

Teacher retention and turnover post salary increase at Mile High Early Learning:

Factors shaping teachers' job decisions



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EXECUTIVE SUMMARY

Mile High Early Learning (MHEL) is one of Denver, Colorado's oldest and largest providers of subsidized early care and education (ECE) services. Like many community-based ECE programs across the country, MHEL experienced significant teacher turnover given the persistent challenges of low pay in the field set against the backdrop of a high cost of living in Denver. In 2018, MHEL implemented a pay raise for all teachers and a new salary scale in which higher educational attainment is now linked to higher hourly wage rates. Initial evaluations of the pay raise demonstrated that one-year post wage increase, turnover rates among lead and assistant teachers decreased sizably. However, anecdotally, MHEL reported an uptick in teacher turnover a year after the pay raise. Consequently, the current study sought to understand teacher turnover rates after the second year of implementing the pay raise to see whether initial reductions in turnover persisted and to more deeply understand factors that continue to shape teachers' turnover and retention decisions after receiving a pay raise.

To do this, we conducted a multi-part, mixed methods study. First, we collected teacher turnover data over the 12-months prior to the pay raise and during the almost two-years post pay raise and examined changes in teacher turnover rates at a center level over time. Second, we interviewed 14 teachers currently employed at MHEL and 12 teachers who voluntarily left the organization after the pay raise to understand what drove their employment decisions. Third, we administered a work climate survey to 54 teachers who were employed at MHEL as of April 2019 (one year post wage increase) and collected demographic and employment status data in March 2020, almost two years post pay raise and just prior to the global pandemic, to examine factors that predicted teacher retention and turnover at MHEL after the pay raise.

Key results from the turnover analysis suggest that:

- MHEL experienced a 70% uptick in turnover among lead teachers and a 60% uptick in turnover among assistant teachers between the end of the first year of the implementation of the new salary scale and almost one year later.
- These high turnover rates appear largely driven by turnover among preschool teachers. Lead preschool teachers had a significantly higher turnover rate in the 2nd year post pay raise in comparison to the year immediately after the pay raise. Turnover rates among all types of preschool teachers appeared to fluctuate more so than infant toddler teachers, which appeared more stable across years.
- When comparing turnover rates prior to the wage increase to two years post wage increase, MHEL experienced a 33% decrease in lead teacher turnover and a 44% decrease in assistant teacher turnover.

Key results from teacher interviews suggest that:

- Teachers, regardless of employment status, want to be effective at their jobs and meet the needs of all children in their classrooms. Teachers also perceive a misalignment between the demands of the job and the supports they have available to meet job expectations. Teachers who left MHEL felt ineffective in their jobs due to a perceived lack of job resources whereas teachers who stayed were more likely to problem-solve job challenges and take professional responsibility to help solve them.
- The value teachers placed on professional development strongly distinguished those
 who stayed and those who left. Teachers who left perceived professional development
 as a job demand. Teachers who stayed viewed it as a job reward to help them advance
 their careers.
- Career advancement, feeling valued by the organization, and organizational fairness were important to all teachers. Those who stayed had a clear vision for their career and the opportunities available at MHEL. Teachers who left were more likely to perceive the organization as less fair, especially with respect to career advancement.
- Regardless of how teachers felt about their jobs, teachers with families weighed
 workplace benefits into their employment decisions. Job rewards such as free or
 reduced rate child care tuition and work schedules that align with elementary school
 calendars appeared to promote retention. High health care premiums to insure family
 members appeared to challenge retention.
- Relationships with co-workers are critical to employment decisions. All teachers who
 stayed felt a sense of cohesion and social support among their colleagues. Teachers who
 left almost all cited having challenges with other teachers.

Key results from the workplace climate survey suggest that:

- Teachers who maintained their employment at MHEL reported having fewer children in their classrooms with behavior challenges than teachers who left their jobs.
- Stronger feelings of teaching efficacy, a professionalized orientation to the job, and more
 positive views about the professional supportiveness of MHEL predicted teachers
 staying in their jobs.
- Teachers who reported employer benefits as a job frustration were more likely to leave their jobs.
- Results are discussed in relation to potential organizational efforts to foster greater teacher retention at MHEL.

CHAPTER 1: INTRODUCTION

Over the past several years, unprecedented policy attention has been paid to early care and education (ECE). Part of this attention stems from the proliferation of neuroscientific research demonstrating that early childhood is a particularly sensitive period in brain development and that early experiences—both nurturing and neglectful—can have lasting impacts on children's cognitive and social-emotional development¹. Several decades of research have also shown that high-quality ECE can be a nurturing early childhood experience that sets children on a positive developmental trajectory and can serve as a critical mechanism for reducing disparities in development². For these reasons, Colorado has recently approved a nicotine sales tax to support universal preschool for all four-year olds in the state. Discussions are also occurring at federal, state, and local levels across the nation about making high-quality ECE across the birth-to-five continuum more accessible to families.

