

# EXECUTIVE SUMMARY

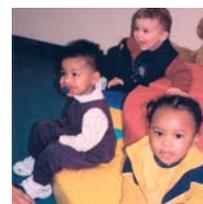
## **Early Care and Education Workforce Development Initiatives: Program Design, Implementation, and Outcomes**

### ***Final Report: Evaluation of the Arkansas Early Childhood Professional Development System (AECPPDS)***

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**Submitted to:**  
Division of Child Care and Early Childhood Education  
700 Main Street 1st Floor DPS  
Little Rock, Arkansas 72203

**Submitted by:**  
Joyce Ann Miller, Ph.D.  
Tania Bogatova, MBA  
KeyStone Research Corporation  
3823 West 12th Street  
Erie, Pennsylvania 16505-3301  
Ph: 814/836-9295 - Fax: 814/836-9615  
Email: [info@ksrc.biz](mailto:info@ksrc.biz) - [www.ksrc.biz](http://www.ksrc.biz)



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## Acknowledgements

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Also, thanks are extended to all the agencies and individuals that cooperated with the research team and provided access to files and records, participated in key informant interviews and focus groups, and assisted in data collection from the sample of child care facilities. In addition, we thank the child care facilities and classroom teachers who volunteered to participate in the research. Without their willingness to participate in this study and to cooperate with the fieldworkers, our collection of outcome data would not have been possible.

Finally, we want to thank Richard Fiene, Ph.D., the research consultant who assisted the principal investigators in implementing this study. His expertise in the field of early care and education, as well as ECE professional development systems, greatly enhanced our design and completion of this evaluation.

The overarching goal of this evaluation is to contribute to the knowledge and understanding about how to improve the quality of care and education for children in Arkansas. In that respect, this evaluation identified ways in which the design and implementation of the Arkansas Early Childhood Professional Development System can be improved in its effort to achieve this goal. We hope that the findings and recommendations for policy and practice will enable the Arkansas Division of Child Care and Early Childhood Education, along with other stakeholders, take the necessary steps to “build for the future of Arkansas children.”

## I.0 Introduction

This evaluation of the Arkansas Early Childhood Professional Development System (AECPDS) consisted of a comprehensive review and assessment of the system's components to determine their impact on outcomes for early childhood professionals and on the quality of care for young children in Arkansas.

AECPDS is funded through the federal Child Care Development Fund and other funds that are dispersed by the Arkansas Division of Child Care and Early Childhood Education (DCCECE). As part of DCCECE's 5-year strategic plan, this evaluation serves as a means to assess the impact of the professional development system and to identify areas of improvement that will enhance not only the program's structure and operation, but as well, the outcomes it is intended to achieve.

### I.1 Overview of AECPDS

The Arkansas Early Childhood Professional Development System consists of a number of components that have been implemented in efforts to create a coordinated system of professional development (PD) for early care and education providers in Arkansas. These components of AECPDS are described below.

**Steering Committee and Advisory Committees:** The governance structure, which includes the Steering Committee, Registry Advisory Committee, SPECTRUM Advisory Committee, Higher Education Work Group, CDA Advisory Committee, and the Apprenticeship Advisory Committee.

**Competency Areas:** AECPDS has ten competency areas that provide the framework for the professional development opportunities offered to early childhood educators in Arkansas.

**Early Childhood Professional Development Registries:** AECPDS has three different registries: the *Practitioner Registry*, *Trainer Registry*, and *Training Registry*.

**SPECTRUM:** This is the career lattice of AECPDS.

**Higher Education:** The Higher Education Work Group has the task of facilitating articulation of professional development and coursework among institutions within the state, in addition to offering career counseling for early childhood educators.

**The Child Development Associate Credential:** AECPPDS provides CDA scholarships for early childhood educators to earn their CDA Credential, as well as approves institutions, instructors, and coursework offered to students in Arkansas.

**Arkansas Child Care Apprenticeship Program:** This federally funded program includes course work and on-the-job training.

**Program Support Services:** A multitude of services are provided through the Program Support section of DCCECE, which are designed to improve the quantity and quality of child care services within Arkansas.

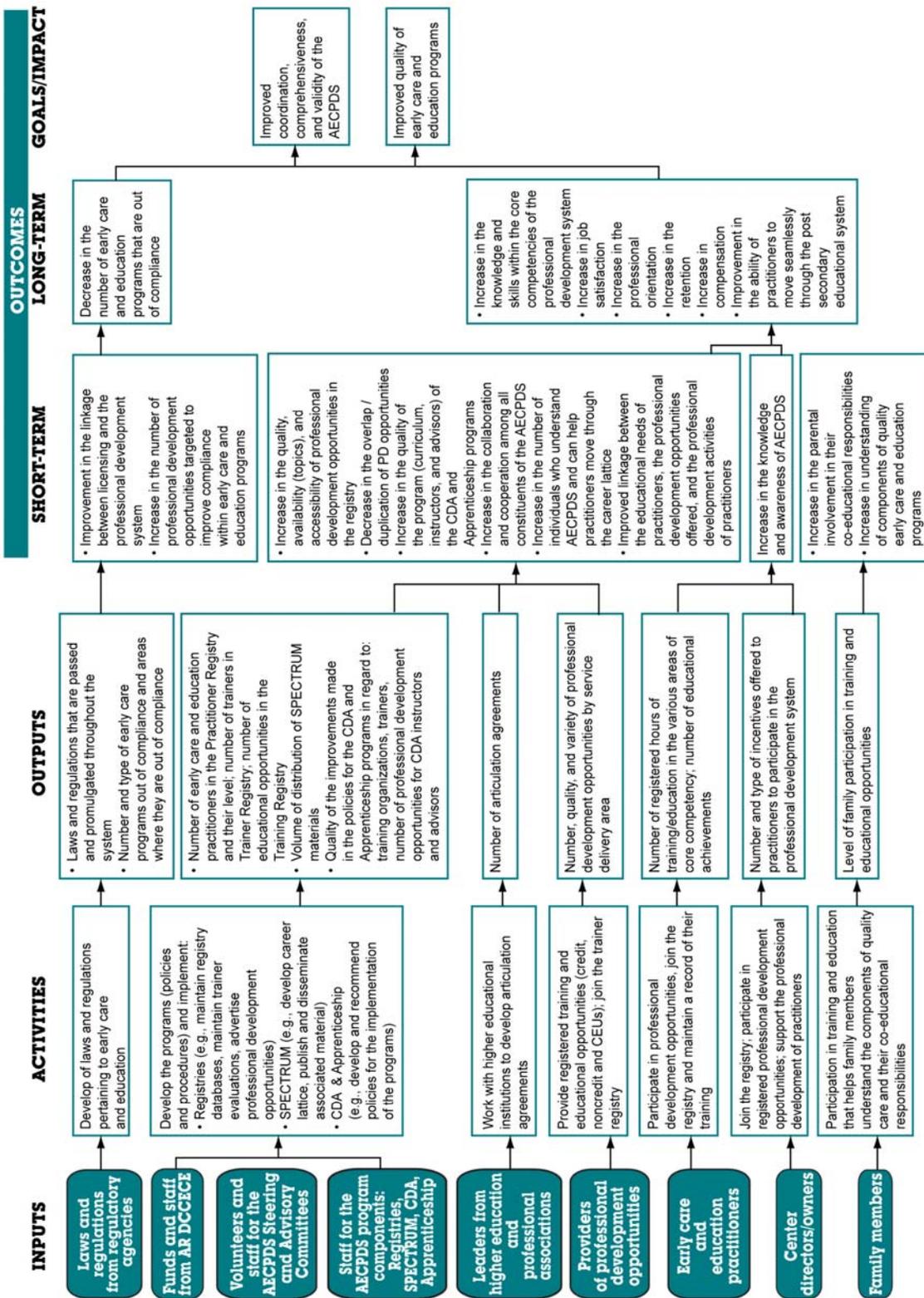
### **1.1.1 Vision and Guiding Principles of AECPPDS**

It is the vision of AECPPDS that: “All early childhood professionals in Arkansas value a coordinated, professional development system based upon research and best practice, which contains high quality professional development opportunities, and allows for the development of career pathways to meet diverse needs of individuals.”

### **1.2 AECPPDS Logic Model**

As the initial step in the design of the AECPPDS evaluation, a logic model was created through an iterative process involving the system’s stakeholders. This logic model (see Figure 1) provided an understanding of the system’s flow of inputs, activities, outputs, and outcomes for early childhood professionals and the quality of care for young children in Arkansas.

Figure 1: Logic Model Evaluation of the Arkansas Early Childhood Professional Development System (AECPPDS) August 15, 2005



## 2.0 Research Design

Using a participatory evaluation approach, the KeyStone Research Corporation (KSRC) research team, in collaboration with the AECPPDS stakeholders, designed a comprehensive evaluation of AECPPDS utilizing:

- A combination of both qualitative and quantitative data to assess the implementation of the various components of the system, as well as the multiple outcomes of AECPPDS.
- Various data sources, such as secondary data that existed in relevant documents and database records, along with primary data collected through questionnaires and/or interviews with key informants, focus groups, surveys of practitioners and trainers, and observational data from child care facilities.
- Methods of analysis using both qualitative and quantitative techniques, given the nature of data gathered.

As a comprehensive evaluation of AECPPDS, this research used mixed methods as described above, and collected data, some of which will serve as baseline for the evaluation data that will be collected over the long-term. Table 1 (see Appendix 1) provides an overview of the proposed research questions for each component of AECPPDS, along with the instrumentation, methodology, and implications for policy and practice.

### 2.1 Research Questions

As shown in Table 1: Research Design for the Evaluation of AECPPDS (see Appendix 1), the specific components of AECPPDS included in this research were: Registries, SPECTRUM; Training Programs; Providers of Professional Development Opportunities; Practitioners; Directors/Owners<sup>1</sup>; and Overall System. For each of these components, the research design specified a set of both general and specific research questions that guided our development of the research methods used to gather and analyze the data that

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<sup>1</sup> The Directors/Owners component of this evaluation included questions that we determined could not be answered with the existing Training Registry database, therefore we were unable to complete this part of the evaluation.

would answer these questions. The following provides the set of general research questions for each component of AECPDS.

### **2.1.1 Registries**

To what extent do the AECPDS registries meet the standards of model registries within the early childhood education field?

What is the level of satisfaction of practitioners and trainers with the structure and processes of the AECPDS registries?

To what extent do practitioners use the Training Registry to find out about professional development opportunities?

### **2.1.2 SPECTRUM**

Does the SPECTRUM provide a useful roadmap for practitioners to advance as an ECE professional, in terms of practitioner awareness, availability of training, and quality of the career lattice?

