education or child development.

While the Core Competencies provide a strong basis for curriculum development, career planning, and comprehensive community-based training programs, their use for these functions is inconsistent. Core competencies are identified on presentation descriptions for community-based training events, but there is no current system to ensure that early childhood personnel are utilizing this coding when making decisions regarding the training they attend. The PARS system tracks reported training by content area and skill level for those who voluntarily submit training data to the database, but only approximately 20% of Missouri's early childhood workers in licensed programs are registered with PARS.¹⁷ Licensing regulations do not specify that the training child care workers receive comprehensively address the breadth of core knowledge, and licensing representatives do not analyze the training and education of providers by core competency area.²³ The *Kansas and Missouri Core Competencies for Early Care and Education Professionals* were the basis for establishing the recently developed Missouri Early Childhood Director Credential issued by the Association for the Education of Young Children of Missouri (AEYC-MO). However, no system is in place to evaluate the utilization of the core competencies in curriculum planning for early childhood coursework, so there is little evidence to verify their use in higher education.

Career Pathways in Early Care and Education

Inconsistency in the amount of education typically attained among early childhood teachers and administrators presents a number of challenges for developing a career path that meets the needs of the workforce. In many professions, pre-service requirements determine the standards for entry into the field. For example, an individual interested in becoming a nurse must first complete a degree, successfully pass a Praxis exam, and receive certification before

being hired at a hospital or clinic. After completing the pre-service requirements, the individual enters the field and begin to participate in additional professional development activities such as continuing education, training programs, and other types of support to build competence and experience. For non-certified early childhood teachers in Missouri—who comprise the vast majority of providers—this career pathway is often reversed. They enter the field meeting only the minimal licensing requirements of adult status (18 years old), clearance through a child abuse registry, passing a health screening, and being free of tuberculosis. After hiring, they begin to engage in community-based training to provide some of the requisite competencies. Teachers and administrators in licensed programs are required to attend 12 clock hours per year of approved training. Their career path may or may not lead to enrollment in formal education in child development or early childhood education, since pre-service requirements are largely determined by programs or mandated through state-funded initiatives.

To assist early childhood practitioners with career planning, the OPEN Initiative developed the Missouri Education Matrix that recognizes the formal education, credentials, and child-specific courses completed by professionals in early childhood (See Appendix). The Education Matrix delineates three steps based on the number of college credits in early childhood education or child development, as well as five levels based on educational accomplishments, ranging from less than a CDA credential to a graduate degree. The Core Competencies are coded to align with the steps and levels found on the Education Matrix.

Higher Education

A Case for Formal Education.

Saracho and Spodek conducted a critical analysis of 40 studies of early childhood teacher preparation published from 1989 to 2004 to determine their effect on program outcomes.²⁴ This detailed analysis revealed that: 1) programs with higher quality tended to have better educated teachers; 2) teachers with higher levels of formal education used more appropriate practices, better instructional activities, and received more positive responses from families; and 3) those teachers with Bachelor’s degrees and specialized training in early childhood education or child development possessed a strong knowledge base that translated into teaching practices that promoted social, language, and cognitive development.

In the same study, Saracho and Spodek also examined states’ standards for professional development and found that there was wide discrepancy regarding the requirements for teaching young children. Only 21 states required any form of pre-service training. As in Missouri, most states instituted only minimal licensing requirements for programs that apply to early childhood teacher qualifications. State-financed pre-kindergarten programs had much higher standards for teachers, ranging from 24 credit hours to a Master’s degree. Of the 40 states that sponsored pre-kindergarten programs, over half required their teachers to have at least a Bachelor’s degree in early childhood education.