Early childhood teachers are increasingly being recognized as the linchpin to quality ECE and to ensuring that children have the early learning experiences that foster their school readiness skills and approaches to learning that are needed to succeed in elementary school and beyond³. Yet across the nation and in Colorado, early childhood teachers are leaving their jobs in record numbers due to low pay and less than optimal working conditions⁴. Indeed, high rates of teacher turnover have been a challenge for Mile High Early Learning (MHEL), one of Colorado's oldest and largest providers of subsidized ECE. In 2017, MHEL reported an annual teacher turnover rate of 66% among teachers, 36% among assistant teachers, and 19% among staff aides⁵. Such high rates of teacher turnover can constrain an organizations' abilities to provide high-quality care and education⁶ and have been found in prior research to negatively influence children's school readiness skills and the well-being of teachers who remain⁷.

MHEL recognized the critical importance of having a stable, knowledgeable, and skilled teaching workforce to their mission of providing Denver's most under resourced children with a quality early learning experience. Consequently in 2018, the organization invested in their teachers by giving them a pay raise and by linking teachers' educational attainment to a new salary schedule (see Table 1)8. Once the new salary scale was instituted, lead teachers made, on average, approximately \$4,077. more annually and assistant teachers and staff aides made, on average, approximately \$2,246 more annually in comparison to before the new salary scale was implemented.

- 1 Nelson, C., Zeanah, C., & Fox, N. (2019). How early experience shapes human development: The case of psychosocial deprivation, *Neural Plasticity*, 2019 (1), 1-12.
- 2 Duncan, G., & Magnuson, K. (2013). Investing in preschool programs. Journal of Economic Perspectives, 27(2), 109-132.
- 3 Institute of Medicine/National Research Council. (2015). *Transforming the workforce for children birth through age 8: A unifying foundation.* Washington, D.C.: National Academies Press.
- 4 Schaack, D. & Le, V. (2017). *Colorado's early childhood workforce survey*, 2017. Denver, CO: University of Colorado Denver; Whitebook, M., Phillips, D., & Howes, C. (2014). Worthy work, STILL unlivable wages: The early childhood workforce 25 years after the National Child Care Staffing Study. Berkeley, CA: Center for the Study of Child Care Employment.

 5. Schaack, D. Le, V. Adeghuvi, T. & Ortega, M. (2020). *Mile High Early Learning workforce initiatives: Evaluating a*
- 5 Schaack, D., Le, V., Adegbuyi, T, & Ortega, M. (2020). *Mile High Early Learning workforce initiatives: Evaluating a new teacher salary scale, initial findings*. Denver, Colorado: University of Colorado Denver.
- 6 Cassidy, D. J., Lower, J. K., Kintner-Duffy, V. L., Hegde, A. V., & Shim, J. (2011). The day-to-day reality of teacher turnover in preschool classrooms: An analysis of classroom context and teacher, director, and parent perspectives. *Journal of Research in Childhood Education*, 25 (1), 1-23.
- 7 Markowitz, A. (May, 2019). Within-year teacher turnover in Head Start and children's school readiness. Charlottesville, VA: EdPolicy Works.
- 8 MHEL had planned to launch and evaluate other teacher retention initiatives: increased planning time, reflective supervision, and trauma-informed care training. However, the global pandemic interrupted these plans.

Table 1. MHEL Salary Scale

POSITION	EDUCATION REQUIREMENTS	WAGE PRIOR TO THE ADJUSTMENT	WAGE AFTER The adjustment	
Staff Aide	High School/GED OR	\$12.00	\$12.50	
	Unrelated Associates (AA) or Bachelors (BA)	Not applicable	\$13.00	
Center Teachers	Early Childhood Teachers (ECT), OR 3 ECE classes, OR Colorado Early Childhood Credential (Credential) Level III	\$12.25	\$13.00	
	Child Development Associate (CDA) OR 5 ECE classes or more	Not applicable	\$13.50	
	ECE classes, OR AA or BA in unrelated field			
Teacher Assistants	CDA, Credential Level III, Center Director	\$12.50	\$14.00	
	Certification, 5 or more ECE classes	\$12.75	\$14.50	
	AA or BA unrelated field AND ECT qualified	Not applicable	\$15.00	
Lead Teachers	ECT qualification OR Credential Level III	\$12.50	\$16.00	
	CDA or equivalent ECE classes	\$13.00	\$16.00	
	Center Director Certificate	\$13.50	\$16.50	
	AA unrelated with 5 or more ECE classes	Not applicable	\$16.50	
	AA in ECE	\$15.00	\$17.50	
	BA unrelated with less than 5 ECE classes	\$15.00	\$17.50	
	BA unrelated with 5 to 9 ECE classes or ECE minor	\$16.00	\$18.50	
	BA unrelated with major equivalent	\$16.50	\$20.00	
	BA in ECE	\$16.75	\$20.00	
	MA in ECE or unrelated field with equivalent of a ECE minor	\$17.50	\$21.00	

