TECPDS

Texas Early Childhood Professional Development System

2021

State of the Early Childhood Education Workforce Report

State of the Texas Early Childhood Education Workforce Report 2021

Authors:
Vibhuti Bhavsar
April Crawford, Ph.D.
Natalie Flores
Tracy Anne Jones, Ed.D.
Jennifer Lindley
Gloria Yeomans-Maldonado, Ph.D.

Suggested Citation:
Children's Learning Institute at The University of Texas Health Science Center at Houston. (2021). Texas Early Childhood Professional Development System: State of the Texas Early Childhood Education Workforce 2021. Houston, TX. Retrieved from https://public.tecpds.org/about-us/state-of-the-ece-workforce-report/.

Texas Early Childhood Professional Development System
Children's Learning Institute at The University of Texas Health Science Center at Houston
7000 Fannin Street, Suite 2300
Houston, Texas 77030
https://tecpds.org

Acknowledgments
Thank you to the faculty and staff of the Children's Learning Institute for their support and guidance to the State of the Texas Early Childhood Workforce 2021, especially the following staff for their contributions: LaShonda Brown-Hollins, JT O'Neal, Luis Rodriguez, and Jasmine Wiggins.

Special thanks to the Texas Workforce Commission's Child Care and Early Learning Division program leadership and staff for their ongoing support for TECPDS and review of this report.

This publication is a product of the Children's Learning Institute at The University of Texas Health Science Center at Houston. Opinions presented in this report are those of the authors.

CHILDREN'S LEARNING INSTITUTE™
Changing the narrative of children's lives.

UTHealth®
The University of Texas
Health Science Center at Houston

Texas Early Childhood
Professional Development System

Table of Contents

Terms and Abbreviations

- **Administrator**: an ECE professional who is responsible for planning, managing, implementing, and evaluating early childhood programs; common job titles include center director, site manager, school administrator, program manager, coordinator, and principal
- **Board**: local workforce development board, regional office of TWC charged with planning and oversight responsibilities for workforce programs and services in their area including management of TRS and CCS
- **CCDF**: Child Care and Development Fund, states use CCDF to provide financial assistance to low-income families to access child care so they can work or attend a job training or educational program
- **CCS**: Child Care Services, program managed by TWC that assists eligible families with the cost of child care ("subsidies")
- **CCR**: Child Care Regulation, division within Texas Health and Human Services that regulates child care across the state
- **CLI**: Children's Learning Institute at UTHealth, the State Center for Early Childhood Development
- **Core Competencies**: specific, basic concepts, skills, and abilities that early childhood professionals should learn, understand, and be able to demonstrate
- **ECE**: early childhood education and care
- **Practitioner**: an ECE professional, regardless of setting, who provides direct instruction and/or care to young children; common job titles for practitioners include: teacher, assistant teacher, provider, and caregiver
- **Professional**: anyone who works in the ECE field, including those who lead programs, educate young children in the classroom, or provide training and mentoring to others
- **Program**: early learning school, site, program, or provider that provides early childhood education and care
- **QRIS**: quality rating and improvement system
- **Record verification**: review and verification of the authenticity of records or artifacts related to an ECE professional's career, including professional development certificates, diplomas, etc.
- **Specialist**: an ECE professional who supports practitioners and administrators in quality improvement and professional development efforts; common job titles for specialists include: coordinator, mentor, coach, school specialist, and trainer
- **QI**: quality improvement, intentional activities designed to continually advance the quality of early childhood education, children's early learning experiences, and/or professional competency to improve child outcomes
- **TECPDS**: Texas Early Childhood Professional Development System
- **Texas Workforce Registry**: an online system for ECE professionals to plan career advancement and track artifacts that represent their career, including education, credentials, professional development, and employment history; part of TECPDS
- **Texas Trainer Registry**: an online system for ECE professionals who provide professional development to others, including trainer approval, training approval, and training certificate generation; part of TECPDS
- **TRS**: Texas Rising Star, Texas' voluntary QRIS for child care programs participating in CCS
- **TSR**: Texas School Ready, one of Texas' two voluntary, statewide quality improvement programs
- **TWC**: Texas Workforce Commission, the state agency that manages CCDF funding in Texas and provides ongoing support for TECPDS

Executive Summary

Policies focused on meeting the needs of the ECE workforce have the potential to promote transformative change in children's lives (Iruka, Oliva-Olson, & Garcia, 2021). As such, addressing childhood inequities also means addressing workforce inequities that exist across the state. Historically, the work of the early childhood education and care (ECE) workforce has been under-recognized, leading to low pay and high turnover, ultimately impacting our youngest learners. However, in the early 1990's the concept of an ECE workforce registry emerged and with it the ability to account for and provide recognition of the dedicated, hard-working ECE professionals in the field (National Center on Early Childhood Development, Teaching, and Learning, 2018). There are approximately 40 state registries throughout the U.S., and one of the largest is here in Texas. The Texas Early Childhood Professional Development System (TECPDS) is housed at the Children's Learning Institute (CLI) at The University of Texas Health Science Center at Houston (UTHealth), one of several statewide programs managed to support the early childhood system, professionals, and families across the state, as part of CLI's role as the Texas State Center for Early Childhood Development.

TECPDS launched in 2013, building upon two decades focused on improving ECE quality by supporting the workforce. TECPDS has two major online components: the Texas Workforce Registry and the Texas Trainer Registry. The system has continued to expand and enhance professional development opportunities, resources, and tools for early childhood professionals across the state. Currently, TECPDS serves over 50,000 users, enhancing the continual advancement of their career pathways. TECPDS features resources for early childhood professionals at all levels, including many career advancement opportunities for specialists and trainers who deliver professional development across the state.

At this time, TECPDS is the only platform with the capability to provide detailed information about the Texas ECE workforce across settings (child care, public school pre-K, and Head Start). The purpose of this report is to provide rich, descriptive information about Texas' ECE workforce by leveraging aggregate data uploaded into TECPDS. The current report focuses on the most complete datasets in TECPDS: high-level workforce descriptions and types of professional development activities; future reports will expand on these analyses as the system continues to grow. This workforce data provides stakeholders with the accurate information required to make data-informed decisions which ultimately expand and advance workforce quality, positively impacting outcomes for our youngest learners and school communities.

Key Findings

- TECPDS and the Texas Workforce Registry have experienced rapid utilization since inception
  - As of August 2021, there are 3,819 administrator accounts and 49,655 practitioner accounts
  - Administrator accounts have increased by 74% since August 2019
  - Practitioners accounts have increased 251% since August 2019
- Data suggests that an increase in targeted local workforce development board (Board) engagement can significantly increase participation in TECPDS and more robust data input
  - Practitioners had more missing data than administrators, as TECPDS use is only mandated for some program administrators at this time
  - Missing demographic data is lower proportionally for those users reporting training data than for the overall users suggesting that more engaged users (i.e., those who upload training material) tend to complete non-required demographic fields
  - Gulf Coast and Tarrant County have the largest amount of data due to large scale projects and partnerships that integrate TECPDS implementation in those Board areas

  - Impacts can also be observed in user engagement in those Board areas that were early adopters of the system
- From 2018-2020, data showed a decrease in the number of training hours for administrators, while practitioner data showed an increase
  - The number of hours entered may reflect the impact of COVID-19, specifically closed programs and/or loss of children enrolled in classrooms, fewer classroom staff, or new health and safety requirements may take time away from training to focus on the implementation of COVID-19 related requirements
  - During 2020, TECPDS data, local Boards, and reports from other state registries saw a decline in training by administrators and an increase in practitioners
- Descriptively, differences were observed between practitioners and administrators reporting race/ethnicity
  - Most practitioners were Hispanic (20.1%) followed by Caucasian (13.1%), African American (10.8%), and Multiracial (7.2%)
  - Most administrators were Caucasian (22.7%), followed by Hispanic (16.8%) and African American (15.5%)
- Data suggests an increased focus by state programs may impact ECE professionals' training

Recommendations

1. Future efforts to increase the reporting of basic user demographic characteristics, including making some fields mandatory, will allow us to shed light on the characteristics of users that more actively engage in TECPDS for training data and other types of professional development.
2. Manual data entry by ECE professionals can be inaccurate, hence the importance of verifying these records for authenticity and accuracy to inform decision-making. Expanding record verification (existing on TECPDS) to all ECE professionals will provide more accurate data for stakeholders.
3. Continue enhancing TECPDS through technology updates that improve user experience, streamline data entry, and improve reporting capability.
4. Focus communications plans to ensure statewide ECE workforce is informed of and participating in TECPDS. This ensures all ECE staff members from diverse settings can equitably access professional learning opportunities.
5. Connect current data equity discussions among stakeholders to practice in using TECPDS data for a variety of accountability purposes.

Challenges faced by ECE professionals in Texas are as varied and complex as the state itself. The impacts of COVID-19 that have been felt across the state highlight the need to support our ECE workforce. Early childhood research clearly demonstrates how important qualified educators and caregivers are to a child's growth and development in their early years, as well as to their future success in school. The children of Texas need a well-qualified and well-compensated workforce so that they may experience the full range of benefits that can be realized through high-quality early childhood education. TECPDS data will continue to grow in the future and become a valuable source of reporting data for local, state, and national use. It is our hope that this report will be a valuable resource for Texas leaders and policymakers to inform conversations that will further support and advance the early childhood education workforce in Texas.

Introduction

Education systems across the country are building momentum to increase quality education and care for children ages 5 and under. From local to federal funds, initiatives such as Child Care and Development Fund (CCDF) grants, quality rating and improvement systems (QRIS), and Preschool Development Grants have made significant gains in improving outcomes for our youngest learners (Ackerman, 2016). While focus shifted toward improving key staples of teaching and learning such as curricula, assessments, and classroom environments, little focus has been given to the collection of critical workforce data. As explored throughout this report, workforce data is essential to improving the experiences of our ECE practitioners, children, families, and school communities.

Workforce data can be defined as the "core elements" collected at the individual, organizational, or event level. These core elements are generally comprised of an ECE professional's:

- Role information, such as classroom teacher, administrator, trainer, specialist, etc.
- Employment information, consisting of wage, hours worked, reasons for departure, etc.
- Professional credential/licensing information, such as credential name and type, expiration date, issuing entity, etc.

These critical core elements provide great value to all stakeholders – from educators to policymakers - because they provide a snapshot of current ECE workforce status and quality.

Quality early childhood education and care begins with a highly qualified ECE workforce (Texas Early Learning Council, 2012a). It is well known that participation in high quality ECE experiences improve long-term outcomes for children. Those who attend high quality ECE programs are more likely to become high school graduates, attend college, and attain assets such as homes and business (Allvin, 2017). More importantly, they are less likely to experience incarceration which is proof that investment in high quality ECE programs equal greater gains – from neurological to economic advantages. However, it is difficult to measure the quality of ECE programs without essential workforce data that tracks key elements such as retention, wage, education level, and certification among ECE professionals.

Our youngest children depend on the skills and knowledge of the workforce to guide them to their fullest potential. Therefore, it is important to understand the term "high quality" is not stagnant – in fact, it is ever evolving. What is considered to be a "high quality workforce" must continuously progress to align with modernized recommendations grounded in the latest research. In other words, ECE professionals are expected to move beyond the "best practices" of the past and stay informed of current, equity driven research and theories to improve outcomes for all children. This is why it is imperative that states utilize professional learning systems such as TECPDS to account for professional learning, advancement toward core knowledge (core competencies), and credentials and certifications that ECE staff acquire throughout their careers. Without this critical workforce data, policymakers are unable to make informed decisions based on the needs of the ECE workforce, eventually impacting professionals, children, and school communities.

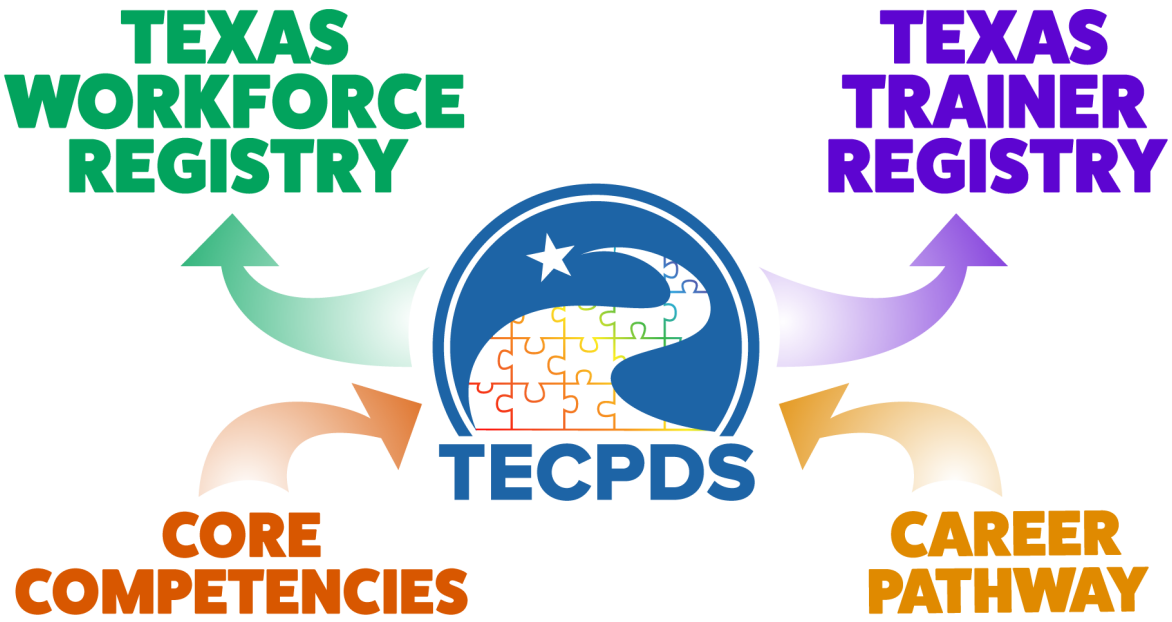
The expectations of the ECE workforce are as unique as the children they serve. ECE professionals are not only expected to hold breadth and depth of child development knowledge, but they must also attain topic-specific expertise respective to the age groups they work closely with. For example, when a seasoned teacher with years of experience serving 4-year-old children in a public pre-K classroom transfers to serving a varied age group in a family child care setting, they must have timely access to

quality professional learning services that can support their transition to working with different age groups across settings. Additionally, this teacher will need to account for the learning credentials, such as certifications and professional learning hours, that are required to serve specific age groups in each ECE setting. Because most practitioners (such as the teacher mentioned in the example above) do not utilize a professional learning system to track their credentials, the need for TECPDS becomes even greater – not only for teachers, but for all professionals including school leaders and specialists – to account for the workforce quality in their settings. TECPDS is equipped to not only track this credentialing data, but also provide practitioners with the professional learning they need to succeed through the state's Core Competencies framework. TECPDS is a multi-faceted solution that meets the field's professional learning needs as well as a system to track necessary workforce data of those serving our youngest learners.