Formal Education Offerings in Missouri

There are 49 institutions of higher education offering degrees related to early childhood in Missouri.²⁵ Many institutions offer more than one degree program to meet the diverse needs of its students and the community. Some organizations offering early childhood services require an Associate's or Bachelor's degree as a pre-service requirement, or they establish professional development plans for their staff with expectations that degrees will be earned over an established period of time. Congressional re-authorizations of the Head Start program set benchmarks for degree attainment for teaching staff. Head Start programs are required to have 50% of their teaching staff with an Associate's degree by 2003 and 50% of their teachers with a Bachelor's degree or higher by 2013.²⁰

The nomenclature for the degree programs and the topics covered also reflect wide diversity in the field, contributing to the lack of clarity about the educational preparation of early childhood personnel. Significant differences also exist among degree programs in the number of credit hours related to early childhood education and child development. Table 2 lists the number of degree programs in Missouri related to early childhood.

Table. Associate and Baccalaureate Degree Programs in Missouri Related to Early Childhood²⁵

Degree Programs	Two-Year Institutions*	Four-Year Institutions**
Associate of Applied Science (AAS)	16	2
Associate of Arts in Teaching (AAT)	3	0
Associate of Arts (AA)	4	2
Bachelor of Arts (BA)	0	15
Bachelor of Science (BS)	0	30
Total Degree Programs	23	49

* 16 Two-Year Institutions

** 33 Four-Year Institutions

Child Development Associate (CDA) credential. The Child Development Associate (CDA) is a nationally recognized credential awarded through the Council for Professional Recognition that recognizes performance on competency goals in early childhood programs. More than 200,000 individuals nationwide who hold CDAs work in a variety of settings.²⁶ Head Start mandated that by 2010 all lead teachers in their programs and by 2013 all assistant teachers will have a minimum of a CDA. Several colleges in Missouri offer coursework to assist early childhood personnel as they prepare for the assessment process. Some institutions offer credit for a CDA that equals approximately 9 credits.¹⁷ Eleven two-year- and three four-year institutions in Missouri offer coursework to assist students in preparation for the CDA assessment process.

Certificate programs. Some community colleges in Missouri offer a non-degree course of study leading to a certificate of proficiency. The certificate is not considered a degree, but it is an incremental step between the CDA and an Associate's degree.²⁰ A certificate of proficiency should not be confused with teaching certification issued by the Board of Education.

Associate's degree. A number of degrees are offered at the Associate's level. Associate in Applied Science (AAS) degrees are considered "terminal" programs that are not intended to transfer or substantially articulate to Bachelor degree programs. The AAS degree is specifically designed to provide career training for the child care and preschool workforce. Associate of Arts (AA) and Associate of Arts in Teaching (AAT) degrees are heavily weighted in general studies with an average of 21 credit hours in early childhood education core coursework. These programs are designed to transfer to Bachelor degree programs that may or may not lead to certification. Some of the names for degrees at the Associate's level include Early Childhood Education, Child Growth and Development, Child and Family Studies, Child Care and Early Education, Early Childhood with an emphasis in Developmental Disabilities.

Bachelor's degree. Baccalaureate degrees related to early childhood are offered in Missouri at 33 institutions of higher education. There are 15 Bachelor of Arts programs and 30 Bachelor of Science programs with a number of titles, such as Education – Early Childhood, Child Development, Family and Consumer Science with an emphasis in Child Development, and Early Childhood Special Education.

Advanced degree. Advanced degrees relating to early childhood are available at universities in Missouri and are sought by master teachers, education coordinators, and program directors directly serving children and families. Individuals serving in roles that support the field such as consultants, instructors and faculty in higher education, researchers, and policy makers also seek Master's and doctoral degrees, with a number of titles pertaining to early childhood education or human development.²⁷

Certification of Early Childhood Teachers

A key component to the professionalization of a field is certification in addition to formal education. Currently, certified early childhood teachers are primarily working in public school programs or those associated with state-funded preschool. Accessibility to education leading to certification is readily available in Missouri. A total of 32 colleges and universities in the state are approved by the Missouri Board of Education as teacher education programs providing early childhood certification.²⁰