Early evaluations of the salary increase found that turnover among lead teachers decreased by 80% and that turnover among assistant teachers fell by 79% one-year post wage increase. No reduction in turnover was observed among staff aides a year after the raise was instituted⁹. A follow-up study also indicated that during the stay-at-home orders at the beginning of the global pandemic, the wage increase, combined with being paid through the shutdown, appeared to buffer MHEL teachers from high levels of financial stress and strain that may have otherwise been felt had teachers not been given a raise¹⁰. This reduced financial stress and strain occurred even in the face of many teachers seeing a decrease in their overall household incomes from the loss of a partners' job or from the loss or reduction of hours from their second job. These findings are of particular importance as stress and financial strain have been linked to less positive caregiving among teachers¹¹. Thus, as an organization, MHEL has realized several benefits to their increased financial investment in their workforce.

⁹ Schaack, D., Le, V., Adegbuyi, T, & Ortega, M. (2020). *Mile High Early Learning workforce initiatives: Evaluating a new teacher salary scale, initial findings*. Denver, Colorado: University of Colorado Denver

¹⁰ Schaack, D., Le, V., & Ortega, M. (2020). How are the teachers doing in COVID-times? Financial wellbeing, emotional wellbeing, and job intentions among Head Start teachers amidst a global pandemic. Denver, Colorado: University of Colorado Denver.

¹¹ Whitaker, R. C., Dearth-Wesley, T., & Gooze, R. A. (2015). Workplace stress and the quality of teacher-children relationships in Head Start. *Early Childhood Research Quarterly*, 30, 57-69.

At the same time, anecdotal reports from MHEL suggest that a sizable percentage of teachers are leaving their jobs into the second-year post wage increase. This suggests that either the wage increase was not large enough to stabilize and retain teachers for the long term or that there are additional factors that are contributing to teachers leaving their jobs. The purpose of this component of the *Mile High Early Learning Teacher Well-Being and Retention Study* is to first examine teacher turnover rates during the second year after the pay increase was instituted to be able to better understand teacher turnover over time and to examine factors, from both a qualitative and quantitative perspective, that shape teachers' employment decisions at MHEL.

To do this, we first collected teacher turnover data over a three-year period from MHEL to conduct a longitudinal turnover analysis. We then conducted a mixed methods study in which all teachers who voluntarily left MHEL after they received a wage increase and just prior to the global pandemic were invited to participate in an exit interview. We also interviewed a matched set of teachers who stayed at MHEL to understand whether there were differences among stayers and leavers as to how they understood their jobs, including the challenges and supports that they experienced during their employment, and the factors that motivated them to stay in or leave their jobs. We also attempted to triangulate our qualitative findings with a quantitative approach. Consequently, we surveyed teachers about their perceptions of their jobs and collected administrative data from MHEL about teachers' employment status to understand whether similar factors that teachers discussed in their interviews predicted whether teachers left or stayed in their jobs within a larger sample of teachers.

This portion of *The Mile High Early Learning Teacher Well-Being and Retention Study* was undertaken to help the organization target teacher retention activities. The larger study was also undertaken to help inform the types of teacher working conditions and salaries that are important to consider in large scale public efforts to expand children's access to high-quality ECE. This study's findings may help to pinpoint areas for organizational and workforce development that may be necessary for retaining a well-qualified workforce in Colorado and a workforce that is well-positioned for the successful implementation of publicly funded ECE expansion efforts. Without targeted support and attention to the ECE workforce, including their qualifications, compensation, and working conditions, such preschool expansion efforts may be constrained in meeting their program goals. Thus, learnings from MHEL's efforts to support and retain their workforce may be helpful to these larger efforts.

CHAPTER 2: METHODOLOGY

This study used a mixed methods research approach that integrated qualitative and quantitative methods to address the following research questions.