The TEXAS CORE COMPETENCIES are the foundation of TECPDS: providing guidance to professionals seeking training and for specialists developing training topics to support the workforce.

As discussed, ECE workforce data plays a critical role in improving the outcomes of our youngest learners and school communities. Comprehensive workforce data, such as role information and professional learning certificates, provide stakeholders with the accurate information required to make data-based decisions which ultimately expand and advance workforce quality. However, as explored in the next section, this critical workforce data exists across a fragmented patchwork of local and large agency-based data collection systems. Moreover, data collected by such agencies has been and continues to be limited in its depth and breadth of information with which it can provide stakeholders striving to make progress for the field.

Figure 1. TECPDS Overview



ECE Registries: How We Learn About the Workforce

What is an early childhood registry? According to the National Workforce Registry Alliance (NWRA), an early childhood workforce registry:

- promotes individual professional growth and development
- captures data about early childhood and out of school time practitioners in a variety of roles and settings
- is based on state career-level systems that provide a framework for professional development
- recognizes and honors professional achievements of the early childhood and school age workforce
- informs policymakers and partners (National Workforce Registry Alliance, n.d)

Nationally, states create ECE registries that allow for a description of their ECE workforce, with at least 40 registries active across the country. TECPDS serves as Texas' ECE registry, while providing additional programming to support career advancement and approval for the state's trainers and training (see Figure 1). TECPDS strives to meet key data elements recommended for all states to capture for the purpose of better understanding the American ECE workforce, including certification, ongoing professional learning, wage, and retention (National Workforce Registry Alliance, 2013). The platform provides the unique ability to capture data that other state agencies do not, including contextual factors that are unique to Texas and data reporting across the ECE field.

Workforce Data in Texas' Mixed Delivery ECE System

In Texas, ECE workforce data exists within TECPDS and several other data systems hosted by Texas Education Agency (TEA), Texas Workforce Commission (TWC), and Head Start that collect specific information in native databases related to their scope and programming; this data is specific to the populations they serve or support and is only representative of a portion of the field. While beneficial, these systems only provide small, disjointed pieces of data that prevent stakeholders from recognizing the nuanced scope of issues impacting the workforce. Although the state has advanced efforts to design and build comprehensive ECE databases, TECPDS is the only platform with the capability to provide detailed information about the ECE workforce across settings (child care, public school pre-K, and Head Start) at this time.

The nature of using mixed data collection systems has implications grounded in three main components: variation, quality of data, and coordination. Policymakers and educational leaders must be able to make impactful, data-informed decisions based on clear workforce information that is fully representative of the field's needs. These may be misidentified or misrepresented if policy-based decisions are made only using a sliver of the data that is required to make informed decisions.

Understanding the implications of variation in quality of services, workforce preparedness, and outcomes is key to helping us understand the extent to which children receive equitable support across all programs. TECPDS offers opportunities to move beyond this patchwork of data that has created a limited reflection of the current state of the ECE workforce; it has the ability to provide meaningful change through consistent, verifiable, and coordinated data collection and reporting for confident decision making.

Voluntary Participation in Texas' Workforce Registry

TECPDS continues to grow rapidly, with more than 50,000 registered accounts and ECE professionals attached to almost 4,000 early learning programs on the platform. Currently, about 40% of these programs are certified as Texas Rising Star, overrepresented in TECPDS given that they represented about 27% of all child care programs in Texas in 2020. As highlighted later in the report, strategic integrations with other regional and statewide initiatives directly impacted TECPDS' rapid growth despite voluntary participation by most ECE professionals.

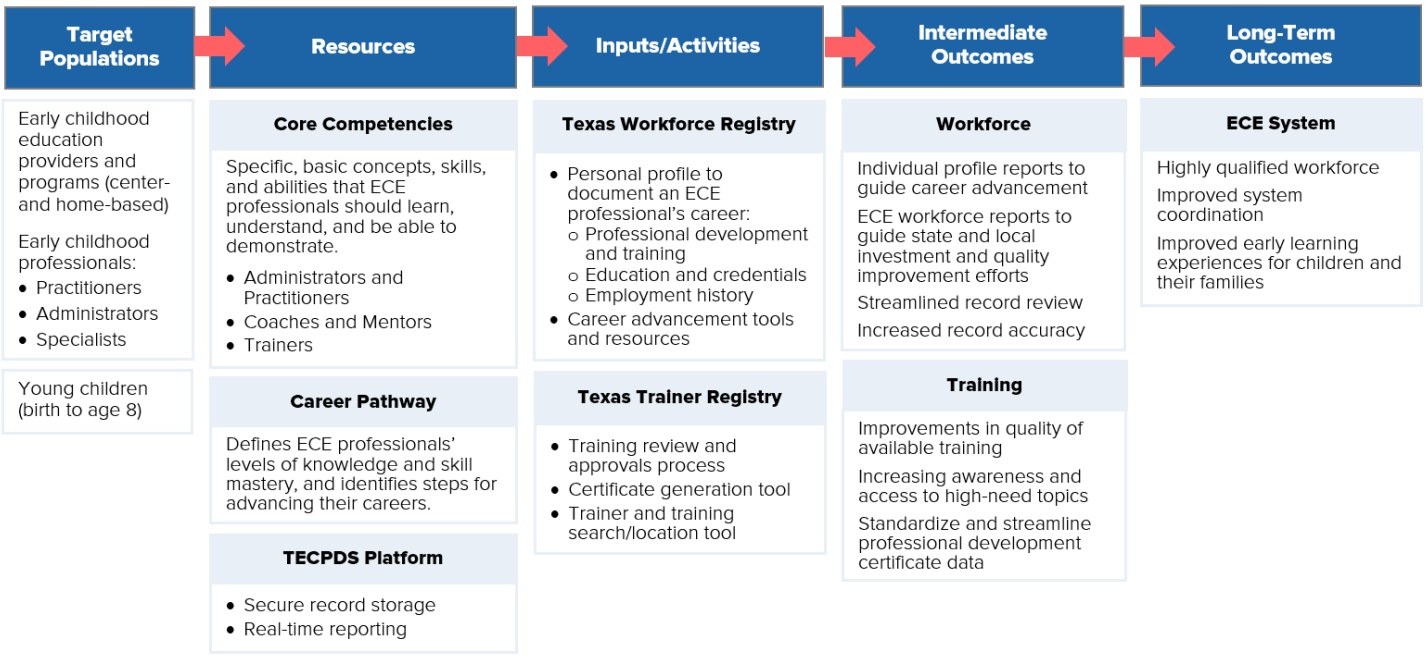
Overview of TECPDS

Formerly known as the Texas Early Care and Education Career Development System, TECPDS launched in 2013 as a resource for ECE career advancement, building upon two decades of focus to improve Texas ECE quality by supporting the workforce. State and local agencies provided funding to enhance TECPDS, continued today as the system expands professional development opportunities, resources, and tools for ECE professionals across Texas. Based on their role, professionals can leverage TECPDS to support career advancement at any point in their careers from entry level to advanced:

- Administrators, who lead ECE programs and schools
- Practitioners, who work directly with children in the classroom
- Specialists, who support administrators, practitioners, and other professionals to advance their skills

The logic model in Figure 2 represents how TECPDS and its resources support the ECE workforce.

Figure 2. TECPDS Logic Model



Unifying Features Supporting the ECE Workforce

The Workforce and Trainer Registries were built to work together as a system to support the ECE workforce's professional development and career development journeys. The Texas Core Competencies and the Career Pathway support users and are woven into TECPDS at all levels.

The **Texas Core Competencies** are the foundation of TECPDS, referring to specific, basic concepts, skills, and abilities that ECE professionals should learn, understand, and be able to demonstrate for specific roles: practitioners, administrators, trainers, and coaches/mentors. The content and structure of the competencies are a framework for assessing knowledge and skills, guiding training and professional development opportunities, and monitoring progress. See the Core Competency areas and how these align to training hours currently uploaded into TECPDS in Figure 12.

The Texas Early Learning Council developed the **Texas Early Childhood Career Pathway** for professionals to guide their professional development, advance their careers, and market themselves to employers and parents (Texas Early Learning Council, 2012b). The Individual Professional Development Profile Report details all information that users have uploaded into the Texas Workforce Registry, including education, professional development, and employment records, for a complete profile of an ECE professional's career and place on the career pathway to guide advancement.

Texas Workforce Registry

Available in English and Spanish, Texas designed the Workforce Registry to be more than just a repository by focusing on ECE system quality improvement that supports workforce development and ensures high quality training. The Texas Workforce Registry offers opportunities for administrators, practitioners, and specialists to access professional development resources and find trainings, such as those offered by trainers registered with the Texas Trainer Registry, TECPDS' other main component.

The Workforce Registry provides users with a centralized, confidential, electronic storage system for professional development and employment records. Personal reports created in the system can help professionals identify gaps and strengths, support career advancement, plan professional development opportunities, and highlight overall expertise. An ECE professional may include many types of records that document their career in TECPDS:

- Professional development and training records
- Education, credentials, and certifications, earned or in progress
- Employment history
- Other records, such as resume

RECORDS VERIFICATION

Essential to any registry, professional development, education, and employment records can be reviewed and verified for authenticity and accuracy. Learn more on page 21.

Integration with state and local initiatives have led to improved coordination across systems and increased efficiency (see highlights on page 14). This is especially true of the ability to verify the authenticity of self-reported professional development through a review of official documentation and/or transcripts, a process known as record verification on TECPDS (see additional information on page 21). This supports a more efficient assessment process for Texas Rising Star assessors, licensing staff, and certifiers in the field and could eliminate the need for ECE professionals to keep paper copies of all their professional development certificates on file (see a spotlight on this integration on page 13).

Texas Trainer Registry

The Texas Trainer Registry is a straightforward way for ECE program leaders to find highly qualified trainers and trainings to meet their program's professional development needs. The Trainer Registry supports the goal of ensuring quality and integrity of professional development records by impacting trainers, their trainings, and certificates they award that document workforce participation, all key components needed to make informed decisions related to professional development planning.

The Trainer Registry also offers a training approval process that is linked to the Texas Core Competencies, principles of adult learning, and other standards, such as early learning guidelines. Trainers listed on the Texas Trainer Registry ("Registered Trainers") have gone through an approval process defined by a set of qualifications that include ECE expertise and experience, and knowledge of adult learning theories and principles. These trainers can be trusted to meet a higher standard of education and experience, needed to provide ECE professionals with the necessary training to increase knowledge and skills.

A key feature of the Trainer Registry is the **Certificate Generation Tool** that creates standardized professional development certificates that meet all state requirements for their participants, including Child Care Regulation, Texas Rising Star, teacher certifications, and Child Development Associate Credential™. The Certificate Generation Tool supports face-to-face and online trainings, as well as coaching and mentoring, conferences, webinars, and professional learning communities. Available at no cost, certificates generated through this tool can be delivered several ways, including directly to participants' TECPDS accounts to minimize time spent uploading records, and may be automatically verified depending on the trainer.

Data Governance

TECPDS adheres to the security and privacy policies established by UTHealth, as the system is housed and maintained by the university and its Children's Learning Institute. All information entered through the tool is stored securely in the TECPDS database, adhering to FERPA and HIPAA regulations (The University of Texas Health Science Center at Houston, 2021), and may only be viewed by approved individuals. Users are informed of how their data is accessed and by whom (Texas Early Childhood Professional Development System, 2021a, 2021c, 2021d). As needed, TECPDS develops data sharing agreements with other agencies that allow permission to view specific data for agreed upon services, such as Board access for record verification (see page 22).