### **2.1.3 Training Programs**

What difference have the AECPDS training programs made in the quality of ECE programs in the state, with respect to the rate of completion, retention in the field, and movement up the career lattice?

### **2.1.4 Providers of Professional Development Opportunities**

Do the professional development opportunities offered through AECPDS training providers match with the PD needs of practitioners?

How effective is the system that evaluates the quality of training/professional development opportunities offered?

### **2.1.5 Practitioners**

What factors influence the choices that practitioners make when selecting PD offerings?

What are the outcomes for practitioners who participate in AECPDS, with respect to completion of AECPDS training programs and retention in the field?<sup>2</sup>

### 2.1.6 Overall System

Has AECPDS made a difference in the way practitioners work with children and families, with respect to quality of care in ECE classrooms, quality of ECE program administration, and the quality of family partnerships in ECE programs?

## 2.2 Data Collection Methods

As indicated, this evaluation used a number of data collection tools and methods, which included:

**Registry Assessment Tool:** used to answer question about the adherence of AECPDS registries to a set of standards and best practices. The AECPDS registries completed a self-assessment, followed by the KSRC team site visit and final assessment.

**Process Improvement Consultation:** used to assess, as well as develop, action plans to implement process improvements in the operation of the AECPDS registries. The KSRC process improvement consultants provided a series of training and follow-up consultation sessions to introduce AECPDS registry staff and other stakeholders to the *Learning<sup>2</sup>C*<sup>™</sup> methodology, which enabled them to use a set of standard tools to map selected registry processes, develop actions plans for changes, and implement the proposed changes.

**Practitioner and Trainer Surveys:** used to gather input regarding awareness of, satisfaction with, and use of the various components of AECPDS. Data was collected from 169 practitioners (out of 1000 sampled) via a mail survey. Data was collected from 98 trainers (out of 737) via a web-based survey.

**Practitioner Focus Groups:** used to gather input from practitioners that are not in the Practitioner Registry regarding their professional orientation, participation in professional development opportunities, and awareness of AECPDS. Four focus groups were held in

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<sup>2</sup> Note the question about AECPDS training programs in 2.1.3 overlap with the question about outcomes for practitioners.

the spring of 2006; they were located in Batesville, Jonesboro, Little Rock, and Springdale. In total there were 45 practitioners that participated in these focus groups.

**Key Informant Interviews:** used to gather input about the successes, challenges, and recommended improvements regarding each of the components of AECPDS and their operational processes. There were 15 key informants interviewed in May and September 2006.

**Content Analysis of Training Programs:** used to determine if any of the training programs included in the SPECTRUM are duplicates of one another and if these programs provide comprehensive coverage of the AECPDS core competencies.

**Training Registry Database:** used to assess the frequency of delivery of the various AECPDS training programs and the characteristics of these programs with respect to focus of content related to age of child, level of content per the SPECTRUM levels, and location within the Arkansas service delivery areas.

**Practitioner Transcripts:** used to estimate the percentage of practitioners that a) complete the AECPDS training programs, b) were retained in the field one year after completion of an AECPDS training program, and c) enrolled in subsequent AECPDS training programs. There were 885 transcripts randomly selected from the Practitioner Registry (out of approximately 8,000 + practitioners who were Registry members), that were used in this content analysis.

**Standards and Best Practices for Assessing Trainers and PD Opportunities:** used as a tool to assess the extent to which a professional development system has a set of policies, procedures, and/or processes in place to evaluate the quality of trainers and the delivery of training/PD opportunities. There were 8 key informants that completed their self-assessment, followed by the KSRC research team final assessment.

**Environment Rating Scales (ERS):** used to assess the quality of care within early care and education classrooms. The scales used included the Early Childhood Environment Rating Scale-Revised (ECERS-R); the Infant/Toddler Environment Rating Scale-Revised

(ITERS-R); Family Day Care Environment Rating Scale (FCDERS); and the School-age Care Environment Rating Scale (SACERS). A total of 242 centers and homes were visited and 311 classrooms assessed using these tools (out of the initial 289 sites and 400 classrooms included in the sample). Data were gathered by trained observers between July 2006 and May 2007.

**Caregiver Interaction Scale (CIS):** used to assess the quality of the child-caregiver interaction. The ERS observers gathered the CIS data in the same classrooms observed for the ERS scales, during the same timeframe.

**Program Administration Scale (PAS):** used to assess the quality of an early care and education facility's administration/management and family communication, support, and involvement. Trained PAS administrators gathered data from 169 ECE programs out of the 234 centers initially sampled for the ERS data collection. These data were also gathered during the July 2006-May 2007 timeframe.

### 3.0 Results<sup>3</sup>

As discussed previously, this evaluation of AECPDS used mixed methods to gather and analyze the data that would help us provide answers to the research questions posed. In the following, for each component of AECPDS, we take the specific research question(s) and address any challenges encountered during the data collection process and offer our interpretation of the data with respect to how it answers the research question(s).

#### 3.1 Registries

Registries are a tool that the early childhood and school-age/after-care profession uses to gather and maintain the core data regarding practitioners, trainers, and the training offered to practitioners. In addition, they are a way to bring recognition and professionalism to the field and they provide essential data to policymakers to inform decision making as it relates to programs for the early childhood and school-age workforce.

By far, the AECPDS Practitioner, Trainer, and Training Registries comprise a significant part of their comprehensive professional development system. The AECPDS registries consist of extensive databases that document and track information about the opportunities for professional development (PD) throughout Arkansas, the trainers that provide the PD, and the PD that each practitioner has completed. The registries are web-based, thereby enabling trainers, practitioners, and other stakeholders to access pertinent information through the Internet.

##### 3.1.1 Standards and Best Practices of Practitioner, Trainer, and Training Registries

The strengths of AECPDS registries, based on this assessment include:

- The AECPDS registries have made significant strides in the development and implementation of their database system, particularly as it relates to having on-line Practitioner, Trainer, and Training Registries. This enables practitioners and trainers to access their personal information on-line, practitioners to see, as well as search and register for, training opportunities that are on the on-line calendar,

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<sup>3</sup> The tables and figures throughout this Executive Summary maintain their number as designated in the full Final Report, therefore the numbering of them herein will not be consecutive.

and trainers to view course registrations and their training evaluations. As well, work is already occurring to convert to a Microsoft SQL server, which will improve the operation of the system.

- The administrative organization for the AECPPDS registries has a number of written policies, procedures, and practices in place that address many of the operational processes of the registries—e.g., processes for reviewing forms and documentation submitted; policies regarding the criteria for what documentation will be accepted to verify training and education; an annual renewal process for practitioners, which is a mechanism for correcting information on transcripts; processes for doing regular back-ups of the databases; new efforts (practices) to expand the advertisement and promotion of the registries; procedures and rules related to the protection of confidential information; and emerging practices to have monthly (and as needed) staff meetings, allowing staff to contribute to agenda items, which ensures timely communication about upcoming projects/activities, etc.
- While staff turnover has been an issue with the administrative organization, they are making progress in establishing a stable set of staff that is being cross-trained to ensure back-up and the ability to use staff interchangeably when necessary.

With respect to opportunities for improvement in the structure and function of the AECPPDS registries, the summary report in Appendix B provides additional detail for each standard that was partially or not met. However, below we provide the overarching issues facing the registries.

**Functionality of the Registry Databases:** The full functionality of the registry databases, and the benefits of having a robust system of data collection and reporting, cannot be realized given the current structure of the databases and the quality of the data maintained in them. Specifically, these are some of the observations in our assessment of the AECPPDS registries:

*The titles of the SPECTRUM training programs* have been entered into the database using various titles (see Appendix H: SPECTRUM Training Programs and Their AKAs).

*The training hours associated with SPECTRUM training programs* varied from the specified number of hours that they are designated to be.

*Degrees, endorsements, credentials, and certificates earned are not listed on transcripts.* Without this information noted on the transcripts they only represent a “partial” picture of the training and educational accomplishments of practitioners.

*Transcripts had the same training more than once on a transcript;* this was noted by seeing the same training title, with the same number of hours, on the same day or it might be same title (e.g., Preschool 3) listed twice, each with different number of hours.

*The Training Registry does not use a consistent method for listing SPECTRUM training that consists of multiple sessions/modules.* To appropriately track the delivery of SPECTRUM training programs and the practitioners that enroll and complete them, an ID should be assigned to each training program, with a corresponding ID (with an additional session number) for the individual sessions that comprise the training program. Then, the Training Registry database can be used for reports about the AEC PDS training programs and practitioners can search the database to identify when and where these training programs are offered (i.e., the date, time, and location of all the sessions associated with a training program.).

**Guidelines for Membership in the AEC PDS Registries.** The Practitioner and Trainer Registries do have policies regarding required documentation and criteria for maintaining membership. One of the key requirements for both is to complete 15 hours of professional development each year.

In this analysis of our sample of 885 practitioner transcripts we found that only 194 practitioners (21.9%) had completed the required 15 hours of training each year. For the most part, this may be the result of the practice of the AEC PDS Registry administrative

office not to enforce the 15-hour annual training requirement to maintain membership in the registries.

**Training Organization Access to Database to Run Reports:** Training organizations do not have administrative access to the Training or Trainer Registry data that is pertinent to them to run reports they need for their own accountability and record keeping.

### 3.1.2 Practitioner and Trainer Satisfaction with AECPPS Registries

Based on these data, practitioners indicated a level of satisfaction with the different components of the Practitioner Registry that ranged between 7.06 and 8.01 (on a scale of 1=very dissatisfied to 10=very satisfied). The practitioners were most satisfied with their ability to obtain a transcript of their completed training (Mean = 8.01). They were least satisfied with the amount of time it takes to post training they have completed (Mean = 7.06) and the accuracy of the training record (Mean = 7.12).

Both practitioners and trainers were asked about their level of satisfaction with the Training Registry. The lowest scores reflected less satisfaction with the scheduling and availability of professional development opportunities—i.e., the location (Mean=6.57), date of training (Mean=7.11), and topics (Mean=7.28). As well, practitioners voiced less satisfaction with their opportunity to provide feedback to the Training Registry staff as it relates to the availability of training by topic, location and date (Mean = 7.26). Trainers were least satisfied with the amount of information that is provided on-line about each training listed (Mean = 7.02). There were also less satisfied with the process for modifying training event information, once it is listed (Mean = 7.24). Trainers were most satisfied with how easy it is for participants to register for training events on-line (Mean = 8.34) and their own ability to view preliminary training rosters (Mean = 8.06), and their training evaluations (Mean = 8.04).

