

2018



Teachers' Voices

Work Environment Conditions That Impact Teacher Practice and Program Quality



Minnesota

Center for the Study of Child Care Employment
Institute for Research on Labor and Employment
University of California, Berkeley

Marcy Whitebook
Marisa Schlieber
Aline Hankey
Lea J.E. Austin
George Philipp

Teachers' Voices: Work Environment Conditions That Impact Teacher Practice and Program Quality — Minnesota

© 2018 Center for the Study of Child Care Employment. All rights reserved.

Suggested Citation: Whitebook, M., Schlieber, M., Hankey, A., Austin, L.J.E., & Philipp, G. (2018). *Teachers' Voices: Work Environment Conditions That Impact Teacher Practice and Program Quality — Minnesota*. Berkeley, CA: Center for the Study of Child Care Employment, University of California, Berkeley.

Center for the Study of Child Care Employment
Institute for Research on Labor and Employment
University of California, Berkeley
2521 Channing Way #5555, Berkeley, CA 94720
(510) 642-2035
cscce.berkeley.edu

Established in 1999, the Center for the Study of Child Care Employment (CSCCE) is focused on achieving comprehensive public investments that enable the early childhood workforce to deliver high-quality care and education for all children. To achieve this goal, CSCCE conducts research and policy analysis about the characteristics of those who care for and educate young children and examines policy solutions aimed at improving how our nation prepares, supports, and rewards these early educators to ensure young children's optimal development. CSCCE provides research and expert analysis on topics that include: compensation and economic insecurity among early educators; early childhood teacher preparation; access to educational opportunities and work environments; and early childhood workforce data sources and systems. CSCCE also works directly with policymakers and a range of national, state, and local organizations to assess policy proposals and provide technical assistance on implementing sound early care and education workforce policy.

This study and report were generously supported by the W.K. Kellogg Foundation, the Heising-Simons Foundation, the W. Clement and Jessie V. Stone Foundation, and the Greater Twin Cities United Way.

Special thanks to the program administrators and teaching staff who gave so generously of their time to take part in this study. Thanks also to the Minnesota Department of Human Services and West Central Initiative for their support of this project.

Design: Aline Hankey
Editor: Deborah Meacham

Table of Contents

Executive Summary	1
Introduction	2
Key Findings	6
Recommendations	11
About This Report	14
Study Design	15
Study Overview	16
Goals Guiding the Study	16
A Profile of the Survey Respondents	17
Teaching Staff	17
Personal Characteristics	17
Professional Background	19
Compensation	21
Benefits	22
Program Leaders	23
A Guide to SEQUAL Findings	25
Interpreting Agreement and Disagreement With SEQUAL Items	26
Findings	27
Domain 1: Teaching Supports	28
Dimension 1: Curriculum	28
Dimension 2: Child Observation and Assessment	30
Dimension 3: Materials and Equipment	32
Dimension 4: Support Services for Children and Families	33
Dimension 5: Staffing and Professional Responsibilities	35
Variations in Teaching Supports Findings by Site and Teacher Characteristics	36
Domain 2: Learning Community	38
Dimension 1: Professional Development Opportunities	38
Dimension 2: Applying Learning	40
Variations in Learning Community Findings by Site and Teacher Characteristics	41

Domain 3: Job Crafting	42
Dimension 1: Decision Making	42
Dimension 2: Teamwork	44
Dimension 3: Input	45
Variations in Job Crafting Findings by Site and Teacher Characteristics	46
Domain 4: Adult Well-Being	48
Dimension 1: Economic Well-Being	48
Dimension 2: Wellness Supports	52
Dimension 3: Quality of Work Life	54
Variations in Adult Well-Being Findings by Site and Teacher Characteristics	55
Domain 5: Program Leadership	56
What Teaching Staff Said About Supervisors	56
What Teaching Staff Said About Leaders	57
Leaders by Role	58
Final Thoughts and Recommendations	60
Appendices	65
Appendix A: Study Design	66
Population and Sample	66
Sampling Frame and Selection	66
Data Collection Procedures	66
Study Instruments	67
Analysis Plan	69
Appendix B: Description of Program Leaders	70
Personal Characteristics	70
Professional Background	70
Compensation	70
Appendix C: Tables and Figures	71
Endnotes	73

List of Tables

Table 1. Student Loan Debt, by Position

Table 2. Teaching Staff Tenure

Table 3. Educational Background, by Position

Table 4. Race and Ethnicity, by Position

Table 5. Hourly Wage, by Position

Table C.1. Center Population and Sample

Table C.2. Response Rate of Centers, Program Leaders, and Teaching Staff

Table C.3. Response Rate of Teaching Staff and Program Leaders, by Center

Table C.4. Number of Program Leaders Sent Surveys and Response Rate, by Group

Table C.5. Number of Teaching Staff Sent Surveys, by Group

List of Figures

Figure 1. Race/Ethnicity of Survey Respondents

Figure 2. Professional Development Opportunities



EXECUTIVE SUMMARY



Introduction

THERE IS BROAD CONSENSUS that high-quality environments for young children depend on teachers who are skilled at nurturing their development and learning, yet low pay and inadequate working conditions routinely hamper teachers in their efforts to apply their skills and knowledge.ⁱ This condition exists among teachers in early education as well as K-12 classrooms, fueling the ubiquitous challenge of recruiting and retaining a skilled teaching workforce across the age spectrum. K-12 teachers nationwide are now calling attention to how inadequate pay and poor working conditions are driving economic insecurity and turnover and how insufficient classroom resources continue to hobble their practice, leading to large-scale demonstrations for increased public investment in education. With teachers increasingly engaging in the public sphere and a growing number of elected officials prioritizing support for schools and teaching staff, the demand for change to the systems that prepare, support, and compensate educators continues to build.

The Unique Challenge of Early Childhood

The voices of early educators — those working with children from infancy through preschool — are rarely heard, and public awareness of the challenges facing this workforce remains low. Compared to their K-12 peers, early educators are less organized and vocal about their situation, but a persistent state of teacher crisis casts a pall over efforts to ensure high-quality early care and education (ECE) for all children prior to kindergarten.

Access to unions and professional organizations that advocate for benefits and supportive work conditions in the K-12 workplace are far rarer for early educators. Perhaps as a result, early educators often don't have even basic expectations of working conditions — such as program policies providing for payment for planning time, staff meetings, and professional development; a salary schedule accounting for experience and varied levels of education; and provision of health, retirement, sick-, and vacation-leave benefits that most K-12 educators can rely upon — nor are teachers typically the focus of strategies and policies to improve the quality of early care and education services.ⁱⁱ

This study captures early educators' perspectives about their work environments in the state of Minnesota and examines how these environments impact teaching staff practice and well-being. In order to teach to the best of their ability, educators require work environments that support their ongoing learning, emphasize time without child responsibilities for professional activities, and offer dependable benefits that ensure their

well-being. With prioritization of workforce supports, quality improvement initiatives can make substantive progress towards a system that is equitable, efficient, and effective for children, their families, and educators alike.

Quality Rating and Improvement Systems

Currently operational across 44 of the 50 states, Quality Rating and Improvement Systems (QRIS) have become a primary approach for quality improvement efforts intended to strengthen early care and education systems within states and local municipalities. The elements incorporated into a system's QRIS communicate important messages to stakeholders (including policymakers, teachers, and administrators) about the values and priorities deemed most important for focusing resources and attention.ⁱⁱⁱ While staff qualifications and training are one of the most commonly assessed areas of quality and are included in nearly all QRIS, fewer systems to date include benchmarks related to positive and supportive teacher work environments.^{iv} The attention that a given QRIS pays to the workforce through staff education, professional development, compensation, benefits, and work environments may determine how practitioners invest their energies, how public resources and priorities are allocated, and the ultimate success of the QRIS effort itself.^v

Quality Improvement and Teacher Work Environments

Minnesota's QRIS initiative, Parent Aware, is a voluntary program available to centers across the state. Programs participating in Parent Aware are assigned a star rating, ranging from One Star to Four Stars, with a Four-Star rating indicating excellence. Programs participating in Parent Aware receive a variety of resources and supports intended to improve program practices and ratings. These resources include coaching and assistance, training in areas such as working with children with special needs or challenging behaviors, and supports for professional development.^{vi}

However, according to the 2018 *Early Childhood Workforce Index* prepared by the Center for the Study of Child Care Employment (CSCCE), Minnesota's QRIS is stalled on progress related to policies focused on work environments.^{vii} This finding indicates that policies related to paid time for professional development, planning, and/or preparation as well as salary schedules and staff benefits are not included as markers of quality in the state's rating system.

Yet, Minnesota's early education community recognizes the imperative to address the low compensation and challenging work environments impacting the well-being of educators. Two key efforts to address workforce challenges, which have involved multiple stakeholders over the last several years, are the B8 Workforce Core Team and the National Governors Association advisory group. The B8 Workforce Core Team was formed following the 2015 release of the Institute of Medicine and National Research Council report, *Transforming the Workforce for Children Birth to 8: A Unifying Foundation*, which outlined recommendations for strengthening the early care and education workforce grounded in developmental theory.^{viii} The team was tasked with a 10-year plan for implementing and advancing the report recommendations at the state level, targeting five of the 13 recommendations.^{ix}

The advisory group funded by the National Governors Association examined methods for increasing compensation and developed recommendations for improving early educator wages. The working group's recommendations included providing financial rewards to staff for higher levels of educational attainment, leveraging additional resources for programs to elevate pay, and raising awareness about the importance of a well-compensated and well-trained ECE workforce.^x

To inform efforts to improve support for the ECE workforce, QRIS administrators and other advocates sought more information about conditions faced by teaching staff in programs throughout Minnesota, utilizing CSCCE's SEQUAL tool (see p. 5 for a description). SEQUAL was applied to programs participating in Parent Aware as well as those not participating in the state's QRIS. This process of gathering teachers' perspectives on the features of their work environments that best allow them to apply their skills and continue to develop their knowledge constitutes a next step in generating new avenues and policy approaches via QRIS and other initiatives to ensure that teaching staff work conditions support their practice and program improvement.

SEQUAL (Supportive Environmental Quality Underlying Adult Learning)

To facilitate the process of bringing teachers' voices into quality improvement strategies, the Center for the Study of Child Care Employment (CSCCE) developed the Supportive Environmental Quality Underlying Adult Learning tool, or SEQUAL. As a multi-purpose validated tool, SEQUAL addresses five critical areas of teachers' learning environments: **Teaching Supports**, **Learning Community**, **Job Crafting**, **Adult Well-Being**, and **Program Leadership**. The SEQUAL study conducted in the state of Minnesota provides a window into the daily realities of early childhood teaching staff employed in licensed child care centers, including programs participating in and outside of the state's QRIS.



Key Findings

Transforming the way that the early education system values and supports teacher work conditions require sustained strategies implemented on multiple levels. The perspectives of teaching staff represented in this study can be used to inform Parent Aware efforts and guide workforce policy in Minnesota. The findings underscore the need for further changes in practices and provision of professional supports as well as the need for sufficient staffing to ensure that standards, including basic legal requirements like paid breaks, are consistently enforced. While teaching staff working in unrated centers and more highly rated programs participating in Parent Aware tended to assess their work environments more positively than lower-rated programs, it is notable that challenges were evident across all program types represented in the study (see Findings, p. 27). It is also worth noting that more than one-half of the sample worked in the ECE field or at their center for five years or less, highlighting the turnover and churn in early care and education. Three areas in particular require improvement based on teaching staff assessments of their work environments: [Adult Well-Being](#), [Staffing and Teaching Supports](#), and [Professional Learning and Guidance](#).

Adult Well-Being

Economic

Teaching staff struggled to meet monthly expenses and afford housing, health, transportation, and food costs, as well as save for the future.

- **56%** worried about paying for routine health care costs.
- **55%** worried about having enough to pay their families' monthly bills.
- **39%** worried about paying housing costs.
- **27%** worried about being sent home without pay if child attendance was low or if their program had an unexpected closure.
- **24%** worried about having enough food for their families.

“I am in this field because I am passionate about children. However, I feel like I am making financial sacrifices in order to remain in this field. I have a Masters of Education with a teaching license, but I am not adequately compensated nor are my co-workers. We are working for minimum wage [...] with degrees, while being responsible for up to 16 preschoolers. I feel supported when it comes to my socioemotional well-being through my co-workers, and I enjoy my work every day, but in the long term, this salary is not sustainable.”

– Teacher working in a Four-Star center

Quality of Work Life

Teaching staff reported experiencing stressful workplace dynamics like intimidation, unequal distribution of workload, favoritism, or a lack of opportunities for input in their program.

- Only **49%** agreed that staff input on program policies is taken seriously.
- **40%** disagreed or only somewhat agreed that all staff are responsible for doing their share of work.
- **26%** disagreed or only somewhat agreed that bullying is not tolerated in their program.

Health and Safety

Teaching staff reported lacking basic health and safety practices.

- **49%** assessed the ability to take paid breaks during the workday as undependable.
- **43%** disagreed or only somewhat agreed that their program provides comfortable places for adults to sit and be with children.
- **45%** reported that they could not depend on using their paid sick leave when ill.