TECPDS Strategic Goals

Since 2013, TECPDS has grown exponentially, impacted by strategic involvement and integration with state early childhood initiatives. TECPDS workforce data can be used to:

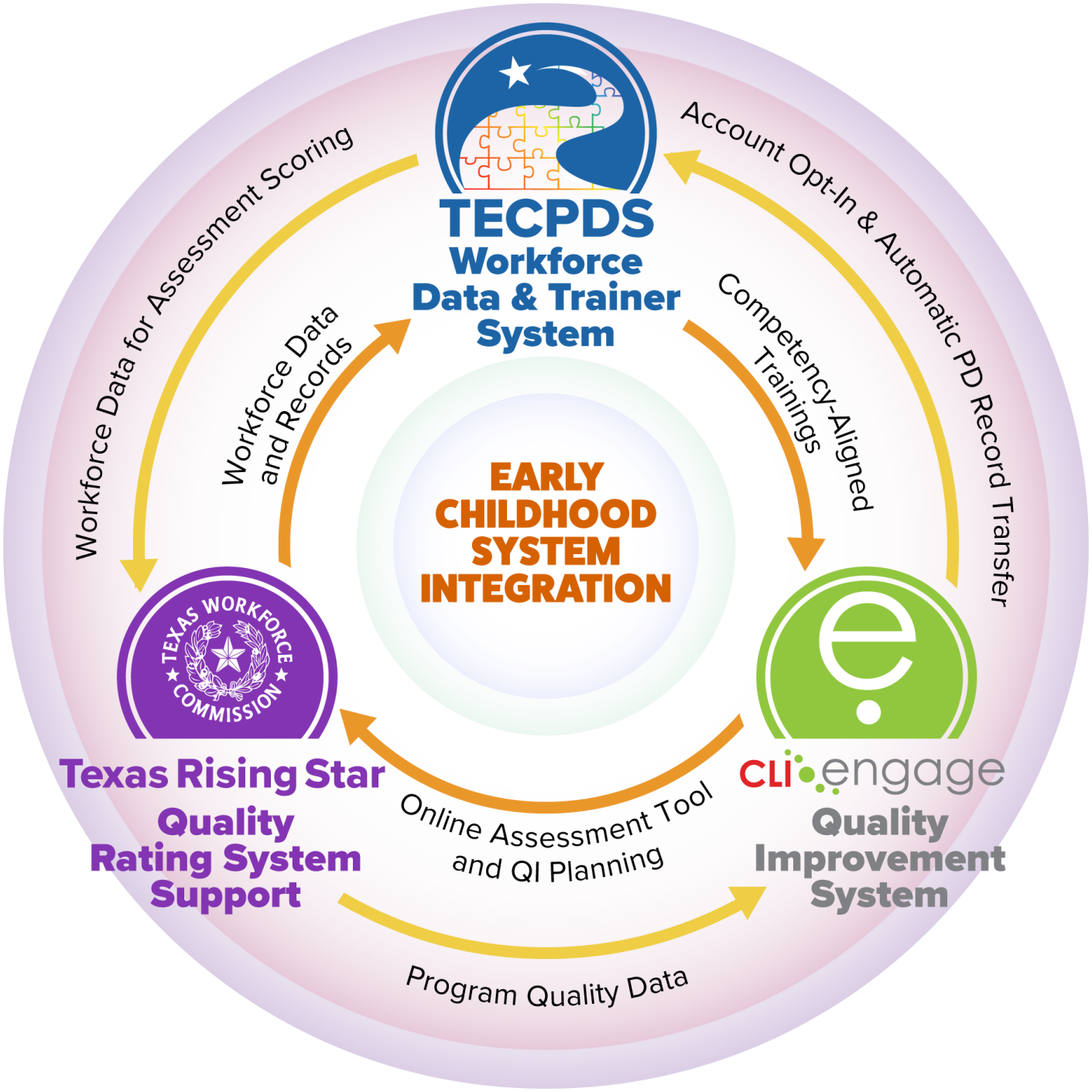
- Understand the ECE workforce and its professional development attainment
- Supply early childhood policy leaders with important data on the workforce allowing data driven decision making and targeting of resources
- Support assessments such as Texas Rising Star Certification
- Provide data for the state Quality Progress Report and national data for the Early Childhood Workforce Index report

The Children's Learning Institute supports integration of TECPDS into statewide efforts to enhance quality improvement and increase ECE system efficiency. Three key strategic goals for TECPDS include:

1. Increased access to high quality data
2. Supporting quality improvement by raising awareness and understanding of state core competencies, training opportunities, and career pathways
3. Integration and coordination within state programs, such as Texas Rising Star and Texas School Ready, in ways that increase efficiency with which data is collected and used within those programs

For several years, the Children's Learning Institute explored opportunities to enhance TECPDS to better meet the needs of the workforce, and to assist stakeholders in making more informed decisions to meet their needs based on actual workforce data. These integrations reduce data entry effort, improve the integrity of the records, and help programs more readily act based on quality data. Figure 3 presents a spotlight on an ECE system integration designed to meet the TECPDS strategic goals of increasing access to high quality data, supporting ECE quality initiatives, and coordinating with other state programs to increase efficiency.

Figure 3. TECPDS Integrated with QRIS and Quality Improvement



Spotlight: ECE System Integration

Beginning in 2016, TECPDS partnered with TWC and Workforce Solutions of Tarrant County to enhance the platform to better support ECE professionals, but also regional and state-level stakeholder decision-making. Specifically enhancing features of the Texas Workforce Registry, this project led to additional career pathway features, workforce reports, record verification processes to confirm document validity, and, ultimately, opening the Workforce Registry at no cost to all users to ease participation barriers.

Building upon these enhancements and showcasing opportunities to leverage workforce data in other quality improvement programs, TECPDS was integral to the Strengthening Texas Rising Star Implementation Study (Crawford, 2019), conducted as part of TWC's four-year review of the Texas Rising Star program. Concluding in 2019, the study leveraged Workforce Registry reports of verified workforce records to evaluate Category 1: Director and Staff Qualifications and Training measures of the Texas Rising Star Certification Guidelines, confirming program efficiencies for assessors reviewing TECPDS reports rather than manual review of paper documentation at each program assessment. This process was formally adopted into Texas Rising Star Category 1 assessment in September 2021. TWC provides ongoing support for TECPDS and recommends participation for all programs.

Texas Rising Star assessments are conducted on CLI Engage, leveraging access to quality improvement resources (such as professional development, progress monitoring, classroom curricula, and family engagement content) for the mentoring process, the same set of resources available to thousands of Texas public schools, Head Start programs, and child care programs. Integrated onboarding and automatic certificate transfer between CLI Engage and TECPDS streamlines access and opportunity for many ECE professionals using these systems. Review Figure 3 for a visual representation of this integration.

Integration Highlights

The rapid growth of TECPDS (see Figure 5) is linked to integration efforts with state systems and programs. TECPDS supports utilization of the Texas Workforce Registry for ECE professionals, but also the Texas Trainer Registry to facilitate quality training delivery and efficient, accurate delivery of professional development certificates. The integrations showcased in Figure 4 are examples of the benefits that can be achieved towards identified goals with targeted program coordination, informed by prior successes (goal 1: access to data, goal 2: support quality improvement, and goal 3: system efficiency).

Figure 4. TECPDS Integrations

Initiative	Goal 1	Goal 2	Goal 3
T.E.A.C.H. scholarship recipients using TECPDS to document practitioner progress towards credentials and degrees	●	●	●
Texas School Ready documenting practitioner progress, awarding certificates, and recognizing competency	●	●	●
Texas Rising Star leveraging Workforce Registry reports to score components of program assessments	●		●
Leveraging TECPDS to support future ECE professionals enrolled in **higher education and high school career and technology education (CTE)** programs	●	●	●
Automating certificate transfer from large training providers and learning management systems (ChildCare Education Institute [CCEI] and CLI Engage)	●	●	●
Supporting simplified account creation with **CLI Engage opt-in** feature	●		

Initiative	Goal 1	Goal 2	Goal 3
Onboarding **Texas Infant-Toddler Specialist Network** participants (specialists and program staff) for training and recognizing competency	●	●	●
Surveying ECE workforce to learn about COVID-19 impacts across settings and guide supports			●

See page 31 for lessons learned through current TECPDS integrations within regional and statewide programs and initiatives that inform future expansion.

Analysis of Texas ECE Workforce Data

Following the initial sections that provided introductory information on TECPDS and how it can support state initiatives, this section presents a descriptive account of the aggregate data that has been uploaded in TECPDS administrator and practitioner accounts, specifically focusing on professional development data. Data is presented at the state level and also according to regional Boards for some analyses, providing opportunities for regional comparison and review.

Although TECPDS houses considerable data reported by the ECE workforce in Texas related to professional development, education and credentials, and employment, this report focuses on professional development trends only. As demonstrated in the following section, TECPDS has experienced a rapid growth, but not all user accounts are complete (e.g., user may have uploaded professional development records but not work experience). Since the professional development records are the most complete, the analysis is focused on those records. Future reports will include additional analyses on other TECPDS data, as account completion and record upload increases with existing and new users of the platform.

This report utilizes data from TECPDS to provide a descriptive account of:

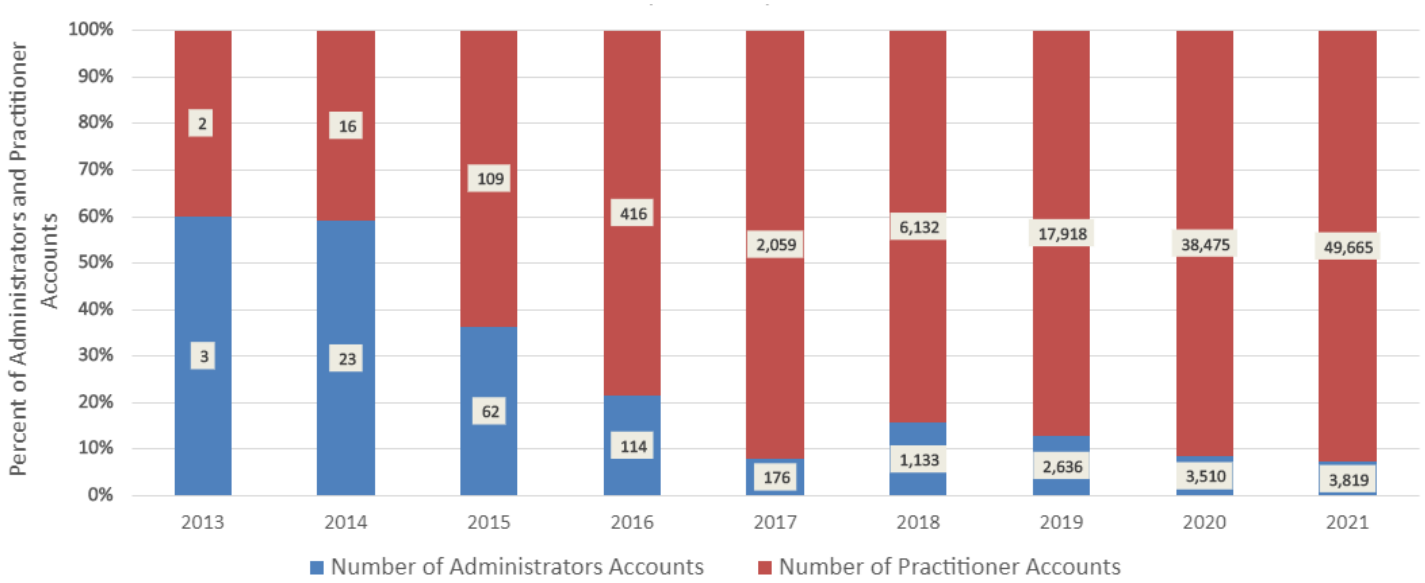
- ECE workforce (e.g., who are the users, what are their demographic characteristics)
- Types of trainings that administrators and practitioners participate in

For overall statewide TECPDS utilization, the report includes data available as of August 20, 2021 based on aggregated reports that can be accessed on the TECPDS website (Texas Early Childhood Professional Development System, 2021b). For those TECPDS users with training data, the report focuses on trainings for 2020 (January-December), but in some instances numbers from 2013-2021 are included. The training data for this report was exported on April 21, 2021.

TECPDS Registered Accounts Across Time

Figure 5 illustrates the counts and distribution of administrator and practitioner accounts from 2013-2021. The number of total accounts for these two types of users has been increasing rapidly since the inception of the Texas Workforce Registry on TECPDS in 2013. Second, and not surprising, the majority of the user accounts are

Figure 5. Distribution of Administrator and Practitioner Accounts (2013-2020)



Note. Data represents number of user accounts as of August, 2021.

practitioner accounts. In explaining the number of accounts and its increase across time, it is important to note that between 2013-2015, the majority of users were participants of the T.E.A.C.H program. Further partnerships with TWC and Workforce Solutions of Tarrant County started in 2016 to enhance the system and onboard additional users through their participation in quality improvement initiatives. Substantial increases beginning in 2018 are a result of removing account fees for Texas Workforce Registry users. More recently, from 2019-2021, TECPDS was supported by TWC to onboard Texas Rising Star programs (see page 14 for additional information) as dramatic participation trends continued. In partnership with TWC, TECPDS continues to support early learning programs to create TECPDS accounts, especially Texas Rising Star-certified programs with onboarding, data entry, and records verification as part of their ongoing assessment process.

TECPDS Users: Administrators

As of August 2021, there were 3,819 registered administrator accounts. This is a 74% increase since August 2019. Figure 6 summarizes basic demographic data, as well as their program settings and the ages of children served. Overall, between 30-60% of administrators reported some basic demographic and setting information. For race and ethnicity, of those reporting race/ethnicity information, most of them were Caucasian (22.7%), followed by Hispanic (16.8%) and African American (15.5%). Only 30% of administrators reported on education; of those reporting, there was a mix of education where the two highest reported categories were bachelor's degree (8.5%) and high school diploma/GED (7.2%). About 36% of administrators reported on type of setting, where the most common setting was child care center (31.2%). About 60% of administrators reported on ages of children they serve; for those who reported this information, the age distribution was equally distributed, for the most part, among all age groups.