Trainers were asked about their level of satisfaction with the Trainer Registry. On the average, the trainers' higher levels of satisfaction were with respect to the identified trainer responsibilities, trainer levels, and the criteria for trainer verification. Within these areas, there were only a couple of the items assessed by trainers that had mean scores lower than

7.5, indicating less satisfaction and areas where improvements may be made. These items were with respect to submitting their renewals as required (Mean = 6.27), completing the required 15-hours of professional development annually (Mean = 7.36). Along these same lines, trainers were less satisfied with the application form and the application process. Four out of the 5 items asked about had mean scores less than 7: registry follow-up (Mean = 6.17); time to process an application (Mean = 6.25); ease of completion (Mean = 6.52); and amount of information requested (Mean = 7.11). Finally, it should be noted that when asked about the Trainer Registry processes for revoking/suspending trainers, appealing actions of the Registry; or filing complaints about trainers, there were a substantial portion of trainers that indicated “don’t know.” This is both a reflection of trainers’ lack of awareness of these policies and procedures, as well as the rarity in which they have ever been applied.

### **3.1.3 Practitioner Source of Information about Training Opportunities**

As another measure of practitioners’ awareness of Training Registry’s feature to search out professional development opportunities, they were asked about various sources of information that they might use. Four different sources were identified: director/supervisor, word of mouth, on-line Training Registry, and brochures/flyers from training organizations. Compared to the other sources, the on-line Registry listing does not fare as well as the other sources. As indicated by the practitioners, brochures/flyers from training organizations are the most frequently used source, they are considered to have more accurate information and more descriptive information to make an informed decision. When it comes to the ease of use, both the brochures/flyers along with the director/supervisor were viewed as easy to use.

## **3.2 SPECTRUM**

The SPECTRUM represents Arkansas’ career lattice for early childhood professionals. It details ten levels of career development categorized into basic, intermediate, and advanced. The ten levels are based on the training, education, experience in the field and professional activity. The SPECTRUM was designed to assist practitioners in their career

development and it provides an opportunity for practitioners to create their individualized plan for the training and education they want to complete.

### **3.2.1 Practitioner Awareness, Availability of Training, and Quality of the Career Lattice**

It is evident that practitioners have a relatively low level of awareness (with mean scores ranging between 5.39 to 6.26, where 1 = low and 10 = high) about what the SPECTRUM is, how it is structured with respect to the different levels and training programs at those levels, the requirements to be placed at a level, and the requirements to remain a member of the Practitioner Registry. Further, practitioners did not see the SPECTRUM as very useful (mean score of 6.17). The feature with the lowest level of awareness was with respect to the SPECTRUM's fundamental purpose, which is to show practitioners the career opportunities and/or career paths for early childhood educators (Mean = 5.39). The requirement to complete 15 hours of training each year was the feature for which they were most aware, although this awareness was not very high (Mean = 6.26).

Regarding the availability of SPECTRUM training to ECE practitioners throughout Arkansas, we were unable to address this research question using the Training Registry database due to a number of its limitations. However, there is some anecdotal evidence from practitioners' reported satisfaction with the scheduling and availability of professional development opportunities that they are least satisfied with the location, date, and topic of training events (the reported mean values are 6.57, 7.11, and 7.28 respectively). Further, across a number of questions, practitioners made more comments about their dissatisfaction with the availability of training in their local area than anything else.

With respect to the career lattice, as specified in the SPECTRUM, it is clear from the content analysis of AECPS curriculum materials that competencies C1-C3 (child growth and development; creating caring communities to support learning and development; and supporting learning and development through curriculum planning and implementation) and C10 (general knowledge) are adequately covered. However, competencies C4-C9 (assessment and evaluation; family; community; professionalism; program management;

and communication) are not. This is where there is a definite lack of high or mid occurrence reference to the specific competency area. These results are not atypical, if we were to examine other states and their delivery of ECE curriculum content. It does not necessarily mean something is wrong with the system. Rather, what appears as the needed areas in the early childhood field are being addressed by the training organizations.

### **3.3 Training Programs**

Over the years AECPPDS has developed a number of training programs at the basic and intermediate levels within their SPECTRUM that provide standardized curriculum materials, which can be used by trainers across the state.

#### **3.3.1 Rate of Completion and Retention in the Field**

Since the current Training and Practitioner Registry databases were not conducive to tracking enrollment in and completion of training programs, we did an analysis of a sample of 885 transcripts to shed light on these research questions. Based on our analysis, we estimated that 65% of the practitioners would be active<sup>4</sup>; less than one-third (31.3%) of them had training activity recorded every year since they first joined the Registry; only 21.9% of the practitioners whose transcripts we reviewed had completed the minimum of 15 hours of training every year since they first had training recorded in the Registry; and another 32.2% did at least complete the 15-hour training requirement some of the years.

Regarding the completion of SPECTRUM's training programs, 26.7% (236 practitioners) of the sample completed one or more of the specified SPECTRUM training programs and of those, there were 30 (approximately 13% of the 236) who went on to complete additional programs at the same or higher levels.

### **3.4 Providers of Professional Development Opportunities**

Professional development opportunities for Arkansas practitioners are scheduled and delivered through a number of contracted training organizations and trainers. These providers of PD develop their schedules for delivering PD and submit the details about

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<sup>4</sup> Practitioners were designate as active if they had training recorded on their transcript in 2005 and/or 2006.

their training to the AECPDS Training Registry. It is through this on-line registry, or other direct mailings from the training organizations/trainers that practitioners learn about the PD opportunities. With the on-line system, practitioners are able to register for a training, and the trainers are able to check their registration lists via the website.

### **3.4.1 Needs of Practitioners and Delivery of PD Opportunities**

Because of the limitations of the Training Registry database, we were unable to address the research questions pertaining to the delivery of training opportunities and how that matched with the needs of practitioners, based on the age groups served, level in SPECTRUM, and geographic location within Arkansas.

### **3.4.2 AECPDS System for Assessing Trainers and PD Opportunities**

It is evident from this score overview that AECPDS does have a method of assessing trainers in place. The AECPDS either fully or partially meets 80% of the 20 different standards and best practices. However, the AECPDS policies and practices as it relates to the assessment of training do not fare as well, in that only a few of the standards and best practices for assessing SPECTRUM training were met and none were met for the assessment of other registered training. But, as rightly indicated by some of the key informants, the responsibility of AECPDS is to verify trainers, not curriculum materials.

## **3.5 Practitioners**

Undoubtedly, practitioners and the children they serve are at the core of any ECE professional development system. These systems are established with the intent of improving the knowledge and skills of practitioners, which should have a positive impact on the outcomes for children under their care.

### **3.5.1 Factors Affecting Practitioner Selection of PD Opportunities**

In light of the data gathered through the Practitioner Survey, it is apparent that a culture of planning for professional development has not yet been established among the practitioners responding to this survey, in that they are most likely to use date and location of a training in their selection process.

### 3.5.2 Completion of Training Programs and Retention of Practitioners

The results of this analysis and what it says about completion of training programs funded by AECPPDS was previously discussed in Section 3.3.1.

## 3.6 Overall System

While each of the preceding research questions and the evidence used to answer the questions offer important findings with respect to AECPPDS, the ultimate purpose of a professional development system and any state quality initiatives are to improve the quality of early care and education for Arkansas' children.

### 3.6.1 Quality of Care Outcomes—ERS, CIS, and PAS Assessments

Our examination of the environment rating scale scores looked at each scale separately, as the individual items and subscales are not the same, although they are comparable. Figure 4 provides our initial comparison of the environment rating scale scores for programs at the different quality levels.<sup>5</sup> The individual items that make up the subscales and overall ERS scores are measured on a 7-point scale, with 1 indicating inadequate, 3 indicating minimal, 5 indicating good, and 7 indicating excellent quality as it relates to the environment within the early care and education classroom. We see significant differences between those programs at the minimum licensing level and those at the higher quality levels. All but one of the quality program scores (the ITERS-R score of 4.99 for QA programs), have a score of 5+, ranging between 5.08 and 5.79.

This has very important policy implications, in that it shows the state's investment in quality initiatives (i.e., the QA, ABC, and planned quality rating system (QRS) programs) is paying off. These higher ERS scores provide the evidence that the expected outcomes of

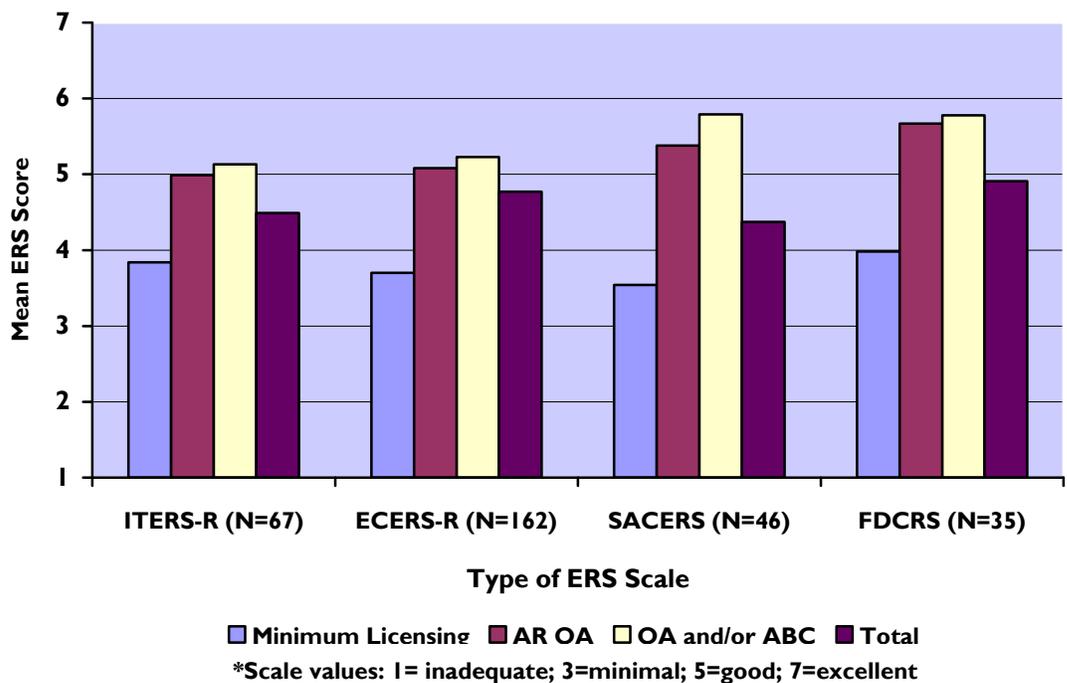
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<sup>5</sup> Although the original research question addressed differences between the quality of care for those staff/programs participating in AECPPDS vs. those not participating, our data collection and analysis also included comparisons among programs that are categorized in three different quality levels by the state: minimum licensing, Arkansas Quality Approval Accreditation (QA), and Arkansas Better Chance Program (ABC). As well, the initial research design included a question about change over time. However, our current analysis does not address this, since the data collected at this point is the baseline data, which will serve as the point of comparison as Arkansas continues to do periodic assessments over time.

higher quality classrooms, with improved care and education for children in these programs, is being realized.