Staffing and Teaching Supports

Sufficient Staffing

Teaching staff assessed staffing levels as insufficient to engage in practices necessary to promote children’s learning and to improve their practice.

- **57%** agreed or somewhat agreed that frequent changes in staff make it difficult to try new ways to teach.
- Just **30%** agreed that there are enough staff available to give children individual attention.
- Only **41%** agreed that there are trained substitutes/floaters available to help.
- Only **24%** reported sufficient time each week to carefully observe children.

“Lots of difficult kids and not enough teachers.”

– Assistant teacher working in a Three-Star center

Time for Professional Responsibilities

Teaching staff used their own unpaid time or time while supervising children on the playground or during naps to complete their professional responsibilities.

- **54%** had not engaged in dedicated time to reflect on teaching with other teachers in the past six months.
- **50%** had paid time for planning during the past week.
- Only **32%** had dedicated time to discuss work-related issues with other teachers.

Professional Development and Guidance

Sufficient and Appropriate Training

Teaching staff assessed training to support their work with children and families as insufficient.

- Less than two-thirds agreed that they had been trained on how to use assessments and observations to talk with families about their children (**63%**) or that they received guidance on how to use the information from assessments and observations in their teaching (**62%**).
- **49%** agreed that training for supporting family needs was available to them.
- **45%** disagreed or somewhat agreed that sufficient training about teaching children with challenging behaviors was available to them.

“Inconsistencies in staffing [coverage] and timing of breaks can make it challenging to integrate new things in the classroom [as] I do not have opportunities to meet with other staff members to discuss what’s happening.”

– Teacher working in a Two-Star center

Support for Working With Dual Language Learners and Their Families

At the time of the survey, **37%** of teaching staff reported working in classrooms with children who speak another language in addition to English.

- **66%** disagreed or somewhat agreed that sufficient training was available for teaching children who are dual language learners.
- **40%** disagreed or somewhat agreed that if they have a problem communicating due to a language barrier, outside resources were available to assist them.

Guidance

Teaching staff reported an absence of guidance from program leaders in supporting their professional practice.

- Nearly two-thirds (**66%**) agreed that their supervisor knew their teaching well.
- Less than half (**46%**) disagreed that at least once a year, their supervisors met with them to develop a personalized professional development plan.
- Only **37%** agreed that once a month, their supervisors met with them to discuss their teaching practice.

Access, Payment, and Reward

Staff members reported difficulties in accessing or paying for professional development activities or receiving remuneration for advancing their skills or education.

- **51%** could not reliably adjust their work schedule in order to participate in professional development activities.
- **48%** could not depend on compensation for routine professional activities, including work outside of regular work hours, parent conferences, and evening or weekend events.
- **26%** could not reliably expect that their employer would pay some or all of their professional development expenses.

“During our shared professional development days, our director gives us time to reflect together as a staff in a relaxing and supportive environment where all teachers and assistants are encouraged to participate and share their ideas. Afterward, we are trusted to take those ideas into the classroom and put them into practice in ways that align with our personal teaching philosophy, with the school's philosophy and expectations, and with the developmental needs of our students. [...] The greatest challenge comes in doing that to the depth that we would like within paid working hours.”

“Since we are interacting with children most of the day, [...] it is difficult to discuss ideas fully and modify the program daily, as well as communicate with parents and fulfill all other commitments, in the paid time frame permitted. [...] But particularly when trying to analyze documentation and maintain a deep commitment to children's individual learning needs and when also committed to sharing thoughtful documentation with parents and the community, it is often a challenge to meet these goals within paid working hours.”

– Teacher working in a Four-Star center

Recommendations

Minnesota has made significant investments in and taken critical steps toward improving the quality of early care and education services. Notwithstanding the investment of resources and supports, the work conditions of teaching staff as captured in this study suggest further efforts are needed to support teacher practice and well-being necessary for quality services.

Leaders in Minnesota have an opportunity to shape expectations and codify standards for early educator work environments. The following recommendations support funders and policymakers in advancing Minnesota efforts to improve its quality rating system and address work environment conditions:

1. Develop workplace standards, such as guidance on appropriate levels of paid planning time, which are necessary for educators to engage in professional practice and to alleviate conditions that cause educator stress. Use existing models, such as the **International Labor Organization Policy Guidelines** and the **Model Work Standards**, to support this process. Developing these standards will benefit programs throughout Minnesota by:

- Identifying conditions and supports that teaching staff need to effectively fulfill the professional responsibilities necessary for effective teaching;
- Acknowledging how systemic challenges to all programs impact daily teaching practice; and
- Elevating appropriate work environments as a critical component necessary to achieving desired child outcomes.

2. Provide financial resources and other assistance specifically designed to enable programs and providers to comply with work environment standards in a reasonable period of time. To accomplish this goal, resources should be:

- Long-term and sustainable over time;
- Sufficient to cover the costs associated with meeting the established work environment standards; and
- Evaluated to determine their long-term impact and effect.

3. Embed work environment standards in the Parent Aware scoring system to emphasize their importance and ensure that programs cannot achieve the highest star ratings without addressing work environment standards. Acknowledging the inherent challenges in adjusting the Parent Aware scoring system, Minnesota could initiate this process by documenting work environment conditions during the rating process without incorporating them into rating scores. This effort would allow Minnesota to collect valuable site-level data that can support ongoing efforts to integrate work environment standards into Parent Aware's scoring system and Minnesota's professional development system as a whole.

4. Develop and implement training programs that support program leaders, supervisors, and coaches to address work environment issues. Program leaders, supervisors, and coaches all require support and training on how to implement and sustain these types of changes. The following steps may assist in this process:

- Utilize this SEQUAL study, other SEQUAL materials, and additional resources such as the **International Labor Organization Policy Guidelines** and **Model Work Standards** to develop an initial list of potential training areas; and
- Conduct a needs assessment with program leaders, supervisors, and coaches to further develop and prioritize training topics and content areas.

5. Provide funding to institutions of higher education and training programs to develop and offer classes and workshops related to work environment standards, rights of teaching staff on the job, and the critical importance of economic, emotional, and physical well-being among adults in the workplace. Strategies to begin this process include:

- Conducting a needs assessment with representatives from institutions of higher education and training organizations to identify existing college courses and training programs (such as Minnesota's First Children's Finance) that could be expanded to include work environment standards;
- Determining which topics around work environment standards would require new college-level courses or training programs; and
- Establishing a funding process that would provide resources and incentives to institutions of higher education and training organizations to incorporate work environment standards into new or existing courses or training.

6. Institute strategies that engage early educators in the process of informing quality improvement and regularly collect data to assess how they experience the work environment. Strategies to begin this process include:

- Adjusting planning and meeting times to make them more accessible to early educators;
- Creating opportunities for teaching staff to submit audio or video testimonials that can capture their perceptions on work environment conditions and can also be used to bring teacher's voices and opinions into the planning process; and
- Incorporating opportunities for input on work environments into existing regional meetings, conferences, etc.

Capturing the experiences and perspectives of early educators working directly with children as a component of evaluating Parent Aware presents an opportunity to further refine and strengthen the policies, practices, and resources necessary to facilitate a high-quality system that supports children and their teachers alike. The findings from the Minnesota SEQUAL study presented in the following pages, coupled with forthcoming resources, are intended to inform decision making and guide quality improvement strategies throughout the state.

About This Report

THE FOLLOWING REPORT PRESENTS the findings from the 2018 Minnesota SEQUAL study and includes the perspectives of teaching staff across licensed child care centers throughout the state, including centers participating and those not participating in the state's QRIS. Following a description of the study design, this report will explore major findings drawn from teaching staff responses. The report is divided into three sections:

- 1) **Study Design** shares a study overview, the goals guiding the study, a profile of the survey respondents, and a guide to the findings;
- 2) **Findings** outlines teaching staff responses to items in each of the five SEQUAL domains, including an analysis of how responses varied by site characteristics and quality ratings; and
- 3) **Appendices** presents additional information on the study design, which includes survey instruments and analysis, characteristics of program leaders, and additional tables and figures.



STUDY DESIGN



Study Overview

In 2018, researchers from CSCCE implemented a SEQUAL study in the state of Minnesota to examine how teaching staff employed at center-based programs throughout the state assessed their work environments. The study included licensed child care centers that were participants in the state's QRIS, Parent Aware, at the time of the survey as well as those that were not. Teaching staff (head/lead teachers, teachers, and assistant teachers) completed an online survey — the SEQUAL for teaching staff — to capture perceptions of their work environments and provide information about their demographic background, educational preparation, and work experience, including their current position, job tenure, and compensation. In addition, program leaders also filled out an online survey to provide contextual information about their centers. They also answered questions about their own demographic and professional background and current job role.

The sample was drawn from 1,748 licensed child care centers throughout the state. Among those centers, 587 were rated centers participating in the state's QRIS, and 1,161 were unrated centers not participating in Parent Aware. Among the 167 centers invited to participate, the final sample included 47 centers, 35 program leaders, and 143 members of teaching staff. Among the 47 centers, 33 centers were participating in Parent Aware and 14 centers were not. Of those centers participating in Parent Aware, 17 centers were higher-rated programs (i.e., Three- and Four-Star centers) and 16 centers were lower-rated programs (i.e., One- and Two-Star centers). By region, 18 centers in urban areas and 29 centers in rural areas of the state participated. Please note that these findings are specific to the study's sample of 143 teaching staff members across 47 centers and may not generalize to the larger workforce in the state.

For a more detailed description of the study methodology, study instruments, sampling frame and selection, population and sample, response rates, and analysis plan, please see [Appendix A: Study Design](#) and [Appendix C: Tables and Figures](#).

Goals Guiding the Study

The study surveyed teaching staff employed at center-based programs throughout the state of Minnesota assessed their work environments overall and across specific domains, as captured by the SEQUAL survey instruments (see description, p. 67). Programs participating in the state's QRIS, Parent Aware, and programs not participating were included in the study, which also examined how assessments varied by:

- The center's assigned quality rating, as determined by Parent Aware, grouped as higher-rated, lower-rated, and unrated centers;
- The center's location in an urban or rural area in the state of Minnesota; and
- The characteristics of teaching staff, including job role, tenure, and age group of children in the classroom.

A Profile of the Survey Respondents

Teaching Staff

This detailed portrait of the teaching staff in our sample notes differences among staff members based on job role and other characteristics. If differences are not noted, there were no statistically significant differences ($p < .05$) found among staff members.

The vast majority of teaching staff in the sample worked full-time at their center. More than three-quarters (80 percent) worked 35 hours or more per week, and almost all teaching staff (92 percent) worked 10 months or more per year. Among teaching staff, 31 percent worked as assistant teachers and 69 percent as teachers.^{xi}

Personal Characteristics

Gender and Age

Nearly all teaching staff in the sample were female (99 percent). Teaching staff were 34 years old, on average. Teaching staff in the sample tended to be younger overall: 44 percent of teaching staff were under age 30 years old and 38 percent were between age 30 and 49. Staff under 30 years of age were more likely to work in rural regions of the state (70 percent) than urban regions (30 percent).

Family Characteristics

One-half (51 percent) of teaching staff in the sample reported their status as married or living with a partner, and nearly one-half (48 percent) of teaching staff reported a child under the age of 18 in their household. Almost one-fourth of teaching staff reported having a child under the age of five (24 percent), and one-third reported having a child between the ages of six and 18 (36 percent) living in their household.

Race and Ethnicity

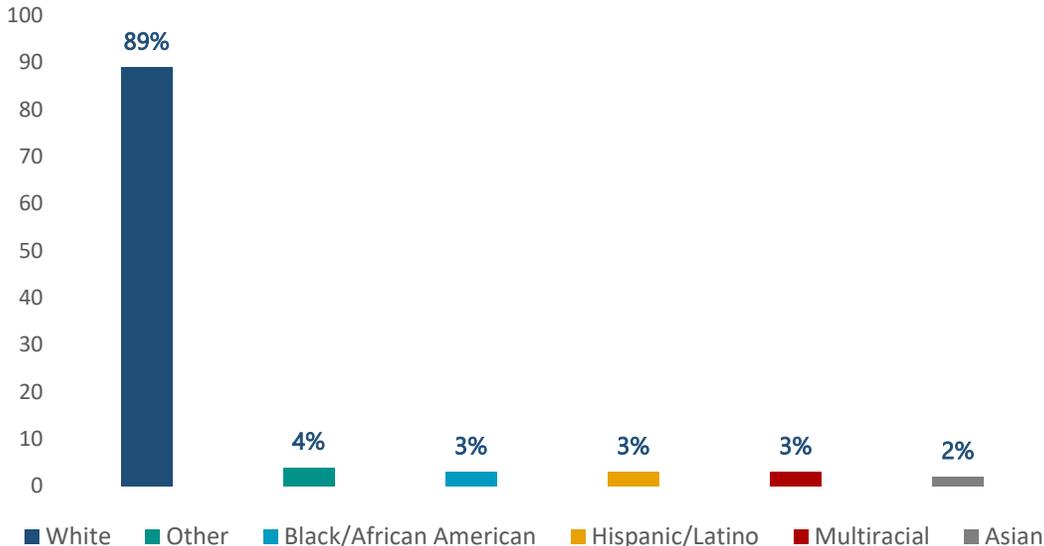
The teaching staff in this sample mirror the ECE workforce in the state as a whole.^{xii} The breakdown of teaching staff in the sample by race/ethnicity was 89-percent white, 3-percent black/African American, 3-percent Hispanic/Latino, 2-percent Asian, 4-percent other, and 3-percent multiracial (see **Figure 1**).