TECPDS Users: Practitioners

As of August 2021, there were 49,655 practitioners with registered accounts on TECPDS. This is a 251% increase since August 2019. Figure 6 summarizes basic demographic data, as well as their program settings and the and the age of children they currently care for and educate. Missing data were higher for practitioners than for administrators, where only between 18-20% of practitioners reported on education, type of setting, and ages of children they serve. This may be due to the requirement for Texas Rising Star administrators to utilize TECPDS for assessments, but not requiring practitioners at this time. For those reporting race/ethnicity information (~53%), most were Hispanic (20.1%) followed by Caucasian (13.1%), African American (10.8%), and Multiracial (7.2%). Only

Figure 6. Demographic Data for Administrators and Practitioners as of August 2021

	Administrators		Practitioners	
Number of Users	3,819		49,655	
Demographic information				
Race/Ethnicity				
African American	593	15.5%	5380	10.8%
American indian	12	0.3%	134	0.3%
Asian	43	1.1%	384	0.8%
Caucasian	868	22.7%	6521	13.1%
Hispanic	642	16.8%	9983	20.1%
Multiracial	48	1.3%	3585	7.2%
Other	51	1.3%	586	1.2%
Missing	1562	40.9%	23,082	46.5%
Highest Education				
Highschool Diploma/GED	276	7.2%	3135	6.3%
Some College	140	3.7%	877	1.8%
Associate's Degree	189	4.9%	992	2.0%
Bachelor's Degree	325	8.5%	2250	4.5%
Master's Degree	191	5.0%	1511	3.0%
Doctoral Degree	23	0.6%	207	0.4%
Other	0	0.0%	0	0.0%
Missing	2,675	70.0%	40,683	81.9%
Type of Setting				
Child Care Center	1192	31.2%	7690	15.5%
Early Head Start	25	0.7%	178	0.4%
Faith Based Organization	22	0.6%	130	0.3%
Family Child Care Home	45	1.2%	77	0.2%
Head Start	32	0.8%	517	1.0%
Public School	48	1.3%	256	0.5%
Residential Group Home	1	0.0%	6	0.0%
Other	7	0.2%	69	0.1%
Missing	2,447	64.1%	40,732	82.0%
Ages Worked With				
Infants (0-17 months)	555	14.5%	2392	4.8%
Toddlers (18-35 months)	617	16.2%	2787	5.6%
Preschoolers (3-5 years)	639	16.7%	3102	6.2%
School Aged (5+ years)	504	13.2%	1822	3.7%
Missing	1,504	39.4%	39,552	79.7%

Note. Data are based on numbers obtained on August 26, 2021 (Texas Early Childhood Professional Development System, 2021b).

about 20% of practitioners reported on education; of those reporting, there was a mix of education where the two highest reported categories were high school diploma/GED (6.3%) followed by bachelor's degree (4.5%). Notably, the highest reported level of education for administrators who reported information was bachelor's degree (8.5%) compared to 4.5% of practitioners. About 20% of practitioners reported on type of setting, where the most common setting was child care center (15.5%). About 18% of practitioners reported on ages of children they serve; for those who reported on data, the age distribution was distributed for the most part equally among all age categories.

Statewide Utilization of TECPDS

In an effort to add context to statewide and regional users of TECPDS, user data is compared to TWC's data from the annual Child Care By the Numbers in Figure 7 (Texas Workforce Commission, 2021a) using several scenarios to approximate participation. For this analysis, administrators' registered accounts as of August 2021 were used to represent ECE programs. Column A represents the total number of licensed centers, licensed homes, registered homes, and military homes in Texas in 2020. As TECPDS grows, Column A also represents the platform's ultimate enrollment goal. Column B reports on a subset of those in column A, mainly those programs participating in Child Care Services (CCS, also known as subsidized child care providers). Column C reports on the subset of CCS providers that also participate in Texas Rising Star (CCS participation is required for these programs). Using these numbers, statewide coverage of TECPDS users is approximated based on registered administrator accounts. Note that given potential duplications of administrator accounts or multiple administrators for a program, it is possible to have some of the coverage exceeding 100%, which was the case for Deep East Texas.

Figure 7. All Child Care Programs and TECPDS Coverage in 2020

	Data as Reported by TWC*			Data from TECPDS Users		Approximations of TECPDS Utilization Based on TWC Data		
	Number of Programs (A)	Number of Subsidy Enrollment Programs (B)	Number of TRS Programs (C)	Number of Administrator Accounts (D)	Number of Administrator TRS Accounts (E)	Estimated Participation in TECPDS Based on Number of Programs as Reported by TWC (D/A)	Estimated Participation in TECPDS Based on Subsidy Enrollment Programs as Reported by TWC (D/B)	Estimated TRS Participation Based on TRS Programs as Reported by TWC (E/C)
Number of Programs	127590	7916	2231	3818	881	3.0%	48.2%	39.5%
Local Workforce Board								
Alamo	10075	530	123	289	28	2.9%	54.5%	22.8%
Brazos Valley	1181	112	31	47	6	4.0%	42.0%	19.4%
Cameron	4561	174	51	58	6	1.3%	33.3%	11.8%
Capital Area	2979	433	131	189	57	6.3%	43.6%	43.5%
Central Texas	2488	241	41	86	16	3.5%	35.7%	39.0%
Coastal Bend	2952	163	31	16	4	0.5%	9.8%	12.9%
Concho Valley	668	54	9	33	3	4.9%	61.1%	33.3%
Deep East Texas	2066	95	41	97	9	4.7%	102.1%	22.0%
East Texas	3882	225	94	124	50	3.2%	55.1%	53.2%
Golden Crescent	917	68	11	25	5	2.7%	36.8%	45.5%
Greater Dallas	15515	744	203	298	72	1.9%	40.1%	35.5%
Gulf Coast	27553	1639	474	791	82	2.9%	48.3%	17.3%
Heart of Texas	1984	139	59	97	13	4.9%	69.8%	22.0%
Lower Rio Grande Valley	10601	439	66	146	30	1.4%	33.3%	45.5%
Middle Rio Grande	1621	47	17	6	0	0.4%	12.8%	0.0%
North Central Texas	7123	716	173	314	119	4.4%	43.9%	68.8%
North Texas	1011	75	26	31	5	3.1%	41.3%	19.2%
Northeast Texas	1492	80	40	55	3	3.7%	68.8%	7.5%
Panhandle	2159	104	30	55	17	2.5%	52.9%	56.7%
Permian Basin	1990	94	11	56	7	2.8%	59.6%	63.6%
Rural Capital Area	2525	397	118	160	58	6.3%	40.3%	49.2%
South Plains	2490	123	29	45	3	1.8%	36.6%	10.3%
South Texas	2663	108	26	30	3	1.1%	27.8%	11.5%
Southeast Texas	2034	87	30	49	17	2.4%	56.3%	56.7%
Tarrant County	6954	574	221	563	201	8.1%	98.1%	91.0%
Texoma	896	86	18	24	9	2.7%	27.9%	50.0%
Upper Rio Grande	5587	275	86	92	47	1.6%	33.5%	54.7%
West Central Texas	1623	94	41	42	11	2.6%	44.7%	26.8%
Missing	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Note: To calculate the coverage of TECPDS participants, we are assuming that TECPDS administrator accounts represent programs. *Data was accessed from Child Care By the Numbers on August 19, 2021 (Texas Workforce Commission, 2021a). For all numbers reported, BCY 2020 was used. For column A, data on tab "KPD" for all programs was used. For column B, data on tab "Probs with Subsidy Enrollment" was used, column for "All Providers." For column C, data on tab "Probs with Subsidy Enrollment" was used, column for "All TRS providers."*

The last three columns of Figure 7 report on three scenarios to approximate TECPDS utilization that vary from the most conservative approximation to two more liberal approximations.

Scenario 1: Using all programs as denominator to estimate coverage. Looking at the third column from right to left, this shows that across the total number of programs in Texas, total coverage is about 3%. This number was calculated by dividing the total number of TECPDS administrator accounts (column D) by the total number of programs as reported by TWC (column A). While this percent appears low, it is important to consider that previously there was no accurate reporting data available. This percent is expected to grow in the future and become a valuable source of reporting data for local, state, and national use.

Scenario 2: Using the CCS providers as denominator to estimate coverage. Looking at the second column from right to left, this shows that 48.2% of CCS providers, based on subsidy program enrollments, have TECPDS accounts although there is limited data currently on the exact proportion of TECPDS users who have a subsidy agreement to participate. This number was calculated by dividing the total number of TECPDS administrator accounts (column D) by the total number of programs receiving a subsidy (column B).

Scenario 3: Using the Texas Rising Star-certified programs as denominator to estimate coverage. Looking at the first column from right to left, the estimated coverage of Texas Rising Star-certified programs who have a TECPDS account is 39.5%. This number was calculated by dividing the total number of users with a TECPDS account in Texas Rising Star (column E) by the total number of Texas Rising Star-certified programs (column C).

Focus on Texas Rising Star-Certified Programs

TECPDS focused onboarding efforts towards Texas Rising Star-certified programs during 2019-2021 in preparation for the platform's integration with assessment scoring (see page 14 for additional information). During that time period, TECPDS onboarded 26,328 ECE professionals, including 4,220 practitioners and 770 administrators that formally connected to a Texas Rising Star-certified program on the platform. Of the 3,627 programs on TECPDS to which professionals have connected, 1,685 or 46.5% are Texas Rising Star-certified programs as of November 12, 2021. Note that this number is almost twice as large as the 881 Texas Rising Star users reported in Figure 7 where data were pulled on August 2021. This speaks to how quickly the number of Texas Rising Star users is growing for this year when enrollment in TECPDS is mandatory for Texas Rising Star administrators.

When examining the number of registered accounts by Board, system utilization as reported based on the participation in CCS is consistent with concrete efforts to onboard regional users and strengthen partnerships:

- Tarrant County (profiled on page 14): Coverage is close to 98% based on CCS participation (see Figure 7). When looking beyond CCS participants, Tarrant County has about 8.1% coverage which is still higher than the overall 3.0% enrollment when looking across all TECPDS users.
- Gulf Coast: Coverage is close to 50% based on CCS participation, a result of targeted onboarding completed as part of the Strengthening Texas Rising Star Implementation Study (see Crawford, 2019).

TECPDS Users with Training Data

> This section of the report is using data captured in TECPDS from 2013 (when the Workforce Registry launched) to the end of 2020. TECPDS allows users to report on the following types of training hours:
>
> - **Clock hour training:** ECE professionals employed by early learning programs regulated by Child Care Regulation in Texas must obtain annual training hours. Administrators are required to complete 30 hours, while teachers require 24 clock hours of training each year relevant to the age of the children for whom the person provides care. This number is higher for Texas Rising Star programs with teaching staff employed by child care centers or homes required to complete 30 hours (although the number of required hours varies for staff supporting school-age children) and administrators needing to complete 36 hours (child care centers and homes).
> - **Continued Professional Education (CPE):** Ongoing professional development is required for all Texas educators holding a standard teaching certificate. The appropriate number of training hours awarded in CPE must be completed during each five-year renewal period.
> - **Conference hours:** Obtained at training that have multiple sessions through a day or multiple days.

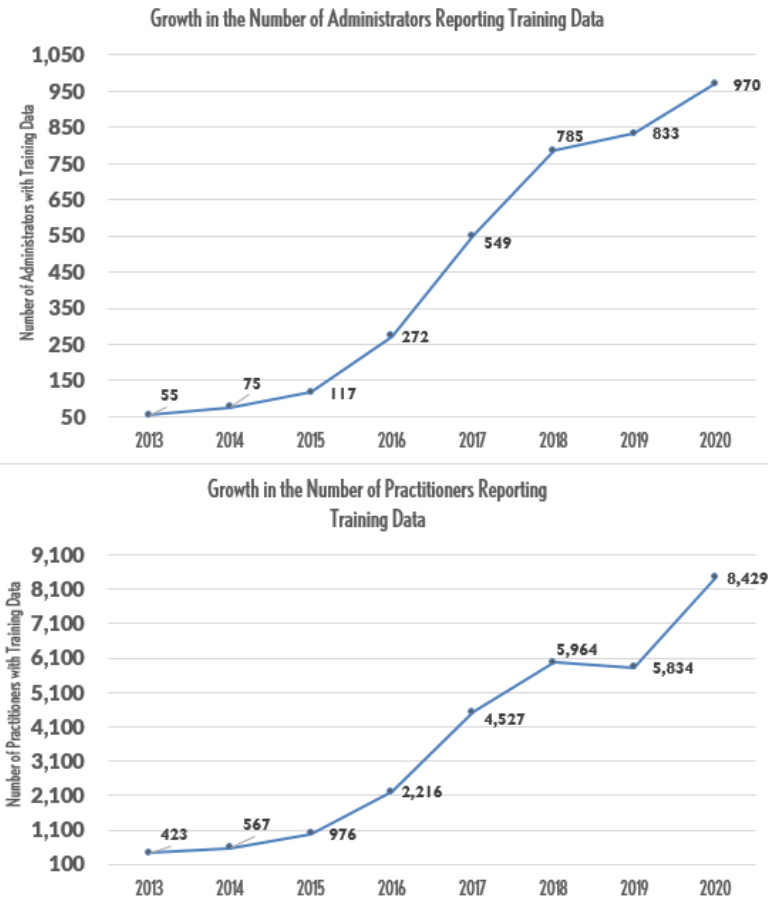
The descriptive analysis presented here will focus on utilization of **clock hour training** data reported by two types of users: administrators and practitioners. Clock hours awarded from trainings or workshops are currently the most common type of professional development records uploaded into TECPDS. Future reports will investigate the conference hours and CPE data.

Notably, the number of users with training data represents a small but significant and growing population of users in TECPDS. As expected and consistent with the increase in the number of overall TECPDS accounts, there was an increase in the number of administrators and practitioners reporting their training data between 2013 and 2020 (see Figure 8). Training data is displayed in two figures by type of user because of the drastic difference in the

number of trainings reported by administrators and practitioners.

As previously mentioned, a recent focus has been on Texas Rising Star administrators to complete their professional development profiles, but it is expected that once administrators have been onboarded and they begin to utilize the system, administrators will cascade this information to their practitioner staff (Texas Workforce Commission, 2021b). Most interactions in 2019-2020 were of administrators, but there was a 45% increase in use by practitioners during that time, possibly as a result from onboarding the administrators, impacts noted anecdotally in other states. Note that the number of accounts reported on Figure 5 does not match the number of administrators and practitioners displayed in Figure 8 because users could retrospectively add their training data to continue completing their profile at any time. For example, an administrator who created an account in 2016 could then upload training information from 2015 or 2014 when their TECPDS account was not yet created.