Next, we compared the subscale scores for each of the environment rating scales to see if the same pattern of difference exists among programs categorized by quality level. As with the overall environment rating scale scores, a similar pattern exists when we examine all of the subscales. Consistently, the programs grouped by quality level do have significantly different scores for all of the subscales except in a few instances.

**Figure 4: Environment Rating Scale Scores by Quality Level**



For the programs in both the QA and/or ABC programs, at the low end, they had a subscale score of 3.36 (ITERS-R—Personal Care Routines) and at the high end, a subscale score of 6.60 (FDCRS—Adult Needs). Over the 54 possible subscale scores for both QA only and QA and/or ABC, there were only 4 subscale scores in the 3's and in all cases they were for Personal Care for ITERS-R (QA = 3.59; QA & ABC = 3.37) and ECERS-R (QA = 3.77; QA & ABC = 3.95).

As a second indicator of the quality of care in ECE classrooms, we looked at the teacher scores on the Caregiver Interaction Scale (CIS). In looking at these mean scores on a scale of 1 to 5, for the positive subscales (sensitivity, cognitive, and socio-emotional), scores that are 3.5 or higher can be interpreted as “good” to “exceptional” quality interaction with children. For the negative subscales (harshness, detachment, and permissiveness), the “desirable” scores are reversed, therefore scores that are below 2.5 represent “good” to “exceptional” quality interaction with children. The Caregiver Interaction Scale data does not have the same consistency across quality level groups as does the ERS data. Although the expected direction of scores exists for the most part (i.e., teachers in higher quality level programs are more likely to have CIS subscale scores that fall into the “good” range), what we don’t see is that the differences between the groups are statistically significant.

Regarding the administration of ECE programs, before we examine the PAS scores, there is some worthwhile data to present from the information gathered about the characteristics of the program and staff. Of particular importance in examining the staffing at centers is the number of full-time to part-time staff and staff turnover, as both of these are indicators often used to describe the outcomes of quality improvement efforts. What the data shows is that the higher quality centers (i.e., QA and ABC) have fewer part-time staff, in all three categories of staffing—administrative, teaching, and support. Regarding turnover and the quality level of the center, turnover rates range from 12.2% for administrative staff in the QA programs, to a high of around 40% for support staff in both minimum licensing and QA centers.

Next, we examined the PAS overall scores by quality level and type of center. these data are similar to other outcome measures that we have examined, in that the QA and ABC programs also have higher PAS scores. Regardless of this pattern, none of the PAS scores reach the “good” level of 5, indicating that program administration issues should be the focus of training and education( see Table 41).

Finally, we examined the PAS individual item scores by quality level. Figure 11 graphically depicts these data. In Figure 11 we see in all but one of the items (external communications) that the quality level programs have higher PAS scores. Most of the

time, the QA and/or ABC is higher than either the QA only or the minimum licensing programs. However, for the community outreach and program evaluation items the QA only programs have higher scores (the explanation for this is unclear). The one clear finding in these data is that the lowest scoring area for all quality levels and types of centers is with respect to staffing, particularly at the administrator level. In centers with minimum licensing, their highest PAS score (1.75) is for the lead teacher, and their lowest (1.58) is for the administrator. Even the QA and ABC programs have very low scores with respect to administrative staff—1.80 for QA only and 1.87 for QA and/or ABC. As well, for the other staff—teachers, lead teachers, and apprentice/aide—there are no scores above 3.42 for the QA and ABC programs. This finding might appear counterintuitive given the consistency in which the higher quality level programs have performed on the ERS, CIS, and PAS outcome measures. However, it is important to recognize the staffing criteria that PAS uses to assess staffing. It includes highest education level for all staff, specialized education in ECE for teachers and/or education in management for administrators, and teaching/management experience along with professional contributions for administrators.

**Table 41: Program Administration Scale Scores for Quality Level and Type of Center**

Program Quality Level <sup>1</sup>	Mean	Type of Center <sup>2</sup>	Mean
Minimum (N=53)	3.12	For-profit (N=23)	2.15
QA (N=56)	3.90	Private Nonprofit (N=40)	3.94
QA &/or ABC (N=60)	4.47	Public Nonprofit (N=59)	4.47
<b>Overall PAS Score</b>	<b>3.86</b>	College/Public School (N=48)	3.85

<sup>1</sup>Significant difference at  $p < 0.01$  level between minimum licensing requirement programs and QA programs. Significant difference at  $p < 0.001$  level between minimum licensing requirement programs and “QA and ABC or ABC only” programs. Significant difference at  $p < 0.05$  level between QA programs and “QA and ABC or ABC only” programs.

<sup>2</sup>Significant difference at  $p < 0.001$  level between for-profit programs and all other programs. Significant difference at  $p < 0.05$  level between private nonprofit programs and public nonprofit programs. Significant difference at  $p < 0.01$  level between public nonprofit programs and college/public school programs.

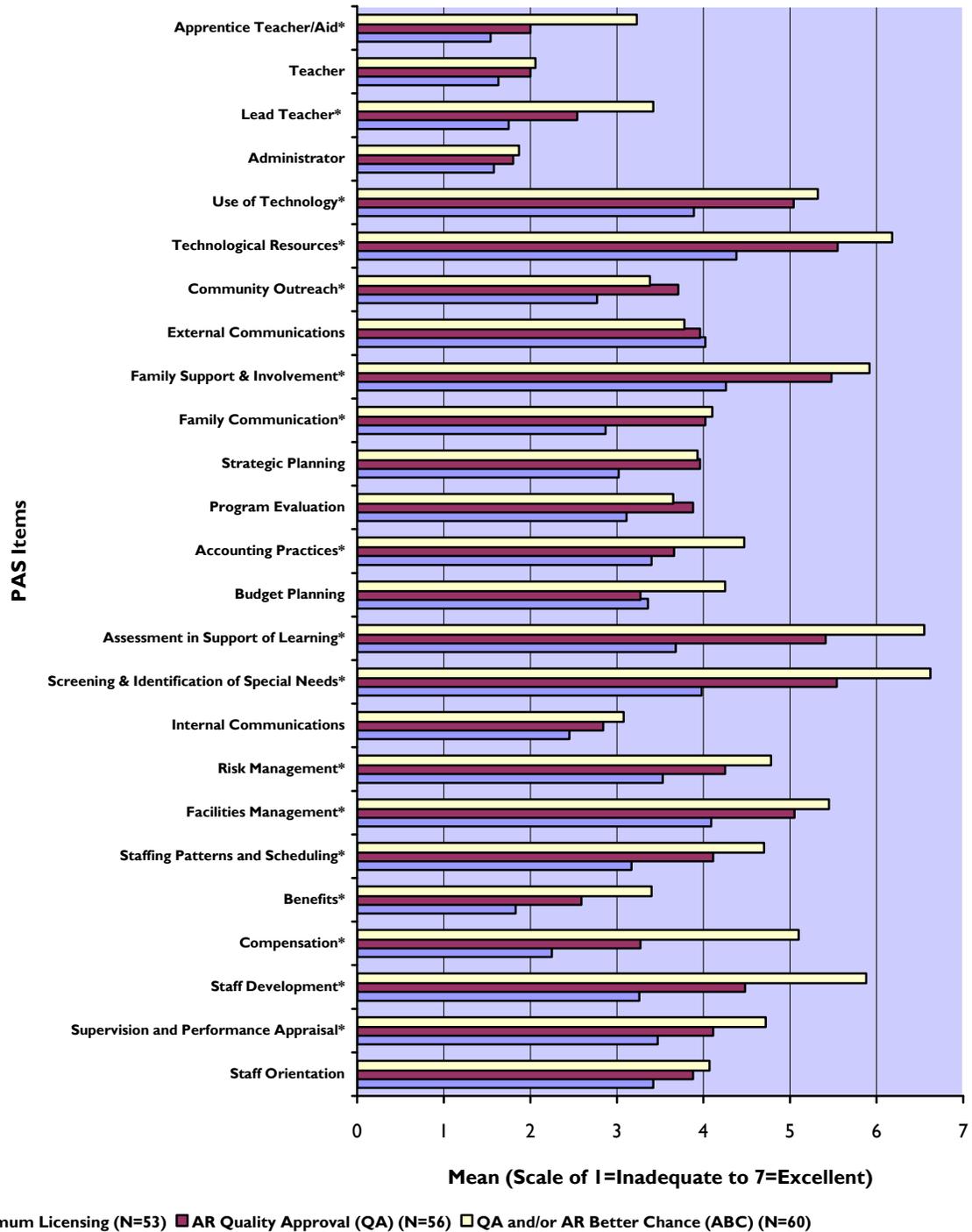
The areas where the centers do best are in the technology area and in family support and involvement. This is evident for all three quality level programs. The highest scores are

received by the QA and/or ABC programs for screening and identification for special needs (6.69) and assessment in support of learning (6.55).

Taking a closer look at our research question about family partnerships, there are two items in the PAS scale that were used to assess the quality of family partnerships. The first item is in the area of family communications, where the scores are still below the “good” rating of 5 (i.e., they range between 2.00 at the low end for the for-profit centers and a high of 4.71 for public nonprofits).

For the second item, family support and involvement item, the range of scores is much higher than for family communication. For this item, the range of scores is 3.04 for the for-profit centers and 6.17 for the public nonprofits. Furthermore, the majority of these scores on this item fall in the 5+ range, indicating that programs are doing a good job when it comes to family support and involvement. However, if communication with families is below a “good” rating, then the benefits of having sufficient family support and involvement cannot be realized.

Figure 11: Program Administration Scale (PAS) Scores by Quality Type



## 4.0 Implications for Policy and Practice

The results section of this final evaluation report is filled with a considerable amount of data and evidence that we used to address the set of research questions initially posed in the research design. While the initial timeline for gathering and completing the research took somewhat longer than initially planned, in the end the effort proved to be valuable in that there were a number of research tools designed, an internal capacity was built for future data collection and process improvement, and baseline data was gathered and analyzed—all of which will be of use to DCCECE and AECPPDS in future years.