Distribution across teaching roles suggests some evidence of racial stratification by position and program type. People of color comprised 16 percent of assistant teachers and were overrepresented in this teaching role relative to their composition of the workforce as a

whole. Teaching staff working at centers in urban regions were more likely to be people of color (16 percent), compared to those working in rural regions of the state (8 percent). Teaching staff who were people of color were also more likely to work in Three- and Four-star centers (14 percent), compared to One- and Two-Star centers (10 percent) or unrated centers (7 percent).

Figure 1

Race/Ethnicity of Survey Respondents



Note: Respondents had the option to select more than one racial/ethnic category.

Country of Origin

Almost all teaching staff were born in the United States (96 percent). Among those born outside of the United States, the countries of origin were Canada, Italy, Sudan, and Thailand.

Languages Spoken

Only 9 percent of teaching staff reported speaking another language in addition to English, yet 37 percent of respondents reported working with children in the classroom who speak another language. With regard to the languages spoken in the classroom, 19 percent of teaching staff reported children in their classrooms speaking Spanish, and 8 percent, Somali. Additionally, teaching staff reported that 1 percent or less of the children in their classrooms spoke one of 12 languages. Teachers working in centers located in rural regions were less likely to report children in their classrooms who speak another language other than English, compared to teaching staff in urban regions (36 percent and 64 percent, respectively).

Dual Language Learners

In early care and education classrooms across the nation, children are culturally and linguistically diverse and becoming increasingly more so. Throughout the state of Minnesota, 21 percent of young children between birth to age eight are dual language learners (DLLs), an increase of 77 percent between 2000 and 2011-2015.^{xiii} Yet, teaching staff rarely mirror the children in their care in terms of linguistic or cultural background. Within this study, dual language learners were reported in the classrooms of 37 percent of teaching staff. Among teachers themselves, only 9 percent of teaching staff reported speaking a language other than English. Regardless of how closely they may reflect the linguistic or cultural background of children in their care, however, ECE teachers must be prepared to employ and engage in pedagogical practices that optimize learning and development.

According to CSCCE's *Early Childhood Higher Education Inventory*, a tool designed to describe the landscape of early childhood degree programs, many such programs across the country lack courses focused on pedagogical and practical strategies for preparing future educators to work with DLLs. Furthermore, while coursework acknowledges the importance of the home environment for learning English, there is less focus on preparing educators to facilitate the learning of DLLs.^{xiv} Similar to the scant preparation teaching staff may receive during their degree program, there is also a lack of training at their center for teaching children with linguistic diversity. For example, within this study, 66 percent of teaching staff reported that training for teaching children who are dual language learners was inconsistently available.

Professional Background

Education and Credentials

Almost one-half (45 percent) of teaching staff in the sample had a bachelor's degree or higher, with minimal difference between teaching staff by region (45-percent rural and 47-percent urban). Of those with a degree, 30 percent majored in Early Childhood Education, 14 percent in Elementary Education, 11 percent in Child Development or Psychology, and 2 percent in Special Education. The remaining 43 percent held degrees in a range of other subjects. Examined by center rating, teaching staff working in higher-rated centers were more likely to hold a bachelor's degree or higher (52 percent), compared to lower-rated centers (41 percent) and unrated centers (36 percent). Slightly more than one-half (52 percent) of teaching staff reported having a credential. The most frequently cited credentials were the Child Development Associate (21 percent), Minnesota Early Educator Certification (4 percent), and Minnesota Director Credential (3 percent).

Student Loan Debt

Accruing student loan debt can compound teachers' economic insecurity, particularly in light of low wages. Among all teaching staff in the sample:

- **55%** reported accruing student loan debt; and
- **52%** of teaching staff who reported student loan debt had loans in excess of \$25,000.

Table 1. Student Loan Debt, by Position

Student Loans (Y/N)	Assistant Teacher	Teacher
Yes	50%	57%
No	50%	43%
Amount	Assistant Teacher	Teacher
Less than \$5,000	12%	4%
Between \$5,000 and \$10,000	18%	15%
Between \$10,001 and \$25,000	41%	21%
Between \$25,001 and \$50,000	12%	41%
More than \$50,000	17%	19%

Tenure

Over all, teaching staff represented a range of experience, from teachers new to the profession to others with many years in the field and at their current place of employment. However, teaching staff in the sample tended to have fewer years of experience: more than one-third (37 percent) had been at their current place of employment for two years or less, and nearly half (46 percent) had held their current position for that duration.

Table 2. Teaching Staff Tenure

Tenure	2 Years or Less	3-5 Years	6-15 Years	16-20 Years	More Than 20 Years
Number of years in the field	18%	29%	25%	11%	17%
Number of years at current place of employment	37%	31%	20%	6%	6%
Number of years in current position at current place of employment	46%	26%	16%	9%	4%

Compensation

Wages

The median hourly wage of teaching staff in the SEQUAL study was \$12.75, with 45 percent of the sample indicating that they made \$12.00 an hour or less. Assistant teachers in the sample reported earning a median hourly wage of \$11.00, and head/lead teachers reported a median hourly wage of \$14.00. For nearly one-half (45 percent) of teaching staff, all or almost all of their household income came from their work with children.

According to the *2018 Early Childhood Workforce Index*, the Minnesota state hourly median wage for all child care workers in 2017 was \$11.27 and \$14.93 for preschool teachers, compared with kindergarten and elementary-school teachers, who earned \$32.39 and \$35.00, respectively.^{xv} Though the wages reported in the *Index* are drawn from a larger swath of early educators, including those working in home-based settings, the wages among teaching staff in the SEQUAL sample are comparable. The median hourly wage for teaching staff with a bachelor's degree in our sample was \$14.03, reflecting an hourly wage gap of \$18.36 with similarly qualified kindergarten teachers.

Wages by Teacher Characteristics

While wages were low across the teaching staff in the sample — particularly in light of their high levels of education — variations exist in the following categories.

- **Tenure:** Teachers who have worked at their center for more than 10 years reported a median wage of \$16.28; teachers with 3-10 years, \$14.00; and teachers with two years or less, \$11.91.
- **Age of Children Served:** The median hourly wage for teaching staff working with younger children (infants and toddlers) was \$11.95; for teachers of mixed-age groups, \$12.60; and for teachers of three- and four-year-olds, \$12.86.
- **Educational Attainment:** The median hourly wage for teaching staff with a bachelor's degree or higher was \$15.20. Only 7 percent of teaching staff with a bachelor's degree reported earning more than \$20.00 an hour.
- **Center Quality Rating:** Teaching staff working in unrated centers reported the highest wages (\$13.50), followed by teaching staff at higher-rated centers (\$13.00) and lower-rated centers (\$11.65). Of teaching staff who work in lower-rated centers, two-thirds (67 percent) earned \$12.00 or less, compared to 42 percent of teaching staff who work in higher-rated centers and 35 percent of teaching staff who work in unrated centers.

Public Income Supports

Reflecting their low wages, 38 percent of teaching staff in the sample resided in families that utilized at least one form of federal public support, such as Federal Earned Income Tax Credit, Medicaid (for themselves), Healthy Families or Medical/ Medicaid for Children, or the Supplemental Nutrition Assistance Program (SNAP, also known as “food stamps”). This rate was higher than the national rate of participation for all workers.^{xvi} Among teaching staff in the sample who held a bachelor’s degree or higher, 36 percent resided in families that utilized at least one form of federal public support.

Benefits

Health Care

One in five teachers reported that they had no health coverage from any source. Among the 80 percent of teaching staff who had health coverage, less than one-half (46 percent) reported receiving insurance through their employer. Common sources of health insurance were coverage under the policy of a parent or spouse, coverage under Medicaid, or purchase of a policy through MNsure (the Affordable Care Act/Health Plan Marketplace). Teaching staff who reported earning an hourly wage of \$12.00 or less and teaching staff working in lower-rated centers were less likely to have health insurance.

Furthermore, 27 percent of teaching staff reported that in the past few years, they or a family member had gone without medical care due to the cost of treatment.

Vacation and Leave

A majority of staff members (84 percent) reported that they receive paid holidays and leave during the year. Around three-fourths of the sample (77 percent) reported that their employer permitted them a specific number of days off to be used for either vacation or sick leave. Although teaching staff reported a range, the median was 12 days for vacation and 11 days for paid leave.

Program Leaders

In addition to providing information on the center's characteristics, program leaders shared information about their own personal and professional characteristics. While the person most likely to fill out the survey held an administrative position (61 percent), such as center director, assistant director, or site supervisor, more than one-third (39 percent) held another leadership role at the center, such as educational coordinator or teacher-director. All program leaders in our sample identified as female. Program leaders ranged in age from 27 to 71 years old, with a mean age of 42. Almost three-fourths of program leaders (74 percent) who filled out the survey worked in centers in rural areas of the state. Of the centers that were sent surveys, 64 percent were in rural areas, which may account for the higher response rate from program leaders working in rural areas of the state. To learn more, please see [Appendix A: Study Design](#).

Almost all program leaders (97 percent) identified as white. More than three-fifths of program leaders (61 percent) held a bachelor's degree or higher, and more than one-fourth (27 percent) majored in Early Childhood Education. Overall, program leaders had a wealth of experience in the field, with almost half (47 percent) working in the early care and education field for more than 15 years. Nonetheless, the median hourly wage for program leaders was \$19.77.

Compared to teaching staff, program leaders identifying as center director were less likely to have student loan debt. Of those who did have student loan debt (36 percent), most had debt in excess of \$10,000 (83 percent) and two-thirds (67 percent) of program leaders had debt in excess of \$25,000.

For a more detailed description of program leaders, please see [Appendix B: Description of Program Leaders](#).

Comparisons Among Teaching Staff and Program Leaders

Note: Center directors (n=27) were used for comparison in the following tables.

Table 3. Educational Background, by Position

Highest Level of Education	Assistant Teacher	Center Teacher	Center Director
Less than a high school diploma or GED	3%	0%	0%
High school diploma or GED	25%	1%	4%
Some college credit but no degree	33%	12%	15%
Associate degree	17%	32%	18%
Bachelor's degree	17%	48%	37%
Graduate or professional degree	6%	7%	26%
<i>Bachelor's degree or higher</i>	<i>23%</i>	<i>56%</i>	<i>63%</i>
<i>Number of staff</i>	<i>36</i>	<i>82</i>	<i>27</i>

Table 4. Race and Ethnicity, by Position

Race/Ethnicity	Assistant Teacher	Center Teacher	Center Director
White	84%	90%	96%
Black / African American	5%	2%	4%
Hispanic / Latino	0%	5%	0%
Other	0%	2%	0%
Asian	3%	1%	0%
American Indian or Alaska Native	3%	0%	0%
Native Hawaiian or Other Pacific Islander	0%	1%	0%
Multiracial	5%	2%	0%

Table 5. Hourly Wage, by Position

Wage (Median)	Assistant Teacher	Center Teacher	Center Director
Hourly	\$11.00	\$14.00	\$20.00
Range	\$9.00-\$14.00	\$9.65-\$24.43	\$14.00-\$37.50

A Guide to SEQUAL Findings

Teaching staff assessments of their work environments are reported separately for each of the five SEQUAL domains: Teaching Supports; Learning Community; Job Crafting; Adult Well-Being; and Program Leadership. For each domain, we begin with a description of the domain and why it is important to teacher practice and development. Within domains, findings are presented for each dimension (note that domains vary with regard to the number of dimensions). Reporting on each domain is organized as follows:

Domain and Dimension Scores

- Mean scores, representing an aggregate of teaching staff responses, are provided for each SEQUAL dimension and domain. Results for each domain represent an aggregate of staff perceptions across sites, and therefore, the prevalence of issues identified will vary by site. Means are calculated according to a Likert scale, ranging from 1 (strongly disagree) to 6 (strongly agree). Unless noted, higher scores reflect that a positive work environment condition is in place or can be reliably depended upon.

What Teaching Staff Said

- Percentage of teaching staff who agree or disagree with individual items describing various workplace policies, practices, and relationships in a given dimension (see “Interpreting Agreement and Disagreement With SEQUAL Items,” p. 26).

Linking Teaching Staff Assessments to Quality Practice

- Implications of teaching staff assessments.

Findings by Site and Teacher Characteristics

- Relationship between SEQUAL domain and dimension scores and program characteristics, including the center’s star rating, location, and age of children served.
- Relationship between SEQUAL domain and dimension scores and teacher characteristics, including position, tenure, and age group in the classroom.