Figure 8. Reporting of Training Data



This report also examined the average number of trainings and the average number of hours that administrators and practitioners reported per year. These numbers are disaggregated by verification status as well as combining all training records, regardless of verification status. Below, the report focuses on the last two years of data (2018-2020) since TECPDS removed access fees for Texas Workforce Registry accounts in 2018. For the interested reader, these numbers are reported from 2013-2020 in Figure 9.

Figure 9. Training Data for All Records

	2013	2014	2015	2016	2017	2018	2019	2020
Administrators Trainings								
Average Number of Trainings Per Year (Overall)	7	6	6	5	7	8	8	7
Verified	17	5	6	4	6	7	8	6
Not Verified	5	6	5	5	5	5	5	5
Average Number of Hours (Overall)	88	94	54	80	59	63	55	53
Verified	35	25	24	68	39	53	41	34
Not Verified	96	110	63	72	58	48	61	65
Practitioners Trainings								
Average Number of Trainings Per Year (Overall)	4	4	4	5	6	6	6	6
Verified	9	4	3	4	5	5	6	5
Not Verified	4	4	4	4	4	4	5	7
Average Number of Hours (Overall)	59	56	48	48	42	38	41	49
Verified	32	14	24	38	30	31	33	41
Not Verified	60	59	58	49	40	35	51	59

Note: Data reported as of April 2021. The number of administrators and practitioners with training data is higher than the number of accounts presented in Figure 5 because users could enter training data retrospectively.

Between 2018-2020, the average number of trainings ranged between 6-8 for administrators and practitioners. Specifically, administrators reported an average of 8 trainings in 2018 and 2019, and 7 trainings in 2020. The average practitioner reported 6 trainings per year from 2018-2020.

Between 2018-2020, the average number of training hours per year ranged between 38-63 across administrators and practitioners. On average, administrators reported a decrease in the number of training hours between 2018-2020, with 63 hours in 2018, 55 in 2019, and 53 in 2020. For practitioners, an increasing trend was observed, where they reported an average of 38 hours in 2018, 41 in 2019, and 49 in 2020. The number of hours entered may reflect the impact of COVID-19.

Some assumptions can be made about the impact of COVID-19. For administrators, it could be that the loss of classroom staff may mean less time for training. Additionally, new health and safety requirements may take time away from training to focus on the implementation of COVID-19 related requirements. As for practitioners, an increase in the number of reported training hours has been observed; this could be due to program or classroom closures or loss of enrolled children, allowing more time for professional development.

A survey of TECPDS users conducted between April and November of 2020 aligns with these findings; by November 2020, 43% of respondents highlighted new health and safety protocols as the main change in their job responsibilities since the start of the pandemic (Crawford, et al, 2021). ECE professionals who completed this survey shared experiences indicating:

- Going above and beyond to help meet children's needs
- Enrollment and attendance numbers declined
- Teachers faced new technology demands as their teaching and training moved online
- Professionals faced new challenges to keep up with cleaning, COVID-19 policies, and teaching

Verification of Training Records (Certificates)

As of August 2021, TECPDS had 228,634 records uploaded into the system. Records verification began in 2018 with a limited focus; since then, TECPDS experienced continued growth of records entered, and increased staffing to accommodate verification of greater numbers of the records. Currently, 85% of records have gone through the verification process, representing information uploaded by users from the past 8 years.

This report focuses on verified training records that have been reviewed and confirmed to be valid and accurate. In 2020, the total number of verified trainings in administrator accounts exceeded 7,000 records, and that of practitioners exceeded 50,000 records. This is consistent with the increase in the number of users reporting training data and speaks to the capacity of the system to successfully capture, store, and review thousands of records.

Records verification has changed the way that TECPDS can report on our workforce data, and what is known about the workforce. Through TECPDS, an individual's professional development, education, and employment records can be reviewed and verified by highly qualified and trained staff at both the state and Board level. While verified records are preferred, 100% verification may not be possible; unverified records may be incomplete, inaccurate, or unable to be confirmed. Specific to subsequent sections of this report, there are three ways that training records are entered into TECPDS:

- **Manually Entered**: least reliable, as it is self-reported and prone to accidental data entry errors
- **Integrations with training providers**: automatically uploaded records ensure authenticity
- **Certificate Generation Tool**: certificates can be confirmed at any time using a QR code on the document

At this time, the focus of manual record verification is only for Texas School Ready participants and Texas Rising Star administrators since those programs directly support the process as part of their programs' implementation. Within Texas Rising Star, priority of record verification is focused on the last 5 years of their most recent records to strategically align with ongoing Texas Rising Star assessment purposes. In the future, increases in specialized staff to review and verify records will continue to support the growth in verifying records directly by TECPDS and by trained staff employed by Boards. For example, TECPDS created a new record validator training module in 2021 to train highly qualified Board staff to verify records from their region, expanding record verification that may not be able to be verified at the state level. It is important to note that increases in verified records allow stakeholders to be confident in the data that they access and decreases duplication of record review. Now that record verification processes are fully executed within TECPDS, other state entities can utilize this verified data, instead of repeating manual records review.

Training Data: Utilization by Local Workforce Development Board

Understanding professional development experiences is valuable for local, regional, and statewide decision-making, and these opportunities will expand as the number of records that are entered into the system increases. Ultimately, the data recorded in TECPDS are meant to support stakeholders in making decisions to support professional development, assessments, funding, and policy. Figure 10 summarizes the number of administrators and practitioners with training data in 2020. Gulf Coast, one of the largest Boards, had the highest percentage (14-15%) of the records for both administrators and practitioners, followed by Tarrant County with 11% of the share of administrator records and 8% of practitioner records. This may in part be due to the previously mentioned partnerships (see page 19). Further observations indicate more training records among regions that were early adopters of the Certificate Generation Tool (Capital Area) or beneficiaries of face-to-face onboarding conducted immediately before the pandemic, which may have been more engaging (Lower Rio Grande Valley).

Figure 10. Number of Users with Training Data Records by Board in 2020

	Administrator Accounts with Training Data		Practitioner Accounts with Training Data	
	970		8429	
Local Worforce Board				
Alamo	52	5%	667	8%
Brazos Valley	1	0%	31	0%
Cameron	18	2%	151	2%
Capital Area	72	7%	463	5%
Central Texas	26	3%	131	2%
Coastal Bend	15	2%	154	2%
Concho Valley	7	1%	48	1%
Deep East Texas	14	1%	122	1%
East Texas	49	5%	218	3%
Golden Crescent	6	1%	66	1%
Greater Dallas	51	5%	446	5%
Gulf Coast	146	15%	1176	14%
Heart of Texas	34	4%	139	2%
Lower Rio Grande Valley	59	6%	568	7%
Middle Rio Grande	0	0%	26	0%
North Central Texas	53	5%	355	4%
North Texas	6	1%	80	1%
Northeast Texas	16	2%	107	1%
Panhandle	23	2%	166	2%
Permian Basin	12	1%	87	1%
Rural Capital Area	51	5%	390	5%
South Plains	14	1%	62	1%
South Texas	8	1%	128	2%
Southeast Texas	20	2%	145	2%
Tarrant County	103	11%	659	8%
Texoma	12	1%	103	1%
Upper Rio Grande	49	5%	247	3%
West Central Texas	10	1%	82	1%
Missing	43	4%	1402	17%

Note: The number of administrators and practitioners with training data is higher than that of the number of accounts presented in Figure 5 because users could enter training data retrospectively.

Demographic Characteristics of Users with Training Data

Figure 11 presents demographic characteristics of administrators and practitioners with training data as reported in 2020. Consistent with the demographic data presented for the overall user accounts (see Figure 6), there is a sizable amount of missing data ranging from 36%-67%. However, the proportion of missing data is lower for those users reporting training data than for the overall users suggesting that more engaged users (i.e., those who upload training material) tend to complete non-required demographic fields.

Descriptively, looking at race/ethnicity characteristics of those users with training data (Figure 11) versus those with registered accounts (Figure 6), there are no noticeable differences on the race/ethnicity make-up across both samples. However, looking at the education levels of users with training data, those with some college and a masters' degree are overrepresented in the users with training data compared to all users. Specifically, about 5% of administrators with a registered TECPDS account reported having a master's degree (64% of missing data), whereas 14% of administrators with training data have a master's degree (48% of missing data). For the practitioners with registered accounts, 3.0% reported having a master's degree (81.09% of missing data), whereas 14% of practitioners with training data have a master's degree (67% of missing data). Although this suggests that users with training data may be those with higher levels of education, no conclusive statements can be made given the high amount of missing data. Future efforts to increase the reporting of basic user characteristics, including making some fields mandatory, will allow us to shed light on the characteristics of users that opted to register on TECPDS for training data and other types of professional development.

Figure 11. Demographic Data for Administrators and Practitioners with Training Data in 2020

	Administrators		Practitioners	
Number of Users With Training Data	970			8,429
Demographic information				
Race/Ethnicity				
African American	138	14.2%	759	9.0%
American indian	3	0.3%	17	0.2%
Asian	11	1.1%	52	0.6%
Caucasian	256	26.4%	1083	12.8%
Hispanic	182	18.8%	1628	19.3%
Multiracial	11	1.1%	838	9.9%
Other	16	1.6%	95	1.1%
Missing	353	36.4%	3956	46.9%
Highest Education				
Highschool Diploma/GED	11	1.1%	90	1.1%
Some College	102	10.5%	401	4.8%
Associate's Degree	56	5.8%	191	2.3%
Bachelor's Degree	50	5.2%	249	3.0%
Master's Degree	133	13.7%	1177	14.0%
Doctoral Degree	3	0.3%	31	0.4%
Other	150	15.5%	644	7.6%
Missing	465	47.9%	5646	67.0%

Note: The number of administrators and practitioners with training data is higher than that of the number of accounts presented in Figure 5 because users could enter training data retrospectively.

Texas Core Competencies for Early Childhood Professionals

As users document their training in TECPDS, the platform provides the capability to indicate the Texas Core Competency areas aligned to that training. When a record is verified (see page 21), part of the verification process is to check that the core competencies listed on the certificate accurately reflect the training taken. Core competencies refer to specific, basic concepts, skills, and abilities that early childhood professionals should learn, understand and be able to demonstrate (see Figure 12), regardless of ECE setting (i.e, child care, public school pre-K, Head Start). Texas developed core competencies for the following groups: practitioners, administrators, trainers, and coaches/mentors, with the intent of providing guidance to professionals seeking training and for trainers developing training topics. TECPDS users can upload training documentation aligned to these core competencies. In this report, we focus on practitioner and administrator competencies.

Figure 12. Texas Core Competencies by Type of Early Childhood Professional

Practitioners	Administrators	Trainers	Coaches and Mentors
◆ Child Growth and Development ◆ Responsive Interactions and Guidance ◆ Learning Environments, Planning Framework, Curriculum, and Standards ◆ Supporting Skill Development ◆ Observation and Assessment ◆ Diversity and Dual Language Learners ◆ Family and Community Relationships ◆ Health, Safety and Nutrition ◆ Professionalism and Ethics	◆ Establishing and Maintaining an Effective Organization ◆ Business and Operations Management ◆ Human Resource Leadership and Development ◆ Maintaining a Healthy and Safe Environment ◆ Implementing a Developmentally Appropriate Curriculum and Environment ◆ Instituting Family and Community-Centered Programming	◆ Adult Learning Theory ◆ Training Delivery and Methodologies ◆ Transfer of Learning ◆ Training Content Development ◆ Monitoring and Evaluating Training Effectiveness ◆ Characteristics of Effective Trainers	◆ Adult Learning Theory ◆ Characteristics of Effective Specialists (Coaches/Mentors) ◆ Observation Skills ◆ Providing Feedback ◆ Fostering Reflective Thinking ◆ Demonstration and Verbal Cues ◆ Supporting Continuous Improvement

Although the core competencies are categorized by type of user (e.g., administrator and practitioner), a user can select core competencies that correspond to another users' core competency if applicable. For example, if a practitioner takes training around operations management, they can select this core competency even if it is classified as a core competency relevant to administrators.

It is important to note that with manual entry, core competencies may be incorrectly assigned, hence the importance of verification of these records that provide more confident data for stakeholders. The Certificate Generation Tool (see page 12), created with input from Child Care Regulation, supports the standardization of training certificates that ensure core competency areas are included to streamline the verification process. With the usage of the Certificate Generation Tool and the automatic certificate transfer from CLI Engage and Child Care Education Institute (CCEI) (see page 14), records can be automated and fully verified, reducing user error.