Ultimately, the purpose of evaluation of is to learn about what’s working vs. what isn’t working. This enables program personnel to design and implement improvement efforts to achieve the intended program goals and impact. In this regard, “building for the future of Arkansas children” has become a focus for DCCECE, which is articulated in their 5-year strategic plan. This plan lays out a comprehensive, cross-system approach “for ensuring that all of [Arkansas’] youngest citizens and their families have the services and supports they need to develop to their full potential” (2004: p.2).<sup>6</sup>

The Arkansas Early Childhood Professional Development System (AECPPDS) is just one component of the efforts. However, the evaluation does touch on other efforts of DCCECE (e.g., the Arkansas Quality Approval (QA) Accreditation and the Arkansas Better Chance (ABC) program), since the teachers in the QA and ABC programs have certain requirements regarding professional development, which are being met by AECPPDS.

Given this context of our evaluation, we first want to emphasize “What is Working and What Are the Next Steps” in Arkansas with respect to their efforts to enhance the future of their children.

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<sup>6</sup> Arkansas Department of Human Services, Division of Child Care and Early Childhood Education (January 2004). *Building for the Future of Arkansas Children*. Little Rock, AR: Author.

## **4.1 What is Working and What Are the Next Steps?**

After our more than two-year process of being in Arkansas—collaborating with stakeholders to design the research, building their capacity to collect the outcome data, and engaging them in numerous phases of the research and our process improvement technical assistance—we have a substantial amount of data and observations that point to what is working in Arkansas and the next steps. These include:

### **4.1.1 Committed Network of Professionals**

A network of individuals exists with the commitment to make this system work, and to improve the outcomes for Arkansas’ children. This starts with the leadership at DHHS/DCCECE and flows down through the AECPDS Steering and Advisory Committees, along with other working committees, and the contracted organizations that provide many of the services offered under AECPDS. There is an existing governance structure in place that has been established to ensure that the “voices” of all stakeholders are being heard.

Although such a governance structure often makes the change process slow, it is an essential part of building legitimacy for the work that is being done in AECPDS and to obtain the “buy-in” from those groups that are both providing and receiving the professional development services. One way to alleviate some of the “slowness” of the decision-making and change process is to have good facilitation, whether it comes from internal or external resources.

### **4.1.2 Positive Outcomes Related to ERS, CIS, and PAS Assessments**

While the overall scores on the three outcome measures (ERS, CIS, and PAS) may not have fallen in the “good” range, what is very positive about the results revealed in the data analysis is that there were significant differences between those practitioners and/or programs based on their quality level, as indicated by whether a program was classified as meeting minimal licensing requirements, or the standards for being an Arkansas Quality Approval (QA) program, or an Arkansas Better Chance (ABC) program.

Furthermore, these differences were consistent across all of the measures and within almost all of the subscale/item measures on these assessment instruments. Also, when we examined the types of center (e.g., for-profit, private nonprofit, public nonprofit, and college/public school), we also found that the public nonprofits, for the most part, had significantly higher outcome measures on the ERS, CIS, and PAS assessments.

In light of these findings, it points to positive results that are apparent in the programs where the state has been extending a concerted effort to improve the programming (e.g., the ABC programs). Given this, it also points to the need for the state to continue in its quality improvement efforts (e.g., the introduction of a quality rating system for early care and education programs) and to use the data collected during this evaluation as a point of comparison for future years. As the state continues on this path, the goal should be to continually enhance the outcomes, moving the outcome scores into the “good to excellent” ranges.

Further, given this need, the state should rethink the focus of their training. As a national priority in ECE professional development systems, many states are moving away from the noncredit, in-service training as the most common method for practitioners to get their required professional development hours. As such, DCCECE should take steps to ensure that professional development opportunities are eligible for college credit.

#### **4.1.3 Core Set of Training Developed**

Although Arkansas has not focused their effort on college credit training, they have made efforts to develop frameworks for infant/toddler and pre-K learning, along with a set of core training programs that offer sequenced training, with greater depth than what is typically found in the “one-shot” workshops that often have been provided to child care providers.

Professional development along the lines of what Arkansas has developed will provide practitioners with greater knowledge and skill for caring and educating young children. And, as mentioned above, finding ways to elevate this training so that practitioners can earn college credit is recommended.

However, with respect to the content of the core training, as depicted in each of the outcome measures reported herein (i.e., ERS, CIS, and PAS), there are some content and skill areas where AECPPDS should focus their efforts, as the scores were relatively low in a number of areas. This points to a need to improve the knowledge and skill in these areas through the design and delivery of training and technical assistance that addresses these content areas.

As a footnote to our earlier findings, although this evaluation did not show that AECPPDS has a system in place to evaluate the quality of the curriculum materials (noting that it is not in their current scope of work to do so), it is apparent that DCCECE has mechanisms in place to have curriculum materials developed and the quality assessed prior to their promulgation through training organizations that provide the professional development opportunities throughout the state. Thus, the training programs that are part of the SPECTRUM represent the state's effort to have these curriculum materials developed, to have trainers trained on their delivery, and to ensure that there is a consistency in the "messages" that practitioners are receiving in key content areas.

#### **4.1.4 Registry Infrastructure in Place**

DCCECE has funded the development and operation of a set of registries (Practitioner, Training, and Trainer) that are web-based and are being moved to a MS SQL server, which will further enhance their capabilities. Having these registries in place, and accessible to practitioners and trainers via the Internet, provides tremendous opportunities to streamline a number of processes, such as: the dissemination of information about professional development opportunities via a calendar of training searchable by core content area, location, and date; the registration of practitioners for specific PD events; the tracking of practitioners' completion of their professional development; the search for trainers specialized in the core competency areas and located in different parts of the state; the trainers' viewing of training rosters prior to an event; and the trainers' access to summary evaluations after an event.

However, as will be discussed below in our recommendations for improvement, the full functionality of the registry databases, and the benefits of having a robust system of data

collection and reporting, has not and cannot be realized given the current structure of the databases and the quality of the data maintained in them.

#### **4.1.5 Career Lattice as Spelled out in the SPECTRUM**

The Steering Committee and other dedicated early care and education professionals have established a definable career lattice that spells out career paths for early childhood and school-age practitioners. This career lattice includes 10 different levels within the Basic, Intermediate, and Advanced categories. The SPECTRUM specifies where the different training programs developed and delivered through AECPPDS fit into this career lattice.

However, as evident from our interviews and surveys of practitioners and trainers (particularly given the low response rate to these surveys), awareness of this career lattice and a culture of career advancement, is still lacking in the system. There is confusion among practitioners with regard to how one gets “placed” at a certain level. Also, trainers do not have complete awareness of what AECPPDS offers them as trainers.

In addition to these awareness issues, the current communication vehicles (e.g., websites, printed material, training events, etc.) do not give clear and consistent messages about the SPECTRUM and AECPPDS. Given this, there is a need to design and implement concerted efforts to inform practitioners, trainers, and other stakeholders about this system. And, to continue to inform them, over and over again, as the only way messages are heard is if they are repeated numerous times, in different venues, and using different methods of communication.

#### **4.1.6 Cross-systems Efforts Initiated**

In the last several years, with DCCECE moving forward with its early care and education initiatives, they have incorporated the goals and activities of other departments and organizations, including the Department of Education, Head Start, Department of Health, the Arkansas Early Childhood Commission, Arkansas Department of Economic Development, Department of Special Education Services, Arkansas Advocates for

Children and Families, DHS Division of County Operations, and DHS Division of Children and Family Services.<sup>7</sup>

Recognizing that improving the services and supports for young children and their families will not come from a single agency, we emphasize how imperative it is that cross-systems work be pursued. This will help to alleviate the “silos” created as a result of organizational structure and funding streams, which often leads to disconnected, duplicative, and inefficient delivery of services.

However, even with the cross-systems efforts of DCCECE, there are still inefficiencies that exist with respect to the parallel professional development system (i.e., ECE Works) that is in place for school district employees. Hence it is those teachers in public school ABC classrooms that interface with AECPPDS and ECE Works, as they are required to be a member of the Practitioner Registry and it is through AECPPDS that they can complete their required training (e.g., Pre-K ELLA).

Given this, additional efforts need to be made to reduce the inefficiencies of these two systems working parallel to each other and making practitioners dissatisfied regarding the dual tracking systems.

#### **4.1.7 Established Capacity for Data Collection and Process Improvement Efforts**

An explicit goal of this evaluation was to build the capacity of DCCECE and Arkansas professionals to gather evaluative data in the future. As such, the research team developed research tools and sampling plans for DCCECE’s use, as well as took the steps to ensure there was a core of Arkansas fieldworkers that could gather the ERS, CIS, and PAS outcome data.

As well, the process improvement consultation provided to the Registry system (as well as that provided to DHHS—Family Support/Child Care Assistance service), offered participants with a methodology that they can use to improve other work processes. The

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<sup>7</sup> Page 2 in: Arkansas Department of Human Services, Division of Child Care and Early Childhood Education (January 2004). *Building for the Future of Arkansas Children*. Little Rock, AR: Author.

*Learning<sup>2</sup>C* methodology of the KSRC process improvement consultants has been designed to facilitate teams, enabling them to map their own work processes, analyze the processes for value-added vs. non-value-added work, identify the undesirable effects of their processes, and to design and implement their own process improvements.

All of these capacity building efforts have provided DCCECE with the ability to continue the growth and development of the professional development system for Arkansas early care and education professionals. Therefore, it is essential for a committed leadership within DHS/DCCECE to spearhead all future efforts and to determine any need for additional outside facilitation, consultation, or technical assistance so that the efforts will be supported and the momentum maintained for organizational learning and continuous quality improvement.

## **4.2 Recommendations**

In our discussion of next steps above, there were a number of items identified as areas needing improvement. Below, we provide more specifics with regard to a number of these improvement efforts.

### **4.2.1 Registries**

As mentioned above, the full potential of the registries cannot be achieved without some modifications to the data structure and the implementation of quality control measures to ensure the integrity of the data that is maintained within the registries. Specifically, we recommend, at a minimum, that these improvements be made:

- The policies and procedures of the Registry administrative office should ensure that the titles and/or acronyms of training programs as recorded in either the Training Registry or on a practitioner transcript correspond **exactly** to what they are within the SPECTRUM. Also, for the training programs that have similar names—such as the Arkansas Children’s Program Administrator Orientation, Certificate, and Credential—we recommend that a better way of distinguishing among them be used. For example, ACPA-I; ACPA-II, and ACPA-III would be used, which would indicate the sequential nature of these training programs.