Turnover rates

- 1) What are the teacher turnover rates among different job roles and classroom age groups served at MHEL during the second year after the implementation of the new salary scale?
- 2) How do teacher turnover rates compare over time?

Qualitative analysis

- 3) Are there differences in perceived job demands and job resources between teachers who stayed in their jobs at MHEL and teachers who left?
- 4) After receiving the pay raise, what factors continue to shape teachers' employment decisions?

Quantitative analysis

5) What factors predict turnover among teachers two years post wage increase?

Turnover Study Sample and Methods

The full population of teachers at MHEL employed from April 30, 2017 to February 28, 2020 was used to calculate turnover rates, by position and classroom age groups for the 12-months prior to the implementation of the pay raise and new salary scale, and for the preceding 12-months and 22-months post implementation of the new salary scale. We stopped just shy of two full years due to the global pandemic and changes in work and family life as function of the pandemic that could affect our findings. To collect teacher turnover data, each spring for three years, research staff met with human resource staff at MHEL and consulted monthly human resource records for each classroom from April 2017 (one year prior to the wage increase) through February 2020. Each month, positions were tallied as to whether the teacher in the position: (1) remained in the classroom, (2) voluntarily left MHEL, (3) was terminated from employment, (4) stayed at their current center, but changed classrooms, or (5) stayed at MHEL, and changed centers. We then calculated a position turnover rate per center by dividing the total number of lead teacher, assistant teacher, and staff aide positions in a center by the number of "voluntarily left" turnover events for each position within a center. Analogous calculations were made for classroom age groups, by position. T-tests were used to test for significant differences in turnover rates over time by position and classroom age group.

Qualitative Study Sample and Methods

The second sample was constructed to conduct an in-depth exploration of how teachers perceive their work lives at MHEL, including their job demands and resources and the factors that shape their retention and turnover decisions. The sample included 26 teachers who

worked at one of seven MHEL centers between the periods of May 2018 and November 2019. Of these teachers, 14 remained in their jobs after receiving their raise (10 lead teachers and four assistant teachers/staff aides) and 11 (five lead teachers and six assistant teachers/staff aides) left their jobs voluntarily within 18 months of receiving their raise, and one staff aide joined MHEL after the new salary scale was implemented and left MHEL within a year of employment. Technically, this teacher did not receive a pay raise, but instead was hired at a higher salary level than the teacher would have been prior to the new salary scale.

To recruit teachers into this portion of the study, we received a list of the names and contact information for the teachers who left MHEL each quarter post wage increase for six quarters. We then attempted to contact each teacher who left the organization by email or by phone. Of the 26 teachers who left the organization during the aforementioned time period, 12 were reached and agreed to be interviewed. We then identified the remaining 47 teachers who were employed at MHEL when the new salary scale was instituted and were still employed at least 18 months later (e.g., just prior to the pandemic). We then stratified these teachers by position, by the age group they taught, and by their tenure in the organization to ensure a diversity of perspectives. We randomly approached 30 to be interviewed. Of those, 14 agreed. More information about the samples is presented in Chapter 4.

Interview. The 26 teachers were interviewed via Zoom for approximately 20-40 minutes using a semi-structured interview protocol that probed teachers about aspects of their work lives. This included their motivations for pursuing ECE as a job or profession, their pedagogical values and their perceptions of their values alignment with the organizations', their perceptions of their: job rewards, advancement opportunities, quality of relationships with their co-workers and program leaders, the job resources they found most helpful or would like to have, and their motivations for staying in or leaving their jobs. Each interview was audio-recorded, and recordings were transcribed and verified before being uploaded to Dedoose software for coding and storage.

Qualitative Data Analysis. To code and interpret responses from the interview, we used a job demands and job resources framework¹². Job demands include aspects of jobs that require intellectual effort and emotional labor that can deplete teachers' energy, which may then prompt them to leave their jobs. Alternatively, job resources are thought to help mitigate this by providing teachers with the supports needed to meet job expectations. Job resources are theorized to trigger a motivational process in teachers to facilitate their professional learning, growth, and willingness to invest in their teaching practice, which can fortify their commitment to their job and to the overall profession. The research literature outlines six dimensions of an employees' work life that can create tensions and need to be balanced for an employee to be able to be effective in their jobs and to persist in it. These dimensions include: workload, job rewards, community, values, fairness, and job control¹³. In a profession that primarily consists of a female workforce, we also considered in our interview coding framework whether and how teachers weigh job demands and resources in relation to their family needs. This is informed by studies that have found that career decisions that female ECE teachers make may be more strongly influenced by family factors than by job rewards such as pay¹⁴.