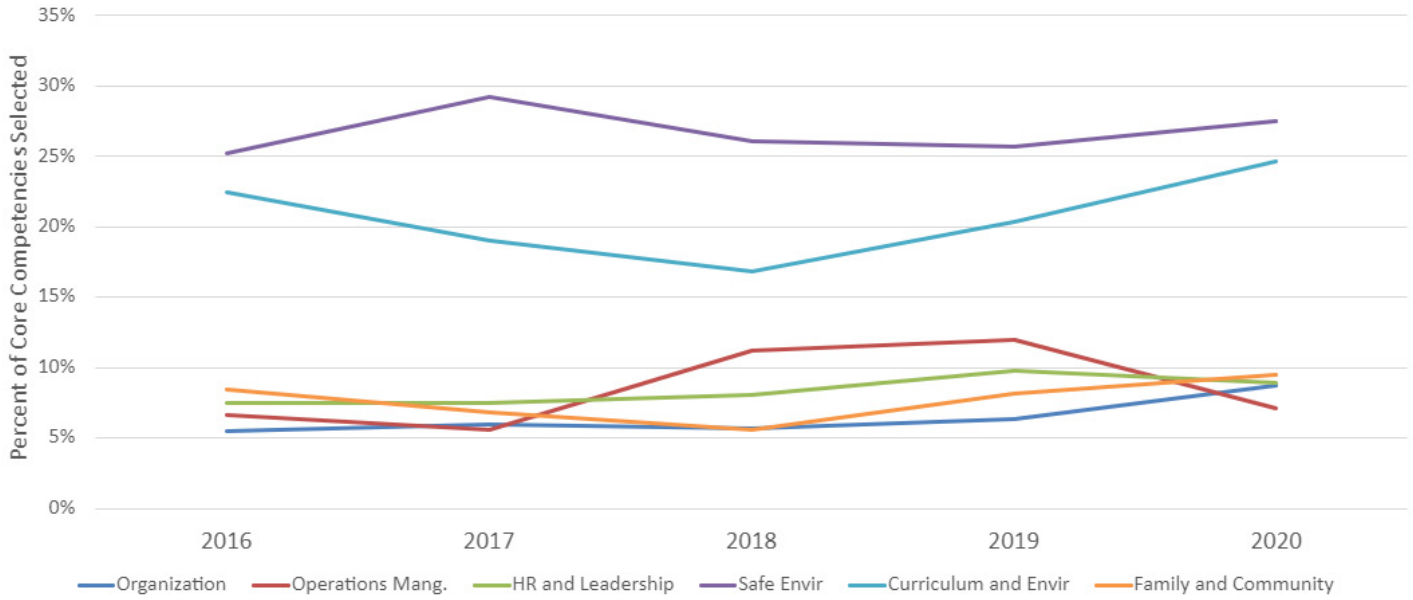
In the next section, we present information around the core competencies for which administrators and practitioners engaged between 2016-2020. Displaying this information longitudinally allows us to examine any trends or changes, specifically any changes in patterns that accompanied COVID-19 (majority of 2020). Figures 13 and 14 presents information for administrators followed by practitioners in Figures 15 and 16. For each role, both administrator core competencies and practitioners core competencies as reported by each type of user are presented.

Administrators Reporting on Core Competencies

Administrator Core Competencies as Reported by Administrators.
Figure 13 illustrates that across all years, the most common administrator core competency area as reported by administrators was *Maintaining a Healthy and Safe Environment*, which fluctuated between 25%-30%. This is to be expected, particularly during the pandemic. The next highest administrator core competency was *Implementing a Developmentally Appropriate Curriculum and Environment*. The rest of the administrator core competencies were reported in similar proportion by 2020 (between 7-10%). From 2018-2019, administrators

reported increased training in the *Operations Management* core competency area; this may be explained by the TECPDS integration with CCEI (a large-scale provider of training on a variety of ECE topics including business development and management) that was implemented in early 2019 but included historical training data for TECPDS users. The core competency of *Instituting Family and Community-Centered Programming* experienced an increasing trend between 2018-2020.

Figure 13. Administrator Core Competencies as Reported by Administrators Across Time



Practitioner Core Competencies as Reported by Administrators.

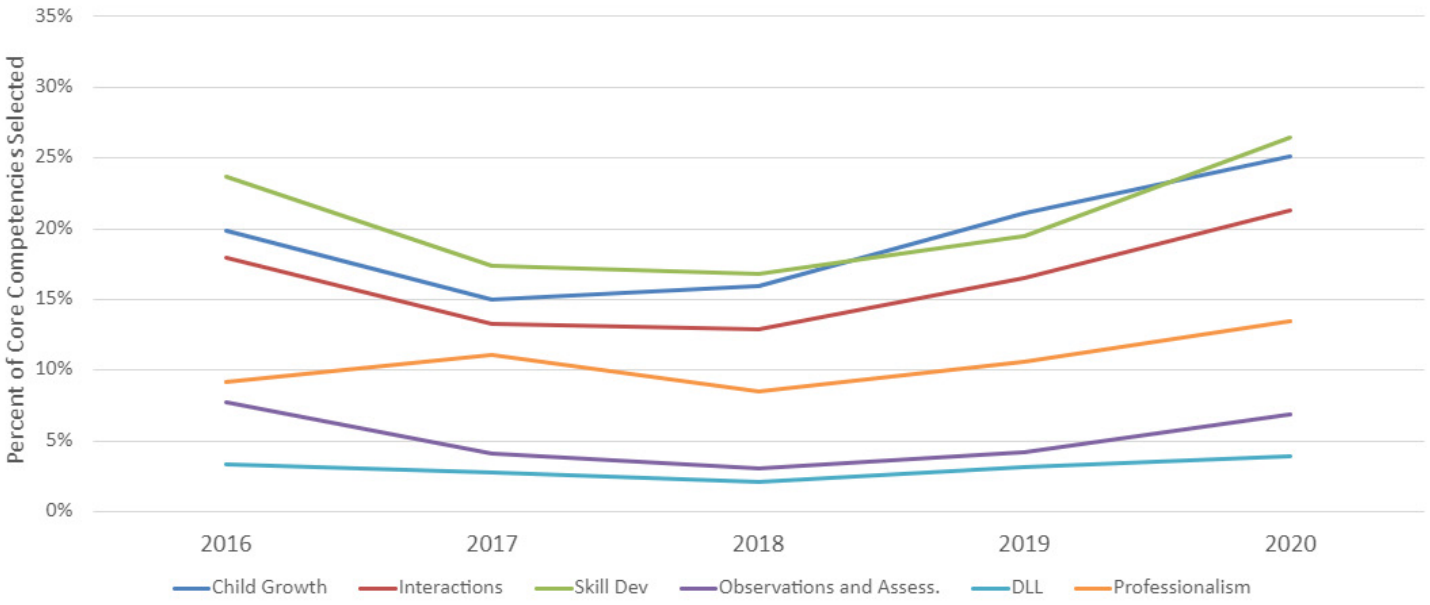
Notably, administrators also engaged in training aligned to practitioner core competencies. Overall, administrators reported practitioners' core competencies in similar rates than administrator core competencies, suggesting that administrators engaged in training in topics beyond those aligned to administrator core competencies. By 2020, the most common practitioner core competencies were in the areas of *Supporting Skill Development* and *Child Growth and Development*, followed by *Responsive Interactions and Guidance*, then *Professionalism and Ethics*. CLI Engage and CCEI users that have connected their accounts to TECPDS may be impacting these numbers as the integration allows easy input of data. The least reported practitioner core competencies were *Observation and Assessment* and *Diversity and Dual Language Learners* (3-7%). An interesting pattern was that between 2019-2020, there was an increase in the percentage of training that administrators took that was related to practitioner core competencies. This trend might have been associated with the closure of programs due to COVID-19 and may reflect an increase in administrators' inability to find high quality administrator training. Easy access to online practitioner training may fill the needs to accumulate training hours, while leaving gaps in administrator areas of training in need.

Note that Figure 14 does not report on the following three practitioner competencies: *Learning Environment, Planning Framework, Curriculum and Standards*, *Family and Community Relationships*, and *Health, Safety and Nutrition*. We observed some data reported on these categories but we recoded them into administrator core competencies because we have observed that trainers do not always report the core competencies on training certificates. In these cases, the user must then select a core competency from a list provided on TECPDS; often, the user will select both practitioner and administrator core competencies. Given this, we decided to merge these practitioner core competencies into their analogous administrator core competencies:

- *Learning Environment, Planning Framework, Curriculum and Standards* practitioner core competency was coded into the administrator core competency of *Implementing a Developmentally Appropriate Curriculum and Environment*

- *Family and Community Relationships*, a practitioner core competency, was coded into *Instituting Family and Community-Centered Programming*, an administrator core competency
- *Health, Safety and Nutrition*, a practitioner core competency, was coded into *Maintaining a Healthy and Safe Environment*, an administrator core competency.

Figure 14. Practitioner Core Competencies as Reported by Administrators Across Time



Note: The number of practitioner core competencies as reported by administrators is not the same as those in Figure 16, because three practitioner categories were recoded into administrator core competencies.

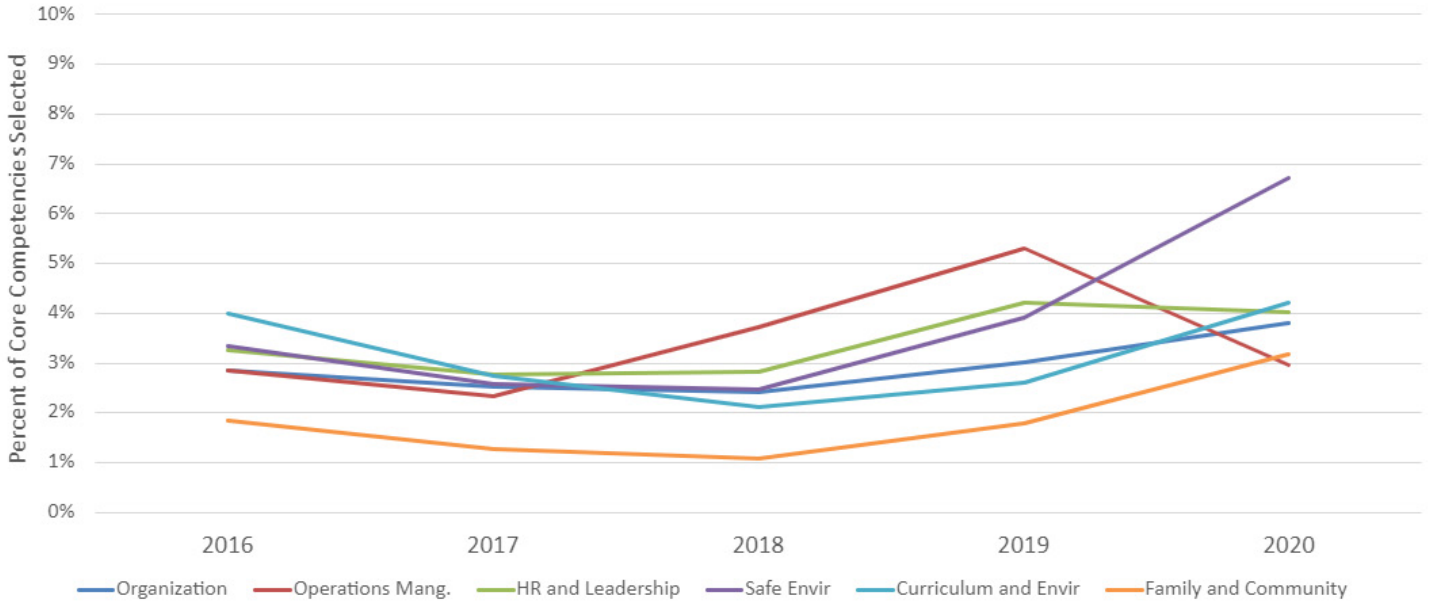
Practitioners Reporting on Core Competencies

Administrators Core Competencies as Reported by Practitioners.

Figure 15 presents the administrator core competencies as reported by practitioners. The first thing to note is that when practitioners engage in trainings, the percent of trainings that are related to administrator core competencies all fell below 7%, which suggest that practitioners generally do not engage in trainings for administrators. Administrator training by practitioners could also be explained due to programs not yet completing the TECPDS onboarding process: the primary/default TECPDS account type is for practitioners, since the administrator role is elevated with additional permission that must be approved by TECPDS staff. Some of these users reporting administrator areas may be administrators in practice but have not yet completed the steps for the elevated administrator role on the platform.

When examining Figure 15, one notable trend is that of the *Maintaining a Healthy and Safe Environment* administrator core competency area, which practitioners reported in higher proportions in 2020 compared to 2019 and earlier years. This trend is expected given COVID-19 and the need to create safer environments for children, and the governor's recommendation that all child care programs take recommended health and safety training (Special Considerations for Infection Control during COVID-19, a series of training designed for ECE programs). Another notable upward trend since 2018 is for *Instituting Family and Community-Centered Programming*.

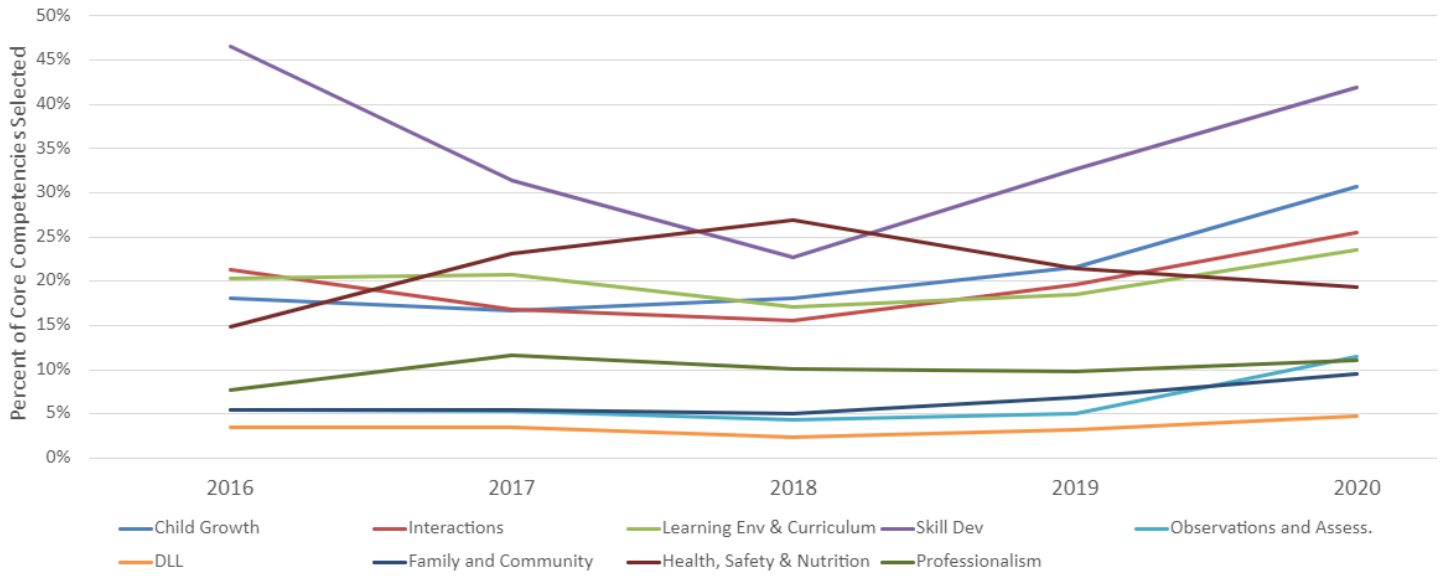
Figure 15. Administrator Core Competencies as Reported by Practitioners Across Time



Practitioner Core Competencies as Reported by Practitioners.