Certification is issued through Missouri's State Board of Education and is administered by the Department of Elementary and Secondary Education (DESE).²⁰ Teacher certification or a degree in child development is required to work as an early childhood educator in school districts or with the Missouri Preschool Project (a state grant-funded program through DESE). Certification requirements include a Bachelor's degree from a state-approved teacher education program with coursework in content and pedagogy, supervised student-teaching experience, a passing score on a praxis test, and a child abuse and neglect background screening. These four certification designations apply to early childhood teachers: Early Childhood (birth to grade 3); Early Childhood Special Education; Elementary Education – Early Childhood; and Family Resource. In 2008-2009, a total of 19,589 teachers were certified with early childhood designations; of these, 10,389 have a pre-kindergarten assignment during the school year.²⁰

However, these numbers do not truly represent the lack of certified teachers working in early childhood programs. One study of randomly chosen early childhood teachers in Missouri found that only 13% had certifications across all education levels (including elementary and secondary education certification)²⁸. More recent data from the PARS registry indicates that fewer than 1% of early childhood teachers and administrators have a certification specific to early childhood (including early childhood special education).

Articulation of Early Childhood Education Programs

The fragmentation of the early care and education field contributes to complexity in an articulated education system. NAEYC developed standards to support the state workforce policy to align programs and integrate sectors, to assure quality in training and education, and for designing compensation parity.²⁹ Articulation is “the transfer of professional development credentials, courses, credits, degrees, and student performance-based competencies from one program or institution to another, ideally without the loss of credit.”³⁰ A system that guides students in making educational decisions that progress toward an intentional career path requires collaboration across departments, agencies, and institutions. The Natural Allies project evaluated long-term systems change in eight states (Iowa, Idaho, Illinois, North Dakota, Nebraska, Oklahoma, Pennsylvania, and Texas) and recently published findings regarding teacher education programs and support faculty who prepare practitioners for early childhood inclusion.³¹ The study demonstrated that building cross-sector collaboration among the early childhood, early intervention, and higher education communities took time and required significant effort to arrive at shared understandings about the field. The report’s authors were encouraged that college and university faculty across the eight states were eager to participate in the process and committed to effect change including reform of content and educational strategies.

The Missouri Coordinating Board for Higher Education is responsible for approving degree programs and discharges responsibility for coordination and addressing articulation issues to the Committee on Transfer and Articulation (COTA) with support from the Department of Higher Education (DHE). DHE convened the Early Childhood Education Programs Committee that developed *Articulation of Early Childhood Education Programs* guidelines, approved by the chief academic officers from public and independent institutions and COTA in 2004.²⁷ This committee identified problems in Missouri’s early childhood system of higher education with a lack of consistent standards of expected competencies and transfer and articulation agreements. It was noted that the nomenclature of program titles and degree designations varied across institutions. The guidelines established consistent nomenclature for early childhood professional and degree titles. They also clarified that a Certificate of Proficiency or an Associate of Applied Science (AAS) were considered terminal and should not be expected to articulate to four-year institutions. They presented guidelines for educational and career pathways and specified elements of transfer and articulation between two-year and four-year programs. While these guidelines provide common terminology and a basis for articulation, agreements between institutions develop slowly, and early childhood personnel who do not

begin by seeking a pre-service degree often encounter challenges when transferring from one institution or program to another.

Professional Credentials

The Association for the Education of Young Children of Missouri (AEYC-MO) recently completed a pilot and began issuing the Missouri Early Childhood Director Credential. The credential recognizes competencies achieved by early childhood professionals through college education, experience, and service. Individuals receiving this credential demonstrate their ability in center-based or group home leadership and management for programs serving children aged birth to kindergarten entry. The criteria for the Missouri Early Childhood Director Credential were developed in collaboration with leaders from Missouri and Kansas with expertise in early childhood and before- and after-school care. These criteria are based on the *Kansas and Missouri Core Competencies for Early Care and Education Professionals*. The state of Kansas is currently in the process of developing a credentialing program that will reciprocate with Missouri's. The Credential is offered in two tiers—provisional and credential—to align it with licensing requirements for directors and to provide access for emerging program directors with a commitment to continuous professional development.³²