¹² Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86(3), 499-512.

¹³ Maslach, C., & Leiter, M. P. (2008). Early predictors of job burnout and engagement. *Journal of Applied Psychology*, 93(3), 498-512.

¹⁴ Manlove, E. E., & Guzell, J. R. (1997). Intention to leave, anticipated reasons for leaving, and 12-month turnover of child care center staff. *Early Childhood Research Quarterly*, 12(2), 145-167.

Guided by this job demands and resources conceptual model, we developed an a priori coding framework to look for themes in the interviews. Codes were checked by a team of three for accuracy through a multi-step process. The coding team started by individually looking for the assumed codes derived from the job demands and resources framework using four interview transcripts. Once the initial four transcripts were examined, the team met to review excerpts and establish agreement in coding. In instances when codes were being interpreted differently, group discussions led to examining examples in the excerpts and writing more detailed explanations. In addition, emergent codes were considered to respond to unanticipated patterns among responses. An emergent code was discussed with the team in depth and if other team members had observed similar concepts, then it was included in the coding framework. The team then re-coded the initial four transcripts using the revised framework and elaborated coding criteria and coded another four transcripts. The next meeting showed much more agreement and led to interrater reliability of 72% among codes. After arriving at a consensus on codes, the team divided the rest of the transcripts to code individually. When coding was complete, constant comparative analysis was facilitated using Dedoose qualitative data analysis software to identify themes across the interviews. Table 2 displays our coding themes and their meaning.

Table 2. Coding Themes

CODE TITLE	CODE DESCRIPTION
Job Demands: Workload	Specific job responsibilities and/or the extent to which teachers feel as if they have too many job responsibilities in relation to too few resources to successfully meet the job demands.
General Frustration	Specific aspects of the job that cause teachers stress.
General Job Resources	Aspects of the job that help teachers feel supported in being able to meet job expectations and that help them do their jobs well.
Job Rewards	The material and psychological benefits from the job and/or the extent to which teachers feel recognized and rewarded for their workload and job responsibilities.
Community: Co-Teachers	The extent to which teachers feel socially connected with other teachers and/or the extent to which other teachers are seen as resources to enable them to help be effective at their job.
Community: Leadership	The extent to which teachers have access and open communication with central office and center leaders and/ or the extent to which they feel supported by leadership to be effective at their jobs.
Job Control	The extent to which teachers feel autonomy in their jobs and the ability to make decisions regarding work.
Justice and Equity	The extent to which teachers feel as if resources and workload are distributed fairly among teachers and/or conflicts are handled fairly.
Pedagogical Values	What teachers believe children should learn and experience in an ECE setting, what qualities ECE teachers should possess, and how closely the ECE organization aligns with their beliefs about what and how children should learn.
Job Motivations	Reasons for becoming a teacher and/or continuing to work in the job.
Turnover Rationale	Reasons for leaving the job or considering leaving the job.
Advancement Opportunities	The ability to advance one's career within their current organization.
Family	Family situations and structures that factor into employment decisions.

Quantitative Study Sample and Methods

The qualitative interviews pointed to several aspects of work life that may potentially foster retention or turnover among teachers at MHEL. To understand whether similar factors identified in the interviews predicted retention or turnover within a larger sample of teachers at MHEL, we conducted additional quantitative analyses. We drew from a sample of 40 teachers employed at MHEL one year post wage increase and who completed a survey about their perceptions of their job during the first week in May in 2019. We focused on the time period one year post wage increase because MHEL was anecdotally reporting an uptick in turnover approximately a year after the initial pay raise. Therefore, we wanted to better understand teachers' perceptions of their workplace and drivers of retention and turnover after the novelty of the wage increase may have worn off. We excluded teachers from the sample who were terminated from their employment at MHEL, who retired, or who were promoted to administrative positions. Of the teachers in this sample, 28 were lead teachers; 16 of whom maintained employment at MHEL and 12 of whom left their jobs. In addition, 12 were assistant teachers/staff aides; three of whom maintained employment at MHEL and nine of whom left their jobs. More information about the sample can be found in Chapter 5.

Survey. During May 2019, all teachers in this sample were administered a paper and pencil survey that asked about their background characteristics, job intentions, perceptions of their organizational climate, and their financial and emotional well-being¹⁵. We used the following constructs from the teacher survey for this portion of the study.

Background and job characteristics: Teachers completed questions about themselves and their work, including their teaching position type, classroom age group, tenure in the field, the number of children in their classroom, and the number of children that they identify as having challenging behaviors in their classroom. Teachers also rated, on a 1-5 scale, the extent to which they agreed that they had adequate planning time, with 5 representing strongly agree.