As illustrated in Figure 16, by 2020, the most common practitioner core competency was *Supporting Skill Development* (42%) followed by *Child Growth and Development* (30%), and *Responsive Interactions and Guidance* (25%). Again, this may be an impact of TECPDS' integration with online training providers that offer professional development in this core competency area. For the most part, core competencies related to *Diversity and Dual Language Learners* (which is the least reported) and *Professionalism and Ethics* have remained stable across time. In the last year, however, the core competency around *Observation and Assessment* has seen an increase from 5% to a bit over 10%. This may be related to availability of online training topics and an increased focus on child progress monitoring.

Figure 16. Practitioner Core Competencies as Reported by Practitioners Across Time



Professional Development Learning Format, Delivery Type, and Training Methods

To provide additional context to professional development records, TECPDS includes additional descriptive terms to identify the learning format, delivery type, and training methods. Collectively, these describe how training was provided, so stakeholders can learn more about how ECE professionals access and complete training opportunities. Since this terminology is new to some ECE professionals classifying their professional development, there can be some user error with manual entry.

Learning format identifies the type of professional development, such as training/workshop, webinars, individual coaching, etc. **Delivery type** indicates how ECE professionals attended the professional development: in person, online/distance, or hybrid, a mix of in person and online/distance. **Training method** describes how the professional development was delivered. These terms are consistent with Child Care Regulation:

- **Instructor Led:** Training includes attendance at seminars, workshops, conferences, early childhood classes, and other planned learning opportunities, provided by individual/s.
- **Self-Instructional:** Training designed for one individual working alone and at the individual's own pace to complete lessons or modules. Lessons or modules commonly include questions with clear right and wrong answers. An example of this type of training is web-based training. Professionals may complete up to 80% of their annual training as self-instructional.
- **Self-Instructional (Instructor Led):** Training characterized by the communication and interaction that takes place between the student and the instructor. The training must include an opportunity for the student to interact with the instructor to obtain clarifications and information beyond the scope of the training materials. Examples of this type of training include web-based on-line facilitated learning, video-conferencing, or other group learning experiences.
- **Self-Study:** Non-standardized training where an individual reads written materials, watches a training video, or listens to a recording to obtain certain knowledge that is required for annual training. Self-study training is limited to three hours of annual training per year.

Administrators

Figure 17 summarizes the learning format, delivery type, and training method for administrators' trainings. Between 2016-2019, the **learning format** that administrators report for training has remained, for the most part, stable over time. One exception to this is the online modules, which have been steadily increasing from 34% in 2016 to about 62% in 2019. The 2020 COVID-19 year increased the proportion of webinars to 15% compared to 1.7-2% in prior years. As of 2020, the three most common learning formats were: online modules, training/workshops, and webinars. TECPDS integrations with online learning management systems (see 14) does have an impact on these numbers.

Figure 17. Learning Format, Delivery Type, and Training Methods for Administrators' Trainings

	2016*	2017*	2018	2019	2020
Learning Format					
Conference	1.08%	1.32%	1.04%	0.89%	1.57%
Individual Coaching/Mentoring	0.00%	0.37%	0.03%	0.14%	0.21%
Online Module	34.10%	37.39%	53.61%	61.80%	57.42%
PLC	0.07%	0.00%	0.07%	0.13%	1.45%
Self-Study	1.95%	1.94%	3.18%	1.97%	2.90%
Training/Workshop	29.34%	33.99%	29.96%	31.72%	31.17%
Webinar	1.73%	1.99%	1.78%	1.80%	15.16%
Unknown	28.84%	27.08%	9.70%	0.20%	0.32%
Delivery Type					
Hybrid	10.45%	7.76%	5.43%	0.81%	0.95%
In-Person	27.40%	35.06%	28.87%	30.46%	12.54%
Online/Distance	29.85%	34.24%	54.85%	67.32%	96.71%
Unspecified/Unkown	29.42%	26.70%	10.24%	0.10%	0.00%
Training Method					
Instructor-Led Training	38.07%	50.20%	32.74%	30.71%	39.11%
Self-Instructional Training	37.85%	40.53%	57.30%	61.69%	57.99%
Self-Instructional Training (Instructor Led)	2.31%	3.98%	4.38%	2.95%	7.80%
Self-Study Training	1.87%	1.74%	1.68%	3.04%	5.07%
Unspecified/Unknown	13.34%	5.64%	1.35%	0.33%	0.35%

Note: For 2016 and 2017, the Learning Format, Delivery Type, and Learning Method variables were coded by TECPDS retroactively. Starting in 2018, data reported for these variables was reported directly by users.

Additionally, **delivery type** saw an increase for online/distance training, even prior to COVID-19. Online/distance training started at about 30% in 2016, nearing 67% for 2019, and 97% in the COVID-19 year. The In-Person delivery type has remained fairly constant in years prior to COVID-19 (ranging from 27-35%). However, as expected considering social distancing for the COVID-19 year, this percent decreased to 13%.

The most common **training method** as of 2020 is self-instructional with approximately 58% of administrator trainings using this method. This was true even before COVID-19. The next most popular method was instructor-led training, with close to 39% in 2020 and 31% in 2019. In 2018, there was an observed drop that coincides with the increase in online training.

Practitioners

Figure 18 summarizes the learning format, delivery type, and training method for practitioners' trainings. Between 2016-2019, the **learning format** that practitioners report for training has remained, for the most part, stable over time. 2020 (COVID-19 year), saw an increase in the report of webinars for training formats. In contrast to the administrators, for which online modules started at around 34% in 2016 and have been increasing across time, the online module learning format for practitioners has been reported in higher proportions than that of administrators since 2016. This is often due to the fact that practitioners are less able to attend in-person training while in the classroom, and that online training tends to be less expensive.

Figure 18. Learning Format, Delivery Type, and Training Methods for Practitioners' Trainings

	2016*	2017*	2018	2019	2020
Learning Format					
Conference	0.39%	0.72%	0.67%	0.55%	0.51%
Individual Coaching/Mentoring	0.09%	0.12%	0.07%	0.16%	0.29%
Online Module	52.71%	44.10%	51.94%	61.07%	65.37%
PLC	0.07%	0.02%	0.03%	0.09%	1.41%
Self-Study	0.96%	1.25%	3.37%	1.44%	1.53%
Training/Workshop	13.06%	26.33%	31.63%	32.57%	30.33%
Webinar	0.91%	0.75%	0.98%	1.60%	9.02%
Unknown	28.09%	26.24%	8.96%	0.18%	0.10%
Delivery Type					
Hybrid	35.39%	17.94%	10.61%	0.64%	1.10%
In-Person	12.74%	27.83%	30.74%	29.29%	12.91%
Online/Distance	19.67%	27.30%	46.94%	67.57%	94.53%
Unspecified/Unkown	28.43%	26.41%	9.39%	0.17%	0.01%
Training Method					
Instructor-Led Training	22.96%	42.48%	33.99%	28.64%	27.91%
Self-Instructional Training	54.44%	46.20%	55.45%	63.94%	70.73%
Self-Instructional Training (Instructor Led)	0.97%	1.98%	3.71%	2.44%	5.90%
Self-Study Training	0.56%	0.86%	1.52%	2.36%	3.79%
Unspecified/Unknown	15.32%	7.15%	2.20%	0.30%	0.33%

Note: For 2016 and 2017, the Learning Format, Delivery Type, and Learning Method variables were coded by TECPDS retroactively. Starting 2018, the data reported for these variables was reported directly by users.

For **delivery type**, an increase for online/distance training was observed, even prior to COVID-19. Online/distance training started at about 20% in 2016, nearing 68% for 2019, and 95% in the COVID-19 year. In contrast to the administrators, for which the in-person delivery type has remained fairly constant in the years prior to COVID-19, for practitioners an increase in the in-person delivery type from 2016 (13%) compared to the remaining years (2017-2019) was observed.

For **training method**, the most common training method as of 2020 is self-instructional with approximately 70% of practitioners reporting this method. This was true even before COVID-19. The next most popular method was instructor-led training, with around 28% in both 2019 and 2020.

For both practitioners and administrators, there is an increase in the documentation of individualized coaching/mentoring, PLC, and webinars. The TECPDS Certificate Generation Tool (see page 12) allows documentation of these learning formats, providing richer data. At this time, TECPDS is in the process of onboarding Boards to additional TECPDS features that provide the ability to document learning format, delivery type, and training method more easily. As this data has never been reported at this level in Texas, further exploration may indicate more interesting trends about professional development behavior and needs.

Descriptive Analysis Summary

- Data shows that targeted efforts onboarding specific regional Boards is a promising practice that supports the increase in the number of TECPDS user accounts.
- Compared to 2019, TECPDS has had a drastic increase in both the number of administrator accounts (74% increase) and the number of practitioner accounts (251% increase).
- High amounts of missing data (ranging from 40% to 82%) prevented us to provide a complete picture of the ECE workforce at this time. Tied to this, disaggregating training data by type of setting (e.g., child care center, Head Start) is problematic given that type of setting is missing for 64-82% of accounts. Without increased certainty of which setting is engaging in training and PD, it will be difficult to offer targeted support.
- The number of users with training data represents a small but significant and growing population of users in TECPDS. As expected and consistent with the increase in the number of overall TECPDS accounts, there was an increase in the number of administrators and practitioners reporting their training data between 2013 and 2020.
- Between 2018-2020, administrators reported a decrease in the number of trainings they completed and the number of training hours received.
- Between 2018-2020, practitioners reported an increase in the number of training hours they received, although the number of trainings was consistent over this period.
- Records verification began in 2018 with a limited focus; since then, TECPDS has had continued growth of records entered, and increased staffing to accommodate verification of greater numbers of the records. Currently, 85% of records have gone through the verification process, representing information uploaded by users from the past 8 years.
- For administrators, the most common administrator core competency area was *Maintaining a Healthy and Safe Environment* followed by *Implementing a Developmentally Appropriate Curriculum and Environment*. The most common practitioner core competencies as reported by administrators were in the areas of *Supporting Skill Development* and *Child Growth and Development*, followed by *Responsive Interactions and Guidance*.
- Practitioners generally did not engage in trainings aligned to administrator core competencies. The most common practitioner core competency was *Supporting Skill Development* followed by *Child Growth and Development*, and *Responsive Interactions and Guidance*.
- Training offerings for administrators and practitioners were comparable when it came to most popular learning format, delivery type, and training method. As of 2020, the most common learning format was online modules; the most common delivery type was online/distance; and the most common training method was self-instructional training.

TECPDS is equipped to capture data around the ECE workforce in Texas that could inform policy. However, the biggest hurdle to provide the full picture is that the fields included in TECPDS are not mandatory; thus, the amount of missing data prevents us from providing a full depiction of the field and how these characteristics vary by setting. Much of the information presented thus far is the self-reported data that users have entered into TECPDS. Given that some programs may be more likely to use TECPDS, one limitation of the demographic information reported is that these percentages may be biased and describe users from settings or programs that are registered TECPDS users.

As a result of this report, TECPDS plans to implement a few additional mandatory fields such as basic demographic characteristics (e.g., years of experience, education) and type of setting where professionals work (e.g., family child care provider). Given that all Texas Rising Star administrators are required to register into TECPDS, implementing these mandatory fields soon will allow us to fully describe a relevant subset of all ECE programs.

Conclusions and Opportunities

As the State Center for Early Childhood Development, the Children's Learning Institute is advancing several initiatives to drive TECPDS towards its strategic goals of increasing access to high quality data, supporting ECE quality initiatives, and coordinating with other state programs to increase efficiency. As highlighted in the previous section, what can be learned about the workforce is limited by data currently available, but the TECPDS platform is a tool to help achieve strategic objectives that optimize resources at the state, regional, and local levels.