Interpreting Agreement and Disagreement With SEQUAL Items

The SEQUAL survey presents statements, and teaching staff are asked to indicate agreement or disagreement. In almost all cases, teaching staff agreement with an item signals that a positive work environment condition is in place or can be reliably depended upon, while disagreement indicates a lack of support for various work environment conditions necessary for teachers to apply their knowledge and skills and continue to hone their practice. We note the few instances in which agreement signals a less-supportive environment.

All SEQUAL items are rated on a six-point scale, with designations of “strongly agree,” “agree,” “somewhat agree,” “somewhat disagree,” “disagree,” and “strongly disagree.” Throughout the report, “agree” combines both strongly agree and agree responses. Likewise, “disagree” combines both strongly disagree and disagree responses. “Somewhat disagree” and “somewhat agree” are handled differently depending on the item and the meaning that the responses convey. We sometimes combine the somewhat responses with the overall agree or disagree items, while at other times we report out the percentage of staff who “somewhat agree” or “disagree,” if we determine that the additional detail provides greater understanding of the item.

On a few items, we combine somewhat agree with disagree responses. For example, when teaching staff respond that they “somewhat agree” that they have access to a working computer, the somewhat designation suggests that a computer it is not dependably available. In our judgment, “somewhat agree” in this case would not be considered agreement. In another example, if staff “somewhat agree” that bullying is not tolerated in their program, it signals that bullying may be tolerated under some conditions. Similarly, when teaching staff indicate they “somewhat agree” or “somewhat disagree” that bullying is tolerated among staff at their workplace, we interpret somewhat responses negatively because they signal some degree of tolerance for behavior that is detrimental to teaching staff.



FINDINGS

The page features a large, abstract graphic composed of several overlapping diagonal stripes. A prominent dark blue stripe runs from the bottom-left towards the top-right. Above it, a lighter blue stripe follows the same path. To the left of the bottom-left corner, there are two more stripes: a yellow one and a gold one, both extending horizontally from the left edge.



DOMAIN 1: TEACHING SUPPORTS

Domain Score:

4.35/6

The Teaching Supports domain includes a range of workplace tools that influence teaching practice. Varied in nature — ranging from specific materials and resources to levels of staffing and dedicated time for observation, planning, and sharing with colleagues — teaching supports constitute essential conditions for enabling teaching staff to apply their knowledge and skills. When such supports are missing or undependable, their absence undermines efforts to improve or sustain program quality and places additional burdens on the complex and demanding work of teaching, which includes meeting the varied needs of individual children in the classroom.

Dimension 1: Curriculum

Score: 3.98/6

The Curriculum dimension examines whether a program has articulated an approach to guide teacher practice and assesses whether teaching staff consider themselves adequately trained to apply the approach or curriculum to their planning and teaching.

What Teaching Staff Said

Almost all teaching staff reported that their program had a curriculum in place that tied directly to daily activities in the classroom.

- Nearly all teaching staff (**89 percent**) reported that their program had a curriculum in place to guide children’s learning and teaching practices.
- Most teaching staff (**80 percent**) agreed that they can explain how daily activities are part of their program’s curriculum.
- **85 percent** of teaching staff agreed that their program’s curriculum was helpful in deciding how to teach.

Though most staff members agreed their program’s curriculum was helpful, a substantial portion reported that training and individualized supports were lacking.

- While **58 percent** of teaching staff agreed that their program’s curriculum was helpful in deciding how to teach and plan for individual children’s needs, **42 percent** of teaching staff disagreed or only somewhat agreed.
- **36 percent** of teaching staff disagreed that training in how to use their program’s curriculum was reliably available.

Linking Teaching Staff Assessments to Quality Practice

- Curriculum provides teaching teams with an organizing framework that identifies and guides the content and processes teaching staff follow to reach specific learning outcomes.
- In the absence of a curriculum or in the case of a curriculum that is not well understood or utilized, teaching staff pursue various instructional approaches that may work at cross purposes, making it more difficult to achieve learning outcomes.
- A supportive work environment provides ongoing training and support to ensure that teaching staff can implement curriculum effectively.

Dimension 2: Child Observation and Assessment Score: 4.20/6

The Child Observation and Assessment dimension examines the training, support, and resources teaching staff are provided to assist them in understanding and recording children's behavior and development.

What Teaching Staff Said

Teaching staff generally reported positive findings when asked about their use of observations and assessments to help guide children's learning.

- Nearly all teaching staff (**91 percent**) reported that their program had a process in place for assessing children's development and learning.
- Though most staff members (**76 percent**) agreed that they regularly conduct assessments, nearly one-quarter (**24 percent**) reported this practice as inconsistent.

“Right now, it's extremely hard to complete observations and assessments. We have a full room almost every day, and we have the [minimum] number of staff in our room. While I do take notice of developmental progress of each child, I am unable to sit down during working hours to write it down. I plan the curriculum by observing each child and developing lesson plans that can be modified for each child's personal development.”

– Teacher working in a Two-Star center

Fewer staff members agreed they had received training on how to use assessments and observations to talk with families about their children or that they receive ongoing guidance on how to use this information to inform their teaching.

- Less than two-thirds of teaching staff agreed that they have been trained on how to use assessments and observations to talk with families about their children (**63 percent**) or that they receive ongoing guidance on how to use the information from assessments and observations in their teaching (**62 percent**).

Linking Teaching Staff Assessments to Quality Practice

- Observations and assessments provide valuable information about children's development that can be used to tailor teaching strategies to support individual children's socioemotional, physical, and cognitive development.
- When teaching staff are not well trained or provided adequate time to complete observations and assessments, inaccurate conclusions may be drawn about children's current abilities or progress towards developmental milestones, and/or developmental delays requiring specialized interventions may not be identified.

Dimension 3: Materials and Equipment

Score: 4.88/6

The Materials and Equipment dimension examines whether the equipment, toys, and consumable supplies available are appropriate, accessible, and kept in good condition.

What Teaching Staff Said

Most teaching staff reported reliable access, however a small portion could not depend on access to appropriate equipment and materials for children and staff.

- **19 percent** of teaching staff reported availability of a working computer/printer for staff use at their program as unreliable.
- **16 percent** of teaching staff reported that equipment and materials appropriate to the needs of children in their classrooms were not reliably available.

The distribution of materials and supplies across classrooms and timely repair or replacement of broken equipment were areas of concern.

- **43 percent** of teaching staff reported that they could not depend on equipment and materials being quickly repaired or replaced when broken.
- **26 percent** of teaching staff disagreed or only somewhat agreed that materials and supplies are shared fairly across classrooms in their program.

Linking Teaching Staff Assessments to Quality Practice

- Classroom materials are essential in creating an enriching and engaging environment that allows children to explore, play, and learn.
- When children do not have access to appropriate materials, it may impact their physical, socioemotional, and cognitive development.
- Teaching staff need access to materials and equipment (such as computers, printers, and copy machines) in order to prepare instructional materials, access online resources, engage in online professional development activities, and increasingly, communicate with families.

Dimension 4: Support Services for Children and Families Score: 4.55/6

The Support Services dimension examines the training, resources, and assistance available to enable teaching staff to respond to the individual needs of the children and families in their program.

What Teaching Staff Said

In the event of an issue with children or families, about one-quarter of teaching staff reported a shortage of available support from supervisors or coworkers.

- **24 percent** of teaching staff reported that in the event of a problem with a family, their ability to rely on supervisors or coworkers for help was inconsistent.
- **22 percent** reported the support of supervisors or coworkers in the event of a problem with a child as unreliable.

Resources related to supporting family needs — including training in teaching children who exhibit challenging behaviors, training in supporting dual language learners, and training in supporting family needs — were reported as less reliable.

- **66 percent** of teaching staff reported that training for teaching children who are dual language learners was inconsistently available.
- **52 percent** rated the availability of training for supporting family needs as inconsistent.
- **45 percent** of teaching staff reported that resources for training in teaching children with challenging behaviors was insufficient.
- **40 percent** disagreed or only somewhat agreed that if they had a problem communicating due to a language barrier, outside resources were available to assist.

Linking Teaching Staff Assessments to Quality Practice

- Teaching staff need additional training, support, and often, access to outside resources (such as mental health or developmental consultations) to effectively meet the needs of children and their families.
- Support from coworkers and supervisors is an important element in ensuring effective interactions with children and families but may not be sufficient in some instances.
- Addressing the needs of children and families who speak a language other than English is impaired when teaching staff cannot communicate with them directly or through a translator or when staff have not been trained in adapting to the unique needs of these children.

Dimension 5: Staffing and Professional Responsibilities Score: 4.14/6

The Staffing and Professional Responsibilities dimension examines the stability of teaching staff and the extent to which they are trained to meet their responsibilities. This dimension also examines how much time teaching staff have for planning, peer-to-peer discussion, attention to individual children, and completion of required paperwork.

What Teaching Staff Said

Teaching staff responses revealed shortages in staff coverage.

- Slightly more than one-half of teaching staff (**54 percent**) agreed that there are enough staff available to help during breaks.
- Just **41 percent** agreed that there are trained substitutes/floaters available to help.
- Only **30 percent** agreed that there were enough teaching staff for them to give children individual attention.

A lack of trained staff within programs may be exacerbated by teaching staff turnover.

- About two-thirds (**64 percent**) of teaching staff agreed that in the event of turnover, everything possible would be done to hire qualified new staff, but only **40 percent** of staff agreed that if turnover were to occur, new staff would be hired quickly.

Professional responsibilities essential to effective teaching are challenging to accomplish during the paid workday when coverage is insufficient. as teaching staff responses indicate.

- **65 percent** of teaching staff reported that in the last week, they had paid time, without responsibility for children, for doing paperwork for their job.
- **50 percent** reported that in the last week, they had paid time, without responsibility for children, for planning.
- Only **32 percent** of teaching staff reported having dedicated time, without responsibility for children, to discuss work-related issues with other teachers.

“**There is regular paperwork as well as up-keep of licensure requirements, etc. Even though time is given during the paid work day without children, there are a lot of variables that take away from ample time to plan, observe, assess, and use data to inform practice.**”

– Teacher working in a Four-Star center

Linking Teaching Staff Assessments to Quality Practice

- Each classroom needs an appropriate number of trained staff consistently in place in order to meet children’s immediate needs and to allow teaching staff to fulfill their other responsibilities related to curriculum and assessments.
- When staffing in a classroom is insufficient or unreliable, it challenges the ability of educators to attend to individual children’s needs or to provide a stable and nurturing learning environment for all the children in their care.
- Teaching staff need dedicated time, without child responsibilities, to plan curriculum, conduct observations and assessments, share with one another, and complete required paperwork.

Variations in Teaching Supports Findings by Site and Teacher Characteristics

To further explore the meaning of teaching staff assessments of their work environments, we explored variations in how SEQUAL scores for the Teaching Supports domain and dimensions varied by site and teacher characteristics. Specifically, we examined differences in assessments among teaching staff in the sample employed in higher-rated, lower-rated, or unrated centers and in centers located in rural or urban communities. We also examined differences in ratings based on teaching staff position, years employed at the center, and age groups served. Only significant findings for the domain and dimension are listed below.

Variations by Site Characteristics

Teaching Supports Domain Scores:

- Differences in teaching staff assessments were found by center rating (e.g., higher-rated, lower-rated, or unrated centers) on the Teaching Supports Domain.^{xvii} Higher-rated centers, those with Three- and Four-Star ratings, had higher mean scores on this domain (4.62/6) compared to lower-rated centers (4.08/6), representing One- and Two-Star centers. The differences in mean scores for teaching staff working in unrated centers (4.36/6) compared to rated centers was not statistically significant.

Teaching Supports Dimension Scores:

- On the Materials dimension, examining whether the equipment, toys, and consumable supplies available are appropriate, accessible, and in good condition, differences were found by participation by center rating.^{xviii} Teaching staff working in unrated centers had higher mean scores (5.30/6), compared to teaching staff working in lower-rated centers (4.60/6). Teaching staff working in higher-rated centers (5.04/6) assessed the materials dimension more positively than those in lower-rated centers, but this difference was not statistically significant.

Variations by Teaching Staff Characteristics

No differences in teaching staff assessments were found on overall Teaching Supports domain scores by teacher position, tenure on the job, or ages of children served.

Teaching Supports Dimension Scores:

- On the Observation dimension, differences were found by position.^{xix} Assistant teachers had lower mean scores (3.55/6), compared to teachers (4.50/6).
- On the Professional Responsibilities dimension, which assesses the time spent on responsibilities in addition to teaching (e.g., planning, conducting observations, meeting with coworkers to share ideas, record keeping), differences were found by the age group served.^{xx} Teaching staff working with older children (i.e., three- and four-year-olds) had lower mean scores (3.54/6), compared to teaching staff working with younger children (infants and toddlers) (4.25/6). The scores for teaching staff working with both age groups (4.11/6) was not significantly different.



DOMAIN 2: LEARNING COMMUNITY

Domain Score:

4.35/6

The Learning Community domain addresses conditions that strengthen and refine teaching practice. Encompassing issues of policy, practice, and relationships, a professional learning community involves opportunities to participate in relevant training, occasion to practice emerging skills, and encouragement for testing new strategies and ideas. Effective learning and implementation of new approaches to teaching requires engagement among colleagues across all roles in the organization. When learning opportunities fail to address classroom challenges, allow for opportunities to practice and reflect, or engage all members of the team, adult learning and organizational improvement are stalled and less likely to be sustained.