Organizational Climate: Teachers were administered 39 items drawn from the Comprehensive Organizational Health Assessment (COHA)¹⁶. We subjected these items to an exploratory factor analysis to understand how the items grouped together to form underlying factors. Results suggest that items grouped into five overarching constructs. The first, Clarity and Innovation (14 items) measured the extent to which the organization is clear in their expectations for teaching and learning, open to feedback, and engages in ongoing organizational improvement related to their organizational expectations. The second factor, *Learning Community* (7 items), focuses on the extent to which teachers believe the organization promotes collaboration and that as a whole, teachers and leaders work together and seek to improve services for young children. The third factor, Lack of Job Control (5 items), assesses the extent to which teachers perceive that they have a lack of autonomy in their work and that the organization has too many rules. The fourth scale, Caring and Equitable (10 items), measures the extent to which teachers feel that the organization and leadership care about them and are fair, transparent, and collaborative in decisions that are made that affect teachers. The final scale, Professionalized Labor (3 items), measures the extent to which teachers feel that their job requires important skills, that the organization understands the skills needed for the job, that

¹⁵ More information about the financial and emotional well-being measures can be found in prior reports. Results of responses from several financial and emotional well-being scales are presented in Appendix A.

16 Leach, R. (2012). Comprehensive Organizational Health Assessment. Denver, CO: Butler Institute for Families, Graduate School of Social Work, University of Denver.

4

the organization supports the professionalism of teachers, and teacher growth and improvement. They also reported on their top three job motivations and job frustrations that they selected from a set of items.

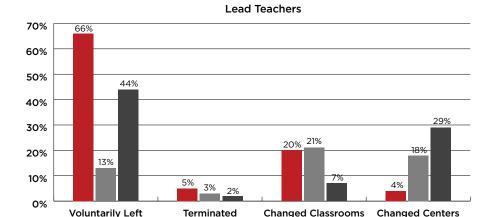
Administrative Data. In April 2018, MHEL provided the research team with key human resource data that included the following teacher variables: classroom assignment, position, education level, degree type, hourly wage pre-adjustment, hourly wage post-adjustment, and hire date. Annually, MHEL provided the research team with updated information on new hires and quarterly through March 2020, MHEL provided information about teachers who left their employment and indicated whether the staff member was terminated or left voluntarily. We then linked administrative data to teacher survey data.

Data Analysis. To examine factors that predicted teachers staying in or leaving their jobs, we used regression analyses.

CHAPTER 3: TEACHER TURNOVER

This chapter examines the extent to which MHEL is experiencing teacher turnover after implementing the new salary scale for nearly two-years. It also explores trends in turnover rates pre- and post-salary scale implementation over time.

Figure 1 displays turnover rates among lead teachers. Year 1 represents the year prior to the wage increase and new salary scale. Year 2 represents the 12-months post new salary scale implementation and year 3 represents the time period between May 1, 2019 and February 28th, 2020; almost two years after the implementation of the new salary scale and just prior to the global pandemic. The table shows that initially after the salary increase there was a sizable decrease in turnover, 80%, among lead teachers. Over time, turnover increased, but not to the levels initially observed in year 1. By February 2020, turnover among lead teachers had increased approximately 70% from the year prior. However, in comparison to turnover rates the year before the wage increase, lead teacher turnover decreased by 33%. Importantly, across years, there was also a non-trivial amount of teacher movement in and out of different classrooms among teachers who stayed, presumably largely due to teacher turnover, which may also impact the consistency of children's experiences¹⁷.



Year 1 Year 2 Year 3

Figure 1. Lead Teacher Turnover Over Time

Figure 2 displays turnover rates over time among assistant teachers. In the year post salary increase, MHEL saw a 79% reduction in assistant teacher turnover. Similar to lead teachers, over time, turnover increased, but not to the levels initially observed in year 1. By February 2020, MHEL saw a 65% increase in assistant teacher turnover compared to the prior year. However, in comparison to the year before the wage increase, MHEL experienced a 44% decrease in turnover among assistant teachers.