> Lessons learned from prior partnerships with state and regional initiatives and programs (see page 14) inform the next steps to advance TECPDS and learn about the ECE workforce:
>
> - Partnering with agencies, organizations, and programs dedicated to workforce advancement and credentialing supports TECPDS enrollment and onboarding
> - Integrating documentation by ECE professionals in the Workforce Registry paired with resources to support specialists who deliver their training maximizes utilization of TECPDS
> - Leveraging TECPDS reports for regular assessment and scoring is more efficient than manual review of paper documents and records
> - Incorporating higher education and high school CTE programs in TECPDS educates the next generation of ECE professionals on the core competencies and supports career advancement
> - Automating certificate transfer from large training organizations and learning management systems streamlines professional development accuracy and data entry
> - Integrating TECPDS onboarding into systems already used by ECE professionals dramatically impacts account creation
> - Surveying and learning from the ECE workforce through routine and/or timely user engagement

Currently, TECPDS has several partnerships targeted to continue achieving its strategic goals through expansion and replication of those key impacts and findings:

- **Increasing access to high quality data** by exploring and implementing additional technology integrations to increase automatic record transfers from trusted sources, such as state agencies and large training organizations, and engaging users to update and maintain their records with the most current information.
- **Directing TECPDS as a quality improvement tool** by enhancing the Texas Trainer Registry approval system to be based on trainer competency (as defined by the core competencies for trainers hosted within TECPDS, see Figure 12) to extend beyond the current focus of training quality. Also, by designing a new coach approval system within TECPDS for ECE specialists who provide coaching and mentoring to administrators and practitioners. Together, these enhancements offer career advancement opportunities for individuals and enhance the quality of training, coaching, and mentoring delivered across the state. Additionally, TECPDS is reviewing and aligning the Texas Core Competencies with the Professional Standards & Competencies for Early Childhood Educators developed by the national Power to the Profession collaborative (National Association for the Education of Young Children, 2019) to identify opportunities for future updates.
- **Integrating with other state and local initiatives** to improve coordination across programs and sectors, for instance developing reports to better track continuing professional education hours for public school educators within TECPDS, complements to the current clock hour-aligned reporting, and alignment to TEA's High Quality Prekindergarten Grant Program.

These initiatives offer opportunities to continue enhancing TECPDS to improve user experience, offer new data entry options, and reporting. Many organizations and stakeholders are invested in advancing opportunities for the ECE workforce in Texas, and TECPDS is a key component to reaching these goals by leveraging its actual workforce data to drive decisions to meet the needs of administrators, practitioners, and specialists working in Texas' mixed delivery ECE system.

Policy and Practice Recommendations

The Center for the Study of Child Care Employment (CSCCE) identified key policies for states to improve the early childhood workforce. As noted in their most recent Early Childhood Workforce Index (2020), CSCCE highlights the need for comprehensive state workforce registries as a "key issue" – naming that "there is no comprehensive, longitudinal data source for tracking the early childhood workforce in its entirety across the United States on par with data collected on the K-12 teaching workforce." Simply put, without such data, the needs of ECE professionals and the school communities they serve become "invisible to policymakers and the wider public" (CSCCE, 2020).

As it stands, TECPDS is equipped to support data gathering of the crucial information listed above. Beyond a repository of timely data representing both private and public early childhood settings, TECPDS is also a statewide program designed to meet the professional learning needs of those working in the ECE field. These features that make TECPDS unique among state workforce registries also advance opportunities to continue learning about and offering resources to support Texas' ECE workforce – enabling stakeholders to view critical data regarding workforce quality and development.

The following policy and practice recommendations are presented by relevant groups and subgroups.

State Agencies and State-Level Stakeholders

Support comprehensive programming and rule-making that integrates the required use of TECPDS and the entering of workforce data to meet the needs of Texas' mixed delivery ECE system, create efficiency and alignment between programs and agencies that serve young children, and build capacity for quality improvement:

- Fully utilize HB619 to require use of TECPDS for all Texas Rising Star administrators and practitioners to continue improving efficiency for Category 1 scoring
- Leverage TECPDS to reduce time spent on record review by Child Care Regulation through automated scoring, building upon successes demonstrated with the existing integration with Texas Rising Star
- Support funding opportunities to enhance TECPDS to improve user experience, ease data entry for the ECE workforce, and increase reporting capability
- Encourage ECE specialists who support statewide quality improvement programs to provide learning opportunities aligned to TECPDS and the state's Core Competencies
- Leverage TECPDS in routine or special data collection through surveys, reports, and other methods to learn from the ECE workforce on compensation, turnover, and workforce experiences
- Build an early childhood data system that supports targeted resource allocation, collaboration across programs, and advanced research initiatives
- Support implementation and use of TECPDS in public school pre-K programs. This includes but is not limited to TECPDS collecting the following data:
  - Ongoing professional learning and credentialing of ECE staff
  - ECE professionals' salary and compensation
  - Practitioner and administrator demographic data (e.g., race, ethnicity)
  - Student to teacher ratios
  - Program evaluation data
  - Classroom and campus environmental assessment data

- Support establishment and monitoring of integrated partnerships between child care, public school pre-K, and Head Start programs
- Leverage TECPDS data to report progress and guide future decisions related to ECE funding and opportunities that benefit the workforce

Regional and Local Agencies

Local Workforce Development Boards

- Access regional reporting data to support needs assessments related to professional learning, and support professionals in career advancement
- Leverage TECPDS to collect routine or timely data from regional ECE programs or professionals
- Utilize the TECPDS reports to analyze the training that is occurring locally to support the needs of professionals
- Utilize TECPDS to monitor Core Competencies training for practitioners, coaches and mentors, trainers, and administrators to ensure there are no gaps due to lack of content delivered

Education Service Centers

- Support implementation and use of TECPDS in public school pre-K programs and partnerships
- Utilize TECPDS teacher credentialing and education data to support decision making for professional learning opportunities provided by ESC ECE Specialists
- Employ use of TECPDS for registering ESC ECE Specialists as trainers and registering their course content
- Utilize the TECPDS tools to provide, organize, and store training certificates
- Support local education agencies in developing and implementing high quality program assessment procedures for reporting in TECPDS
- Access regional reporting for ECE workforce data to guide funding decisions
- Utilize TECPDS to monitor Core Competencies training for ESC ECE coaches and mentors, trainers, and administrators

Local Education Agencies

- Adopt use of TECPDS as best practice for all educators serving in early childhood settings
- Encourage use of Core Competencies training for administrators and staff serving young children
- Utilize TECPDS to monitor Core Competencies training for practitioners, coaches and mentors, trainers, and administrators

Training Organizations

- Pursue a technology integration with TECPDS to decrease the burden for ECE professionals to upload professional development into individual accounts (as applicable to training organizations' technological capacity)
- Adopt the TECPDS Certificate Generation Tool for providing all professional development certificates
- Encourage training staff to apply to become Registered Trainers
- Utilize the TECPDS reports to analyze the training that is occurring locally, regionally, and across the state
- Monitor Core Competencies training for practitioners, coaches and mentors, trainers, and administrators through TECPDS reports to ensure equal opportunity for professionals' learning across the competencies

ECE Professionals and Providers

Trainers & Specialists

- Support onboarding, communication, and training for all ECE professionals who register for and attend professional development sessions
- Utilize the TECPDS Certificate Generation Tool for providing all professional development certificates to training participants
- Review the Core Competencies for Trainers and Coaches to ensure continued professional development offers opportunities to advance in these practices

ECE Programs and Providers

- Adopt consistent use of TECPDS and the Core Competencies to implement program assessment, monitor professional learning and credentialing, and register ECE professionals employed by the program
- Strongly encourage use of Core Competencies trainings for administrators and practitioners serving young children
- Utilize TECPDS reports to plan professional development opportunities for all ECE professionals employed by the program

ECE Professionals

- Register for a free account on TECPDS to build a career profile and plan career advancement through professional development, education, and employment opportunities
- Utilize Core Competencies trainings to advance practice and knowledge of early childhood education
- Always ensure professional development certificates include required information, including alignment to the Core Competencies

Future Reports and Next Steps

> Strengthening career pathways enhances recruitment and retention of a quality ECE workforce, the dedicated professionals who care for and educate the youngest Texans. Ultimately for professionals, TECPDS is a resource to help them achieve their career goals, but all agencies, initiatives, and stakeholders committed to the advancing the workforce have a critical role to play. Through TECPDS and this inaugural report documenting the state of the Texas ECE workforce, our state is beginning to learn how to better support this workforce using what has never been available before – verified data from ECE professionals themselves on their career experiences.
>
> Currently, the Children's Learning Institute is preparing a strategic plan for TECPDS to support continued growth and purpose of the system in collaboration with stakeholders through the TECPDS Advisory Council and other partners supporting its development and feedback. Building upon the goals and initiatives detailed in this report, this strategic plan provides opportunities to set priorities, targeted goals, and a plan to achieve them, so TECPDS will continue to be a resource for the state.
>
> The Children's Learning Institute will publish the State of the Texas Early Childhood Workforce Report annually. Learn more at: https://tecpds.org.

References

Ackerman, D. J. (2016). Using State Early Care and Education Workforce Registry Data to Inform Training-Related Questions: Issues to Consider. ETS Research Report Series, 2016(2), 1-20.

Allvin, R. E. (2017). Making connections. early childhood educators and the American Economy: An American Story. NAEYC. Retrieved November 11, 2021, from https://www.naeyc.org/resources/pubs/yc/nov2017/making-connections.

Crawford, A. (2019). Findings from The Strengthening Texas Rising Star Implementation Study. Children's Learning Institute. https://childrenslearninginstitute.org/wp-content/uploads/sites/21/2021/10/Strengthening_TRS_Implementation_Study-Final_Report.pdf

Crawford, A., Vaughn, K. A., Guttentag, C. L., Varghese, C., Oh, Y., & Zucker, T. A. (2021). "Doing what I can, but I got no magic wand:" a snapshot of early childhood educator experiences and efforts to ensure quality during the COVID-19 pandemic. Early Childhood Education Journal, 1-12.

Iruka, I. U., Oliva-Olson, C., & Garcia, E., (2021) Research to practice brief: Delivering on the promise through equitable polices. SRI International.

National Association for the Education of Young Children. (2019). Professional Standards and Competencies for Early Childhood Educators [Position Statements]. Located online at: https://www.naeyc.org/resources/position-statements/professional-standards-competencies.

National Center on Early Childhood Development, Teaching and Learning. (2018). Early Childhood Workforce: Registries. Located online at https://eclkc.ohs.acf.hhs.gov/sites/default/files/pdf/early-childhood-workforce-registries.pdf

National Workforce Registry Alliance. (n.d). What is an Early Childhood/School Age Workforce Registry? [White Paper]. National Workforce Registry Alliance. Located online at: https://www.registryalliance.org/our-resources/.

National Workforce Registry Alliance. (2013). Core data elements for early childhood and school-age registries. Located online at: https://www.registryalliance.org/our-resources/.

National Workforce Registry Alliance. (2021). Member profiles. National Workforce Registry Alliance. Retrieved November 12, 2021, from https://www.registryalliance.org/member-profiles/.

Texas Early Childhood Professional Development System. (2021a). Administrators. The University of Texas Health Science Center at Houston. Retrieved November 19, 2021, from https://public.tecpds.org/texas-workforce-registry/administrator-account/.

Texas Early Childhood Professional Development System. (2021b). Early Childhood Education Reports. Retrieved August 26, 2021, from https://tecpds.org/ecereports.

Texas Early Childhood Professional Development System. (2021c). Practitioners. The University of Texas Health Science Center at Houston. Retrieved November 19, 2021, from https://public.tecpds.org/texas-workforce-registry/practitioner-account/.

Texas Early Childhood Professional Development System. (2021d). Specialists. The University of Texas Health Science Center at Houston. Retrieved November 19, 2021, from https://public.tecpds.org/texas-workforce-registry/specialists/.

Texas Early Learning Council. (2012). Pathways to Quality: Charting the Course for a New Texas Early Childhood Professional Development System. Located online at: https://public.tecpds.org/wp-content/uploads/sites/12/2021/04/TELC-TECPDS-Paper-2021.pdf.

Texas Early Learning Council. (2012). Texas Early Childhood Career Pathway. Located online at: https://public.tecpds.org/wp-content/uploads/sites/12/2021/04/Texas-Early-Childhood-Career-Pathway.pdf.

Texas Health and Human Services. (n.d.). Child Care Trainer Requirements. Texas Health and Human Services. Retrieved November 12, 2021, from https://www.hhs.texas.gov/providers/protective-services-providers/child-care-licensing/child-day-care-provider/child-care-trainer-requirements.

Texas Public Education Information Resource. (2021). Texas Public Prekindergarten Programs and Enrollment. Prekindergarten Programs | TPEIR. Retrieved November 12, 2021, from https://www.texaseducationinfo.org/Home/Topic/Prekindergarten%20Programs?br=PK-12.

Texas Workforce Commission. (2021a). Child Care By the Numbers. Child Care By the Numbers | Texas Workforce Commission. Retrieved August 19, 2021, from https://www.twc.texas.gov/programs/child-care-numbers.

Texas Workforce Commission. (2021b). Texas Rising Star Certification Guidelines: A Quality Rating and Improvement System for Texas. Texas Rising Star. Retrieved November 17, 2021, from https://texasrisingstar.org/wp-content/uploads/2021/03/FINAL-TRS-Guidelines-January-2021-1.25.21-1.pdf.

The University of Texas Health Science Center at Houston. (2021). University website Privacy & Security policy. University of Texas Health Science Center at Houston. Retrieved November 17, 2021, from https://www.uth.edu/index/privacy.htm.

About the Children's Learning Institute

Established in 2003, the Children's Learning Institute (CLI) at The University of Texas Health Science Center at Houston (UTHealth) is a research-to-practice institute focused on advancing learning and health outcomes for all children through public and private partnerships in research, resource development, clinical programs, and service delivery. Today, CLI provides clinical assessment, diagnoses, and treats learning disorders, conducts cutting-edge research on techniques to enhance a child's home and learning environments, and develops multi-modal teaching, learning, and coaching platforms. From before birth through young adulthood, CLI's programs and services impact children across Texas and the nation. Additionally, CLI is the Texas State Center for Early Childhood Development, designated by Governor Rick Perry in 2003 to encourage expansion of CLI's programs and initiatives as well as to focus, develop, and orchestrate the implementation of best practices in education on a statewide basis. This has led to partnerships with numerous local and regional organizations to better the educational development of at-risk children throughout the state.

The **Texas Early Childhood Professional Development System** is one of several statewide programs directed by CLI to support the early childhood system, professionals, and families across the state, as part of CLI's role as the Texas State Center for Early Childhood Development.