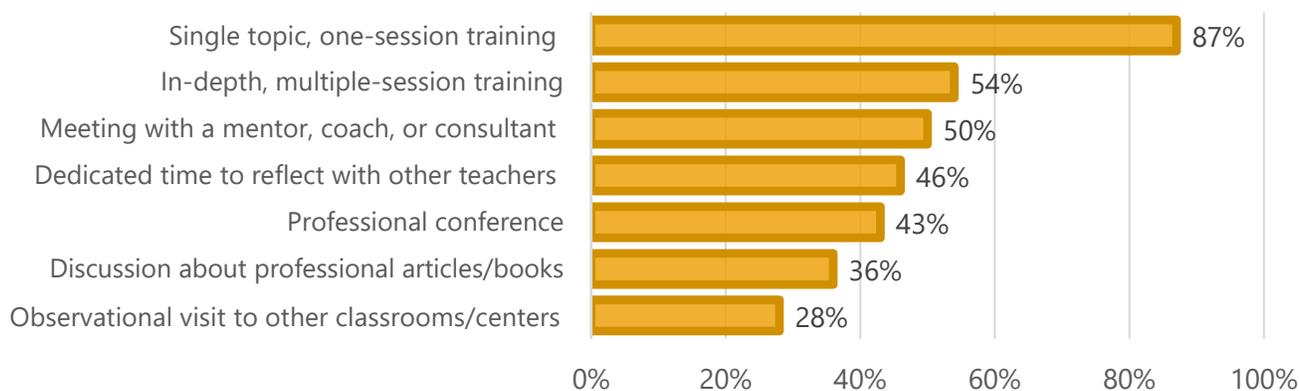
Dimension 1: Professional Development Opportunities Score: 4.35/6

The Professional Development Opportunities dimension examines types of professional learning experiences and supports available to teaching staff.

What Teaching Staff Said

Teaching staff were asked whether they had participated in any professional development activities over the last six months and, if so, to indicate the types of activities (see **Figure 2**).

Figure 2
Professional Development Opportunities



While almost all teaching staff (**87 percent**) agreed that they had participated in at least one professional learning opportunity in the past year, fewer agreed that they had a choice in the form of professional development in which they took part (**71 percent**).

Access to professional learning opportunities is limited by personal cost burden and a lack of flexibility in employer scheduling.

- **44 percent** of teaching staff disagreed or only somewhat agreed that in the past year, their employer paid for a portion of their professional development expenses.
- Less than one-half (**41 percent**) of staff reported that in the past year, the ability to adjust their work schedule to participate in professional development opportunities was unreliable.

“ I would like to have more opportunities for training and subs that can cover while I'm gone so I don't feel so guilty. Most of my training is provided by my work once a year with a presenter. It's not enough.”

– Assistant teacher working in a One-Star center

Linking Teaching Staff Assessments to Quality Practice

- Adult learners find learning experiences to be most meaningful when they participate in the design or selection of these activities.
- Conducting professional development activities during paid work hours — or providing a stipend for engaging in these experiences outside of work hours — demonstrates an employer's commitment to ongoing learning and reduces the personal financial burden associated with these activities. The National Academies of Sciences, Engineering, and Medicine (NASEM) recommended in 2018 that payment for professional development and education not be the responsibility of teachers, given their low wages.^{xxi}

Dimension 2: Applying Learning

Score: 4.32/6

The Applying Learning dimension examines teaching staff assessments of opportunities and support for trying new approaches to teaching and examines how staff stability and relationships may interfere with trying new approaches.

Most staff members agreed that they feel comfortable trying new approaches to teaching, however, fewer agreed that their coworkers support them doing so. Staff dynamics and stability were other factors that make it difficult to explore new methods of teaching. Taken together, these conditions reveal that many barriers may be inhibiting teachers from their exploration of new teaching methods

What Teaching Staff Said

- Though the vast majority of staff members (**79 percent**) reported feeling comfortable trying new approaches to teaching, **42 percent** disagreed or only somewhat agreed that *other* teachers in their classroom are also interested in exploring new styles.
- **57 percent** agreed or somewhat agreed that frequent staff changes make it difficult to try new ways to teach.
- **43 percent** of teaching staff reported that staff conflicts in their classroom make it difficult to apply new approaches.

“I have the freedom to implement and try new ideas whenever I wish to do so. The challenge is to find the time to plan as there is no designated prep time.”

– Teacher working in an unrated center

Linking Teaching Staff Assessments to Quality Practice

- In order for teaching staff to be able to translate learning experiences into teaching practice, they need to feel supported in experimenting with new ideas and concepts.
- When a work environment is unstable, either due to internal conflict and/or staff turnover, it creates a barrier to quality improvement and undermines investments in training and professional development.
- To integrate learning experiences into real-world applications, teaching staff need opportunities for reflection, peer-to-peer learning, and observation of other classrooms.

Variations in Learning Community Findings by Site and Teacher Characteristics

To further explore the meaning of teaching staff assessments of their work environments, we explored variations in how SEQUAL scores for the Learning Community domain and dimensions varied by site and teacher characteristics. Specifically, we examined differences in assessments among teaching staff in the sample employed in higher-rated, lower-rated, or unrated centers and in centers located in rural or urban communities. We also examined differences in ratings based on teaching staff position, years employed at the center, and age groups served. Only significant findings for the domain and dimension are listed below.

Variations by Site Characteristics

Learning Community Domain Scores:

No differences in teaching staff assessments were found on overall Learning Community domain scores by participation in Parent Aware or region.

Learning Community Dimension Scores:

- On the Professional Development dimension, differences were found by region.^{xxii} Teaching staff working at centers in rural areas of the state had higher scores (4.44/6), compared to teaching staff working at centers in urban areas (4.11/6).

Variations by Teaching Staff Characteristics

No differences in teaching staff assessments were found on overall Learning Community domain scores or dimension scores by teacher position, tenure on the job, or ages of children served.



DOMAIN 3: JOB CRAFTING

Domain Score:

4.53/6

The Job Crafting domain focuses on workplace practices and relationships that support individual teaching staff in expressing how their work is done and sharing decisions that impact their classrooms and the larger organization. When teaching staff consider themselves part of a well-functioning team and feel they have a meaningful say in how their classrooms operate, they are more able to engage in the reflection, creative problem-solving, and innovation necessary for continuous quality improvement. Both morale and performance improve in workplaces where employees feel well informed about program policies and changes and can identify that there is a clear process for giving input into organization-wide decisions that impact their day-to-day jobs. When teamwork and avenues for input are lacking or input is not seriously considered, morale and engagement decrease, while turnover increases.

Dimension 1: Decision Making

Score: 4.54/6

The Decision Making dimension examines the authority or input that teaching staff have on classroom composition and on establishing and adjusting schedules.

What Teaching Staff Said

Though most staff members reported that they had the power to make decisions about their classroom composition and materials, many indicated less autonomy in shifting planned activities and hosting external visitors.

- The majority of staff members (**77 percent**) reported the ability to choose materials and arrange their classroom space.
- Many staff members (**74 percent**) reported freedom of choice in making changes to planned activities when needed, though notably one-quarter (**26 percent**) of teaching staff did not.
- Less than one-half of teaching staff (**40 percent**) reported choice in when outside observations, excluding visits from families, were made in their classroom.

Linking Teaching Staff Assessments to Quality Practice

- Children’s developmental needs are constantly changing, and teaching staff need to feel comfortable adjusting their environment and teaching strategies frequently, based on their observations and professional assessments. Teaching staff need to know that they have relative autonomy to make decisions about materials, room arrangement, and planned activities.
- Outside visitors may impact the activities and schedule within a classroom, and teaching staff need to identify optimal times for visitors to conduct observations.

Dimension 2: Teamwork

Score: 4.78/6

The Teamwork dimension examines teaching staff assessments of coworkers' respect for one another's opinions and whether they collaborate effectively in planning and implementing learning experiences for children.

What Teaching Staff Said

While the vast majority of staff members reported working well together as a team in the classroom, fractures at the program level related to fair consideration and fair treatment were identified.

- Most teaching staff (**77 percent**) agreed that teachers in their classrooms consider themselves to be part of a team, and **68 percent** reported that teachers in their classroom work well with those in other classrooms.
- One-quarter (**28 percent**) of teaching staff disagreed or only somewhat agreed that all teaching staff are responsible for their share of the work.
- **18 percent** disagreed or only somewhat agreed that the opinions of all teaching staff in their classroom are considered fairly.

Linking Teaching Staff Assessments to Quality Practice

- Each early educator has their own unique philosophy and perspective on how to achieve learning outcomes for children. An effective high-quality classroom begins with a teaching team that respects one another's approaches and teaching styles and works together to meet the needs of their children and families.
- Effective teamwork contributes to classroom and program stability by improving teachers' effectiveness and job satisfaction. Cultivating this camaraderie requires dedicated paid time for professional sharing and peer-to-peer learning among teaching staff.
- Conflict within a program, at the classroom or administrative level, may occur when different ideas and approaches are not acknowledged and respected. In severe cases, animosity or conflict among staff may be noticed by children and adversely affect classroom behavior and learning opportunities.

Dimension 3: Input

Score: 3.97/6

The Input dimension examines teaching staff perceptions related to the ability to influence work policies that impact their practices.

What Teaching Staff Said

Teaching staff reported being kept well informed on administrative policies, but receiving fewer opportunities for input into decisions that directly impacted their classrooms and practice.

- While **74 percent** of teaching staff agreed they are kept well informed on program *policies*, fewer staff members (**68 percent**) agreed they are kept well informed of program *changes*.
- **75 percent** of teaching staff reported having input into decisions about the classroom in which they would be teaching.
- Far fewer staff members (**42 percent**) reported receiving input into children’s classroom placements.

Input Into Program Policies

Just 53 percent of teaching staff agreed that staff input into program policies is taken seriously.

Teaching staff received limited opportunities to contribute to decisions that affected all staff members and their work.

- **50 percent** of teaching staff reported that there was a clear process for staff members to have a say in decisions that impact their work.
- **49 percent** of teaching staff agreed that all teachers are invited to have input into program policies that affect everyone.
- Almost three-quarters (**71 percent**) of teaching staff disagreed or somewhat disagreed that teachers have input into how funds or resources are used.

“Policies are not made in the classroom. They are made by leadership, which may or may not know how the classroom is run on a daily basis.”

– Teacher working in a Two-Star center

Linking Teaching Staff Assessments to Quality Practice

- Having clear information on the areas of program and classroom decisions in which teaching staff can provide input is an important component to creating a supportive work environment.
- Opportunities to make decisions or to provide input on staff and child assignments, scheduling, room arrangement, and curriculum provides teaching staff with a needed level of control over their classrooms and the learning environments they create.
- Based on their direct knowledge and experience, teaching staff are a valuable resource in determining the appropriate classroom and teachers for children.
- Teaching staff provide a unique perspective on classroom and program needs and should be consulted on prioritizing how resources are used and what materials or supplies are needed.
- Failure to consider or respect teaching staff perspectives impacts staff morale and can lead to decreased job satisfaction and an increase in staff turnover.

Variations in Job Crafting Findings by Site and Teacher Characteristics

To further explore the meaning of teaching staff assessments of their work environments, we explored variations in how SEQUAL scores for the Job Crafting domain and dimensions varied by site and teacher characteristics. Specifically, we examined differences in assessments among teaching staff in the sample employed in higher-rated, lower-rated, or unrated centers and in centers located in rural or urban communities. We also examined differences in ratings based on teaching staff position, years employed at the center, and age groups served. Only significant findings for the domain and dimension are listed below.

Variations by Site Characteristics

No differences in teaching staff assessments were found on overall Job Crafting domain scores by center rating or region.

Job Crafting Dimension Scores:

- On the Input dimension, differences were found by rating.^{xxiii} Differences were found between teaching staff working in lower-rated (3.97/6) and unrated (4.67/6) centers. The differences in mean scores for teaching staff working in higher-rated centers (4.45/6) was not statistically significant.

Variations by Teaching Staff Characteristics

No differences in teaching staff assessments were found on overall Job Crafting domain scores by teaching staff position, years employed at the center, or age groups served

Job Crafting Dimension Scores:

- On the Decision Making dimension, differences were found by position.^{xxiv} Assistant teachers had lower scores (3.66/6), compared to teachers (4.84/6). This finding indicates that assistant teachers felt they had fewer opportunities for input into decisions impacting their work.



DOMAIN 4: ADULT WELL-BEING

Domain Score:

4.40/6

The Adult Well-Being domain encompasses the economic security and wellness of teaching staff, as well as their interactions with one another, all of which are influenced by policies, practices, and relationships. Low pay and inadequate benefits common to most early childhood jobs contribute to financial worry and insecurity among many staff members. Poor compensation is often exacerbated by expectations to complete job tasks during unpaid time or to work when ill, undependable breaks or schedules, and the absence of financial reward for professional advancement. Teaching young children is physically demanding work, which also includes continual exposure to illness, and requires that teaching staff be trained to protect their health and assured appropriate ergonomic equipment as well as adequate sick leave and vacations.