Figure 2. Assistant Teacher Turnover Over Time

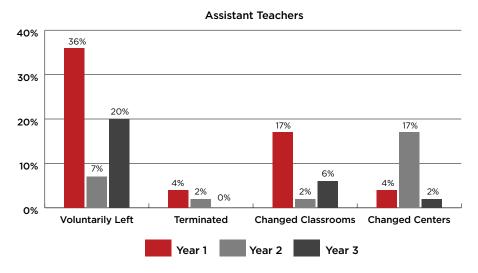
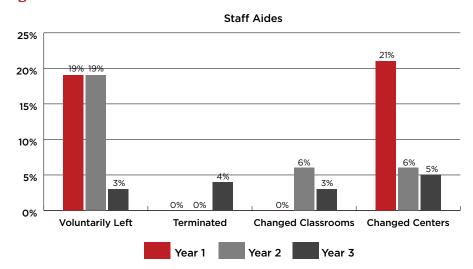


Figure 3 shows turnover rates among staff aides over time. The year after the wage increase, MHEL did not see an increase or decrease in staff aide turnover. At the end of the second year, there was an 84% decrease in turnover among staff aides. However, these figures should be interpreted with caution because of the small number of aides on staff at MHEL. A change of one or two aides staying or leaving could dramatically effect results.

Figure 3. Staff Aide Turnover Over Time



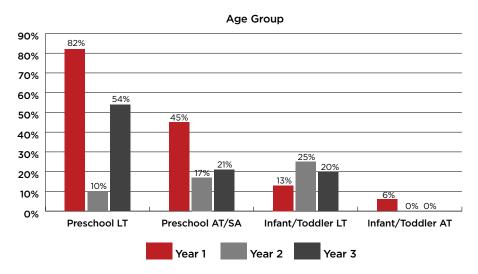
We also examined whether there were differences in types of turnover rates by position. Despite the seemingly large differences in turnover rates between lead and assistant teachers, particularly when examining teachers who voluntarily left, none of the differences in turnover rates by position were significantly different from year 2 to year 3¹⁸.

¹⁸ We did not examine differences between staff aide turnover and other positions due to the small sample size.

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Figure 4 displays turnover rates by teacher age group and position over time. Between May 1st 2019 and February 28th 2020, MHEL experienced a 54% turnover rate among preschool lead teachers, which is an approximate 81% increase in turnover from the year prior and this change was statistically significant. Importantly, however, preschool lead teacher turnover has decreased over time by 34% since the implementation of the new salary scale. With respect to infant toddler lead teachers, there was not a statistically significant increase or decrease in infant toddler lead teacher turnover across the years. Comparing the turnover rates among lead infant toddler teachers before the wage increase and almost two years later, MHEL saw an increase in lead infant toddler teacher turnover of approximately 35%, which in practical terms is two additional turnover events compared to the year prior to the wage increase.





Because there are not staff aide positions in infant/toddler classrooms, we combined assistant teachers and staff aides to examine their turnover rates by age group served. Within preschool assistant teachers/staff aides, we observed similar rates of turnover one-year and almost two-years post wage increase. We also observed at 53% reduction in turnover from the year before the wage increase to the time period from May 2019 to February 2020. Importantly, however, this large reduction in turnover appears to be driven largely by staff aides who may be more stable in their jobs than assistant teachers in preschool classrooms, where we observed a 38% turnover rate in preschool assistant teacher turnover between May 2019 and February 2020. The figure also shows low to no turnover in infant/toddler assistant teachers turnover over time.

CHAPTER 4: TEACHER INTERVIEWS

The high value MHEL places on organizational improvement led them to prioritize better understanding teachers' experiences working at MHEL and why teachers left the organization, particularly in light of recently receiving a pay raise. This chapter attempts to capture teachers' voices to explore how they perceive their jobs at MHEL, including their job demands and resources, their job frustrations and motivations, and examines the factors that teachers take into consideration that drive their decisions to stay in or leave their jobs.

For this portion of the study, we interviewed 15 lead teachers; 10 of whom stayed in their jobs and five of whom left their jobs and 11 assistant teachers/staff aides; four of whom stayed in their jobs and seven of whom left their jobs. Table 3 provides information about the interview sample.

Table 3. Interviewed Teacher Demographic Characteristics

	STAYERS	LEAVERS
AGE GROUP		
Infant Toddler	7	3
Preschool	7	9
TENURE IN ORGANIZATION		
Less than a year	0	3
1-5 years	10	7
6-10 years	2	0
10 or more years	2	2
EDUCATION		
High School	0	2
CDA (FOF)	4	2
Some College (ECE) A.A. in FCF	1 0	2 1
B.A. Unrelated Field	5	0
B.A. in FCF	4	2
Missing	o O	3
	MEAN (SD)	MEAN (SD)
AVERAGE HOURLY WAGE		
Assistant Teacher/Aide	\$14.00 (\$0.82)	\$12.74 (\$0.88)
Teacher	\$18.13 (\$1.66)	\$17.30 (\$1.25)
AVERAGE HOURLY WAGE INCREASE		
Assistant Teacher/Aide	\$2.02 (\$0.84)	\$0.41 (\$0.16)
Teacher	\$2.24 (\$0.79)	\$2.00 (\$1.06)

Note: One assistant teacher was excluded from wage increase data due to not being employed at MHEL prior to wage adjustment.