Missouri does not yet have an infant/toddler credential as a component of the State's early childhood professional development system. The National Infant and Toddler Child Care Initiative, a project of Zero to Three, contends that an infant/toddler credential is an essential part of establishing a comprehensive professional development system.³³ The OPEN Initiative and AEYC-MO are developing a feasibility plan for implementing an Infant/Toddler Credential for teachers working with infants and toddlers.³²

Workforce Supports for Teachers Pursuing Higher Education

Missouri is one of 21 states to offer the T.E.A.C.H. Early Childhood® Scholarship Program, administered by the Missouri Child Care Resource and Referral Network (MOCCRRN), to increase quality in early childhood programs by supporting teacher's educational qualifications through scholarship, compensation, and retention.²⁰ T.E.A.C.H. Early Childhood® MISSOURI works directly with licensed early childhood programs to provide support around four components: scholarship, education, compensation and commitment. The goals of T.E.A.C.H. Early Childhood® MISSOURI are to improve program quality by promoting school success, increase the level of teacher education, increase compensation, reduce the turnover rate, improve the quality and continuity of care, and to create a model of partnership in Missouri's early childhood programs.³⁴ Since 2000, the project has grown significantly, serving more than 1,200 scholarship recipients who have earned more than 13,000 college credits at 21 colleges and universities. T.E.A.C.H. Early Childhood® MISSOURI staff work closely with employers and colleges and universities in which scholarship recipients enroll, providing career counseling throughout the contract year.

Community-Based Training

In addition to formal education, community-based training is an essential component to an early childhood professional development system. The availability and quality of training varies significantly by program setting and geographic location. One three-state study noted that within the early childhood workforce, Head Start teachers received the most training (62 clock hours of training per year), followed by pre-kindergarten teachers with (45 clock hours per year), and teachers in child care programs (27 clock hours per year).³⁵ In another multi-state study, family child care providers averaged 19 clock hours and family, friends, and neighbor caregivers participated in 16 hours of training annually.³⁶

Under the auspice of the DHSS Section for Child Care Regulation, basic level training is provided statewide to licensed providers through MOCCRRN. The Child Care Orientation Training (CCOT) focuses on three components: 1) developmentally appropriate practices and child development; 2) recognition of and reporting child abuse and neglect; and 3) health, environmental safety, and sanitation.³⁷ Specializations are available for infant/toddler and school-age care providers in this orientation training. Upon completion of CCOT, workers may enroll in the Providers Advance through Continuing Education Training (PACE) series, which expands on the topics covered in CCOT. MOCCRRN also offers a 12-month training series titled, Child Care Plus and training on inclusion.

Additional community-based training is provided from a variety of other sources, including Educare, the Child and Adult Care Food Program, the Head Start Regional Training System, and AEYC-MO and its affiliated AEYC chapters. In many respects, the community-based training system in Missouri lacks coordination and alignment with the core competencies and cohesive individual professional development plans. In 2008, the Coordinating Board for Early Childhood commissioned a study of Missouri's community-training system and published a report entitled, *Pathways to a Coordinated Professional Development System for Missouri's Early Childhood and School-Age/After School Professionals*, which analyzed and made recommendations regarding the system.³⁸ The Board is currently in the process of considering the study's six recommendations and has included a continuation of coordination efforts in its 2009 work plan.³⁹

Coaching and Technical Assistance

While the educational attainment of early childhood teachers has been shown to improve performance and classroom outcomes, recent evidence suggests that the most significant improvements are found when coaching and technical assistance are added to formal education. In a study of providers serving disadvantaged children in Michigan cities, modest improvements were achieved in teacher knowledge and practice after completing college coursework. When coaching was added to formal coursework, however, significant gains were found in language and literacy practices that exceeded the gains for persons who attended the course without coaching.⁴⁰