The tenor of relationships among colleagues in a site is another important contributor to teacher well-being, influencing the ability of staff to work effectively as a team. In a climate of respect and fairness, well-being can protect against or even alleviate stress, but such dynamics as favoritism and unresolved conflict can exacerbate it. In addition, children's well-being and learning are directly influenced by the emotional and physical well-being experienced by the adults primarily responsible for their education and care. When adults experience high levels of stress, there is a greater likelihood that they will be unable to engage children in developmentally supportive interactions that contribute to their learning.

Dimension 1: Economic Well-Being

Score: 3.99/6

The Economic Well-Being dimension examines the dependability of workplace pay and benefit policies (e.g., receiving paid time for work responsibilities and professional development) and the degree to which teaching staff worry about financial security (e.g., their ability to afford food for their families and housing and retirement costs).

What Teaching Staff Said

About Economic Worry

For items related to economic worry, stronger agreement (rather than disagreement) indicated higher levels of worry.

Teaching staff reported concern about their ability to pay for basic living expenses.

- **39 percent** of staff members reported worrying about paying housing costs.
- Nearly one-quarter (**24 percent**) of teaching staff reported that they worry about having enough food for their families.

Worry about the ability to provide for themselves and their families was widespread.

- **56 percent** of teaching staff reported that they worry about paying for their household's routine health care costs.
- **55 percent** reported worrying about having enough to pay their family's monthly bills.
- Teaching staff also reported worry about losing pay if they or someone in their family became ill (**35 percent**) and worrying about taking time off from work to take care of family issues (**31 percent**).

Food Insecurity in Teaching Staff

One in four teachers worry about having enough food to feed their family on a monthly basis.

Most staff members did not see their jobs as a likely source for improving their financial situation in the long term. In fact, compensation and long-term financial well-being were reflected as common worries.

- **44 percent** of teaching staff reported uncertainty about not getting a raise.
- Nearly two-thirds (**64 percent**) agreed or somewhat agreed that they worry about having enough savings for retirement.

Teaching staff reported positive assessments of their work reliability and job security, potentially reflecting a strong demand for and shortage of skilled staff in the field.

- Just **13 percent** of teaching staff reported that they worry about having their job benefits reduced, while few teachers reported concern for getting laid off from work (**7 percent**) or having their hours reduced (**10 percent**).
- Still, one in four teachers (**27 percent**) reported worrying about being sent home without pay if child attendance was low or if their program had an unexpected closure.

“Because of such low pay and high cost of health benefits other teachers and myself are in constant stress over how to afford basic necessities. This stress is so great it carries over onto our care for the children daily. Working full time in such a physically, mentally, and emotionally demanding job with such great responsibility is exhausting and challenging, to say the least! We work **NONSTOP** eight plus hours everyday. There is no mental break throughout our time with the children. It is constant talking, noise, problem solving, thinking ahead, coming up with new ideas at a whim, constant physical touch (children pulling, climbing, pushing, hugging, wiping, smearing, pulling hair, grabbing), as well as constant physical movement (up, down, up, down, picking up children, kneeling, bending, lifting, playing, cleaning) and never-ending decisions — all by 12-20 children at one time!”

– Teacher working in a Four-Star center

What Teaching Staff Said

About Dependability of Policies

In the following section, “disagree” and “somewhat agree” are interpreted as negative responses and an indication of a lack of reliable policies. Therefore, in the percentages that follow, “disagree” and “somewhat agree” ratings have been reported in combination. For a more in-depth explanation, see page 26, “Interpreting Agreement and Disagreement With SEQUAL Items.”

Many staff members reported compensation for professional development and job-related activities outside of work hours as undependable.

- Nearly one-half (**48 percent**) of teaching staff reported that they could not depend on compensation for routine professional activities, including work outside of regular work hours, parent conferences, and evening or weekend events.
- Less than one-half of teaching staff agreed they could depend on increased compensation for completing a degree (**45 percent**) or for being promoted to a position with more responsibility (**48 percent**).
- Nearly one-third (**31 percent**) of teaching staff reported that payment for any required professional development activities was unreliable.

“Being a caring and successful early childhood teacher is difficult. [...] Financial gain is definitely not why anyone would do this type of work, but we could certainly be much more effective if we didn’t have to worry about being able to feed dinner to our families or being financially able to take time off so we can bring our child to the doctor. Most of us don’t expect any type of luxury, but basic necessities of living would be nice.”

– Teacher working in a Four-Star center

Opportunities for teaching staff to take time off when ill or even to take paid breaks, were resources that could not be relied upon.

- **52 percent** of teaching staff assessed the ability to take their paid breaks during the workday as undependable, although required by law in most instances.
- Less than one-half (**44 percent**) of teaching staff agreed they could depend on having planning time during their paid work hours when they were not responsible for children.
- **38 percent** of staff members assessed the ability to take paid vacation time as undependable.
- One-third (**34 percent**) of teaching staff reported that they could not depend on taking paid time off for holidays, and nearly one-half (**45 percent**) reported that they could not depend on using their paid sick leave when ill.

Linking Teaching Staff Assessments to Quality Practice

- An important skill for teachers is the ability to have intentional interactions with children, requiring them to remain focused and present in the moment. Economic insecurity can cause significant stress and distract teachers from focusing on children's needs.
- A supportive teacher work environment recognizes the need for dedicated prep time and sets aside time and/or financial resources to support the professional responsibilities of teaching staff.
- The stress caused by low pay and inadequate benefits is often exacerbated by expectations to complete job tasks during unpaid time or to work when ill, as teaching staff cannot afford to take time off. Undependable breaks or schedules and the absence of financial reward for professional advancement can also serve as additional stressors and drive turnover.
- Regular breaks are necessary for all workers, and early educators are no exception. In a field in which teaching staff are required to be alert and responsive to children throughout the day, it is important for programs to have practices in place that ensure teaching staff can depend on regular breaks and can stay home when they are ill. Paid leave for vacation and holidays are also key policies that help to alleviate stress and prevent staff burnout.

Dimension 2: Wellness Supports

Score: 4.50/6

The Wellness Supports domain examines the conditions and training available in the work environment to ensure safety and security for teaching staff.

What Teaching Staff Said

Many staff members reported working in settings with insufficient supports to workplace cleanliness and physical comfort.

- **58 percent** of staff disagreed or only somewhat agreed that their program arranges for classrooms to be cleaned by someone other than a member of the teaching staff.
- **43 percent** disagreed or only somewhat agreed that their program provides comfortable places for adults to sit and be with children.

Nearly one in five teaching staff members reported that equipment and policies designed to support teacher health and minimize the likelihood of injury were not routinely available in their program.

- Almost one-fifth (**18 percent**) of teaching staff disagreed or only somewhat agreed that essential health materials, such as disposable gloves or aprons, were available without cost to teaching staff.
- **39 percent** disagreed or only somewhat agreed that their program provides a safe place to put their personal things.
- **23 percent** of teaching staff disagreed or only somewhat agreed that their program implements security measures (e.g., good lighting, locks) to ensure staff safety.

“Lack of adult-size seating and table options often affects my ability to comfortably interact with children and causes pain for me. Emotionally I am supported by staff/peers but have very little time to effectively communicate with them as I am typically relieving them or filling in for them, which can lead to stress and not enough time to prepare adequately for the needs of the children as well as adults.”

– Assistant teacher working in a Four-Star center

Training to help prevent staff injury and illness and to support healthy behaviors was not universally available or comprehensive.

- Although nearly three-fourths (**71 percent**) of teaching staff agreed that their program provides training for staff about healthy ways to perform tasks — such as preparing food, lifting children, and moving heavy objects — nearly one-third (**29 percent**) did not.
- Meanwhile, just one-third of teaching staff (**33 percent**) agreed that their program provides training for teaching staff on managing stress, healthy eating, and exercise.

Linking Teaching Staff Assessments to Quality Practice

- Teaching staff need a supportive and safe environment with appropriate space and furnishings, break rooms, and secure places for their belongings. These are basic accommodations that contribute to teachers' feelings of security and well-being at work.
- Teaching in early education settings is an emotionally and physically demanding profession. Teaching staff need support in managing stress and living a healthy lifestyle.
- Teaching staff face multiple demands throughout the day, and when teachers are not provided support and opportunities to manage responsibilities, the system is susceptible to heightened staff turnover, which ultimately undermines program quality.

Dimension 3: Quality of Work Life

Score: 4.72/6

The Quality of Work Life domain examines how well teaching staff are supported and treated by other adults in their work environment.

What Teaching Staff Said

Interpersonal relationships greatly influence how teaching staff experience their jobs. While most staff members agreed that they are treated with respect and support by coworkers, a substantial portion of staff did not.

- **83 percent** of teaching staff reported that their coworkers value their beliefs about teaching children.
- **78 percent** reported that their coworkers treat them with respect, leaving **22 percent** who reported this treatment as inconsistent.
- **76 percent** agreed that their coworkers support them when they have personal issues, though nearly one-quarter of staff (**24 percent**) disagreed or only somewhat agreed.

At the program level, teaching staff reported mixed assessments of fairness in the workplace.

- **62 percent** of teaching staff reported that no staff members receive preferential treatment at the expense of others.
- Only **58 percent** agreed that they are confident that their complaints (if voiced) would be considered fairly.
- **40 percent** disagreed or only somewhat agreed that all staff are held responsible for doing their share of work, suggesting that a substantial portion of teaching staff may witness or experience issues of unfair expectations or unequal distribution of workload.
- **38 percent** agreed or somewhat agreed that some staff received preferential treatment at the expense of others.
- **26 percent** of teaching staff disagreed or only somewhat agreed that bullying by other adults is not tolerated in their program, suggesting that some staff members may be experiencing or observing intimidating interactions among staff members in their program.

Linking Teaching Staff Assessments to Quality Practice

- In high-quality work environments, teaching staff feel that they are respected and treated fairly by their coworkers and leaders. When teaching staff work in a climate that allows bullying, includes favoritism, or has staff conflicts, it can create or exacerbate existing stress.
- When teaching staff perceive that their work is not valued or that others are being allowed to not meet their job responsibilities, it creates divisions among staff and/or program leaders that adversely affect job performance and staff morale. These conditions can have a direct impact on interactions with children and the ability to create a nurturing environment, while simultaneously undercutting staff morale, contributing to turnover, and undermining program quality.

Variations in Adult Well-Being Findings by Site and Teacher Characteristics

To further explore the meaning of teaching staff assessments of their work environments, we explored variations in how SEQUAL scores for the Adult Well-Being domain and dimensions varied by site and teacher characteristics. Specifically, we examined differences in assessments among teaching staff in the sample employed in higher-rated, lower-rated, or unrated centers and in centers located in rural or urban communities. We also examined differences in ratings based on teaching staff position, years employed at the center, and age groups served.

There were no differences on the overall Adult Well-Being domain or its dimensions by site or teacher characteristics. Overall, the mean scores were the lowest of all domains. Lack of differences among groups may reflect that all teaching staff experience worry and lack of dependability around program policies regardless of location, rating of center, position, or age groups served.



DOMAIN 5: PROGRAM LEADERSHIP

Domain Score:

4.76/6

The Program Leadership domain focuses on teaching staff assessments of other staff members who fulfill leadership functions that provide support and guidance to teacher practice. In center-based early care and education programs, leaders fulfill multiple functions. Here, we focus on supervision of teaching staff and oversight for daily operations of the site, which may be functions fulfilled by more than one person in a given site. When leaders are knowledgeable about child development and pedagogy, engaged in learning themselves, considered to be accessible and fair, and committed to listening to and responding to staff concerns, they create a workplace climate that supports staff morale and encourages innovation. When leaders are assessed as inaccessible, insensitive, or unfamiliar with the daily experiences of teaching staff, confidence in their authority and in the organization is undermined.

***Supervisor** refers to the person who directly supervises teaching (e.g., a head or lead teacher, educational coordinator, site supervisor, director, or principal). The person may or may not teach in the classroom on a regular basis.*

***Leader** refers to the person at a site who is responsible for overall daily operations in the workplace, which may be the same as the supervisor (e.g., this could be a director, principal, or site supervisor).*

What Teaching Staff Said

About Supervisors | Score: 4.58/6

The vast majority of staff members agreed that their supervisors are knowledgeable about early childhood education and supportive of teaching staff taking initiative.

- Nearly all teaching staff (**85 percent**) reported that their supervisors are knowledgeable about early childhood education and teaching young children, and **77 percent** agreed that their supervisors engage actively in professional learning.
- **81 percent** of teaching staff agreed that their supervisors encourage them to take initiative to solve problems.

Teaching staff assessments of supervisors' professional guidance and on-the-job support were less favorable.