Also, it appeared that practitioners were taking a number of similar training courses/workshops (e.g., ECERS training), which are not part of the SPECTRUM training programs. The state may want to think about how to incorporate into the SPECTRUM any of the training that is required for QA, ABC, and/or HIPPPY practitioners

- The policies and procedures of the Registry administrative office should include a standardized way of registering multi-session training across all training organizations/trainers, so that there is no confusion regarding whether a training event/module listed on the Training Registry is, or is not, part of a SPECTRUM training program. Specifically, we recommend this way to title individual training events/modules: use the name of training program (e.g., Pre-K ELLA), along with the specific module name that is part of the training program (e.g., Overview of Pre-K Literacy Ages 3 and 4). In addition to this, the specific number of training hours for that module, as specified in SPECTRUM material (e.g., 2 hours, for the Overview Module) needs to be consistently recorded. Therefore, if a specific module is to be 4 hours, then 3.5 hours should not be recorded on a practitioner's transcript.<sup>8</sup> To ensure that this standardized way of entering titles happens, the database should have drop-down menus with these titles. By using drop-down menus in data entry screens (wherever possible, not just on the titles of training), rather than allow typed-in entries, a lot of the quality issues with respect to the data maintained in the records will be eliminated.
- Once the standardized way of titling events/modules is established, the way in which these separate training events are listed on the Training Registry should reflect the sequential nature of the events and that they are all part of a more comprehensive training program. Hence, for the 60 hours for the Early Care and

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<sup>8</sup> If some of these anomalies occur because participants do not stay for the entire training or trainers do not provide the standard hours of training, then ACEPDS should have policies in place that discourage either of these from happening or have policies in place that allow some leeway regarding this, while still allowing the participant to earn the full hours for a training.

Education Specialist Certificate, a practitioner should be able to search the Training Registry using that title, to find out which of the modules that comprise that certificate are scheduled over the year (or half year, if that is the pattern for scheduling training events), along with when and where they are being offered. Having this capability will enable practitioners and their ECE programs do better professional development planning.

- The actual transcript record should include additional information, some of which is already included in the Practitioner Registry data base (e.g., degrees earned and major), and some of which is not included (e.g., the CDA and Child Care Apprenticeship Certificate). Furthermore, once a practitioner successfully completes a training program, then this needs to be recorded and printed out on their transcript. By having this data consistently entered into practitioner records, it can provide opportunities for the state to create and run routine reports that give a clearer picture of the ECE workforce with respect to their degrees, certificates, credentials, and endorsements earned. As it exists now, individual training organizations may have their own internal record of who completes an entire training program, but it is very difficult, if not impossible, to extract this information from the current Practitioner Registry database—and to have confidence that the data is accurate.
- The Training Registry data elements need to be modified to ensure that specific information is recorded, so that DCCECE and other stakeholders can have routine reports prepared that will give them an overall picture of the delivery of ECE professional development opportunities within the state. These reports will serve dual purposes. First, they will help DCCECE make informed decisions with respect to the what, where, when, and how regarding the delivery of professional development opportunities to the ECE workforce (i.e., the reports can help identify gaps that exist in the current delivery system, or imbalances in what is delivered to which group of practitioners or trainers). Second, the reports will serve as a monitoring tool for DCCECE to review the contractual

requirements of the different training organizations. These reports should include aggregate data for each training event (e.g., Pre-K Ella: Overview of Pre-K Literacy Ages 3 and 4) and each trainer/training organization.

The training event reports should, at a minimum, have details about: 1) how many events of each type were delivered (e.g., the number of training events within each of the competency areas, or the number of training events within each training program that they are a part of), 2) where the training events were delivered (probably at the county level), 3) how many participants completed the training, and what types of practitioners completed it (e.g., center, school-age, family) and/or type of participant with respect to age group served (i.e., infant/toddler, preschool, school-age, family). If a training event is for trainers, then some modification of the information recorded and reported on would need to be changed to reflect their differences.

The training organization reports should include what training events were delivered, how many were delivered, where they were delivered, how many participants completed the training, and the detail about the participants in terms of type and age-group served.

- Establish more incentives and/or requirements for becoming a member of the Practitioner Registry—although at this point in time, having it a “requirement” is the best way to get practitioners more involved. In light of this, there needs to be more within systems’ coordination—e.g., ensure that Licensing will accept only registered training for practitioners to complete their training requirements.
- The Practitioner and Trainer Registries need to reflect “active” practitioners and trainers for reporting purposes, rather than being reports giving the number of practitioners and trainers that at some point in time were entered into the databases. This means that there should be a method of archiving the “non-active” records (both physical copies and the electronic versions). We recommend that after two years of no activity, then a notification is sent to the

practitioner/trainer indicating that they will be moved into a “non-active” status. Again, if the state wants to have an accurate count of the number of practitioners and trainers that are in some way “involved” in AECPPDS, then this number should be those that are “active” as defined here. In addition, the Practitioner Registry needs to include a data element that indicates if a practitioner is a director of a center.

- DCCECE needs to provide direction to the Registry administrative office to streamline their operational processes for data collection and recording of information—e.g., 1) introducing a barcode system for training events; 2) having training organizations take responsibility for registering their own training (at least those under contract with the state to deliver AECPPDS training), for recording attendance, etc.; 3) allowing and/or encouraging practitioners to apply on-line and to update their basic information (but make sure the database has a way to track history of a person). While some of these avenues for streamlining may be acceptable, some not acceptable, they should all be considered, since the infrastructure already exists with the web-based registries. Further, some of the issues that repeatedly came up from practitioners and trainers can be addressed by allowing limited access to practitioners and trainers to do what is recommended above. Over time, once these responsibilities become institutionalized, the following issues will subside: 1) the information on the web-site is not current and/or it takes too long to have applications reviewed or completed training recorded; 2) training organizations have to keep separate records of their training, as they cannot count on the Registry data being current and accurate.
- Some additional data element issues and/or data transfer issues need to be addressed by the Registry administrative office, such as 1) create a different ID number for practitioners (e.g., person’s date of birth and last 5 digits of the Social Security number) and discontinue any use of a Social Security number, and 2) use the facility licensing number as a common variable within the Registry and Licensing databases (and ideally, applications to the Practitioner Registry should

ask for facility license number, so that any of the information about a practitioner’s place of employment can come from the information in the Licensing database).

- DCCECE, along with the Registry administrative office, need to review the other standards and best practices that are in the Registry Assessment Tool and create a plan to address any of the items that were partially or not met, which are applicable and seem feasible to implement, given the resources available. These standards and best practices establish a framework for change efforts, and they can provide structure to any strategic, long term plan, for making the improvements to the AECPPDS registries.

#### 4.2.2 SPECTRUM

As discussed above, there are some issues of awareness and confusion about what the SPECTRUM is, what it takes to be placed as a particular level, and how AECPPDS is a coordinated professional development system for early care and education practitioners. Given this, we recommend the following:

- Develop clearer guidelines and decision rules used to place someone at a level—e.g., does it require only 1 completed training program at a level to be placed there, or are the SPECTRUM training programs sequential, which might require some training be completed at a prior level before “moving up.” Also, examine the differentiation of levels in the SPECTRUM, the required training, and the experience for each level and establish policies and procedures for determining “equivalencies” for persons with training and experience from outside the state.
- Continue outreach to practitioners and trainers and the communication strategies for AECPPDS (and/or any new name given to the system), with the long-term goal of increasing the awareness of the professional development system, as well as increasing the understanding of the importance of the system. The focus should be on professionalism for the practitioners and trainers. Also, an emphasis should be placed on the importance of having statewide workforce

information, so that the state can better plan and deliver appropriate educational opportunities, along with other quality initiatives. In addition, it is essential that any information on websites be reviewed to ensure that the messages are consistent, that there is information on sites where it should be (e.g., the DCCECE website), and that there is a separate branding/identify for the system, indicating that it is funded through DCCECE. Doing this will help to eliminate the confusion between the professional development system (AECPPDS) and ASU Childhood Services, which is a training organization as well as the place where the registries are housed. Finally, although there may be resistance to the idea, the state should move away from the practice of individual training organizations (those receiving DCCECE funding) sending out their training literature under their own organizational auspices. This is counter productive to establishing the recognition of the statewide AECPPDS. This does not mean that the individual training organizations lose all recognition that they are delivering the training, as there can be methods of having additional logos added to any training literature, but the prominent name and logo needs to be that of AECPPDS (or whatever new name is established).

- Explore avenues to have practitioners take on more leadership and/or other professional roles, such as presentation at conferences, membership on committees and/or advisory groups, etc. This will further enhance the development of a culture of professionalism among early care and education practitioners, although this will be a long-term process and should not be expected to happen overnight.
- Use the data from the ERS, CIS, and PAS—particularly the subscale or item scores—to identify the content areas where additional training and education might be needed. There were a number of these areas identified in the results section, as such, it provides a link between this evaluation research and policy/practice.

### 4.2.3 Cross-systems Efforts

As indicated earlier, there is some cross-systems work that happens to further the goal of ensuring that all of Arkansas' children and families have the supports and services they need. However, there still exists an issue with regard to the dual professional development systems that serve some ECE practitioners—e.g., the Department of Education's ECE Works registry. At this point, we do not have specific recommendations as to how to address this issue. But it is an issue that needs to be on DCCECE's radar screen, with steps being taken to find avenues so that there are possibilities of data transfer between the two registries rather than having duplicate, parallel systems operating. Further, training that is delivered in one system should be accepted by the other, so that practitioners are not left questioning about what "counts" in each system.

### 4.2.4 Data Collection and Process Improvement

It is important for the state to reap the full benefits of their effort to evaluate AECPPDS. Undoubtedly, DCCECE made a significant investment when they contracted for this outside evaluation, along with the other process improvement consultation activities. But it is important to recognize that the process is not over once the evaluation report is completed and the stakeholders have been briefed. In this regard, we recommend that DCCECE do the following:

- Commit to an assessment of these evaluation findings and suggestions for improving AECPPDS, to make a determination as to what is doable, along with what improvements should be planned in the short-term vs. those that will be long-term strategic objectives.
- Commit to a cycle (probably 2-3 years, depending on resources) to collect the ERS, CIS, and PAS data, so that Arkansas can document the changes in quality over time, along with using the data to identify the areas where additional training and education might be needed. Although the internal capacity of Arkansas to collect these data has been established, there may be a continuing

need to identify and train new field workers, along with a need to obtain technical assistance from outside consultants to complete the data analysis and reporting parts of this process. Using outside researchers to complete the analysis and reporting will lend greater credibility to the findings.

- Continue to support the process improvement work, using the *Learning<sup>2</sup>C* methodology that was introduced to the Registry system (as well as the Child Care Assistance program), as it is a methodology, once internalized, that will provide insight into how a structure's undesirable effects can be reduced and/or eliminated and process improvements designed and implemented.