Coaching in early childhood care and education programs differs from other forms of professional development, such as workshops, conferences, and community-based training, in that it is often delivered on-site and at a greater dosage. The Greater Kansas City QRS Initiative employed a coaching model with over 8,000 coaching contacts over a four-year period to support programs; 83% of the contacts were on site, averaging 2 ¼ hours each.⁴¹ The Francis Institute for Child and Youth Development at the Metropolitan Community College - Penn Valley is building the coaching infrastructure by training coaches with the curriculum, *Strengths Based Coaching™: A Journey into Coaching*, which provides foundational skills, knowledge, and beliefs of effective coaches.⁴²

Data Systems in Early Care and Education

Like other components in the early childhood system in Missouri, data collection regarding the early childhood workforce is fragmented and incomplete. The OPEN Initiative collects detailed personnel information through the PARS Registry, but the enrollment in the registry is voluntary and only a subset of the early childhood workforce is represented. In addition to teachers and administrators of early childhood programs, gathering information regarding those that support the system through training is an important component to ensuring quality. Nationally, 25 states have implemented early childhood personnel or training registries.⁴³

The OPEN Initiative developed and maintains a trainer registry of 1,443 individuals that provide community-based training. There is no regulatory authority; however, requiring that community-based training for early childhood personnel be led by approved trainers.⁷

Numerous state agencies collect data on components of the early childhood system for which they have jurisdiction. Among these are the Department of Social Services (DSS), DHSS, DESE, and DED. DESE is in the early stages of developing a student-level record system that randomly assigns a state student identification number to students in the public schools; this is called the Missouri Student Information System (MOSIS).⁴⁴ The department has recently been awarded a \$9 million award from the American Recovery and Reinvestment Act for a longitudinal data P-20 system, but it is unknown whether the early childhood workforce will be incorporated in this data system.²⁰ Other organizations collect and maintain data on sectors of the early childhood system for which they hold some accountability, such as the Missouri Head Start Collaboration Office and MOCCRRN.

Aligning Academic and Workforce Standards

Standards for Early Childhood Professional Preparation Programs

Beginning in 1999, NAEYC and the National Council for Accreditation of Teacher Education (NCATE) made major revisions to standards for professional preparation programs. Standards that prepare teachers to work in programs that function at the initial licensure level were approved and published in 2001.⁴⁵ As of spring 2003, initial licensure teacher preparation

programs were required to comply with these standards in submitting reports for NCATE accreditation. Standards for advanced Master's and doctoral programs were revised in 2002 with an NCATE transition timeline to the new standards by 2004.⁴⁶ Similar guidelines were developed by NAEYC for Associate degree programs in 2003, but NCATE does not accredit community colleges. Therefore, in April 2006, NAEYC introduced the Early Childhood Associate Degree Accreditation based upon the standards that were introduced in 2003.⁴⁷ It takes approximately two years to complete the accreditation process. Currently 166 Associate degree programs from 36 states are enrolled in the accreditation system, and 51 programs have been accredited.⁴⁸ Missouri does not have any Associate degree programs that have achieved NAEYC accreditation.

Program Standards and Quality Initiatives

Program Accreditation

Early childhood program accreditation systems set standards, including those regarding requirements for staff that contribute to the development of the early childhood workforce. Several bodies that provide accreditation in Missouri differ by type and setting.⁴⁹ Missouri Accreditation of Programs for Children and Youth (MOA) currently reports that 354 center-based programs for children from birth to five years old hold this accreditation.⁵⁰ NAEYC also accredits center-based programs of the same age group, with 120 accredited programs under its system in the State.⁵¹ The National Association for Family Child Care (NAFCC) is a national association that accredits family child care programs and group home child care facilities; NAFCC has accredited 57 programs in Missouri.⁵²

Quality Rating Systems

Efforts to improve the overall quality of early childhood programs and to recognize and reward those that demonstrate high quality have resulted in the development of multi-level quality rating and improvement systems (QIRS) or quality rating systems (QRS).⁵³ Often QRIS or QRS programs are linked to program accreditation, with achievement of accreditation included in the highest level rating. Currently, 18 states are operating statewide quality rating and improvement systems, and 15 of them are linked to NAEYC Accreditation.⁵⁴ Most states are in the process of implementing statewide QRS or QRIS systems in their state. Like other standards, these quality initiatives include standards for staff training and education, with an emphasis on continuous improvement.