- About one-half (**54 percent**) of teaching staff agreed that at least once a year, their supervisors meet with them to develop a personalized professional development plan.
- **44 percent** disagreed or only somewhat agreed that at least once a year, their supervisors review their job description to ensure it describes what they actually do.
- Slightly more than one-third (**37 percent**) of teaching staff agreed that once a month, their supervisors meet with them to discuss their teaching, and nearly half (**44 percent**) agreed that their supervisors offer useful suggestions that help them improve their practice.
- More than one-third of teaching staff disagreed or only somewhat agreed that their supervisors know their teaching well (**38 percent**) and understand challenges they face in the classroom (**37 percent**).
- **31 percent** disagreed or only somewhat agreed that their supervisors are concerned about their personal welfare.

“My program director has a great influence on me and my teaching practices. She supervises my classroom at least once a week and will make meaningful contributions or suggestions to how I am running my room. If I ever have a question, I can easily find her in the building and ask for advice.”

–Teacher working in a Four-Star center

About Leaders | Score: 4.94/6

Teaching staff mostly agreed that their site leaders know their site well and encourage staff to develop their skills, take initiative, and learn from each other.

- The majority of staff members (**83 percent**) reported that their site leaders know their centers, school, and site well and agree (**85 percent**) that their leaders encourage them to take initiative to solve problems.
- **82 percent** of teaching staff reported that their site leaders encourage all teaching staff to develop their skills, and **85 percent** agree that their site leaders encourage staff to learn from each other.

Teaching staff assessments of site leaders' role in professional guidance and on-the-job supports were less favorable.

- **77 percent** of teaching staff agreed that their site leaders are respectful of the role and expertise of teaching staff, and **74 percent** agreed that their site leaders are easy to talk to.
- **70 percent** of teaching staff agree that their leaders assist in the fair and timely resolution of teaching staff conflicts.

Fewer staff members felt that their site leaders had familiarity with how staff teach or understand the challenges they face in their classrooms.

- More than one-third of teaching staff disagreed or only somewhat agreed that their site leaders are familiar with how all staff members teach (**37 percent**) or understand the challenges teaching staff face in their classrooms (**34 percent**).

“The teachers express multiple concerns about certain children in the classrooms and how the other children are affected. The leader suggests ideas but isn't in the classroom daily, so they only see five-minute glimpses, and it doesn't represent what the whole day consists of.”

– Assistant teacher working in a Three-Star center

Leaders by Role^{xxv}

In addition to understanding teacher perspectives on leadership, further analyses into the role of the site leaders were also carried out. Center-based early childhood programs represent a variety of staff leadership structures. In some centers, the leader works in the classroom and may even be considered a member of the teaching staff, while in others the leader does not typically participate in classrooms. To further probe the meaning of teaching staff assessments of supervisors and leaders, we examined how SEQUAL score varied by structure and function. We examined teaching staff assessments based on whether their supervisor or leader was another teacher or an administrator and whether or not they worked in the classroom.

- In the sample, **75 percent** of teaching staff reported that their supervisor or leader was an administrator, and **25 percent** reported that the person in this role was another teacher or teaching staff member. Leaders who held an administrative position were rated more highly by teaching staff than leaders who were teachers.
- 31 percent of teaching staff reported that the program leader, regardless of their specific role/job title, worked in the classroom for some period of time. Leaders who spent time in the classroom were rated more positively than those who did not.

Linking Teaching Staff Assessments to Quality Practice

- Teaching staff need strong educational leaders to whom they have easy access and from whom they can receive individualized feedback on job performance and reflective supervision. It is important for leaders and supervisors to gather information on staff through observation, feedback from other staff, and direct input from the staff members themselves.
- When teaching staff perceive that their leader or supervisor is not familiar with their classroom or teaching practice, it can limit the influence that those fulfilling leadership roles have on staff performance and undermine staff confidence in the program and its leadership. Spending time in classrooms is a necessary job responsibility of leaders and/or supervisors. Only through regular contact and observation can supervisors and site leaders truly understand what staff need to support children's learning.

Final Thoughts and Recommendations

Given the complexity of the current early care and education system, there are a variety of avenues by which states, including Minnesota, could articulate standards, enforce them, and ensure sufficient funding for providers to implement them. Minnesota has made significant investments in and taken critical steps toward improving the quality of ECE services. Notwithstanding the investment of resources and supports, teaching staff work conditions as captured in this study suggest further efforts are needed to support teacher practice and well-being necessary for quality services. Minnesota has an opportunity to encourage quality programs through their QRIS^{xxvi} by including workplace and compensation policies among their quality criteria, with a particular focus on teaching supports, adult well-being, and appropriate learning opportunities.^{xxvii}

Leaders in Minnesota have an opportunity to shape expectations and codify standards for early educator work environments. Below is a brief summary of major themes identified in this SEQUAL study that frame key policy areas that need further attention. Recommendations follow for funders and policymakers seeking to advance Minnesota's efforts to improve its quality rating system and address work environment conditions.

Adult Well-Being

Teaching staff across programs experience conditions that challenge their well-being. Many struggle to afford housing, health care, sufficient food, and other basic monthly expenses. Teaching staff also reported conditions that threaten their health and safety, most notably not being able to take breaks during the workday (although required by law to do so) or not being able to take their paid sick leave. Lastly, many teachers reported experiencing stressful workplace dynamics like intimidation, unequal distribution of workload, favoritism, or a lack of opportunities for input within their program.

Staffing and Teaching Supports

Many teachers assessed staffing levels as insufficient to provide children with individual attention or to observe them carefully. Furthermore, staff instability challenged many teachers' efforts to improve their practice. Most teaching staff reported not having dedicated time, without child responsibilities, in which to perform professional duties. They instead use their own unpaid time or time while supervising children on the playground or during naps for planning and professional sharing with other teachers. In contrast, more teaching staff indicated they did have paid time, without child responsibilities, for completing reports and paperwork tasks.

Professional Learning and Guidance

Although many staff members participate in professional development, they reported insufficient training in several areas and a lack of professional guidance and supports to engage in ongoing learning. Particular areas identified include training for teaching children with challenging behaviors and training for teaching children who are dual language learners. Teaching staff reported an absence of guidance from program leaders in supporting their professional practice and development. Lastly, staff members reported difficulties in accessing or paying for professional development activities or receiving remuneration for advancing their skills or education. Identified barriers were not being able to adjust their work schedule, not being compensated for work outside of regular work hours, and not being able to depend on their employer to pay professional development expenses.

Recommendations

Minnesota has made significant investments in and taken critical steps toward improving the quality of early care and education services. Notwithstanding the investment of resources and supports, the work conditions of teaching staff as captured in this study suggest further efforts are needed to support teacher practice and well-being necessary for quality services.

Leaders in Minnesota have an opportunity to shape expectations and codify standards for early educator work environments. The following recommendations support funders and policymakers in advancing Minnesota's efforts to improve its quality rating system and address work environment conditions:

1. Develop workplace standards, such as guidance on appropriate levels of paid planning time, which are necessary for educators to engage in professional practice and to alleviate conditions that cause educator stress. Use existing models, such as the **International Labor Organization Policy Guidelines** and the **Model Work Standards**, to support this process. Developing these standards will benefit programs throughout Minnesota by:

- Identifying conditions and supports that teaching staff need to effectively fulfill the professional responsibilities necessary for effective teaching;
- Acknowledging how systemic challenges to all programs impact daily teaching practice; and
- Elevating appropriate work environments as a critical component necessary to achieving desired child outcomes.

2. Provide financial resources and other assistance specifically designed to enable programs and providers to comply with work environment standards in a reasonable period of time.

To accomplish this goal, resources should be:

- Long-term and sustainable over time;
- Sufficient to cover the costs associated with meeting the established work environment standards; and
- Evaluated to determine their long-term impact and effect.

3. Embed work environment standards in the Parent Aware scoring system to emphasize their importance and ensure that programs cannot achieve the highest star ratings without addressing work environment standards. Acknowledging the inherent challenges in

adjusting the Parent Aware scoring system, Minnesota could initiate this process by documenting work environment conditions during the rating process without incorporating them into rating scores. This approach would allow Minnesota to collect valuable site-level data on work environments that can support ongoing efforts to integrate work environment standards into Parent Aware's scoring system and Minnesota's professional development system as a whole.

4. Develop and implement training programs that support program leaders, supervisors, and coaches to address work environment issues. Program leaders, supervisors, and coaches all require support and training on how to implement and sustain these types of changes. The following steps may aid this process:

- Utilize this SEQUAL study, other SEQUAL materials, and additional resources, such as the **International Labor Organization Policy Guidelines** and **Model Work Standards**, to develop an initial list of potential training areas; and
- Conduct a needs assessment with program leaders, supervisors, and coaches to further develop and prioritize training topics and content areas.

5. Provide funding to institutions of higher education and training programs to develop and offer classes and workshops related to work environment standards, rights of teaching staff on the job, and the critical importance of economic, emotional, and physical well-being among adults in the workplace. Strategies to begin this process include:

- Conducting a needs assessment with representatives from institutions of higher education and training organizations to identify existing college courses and training programs (such as Minnesota's First Children's Finance) that could be expanded to include work environment standards;
- Determining which topics around work environment standards would require new college-level courses or training programs; and
- Establishing a funding process that would provide resources and incentives to institutions of higher education and training organizations to incorporate work environment standards into new or existing courses or training.

6. Institute strategies that engage early educators in the process of informing quality improvement and regularly collect data to assess how they experience the work environment. Strategies to begin this process include:

- Adjusting planning and meeting times to make them more accessible to early educators;
- Creating opportunities for teaching staff to submit audio or video testimonials that can capture their perceptions on work environment conditions and can also be used to bring teacher's voices and opinions into the planning process; and
- Incorporating opportunities for input on work environments into existing regional meetings, conferences, etc.

APPENDICES



Appendix A: Study Design

Population and Sample

At the time of the initial data collection, the population included 1,748 licensed child care centers throughout the state of Minnesota: 587 rated centers participating in Parent Aware (the state's QRIS) and 1,161 centers that were unrated. As we did not have contact information for teaching staff, the number of teaching staff working across the state is unclear. More information on the population and sample in **Appendix C: Tables and Figures**.

Sampling Frame and Procedures

In line with our research questions, we pursued a sampling strategy that would allow comparison of work environment assessments from teaching staff employed at licensed child care centers (whether Parent Aware participants or not) that were representative of different regions of the state. The sampling strategy focused on a stratified approach of selecting centers in each group (higher-rated centers, lower-rated centers, and unrated centers) and within each rating level, balancing by region of the state (centers in urban and rural areas of the state). We grouped Three- and Four-Star centers into the higher-rated group, One- and Two-Star centers into the lower-rated group, and centers not participating in Parent Aware in the unrated group. Although our aim was to randomly select an equal number of centers in each group, achieving this objective was not possible due to the low numbers of lower-rated centers in the population. In addition, as unrated centers had to be contacted for director information in order to invite their center to participate, we reached out to a greater number of unrated centers in an effort to have balanced groups in our sample. Only centers that had two or more classrooms and two or more teachers were included in the study.

Data Collection Procedures

Prior to data collection, the survey instrument and data collection procedures were approved by the Committee for the Protection of Human Subjects at the University of California, Berkeley.

In spring 2018, a notification letter was sent via either email or through the mail to all licensed child care centers in the state of Minnesota. The letter introduced the Center for the Study of Child Care Employment (CSCCE) and announced the upcoming study, indicating that their center could be selected to participate. Within a week of the notification letter, staff at CSCCE sent an email to directors selected for participation via Berkeley Qualtrics. This email indicated that their center was selected to participate,

described the purpose of the survey, and provided the personalized link to access their survey. A separate email with an open link was also sent to directors to forward to their teaching staff. The data collection period began in spring 2018 and extended into the summer, with replacement sampling conducted as needed.

Before accessing the SEQUAL survey, the link first brought the participant to the Informed Consent page, which detailed the purpose of the study, the procedures, any potential risks/discomforts, confidentiality of the data provided, contact information for our staff, a statement explaining that participation was completely voluntary, and finally, an online consent form where participants could agree or decline to participate. If the participant selected “agree,” they were taken to the SEQUAL survey, and if they selected “disagree,” they were redirected to the CSCCE homepage and removed from our SEQUAL mailing list.

The survey could be accessed from any electronic device connected to the Internet, and those who received a personalized link were able to take the survey in more than one sitting. Due to concerns regarding privacy and confidentiality of information, participants who received an open link had to take the survey in one session. A research assistant called each center director, confirmed that both they and their teaching staff had received links to the study, and offered to answer questions about the study. In addition to the outreach efforts of the research assistant, a total of six reminder emails were sent to participants who had not completed the survey.

To thank participants for their time and effort, a gift card was sent to each participant who completed the survey.

Survey Instruments

Two survey instruments — the SEQUAL Teaching Staff Survey and the SEQUAL Administrative Survey — were employed to capture information on work environments. These assessments of observed quality were used by the CSCCE team to support the analysis of the SEQUAL findings. Each survey was offered in English. The surveys were administered online by Berkeley Qualtrics and took approximately 40 minutes to complete.