If these commitments are made by DCCECE, then they are to be commended, as it reflects their commitment to organizational learning and engaging in a process of continuous quality improvement. After all, if DCCECE is emphasizing the need and providing the resources for quality improvement in early care and education programs, then it must “walk the talk” when it comes to its own organizational structure and processes.

### 4.3 Conclusion

Our conclusion will be brief, as we have provided a considerable amount of data and commentary throughout the report. The final conclusion we reached as a result of our evaluation work is two-fold.

First, there are a number of strengths and positive outcomes to what Arkansas has in place to improve the quality of care for young children through its professional development system (AECPPDS) that serves the early care and education workforce.

Second, while Arkansas has a good start and there is evidence that they are moving in the right direction, there are a number of areas where improvements can be made. Some of which will be easy to design and implement, others that will be more difficult, consuming more time and resources.

However, if DCCECE and the AECPPDS stakeholders commit to making these improvements, then the early care and education professional development system in Arkansas can move to the level where it needs to be to have the fullest impact on positive outcomes for ECE professionals and children.

Appendix 1: Table 1: Research Design for the Evaluation of AEC PDS

Table 1: Research Design for Arkansas Early Childhood Professional Development System

Registry		Indicator/ Instrumentation	Methodology	Implications for Policy and Practice
Research Questions				
General Research Question(s):	Specific Research Question(s):			
To what extent do the AECPDS Registries meet the standards of model registries within the ECE field?	<ul style="list-style-type: none"> <li>▪ Does the AECPDS Practitioner Registry engage in “best practices” in their design and implementation of a practitioner registry structure and processes?</li> <li>▪ Does the AECPDS Trainer Registry engage in “best practices” in their design and implementation of a trainer registry structure and processes?</li> <li>▪ Does the AECPDS Training Registry engage in “best practices” in their design and implementation of a training registry structure and processes?</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Standards of model ECE registries</b> will be drawn from the National Registry Alliance’s set of best practices for Practitioner and Trainer Registries. Standards for model Training Registries will be developed based on literature review and/or information from NCCIC. These sets of standards will be used to develop an assessment tool, which will indicate any gaps between established best practices and the current practice of the AECPDS Registries.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Compare the AECPDS registries’ structures and processes (as determined via policy and procedure manuals and interviews with key informants) with a set of “best practices” for Practitioner, Trainer, and Training Registries.</li> <li>▪ Develop process flow maps for a select set of operational processes for the AECPDS registries (as determined via policy and procedure manuals and interviews with key informants), and analyze these processes to determine if they can be streamlined and made more effective.</li> </ul>	<ul style="list-style-type: none"> <li>▪ These data will help to identify any gaps between the standards for “best practice” and the current practices of the AECPDS registries. Knowing these gaps will provide guidance to the AECPDS Steering Committee with respect to improvements that need to be made.</li> <li>▪ The results of the process flow mapping will provide a level of detail to ensure that the operational processes are both streamlined and effective. Process flow mapping can lead to more balanced work flow processes and help to identify activities and costs where there is no “value added,” which ultimately provides opportunities for cost savings and more effective outcomes.</li> </ul>
What is the level of satisfaction of practitioners and trainers with the structure and processes of the AECPDS Registries?	<ul style="list-style-type: none"> <li>▪ How satisfied are practitioners with the specific structural components and operational procedures of the <i>Practitioner Registry</i>?</li> <li>▪ How satisfied are practitioners and trainers with the specific structural components and operational procedures with the <i>Training Registry</i>?</li> <li>▪ How satisfied are trainers with the specific structural components and operational procedures with the <i>Trainer Registry</i>?</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Level of satisfaction with AECPDS Registries</b> will be measured through a questionnaire for practitioners and trainers (i.e., delineate all the structural components and operational processes of the appropriate AECPDS Registry, using existing documents and key informant interviews to develop this questionnaire). Respondents will rate each element on a scale, such as “excellent, good, fair, poor” or “very satisfied....not at all satisfied.”</li> </ul>	<ul style="list-style-type: none"> <li>▪ Randomly select a sample of practitioners within the AECPDS Practitioner Registry (number to be determined based on level of detail wanted in the reporting for subgroups of practitioners, such as private vs. faith-based, profit vs. nonprofit, etc.) and trainers (entire population of AECPDS trainers) and administer a questionnaire to determine their level of satisfaction with the structural components and operational procedures for the AECPDS Registries.</li> </ul>	<ul style="list-style-type: none"> <li>▪ These “satisfaction” data from both practitioners and trainers will be helpful in identifying any need for quality improvements with respect to the structure and processes of the AECPDS Registries.</li> </ul>

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## Registry

Research Questions		Indicator/ Instrumentation	Methodology	Implications for Policy and Practice
General Research Question(s):	Specific Research Question(s):			
To what extent do practitioners use the Training Registry to find out about professional development opportunities?	<ul style="list-style-type: none"> <li>▪ How frequently do practitioners use the Training Registry to find out about professional development opportunities?</li> <li>▪ Do practitioners utilize other mechanisms to find out about training opportunities?</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Use of Training Registry</b> will be measured through a set of closed-ended questions for practitioners within the Practitioner Registry (questions to be included on the above mentioned Practitioner Questionnaire about 1) source of information used by practitioners to find out about professional development opportunities, 2) how frequently they use each source, and 3) their satisfaction with the source of information (e.g., ease of use, sufficient information, etc.)</li> <li>▪ <b>Use of Training Registry</b> will be measured for practitioners that are not in the Practitioner Registry through a set of focus group questions similar to those above.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Randomly select a sample of practitioners (same group as above) and ask a set of questions to determine how practitioners find out about professional development opportunities and why they use the methods that they do.</li> <li>▪ Conduct focus groups of practitioners not in the Practitioner Registry in 4 regions within Arkansas to solicit their input regarding professional development opportunities. Each group will include approximately 8-10 practitioners and some groups will be center-based, and other will be home-based practitioners; as well, groups will differ by urban vs. rural areas within Arkansas. The practitioners who are not in the Practitioner Registry will be identified with the help of Licensing Unit and then contacted with the invitation to participate in the focus group.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Data from both practitioners who currently use the AECPDS Training Registry vs. those who do not will provide insight into what works vs. what doesn't work with respect to making practitioners aware of professional development opportunities and making sure that the AECPDS structure and processes are "user friendly." These data will be helpful in making decisions about quality improvements within AECPDS Registries.</li> </ul>

SPECTRUM		Indicators/ Instrumentation	Methodology	Implications for Policy and Practice
Research Questions				
General Research Question(s):	Specific Research Question(s):			
Does the SPECTRUM provide a useful roadmap for practitioners to advance as an ECE professional?	<ul style="list-style-type: none"> <li>▪ To what extent are ECE practitioners aware of and how useful do they consider the SPECTRUM in planning for their professional growth and development?</li> <li>▪ To what extent are the professional development opportunities listed on the SPECTRUM available to ECE practitioners throughout Arkansas?</li> <li>▪ What is the quality of the career lattice as detailed in the SPECTRUM? Specifically: Are there training programs that are duplicates? Do the training programs, as a whole, provide comprehensive coverage of AECPPDS core competencies?</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Practitioner understanding of the SPECTRUM</b> will be measured through a questionnaire for practitioners (i.e., develop the specific closed-ended and/or open-ended question(s) to include on the above mentioned Practitioner Questionnaire about practitioner understanding of the SPECTRUM and their use of it.</li> <li>▪ <b>Availability of PD opportunities listed on the SPECTRUM</b> will be measured via existing documents/records from AECPPDS Training Registry (i.e., create reports from the Training Registry database (FY 04/05 and FY 05/06) that show the frequency of delivery of the various training programs and their location within the state).</li> <li>▪ <b>Quality of the career lattice specified in the SPECTRUM</b> will be measured by determining if any of the training programs identified are duplicates of one another and if the training programs provide comprehensive coverage of the AECPPDS core competencies.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Randomly select a sample of practitioners (same group as above) and ask a set of questions to determine the extent to which practitioners understand the SPECTRUM and if they use it to plan their professional growth and development.</li> <li>▪ Utilize existing Training Registry data over the past 2 years to determine both the frequency and location of Arkansas training programs made available and compare this to a set of benchmarks for both frequency and location.</li> <li>▪ Utilize the existing set of AECPPDS core competencies and create crosswalks with the learning objectives/outcomes for each of the training programs identified on the SPECTRUM.</li> </ul>	<ul style="list-style-type: none"> <li>▪ As with the other practitioner data, the analysis of practitioner understanding of the SPECTRUM can be used to determine if it provides a useful roadmap for practitioners and whether there is a need for quality improvements.</li> <li>▪ These data can be used to determine if the delivery of training (i.e., its frequency and location) is as expected or if it needs to be modified match with those expectations. (What is expected is not yet delineated by DCCECE, therefore the analysis will present the existing distribution of training, while the implications of this will be determined by the AECPPDS Steering Committee.)</li> <li>▪ The crosswalks will point to duplication of training programs and/or gaps in coverage of the AECPPDS core competencies, which will provide the necessary information to make modifications in the curriculum materials.</li> </ul>

## CDA/Apprenticeship & Other Training Programs

Research Questions		Indicators/ Instrumentation	Methodology	Implications for Policy and Practice
General Research Question(s):	Specific Research Question(s):			
<p>What difference have the AECPDS training programs made in the quality of ECE programs in the state?</p> <p>The list of training programs will be provided by DCCECE.</p>	<ul style="list-style-type: none"> <li>▪ What number and percentage of practitioners enrolled in these training programs complete their program (for CDAs, this includes earning the CDA credential)?</li> <li>▪ What number and percentage of practitioners enrolled in these training programs are still in the ECE field one year after their completion of the training program?</li> <li>▪ What number and percentage of practitioners enrolled in these training programs go on to subsequent training on the career lattice upon completion?</li> </ul>	<p>The <b>quality of ECE programs</b> in the state is indicated by:</p> <ul style="list-style-type: none"> <li>▪ The number and percentage of practitioners that completed the AECPDS training programs (e.g., the CDA and Apprenticeship programs and other training programs, as identified by the DCCECE).</li> <li>▪ The number and percentage of practitioners that were retained in the field one year after completion of one of the AECPDS training programs.</li> <li>▪ The number and percentage of practitioners that enrolled in subsequent training/education on the career lattice after completing one of the AECPDS training programs.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Utilize existing training program data to identify practitioners that enrolled in these programs over the two fiscal years (FY 04/05 and FY 05/06)*.</li> <li>▪ Utilize existing training program data to identify practitioners that completed these programs, stayed within the field, and/or went on to pursue subsequent training on the career lattice. Note: if these data are unavailable, then follow-up telephone calls to a sample of these practitioners will be made to determine completion, retention, and pursuit of subsequent training.</li> </ul> <p>* Depending on the point of data collection, this research may not include all of the data from FY 05/06.</p>	<ul style="list-style-type: none"> <li>▪ These "outcome" data for each of the AECPDS training programs provides a comparative analysis of the programs, and assesses if some programs are more "successful" than others in having practitioners complete the training, stay in the field, and move on to higher levels in the career lattice. If some programs are not as successful, then decisions can be made with respect to the "next steps" that AECPDS will want to take with these programs.</li> </ul>