In Missouri, QRS pilot projects have been operational since 2004. Through blended funding and collaborative partnerships, the Greater Kansas City Early Childhood QRS Initiative piloted a quality rating system with 84 centers and 58 family child care homes between 2004 and 2008.⁵⁵ Programs participating in these pilots received financial support, coaching, and training to foster improvement in program quality; these investments resulted in both improved program ratings and improved knowledge and skills of teachers.⁴¹ This pilot informed the development of a Missouri-specific QRS, which was also being simultaneously piloted in other parts of the State.

The Missouri Quality Rating System was endorsed by the Missouri Departments of Social Services, Health and Senior Services, Elementary and Secondary Education, Mental Health and the Missouri Head Start State Collaboration Office in June 2006, allowing the pilot project to transition into demonstration. Since then, demonstration efforts have focused on the development of infrastructure including establishing protocol for implementation, refining the criteria, and operating in a few regions of the state. Missouri QRS is a reliable and valid measure of quality encompassing eight components: Administrator Education and Training, Staff Education, Education Specialization, Annual Training, Learning Environment, Intentional Teaching, Family Involvement, and Business and Administration Practices. In 2008-2009, 69 programs were rated with QRS. The Missouri QRS State Committee is prepared to take the project to scale as funding permits.

Appendix. Missouri's Education Matrix

Missouri's Education Matrix* recognizes the formal education, credentials, and child specific courses completed by professionals in the early childhood. Education Matrix designations are based on two factors:

- The numeric level (Level 1,2,3,4 or 5) is determined by the total college credits and/or formal degree(s) earned from regionally accredited institutions.
- For levels 2-5, the letter step (a, b or c) is determined by the number of approved college credits.

		1	2	3	4	5
Level →	Step ↓	Less than CDA**/YDC**/ equivalent (9 college credits with 6 approved college credits***), 1 year Certificate 3 of Proficiency, or 30 college credits	CDA/YDC, equivalent (9 college credits with 6 approved college credits), 1 year Certificate of Proficiency or 30 college credits	Associate's Degree or 60 college credits	Bachelor's Degree	Graduate Degree
		For Levels 2-5 less than 15 approved college credits***	Some High School	CDA/YDC, equivalent(9 college credits with 6 approved college credits) or 1 year Certificate of proficiency or 30 college credits with less than 15 approved college credits	Associate's Degree or 60 college credits with less than 15 approved college credits	Bachelor's Degree with less than 15 approved college credits
a	For Levels 2-5: 15-23 approved college credits	High School or less than CDA/ YDC/ equivalent or less than 30 college credits	1 year certificate of proficiency or 30 college credits with 15-23 approved college credits	Associate's Degree or 60 college credits with 15-23 approved college credits	Bachelor's Degree with 15-23 approved college credits	Master's Degree or higher with 15-23 approved college credits
	For Levels 2-5: 24 or more approved college credits		1 year certificate of proficiency or 30 college credits with 24 or more approved college credits	Associate's Degree or 60 college credits with 24 or more approved college credits	Bachelor's Degree with 24 or more approved college credits	Master's Degree or higher with 24 or more approved college credits
b						
c						

* Formerly known as Missouri's Career Lattice

** CDA=Child Development Associate; YDC=Youth Development Credential

*** College course work that focuses on more of the content areas of the Competencies for Early Care and Education Professionals or Core Competencies for Youth Development Professionals

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