SEQUAL Teaching Staff Survey. The SEQUAL Teaching Staff Survey includes two sections: 1) staff perceptions about workplace policies that affect their teaching practice; and 2) a profile of teacher education, experiences, and demographic information. For the section on staff perceptions of their work environment, teaching staff were asked to rate a series of statements on a scale from 1 (strongly disagree) to 6 (strongly agree). The items focused on each of following five domains:

1. Teaching Supports – 33 items, including statements on the following dimensions: curriculum; observations and assessments; materials; support services for children and families; and staffing and professional responsibilities;
2. Learning Community – 12 items, including statements on professional development opportunities and applying learning;
3. Job Crafting – 21 items, including statements on the following dimensions: making decisions in the workplace; teamwork; and input;
4. Adult Well-Being – 38 items, including statements on the following dimensions: economic well-being; quality of work life; and wellness supports; and
5. Leadership – 28 items, including perceptions of their supervisor and the leader of their program.

In the teaching staff profile, participants were asked to provide information on personal characteristics (e.g., gender, age, race/ethnicity), level of education, and work characteristics (e.g., wages, tenure, age range of children in their classroom).

SEQUAL Program Leader Survey. Program leaders also filled out a version of the survey. A program leader was identified as the person at the site who would have access to information about workplace benefits and policies, as well as program and staff characteristics. The program leader survey asked program leaders to provide a variety of information, including a center and administrator profile.

Center for Epidemiologic Studies Short Depression Scale (CES-D 10). The short version of the Center for Epidemiologic Studies Short Depression Scale (CES-D 10), a widely used self-report measure for adolescents and adults designed to assess attitudes consistent with a diagnosis of depression, was completed by administrators and teaching staff. The scale features 10 items that assess depressive symptoms as outlined by the Diagnostic Statistical Manual (DSM). The items ask about mood, feelings, and physical health (e.g., appetite and sleep).^{xviii}

Analysis Plan

Frequency Analyses. All SEQUAL items were rated on a scale from 1 (strongly disagree) to 6 (strongly agree). We used frequency analysis for SEQUAL items (e.g., the percent of teaching staff who agreed or disagreed), as a measure of teaching staff assessment of workplace policies, practices, and relationships. These frequencies are reported as percentages or fractions for each of the items on the SEQUAL domains and dimensions. Crosstabs were also performed to look at the percentage of teaching staff responses to the SEQUAL by region, center rating, and position.

T-Tests and Analysis of Variance (ANOVAs). T-tests and ANOVAs were used to examine differences between groups (e.g., by star level, region). Depending on the number of groups, T-tests and ANOVAs were conducted to examine differences in teaching staff perceptions of their work environment as captured by their SEQUAL scores.

Correlations and Associations Between Scores. To examine the relationships between study variables and scores, bivariate correlations, chi-square, and regression models (linear and multiple regression) were conducted. Correlations were conducted for numerical variables and chi-square for categorical variables.

Throughout this report, we denote differences in SEQUAL scores and other variables by pointing out where scores between two or more groups are *significantly different* from one another. This indicates that there is a statistical difference between group scores or a statistical relationship between variables at a rate greater than chance levels. All significant findings are reported at a p value of $<.05$.

Appendix B: Description of Program Leaders

Personal Characteristics

Race and Ethnicity

The breakdown of the sample by race/ethnicity was 97-percent white and 3-percent black/African American.

Professional Background

Education and Credentials

Three-fifths of program leaders (61 percent) held a bachelor's degree or higher. Of those with a degree, 27 percent majored in Early Childhood Education, 15 percent in Child Development or Psychology, and 8 percent in Elementary Education.

Experience and Tenure

Overall, program leaders had a wealth of experience in the field, with around one-half (47 percent) working in the early care and education field for more than 15 years. There was variation in experience among program leaders in their current position at their center. While 47 percent of program leaders in the sample worked in their current role at their place of employment for more than 10 years, a sizable portion of program leaders were new to their role, with less than two years at their current position (53 percent).

Compensation

Benefits

Health Care

Most program leaders in the sample (85 percent) had health insurance, with 41 percent receiving health care from their employer. Of the program leaders who have health insurance from another source, most purchased their own health insurance policy through the Affordable Care Act/Health Care Marketplace, Medicaid or Medicare, or were covered under the policy of a parent or spouse.

Appendix C: Tables and Figures

Population and Sample

Table C.1. Center Population and Sample^{xxix}

Group	Overall in Minnesota	Sample
Higher-rated (3 and 4 Stars)	515	67
Lower-rated (1 and 2 Stars)	72	58
Unrated	1,161	42
Total	1,748	167

Response Rates

Table C.2. Response Rate of Centers, Program Leaders and Teaching Staff^{xxx}

	Invited Sample	Final Sample	Percentage Participating
Centers	167	47	28%
Program leaders	167	35	21%
Teaching Staff	Unknown	143	Unknown

Table C.3. Response Rate of Teaching Staff and Program Leaders, by Center

	Percent	Number of Centers
Centers with participation of both program leader and teaching staff	37%	33
Centers with participation from teaching staff only	14%	14
Centers with participation from program leader only	5%	12
Centers with no participation from program leader or teaching staff	63%	106

Table C.4. Number of Program Leaders Sent Surveys and Response Rate, by Group

Group	Sample	Number of Program Leaders	Percent by Group
Higher-rated centers	67	17	16%
Lower-rated centers	58	16	24%
Unrated centers	42	14	24%
Total	167	35	

Number of Teaching Staff Sent Surveys, by Group

Group	Number of Teaching Staff
Higher-rated centers	72
Lower-rated centers	34
Unrated centers	37
Total	143

Endnotes

1. Introduction

- ⁱ Austin, L.J.E., Whitebook, M., Connors, M., & Darrah, R. (2011). *Staff preparation, reward, and support: Are quality rating and improvement systems addressing all of the key ingredients necessary for change?* Berkeley, CA: Center for the Study of Child Care Employment, University of California, Berkeley. Retrieved from http://www.irle.berkeley.edu/cscce/wp-content/uploads/2011/12/CSCCEQRISPolicyBrief_2011.pdf; Whitebook, M., McLean, C., Austin, L.J.E., & Edwards, B. (2018). *Early Childhood Workforce Index – 2018*. Berkeley, CA: Center for the Study of Child Care Employment, University of California, Berkeley. Retrieved from <http://cscce.berkeley.edu/topic/early-childhood-workforce-index/2018/>.
- ⁱⁱ Whitebook et al., 2018.
- ⁱⁱⁱ Administration for Children and Families, Office of Child Care (2015, April). *QRIS Resource Guide: Section 4 Standards and Criteria*. Retrieved from https://qrisguide.acf.hhs.gov/files/chapters/QRISRG_Chapter_4_Standards.pdf; Zellman, G.L., & Perlman, M. (2008). *Child-Care Quality Rating and Improvement Systems in Five Pioneer States: Implementation Issues and Lessons Learned*. Santa Monica, CA: RAND Corporation.
- ^{iv} See BUILD Initiative & Teachstone (2016). What are the most common areas of quality assessed by QRIS? QRIS Compendium: Top Ten Questions about QRIS. Retrieved from <http://qriscompendium.org/top-ten/question-4/>; BUILD Initiative & Teachstone (2016). What are the features of professional development? QRIS Compendium: Top Ten Questions about QRIS. Retrieved from <http://qriscompendium.org/top-ten/question-10/>.
- ^v Helburn, S.W. (Ed.) (1995). *Cost, Quality and Child Outcomes in Child Care Centers. Technical Report*. Denver, CO: University of Colorado at Denver, Department of Economics, Center for Research in Economic and Social Policy; Whitebook, M., Howes, C., & Phillips, D. (1990). *Who Cares? Child Care Teachers and the Quality of Care in America: Final Report of the National Child Care Staffing Study*. Washington, DC: Center for the Child Care Workforce; Whitebook, M., & Sakai, L. (2003). Turnover begets turnover: An examination of job and occupational instability among child care center staff. *Early Childhood Research Quarterly*, 18(3), 271–395; Whitebook, M., & Sakai, L. (2004). *By a Thread: How Child Care Centers Hold on to Teachers, How Teachers Build Lasting Careers*. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research. Retrieved from <http://dx.doi.org/10.17848/9781417524457>; Whitebook, M., Sakai, L., & Howes, C. (1997). *NAEYC Accreditation as a Strategy for Improving Child Care Quality: An Assessment*. Washington, DC: Center for the Child Care Workforce.
- ^{vi} Minnesota Department of Human Services. (2018). Parent Aware. Retrieved from <http://parentaware.org/programs/benefits-for-rated-programs/>.
- ^{vii} Whitebook et al., 2018.
- ^{viii} Institute of Medicine (IOM) and National Research Council (NRC). (2015). *Transforming the workforce for children birth through age 8: A unifying foundation*. Washington, DC: The National Academies Press. Retrieved from <http://www.nap.edu/catalog/19401/transforming-the-workforce-for-children-birth-through-age-8-a>.
- ^{ix} Transforming Minnesota’s Early Childhood Workforce. (2018). Policy Brief on Minnesota’s early Childhood Workforce Planning Efforts: An Action Plan for the State of Minnesota from the B8 Workforce Core Team. Retrieved from https://ecworkforcecmn.files.wordpress.com/2018/02/final-policy-brief-on-minnesota_s-early-childhood-workforce-efforts.pdf.
- ^x National Governors Association. (2018). National Governors Association Center for Best Practices: Supporting States’ Policy Strategy to Improve Early Care and Education Workforce. Retrieved from http://mn.gov/gov-stat/pdf/MN_Workforce_Compensation_Advisory_Group_Summary.pdf.

2. Teacher and Program Leader Characteristics

- ^{xi} For reporting purposes and analysis purposes, the category of teachers includes those who identified as teachers and head/lead teachers, based on the similarity of job duties and roles.
- ^{xii} Valorose, J., & Chase, R. (2012). *Child Care Workforce in Minnesota 2011 Statewide Study of Demographics, Training and Professional Development: Final Report*. Minnesota Department of Human Services.
- ^{xiii} Katsiaficas, C., & Park, M. (2018). *Minnesota's Superdiverse and Growing Dual Language Learning Child Population*. Washington, DC: Migration Policy Institute.
- ^{xiv} Copeman Petig, A., Austin, L.J.E., & Dean, A. (2018). *Understanding Many Languages: Preparing Early Educators to Teach Dual Language Learners*. Berkeley, CA: Center for the Study of Child Care Employment, University of California, Berkeley.
- ^{xv} Whitebook, M., McLean, C., Austin, L.J.E., & Edwards, B. (2018). *Early Childhood Workforce Index – 2018, State Profiles: Minnesota*. Berkeley, CA: Center for the Study of Child Care Employment, University of California, Berkeley. Retrieved from <http://cscce.berkeley.edu/files/2018/06/2018-Index-Minnesota.pdf>.
- ^{xvi} Between 2009 and 2013, 26 percent of the U.S. workforce as a whole were part of families enrolled in at least one of four public support programs: the Federal Earned Income Tax Credit (EITC); Medicaid and the Children's Health Insurance Program (CHIP); Supplemental Nutrition Assistance Program (SNAP), also known as "food stamps"; and Temporary Assistance for Needy Families (TANF). Source: Whitebook et al., 2018.

3. Findings

- ^{xvii} $F(2,44)=3.20, p=.05$.
- ^{xviii} $F(2,44)=5.25, p=.00$.
- ^{xix} $t(130)=3.18, p=.00$
- ^{xx} $F(2,123)=5.23, p=.00$.
- ^{xxi} National Academies of Sciences, Engineering, and Medicine (NASEM) (2018). *Transforming the Financing of Early Care and Education*. Washington, DC: The National Academies Press. Retrieved from <https://doi.org/10.17226/24984>.
- ^{xxii} $t(45)=2.7, p=.03$.
- ^{xxiii} $F(2,44)=4.57, p=.02$.
- ^{xxiv} $t(126)=5.39, p=.00$.
- ^{xxv} No comparisons within the Program Leadership domain were examined by site or teacher characteristics.

4. Final Thoughts and Recommendations

- ^{xxvi} "A QRIS is a systemic approach to assess, improve, and communicate the level of quality in early and school-age care and education programs." QRIS administrators "award quality ratings to early and school-age care and education programs that meet a set of defined program standards." See the [QRIS Resource Guide](#) for more information.
- ^{xxvii} Austin et al., 2011.

5. Appendices

- ^{xxviii} Andresen, E.M., Malmgren, J.A., Carter, W.B., & Patrick, D.L. (1994). Screening for depression in well older adults: Evaluation of a short form of the CES-D. *American Journal of Preventative Medicine*, 10, 77–84.
- ^{xxix} We reached out to 105 unrated centers, however only 42 of these centers agreed to participate and provided contact information to receive a link to the study. We originally set out to invite an equal number of centers from each group (n=30, total of 90 centers), however, due to the low response rates and difficulty in obtaining contact information, more centers were invited as the study progressed. A greater number of unrated centers were contacted, and centers that declined participation during the initial outreach call were removed from the total number of centers, as they never received a link to the survey.
- ^{xxx} Since the participating centers did not provide a list of teaching staff email addresses, we do not know many teaching staff were invited to take part in the study.