## Providers of Professional Development Opportunities

Research Questions		Indicators/ Instrumentation	Methodology	Implications for Policy and Practice
General Research Question(s):	Specific Research Question(s):			
Do the professional development opportunities offered through AECPDS training providers match with the PD needs of practitioners?	<ul style="list-style-type: none"> <li>▪ To what extent do the AECPDS professional development opportunities offered represent an estimated need for training with respect to the proportion of practitioners serving particular age groups?</li> <li>▪ To what extent do the AECPDS professional development opportunities offered represent an estimated need for training with respect to the proportion of practitioners at different levels within the SPECTRUM?</li> <li>▪ To what extent do the AECPDS professional development opportunities offered represent an estimated need for training with respect to the proportion of practitioners within different delivery service areas within Arkansas?</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Characteristics of the PD opportunities</b> include a) focus of content related to age of child; b) level of content per the SPECTRUM levels; c) location per the Arkansas eight service delivery areas.</li> <li>▪ Indicators for <b>PD needs of providers</b> include: a) PD content appropriate for the age of children served; b) PD content appropriate for the level of a practitioner within the SPECTRUM; and c) PD content delivered in the appropriate locations throughout Arkansas, based on the number of practitioners within an area with characteristics a) and b) above</li> </ul>	<ul style="list-style-type: none"> <li>▪ Utilize existing Training Registry data over FY 04/05 and FY 05/06 to determine a number of the characteristics of the PD opportunities offered (e.g., general vs. specific to age of child; level per the SPECTRUM; location within service delivery areas).</li> <li>▪ Utilize existing licensing or Practitioner Registry data to determine a number of characteristics of practitioners (e.g., number serving particular age groups, number at each level within the SPECTRUM, and number within delivery service areas within Arkansas).</li> <li>▪ Compare these two sets of data to determine if the delivery of PD opportunities matches proportionately with the characteristics of the practitioners.</li> </ul>	<ul style="list-style-type: none"> <li>▪ A comparison of these two reports can provide information about how well the PD offered matches with the needs of practitioners. If it doesn't match, then these data will provide direction with respect to the changes that need to be made.</li> </ul>
How effective is the system that evaluates the quality of training/professional development opportunities offered?	<ul style="list-style-type: none"> <li>▪ Is there a system for measuring "practitioner satisfaction" with training/PD opportunities in place? And if so, how does this system operate and how are the results of the satisfaction data use?</li> <li>▪ Is there a system of "peer review" of training/PD opportunities in place, and if so, how does this system operate and how are the results used?</li> </ul>	<ul style="list-style-type: none"> <li>▪ Indicators of the <b>Effectiveness of an evaluation system for assessing training quality</b> will be drawn from a literature review and an assessment tool developed to compare what exists with what represents standards for an effective trainer evaluation system.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Utilize existing documents and records from the providers of PD opportunities and key informant interviews to determine what systems exist for evaluating the quality of training/PD offered.</li> <li>▪ Compare the systems that exist with a set of standards for quality training evaluation systems (developed via literature review on training evaluation) to determine the gap between what exists vs. what meets the standards.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Information about the gaps that exist between the existing training/PD evaluation system and the model standards for such a system, will provide a set of guidelines for what needs to be established as a method for evaluating training quality.</li> </ul>

## Practitioners

Research Questions		Indicators/ Instrumentation	Methodology	Implications for Policy and Practice
General Research Question(s):	Specific Research Question(s):			
What factors influence the choices that practitioners make when selecting PD offerings?	<ul style="list-style-type: none"> <li>▪ How important do practitioners consider the following factors when they select PD opportunities?               <ol style="list-style-type: none"> <li>1. Specific core competency area</li> <li>2. Variety of core competency areas</li> <li>3. Recommendation of supervisor</li> <li>4. Date it is scheduled</li> <li>5. Location of training</li> <li>6. Trainer/Training organization</li> <li>7. Cost</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Importance of Factors Influencing PD Selection</b> will be measured through a practitioner questionnaire that identifies a number of factors that might influence practitioner selection of PD opportunities, which they rate on a scale of 1= not at all important to 5 = very important.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Randomly select a sample of practitioners (same group as above) and ask the questions about the factors that influence their choice of PD opportunities.</li> </ul>	<ul style="list-style-type: none"> <li>▪ These data will provide details on how practitioners make decisions about professional development opportunities. If decisions are not made in such a way that fosters their growth and development, then there will be a recognized need for identifying methods to make practitioners more aware of the reasons for professional development and how to better make decisions for themselves with respect to the PD</li> </ul>
<p>What are the outcomes for practitioners who participate in AECPDS? (Note: the questions about CDA/Apprenticeship and other training programs, above, overlap with this question about outcomes for practitioners)</p>	<ul style="list-style-type: none"> <li>▪ What is the completion rate for training programs funded by AECPDS</li> <li>▪ What is the retention rate for practitioners that complete AECPDS-funded training programs?</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Completion Rate</b> is indicated by the number and percentage of practitioners that complete the AECPDS training programs (e.g., the CDA and Apprenticeship programs, the Child Care Orientation training, etc.)..</li> <li>▪ <b>Retention Rate</b> is indicated by the number and percentage of practitioners that were retained in the field one year after completion of one of the AECPDS training programs.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Utilize existing training program data to identify practitioners that enrolled in these programs over the past two fiscal years (FY 04/05 and FY 05/06)*.</li> <li>▪ Utilize existing training program data to identify practitioners that completed these programs and stayed within the field, Note: if these data are unavailable, then follow-up telephone calls to a sample of these practitioners will be made to determine completion and retention rates.</li> </ul> <p>*Depending on the point of data collection, this research may not include all of the data from FY 05/06.</p>	<ul style="list-style-type: none"> <li>▪ See Implications for Policy and Practice as specified for the CDA/Apprenticeship and Other AECPDS Training Programs.</li> </ul>

<b>Directors/Owners</b>				
<b>Research Questions</b>		<b>Indicators/ Instrumentation</b>	<b>Methodology</b>	<b>Implications for Policy and Practice</b>
<b>General Research Question(s):</b>	<b>Specific Research Question(s):</b>			
What role do Directors/Owners play in AECPDS?	<ul style="list-style-type: none"> <li>▪ What is the rate of participation of Directors/Owners within the AECPDS Registry?</li> <li>▪ If Directors are in the AECPDS Registry, do their staff complete more training than those staff whose Directors are not in the Registry?</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Director Participation in Registry</b> is indicated by the number and percentage of Practitioner Registry members that are Directors/Owners.</li> <li>▪ <b>Director Influence on Staff PD</b> is indicated by the average hours of training completed (within a year) by staff within a center where the Director is in the Practitioner Registry.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Utilize the Practitioner Registry data to run reports that will show the number of Directors/Owners in the Registry for each F"Y 03/04 and 04/05; and the average number of training hours of staff within centers where the Director is in the Registry vs where the Director is not in the Registry.*</li> </ul> <p>*Based on discussion, Sept 2005, the training data for staff with Directors in the Registry vs. staff without Directors in the Registry is not currently available through the Registry database. Therefore this question cannot be answered at this point in time, but recommendations will be made regarding how to collect these data in the future.</p>	<ul style="list-style-type: none"> <li>▪ If there is clear evidence that practitioners complete more training when their Director/Owner is within the Practitioner Registry, then it may point to the need to focus outreach and recruitment efforts on Directors/Owners.</li> </ul>

## Overall System

Research Questions		Indicator/ Instrumentation	Methodology	Implications for Policy and Practice
General Research Question(s):	Specific Research Question(s):			
Has AECPPDS made a difference in the way practitioners work with children and families?	<ul style="list-style-type: none"> <li>▪ What is the quality of care provided in ECE classrooms? Specifically: Is there a difference in the quality of care between ECE programs participating in AECPPDS vs. those that do not participate? How does the quality of care change over time?</li> <li>▪ What is the quality of ECE program administration? Specifically: Is there a difference in the program administration between ECE programs participating in AECPPDS vs. those who do not? How does the program administration change over time?</li> <li>▪ What is the quality of family partnerships provided in ECE programs? Specifically: Is there a difference in the quality of family partnerships between programs participating in AECPPDS vs. those that do not? How do family partnerships change over time?</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Classroom quality of care:</b> Environment Rating Scales (excluding the program structure and parent/staff subscales) (Harms, Clifford, &amp; Cryer, 1998) and the Arnett Scale (1989) that measures child-caregiver interaction.</li> <li>▪ <b>Quality of program administration:</b> Program Administration Scale (Talan and Jorde-Bloom, 2005)</li> <li>▪ <b>Family partnerships:</b> Family communication and family support and involvement: subscales within the Program Administration Scale</li> </ul>	<ul style="list-style-type: none"> <li>▪ Randomly select two groups of ECE programs (sample size to be determined based on the desire to have information on different types of programs and/or different ages of children being served); one sample would be from the group of licensed programs participating in AECPPDS and the other from those not participating.</li> <li>▪ Conduct on-site data collection from these programs on the following: <ul style="list-style-type: none"> <li>⇒ Program administration and family communication data from the overall program</li> <li>⇒ Classroom observation data from one or more classrooms (randomly selected) depending on how many age groups will be reported on</li> </ul> </li> <li>▪ For answering the questions about change over time, AECPPDS should set up a cycle (perhaps every 2-3 years) where another randomly selected group of ECE programs (both those participating vs. those not participating in AECPPDS) have the same data gathered, which can then be compared to the baseline data gathered in 2005-2006.</li> </ul>	<ul style="list-style-type: none"> <li>▪ These data, gathered over time, will enable AECPPDS and/or other stakeholders to see if there is a "return on investment" i.e., have the dollars spent on the professional development system resulted in expected outcomes regarding the quality of care for children and the quality of interaction/communication with families. If there doesn't appear to be a "return on investment," then steps will need to be taken to determine why there isn't and what steps need to be taken to ensure that the outcomes are achieved.</li> </ul>