The average tenure at MHEL for teachers who were interviewed and who stayed at MHEL was 4.79 years and the average tenure among interviewed teachers who left was 4.17 years. Twenty-five percent of interviewed teachers who left, also appeared to leave within the first year of employment.

Among lead teachers interviewed, approximately 50% (n= 5) held BA degrees in ECE or in unrelated fields compared to 22% of lead teachers who left (n= 2). The average hourly wage for lead teachers who were interviewed and who stayed at MHEL was calculated at \$18.13 an hour and the average hourly wage for lead teachers who left MHEL was calculated at \$17.30 an hour. Lead teachers who stayed saw an average hourly wage increase of approximately \$0.24 an hour more than lead teachers who left. The average hourly wage among interviewed assistant teachers who stayed at MHEL was calculated at \$14.00 an hour, compared to an average of \$12.74 an hour among assistant teachers who left. Assistant teachers who were interviewed and who stayed also had an average wage increase that was approximately \$1.83 more per hour than assistant teachers who left.

Below we present the major themes found across the interviews.

Theme 1:

Teachers perceive a misalignment between the demands and workload and the supports they have to meet job expectations. Teachers who left felt ineffective in their jobs due to a perceived lack of job resources whereas teachers who stayed were more likely to problemsolve job challenges and take some responsibility to help solve them.

Challenging behaviors. For example, all teachers, regardless of whether they stayed or left mentioned that children's behaviors that they considered challenging created job stress. For teachers who left, the anxiety associated with not being able to meet children's needs, whether it was the needs of the children exhibiting behavioral challenges, or other children in the classroom, appeared to undermine their confidence in their abilities to be effective at their job, which in part, influenced their decisions to leave. When asked about workload and work challenges one teacher who left said, "kids with the challenging behaviors made it pretty hard. There were times that I came home and just cried because I worried about the other kids and their parents getting mad." Another teacher who left elaborated on not having the resources needed to support children in the classroom. "I wasn't set up for success in helping children with high needs. The biggest difficulty was that we have a few of our students who have challenging behaviors....and I think the most frustrating part or difficult part was not being able to help them."

Almost all teachers also expressed needing help with children that they considered to have challenging behaviors. Yet what appeared to differentiate those who stayed with those who left were the types of supports they primarily wanted, whether they felt heard in their requests for help, and whether they included themselves as part of the solution. Those who left were more likely to want external help, such as more support staff in their classrooms, specialists to come into their classrooms, or specialists available to provide pull-out services for children. One teacher commented, "every time we asked for help with this child, nothing ever got done... It was a very frustrating experience to know the needs of this child, and to know that no matter what I did, those needs wouldn't be met because I wasn't getting the support that I needed." Not feeling supported was a prevalent theme among those who left.

Alternatively, teachers who stayed also wanted more external help, but they also included themselves as a focal point for improvement. They more frequently endorsed a need for more professional development for themselves to improve their own abilities to respond to children's needs in their classrooms. One teacher who stayed mentioned, "I need [professional development] to learn how to deal with the behavioral issues of the kids."

Paperwork and planning time. All teachers, regardless of employment status, felt the administrative paperwork load was heavy and did not come with time in the work day to complete. Many teachers across employment status mentioned that the paperwork often came at the expense of either planning for the day or attending to children. One teacher who stayed in their job commented about workload in relation to planning time, "it's getting time to do paperwork because there's always going to be paperwork for something. We have so much paperwork, it would be nice if we [could] have time to actually focus on what we have to do for the day with the kids sometimes. I feel like [the paperwork] takes away some of my attention [from children].

However, teachers who left were more likely than those who stayed to express that they thought it was impossible to fulfill all of the job duties that were expected of them in a work day. Again, this appeared to undermine their confidence in their ability to be effective at their jobs and factored into their turnover decisions. One teacher who left expressed "what I found overwhelming was there's a number of different expectations that kind of all have to be met. There's the expectation that you complete all your assessments and your paperwork and your screenings and all of that stuff on time. Then there's the expectation that you can manage those (challenging) behaviors and keep your classroom safe and calm and productive, and sometimes those things can't be done at the same time." Another teacher who left elaborated "the planning time. I think, if I could have got more time away from the classroom to actually plan, clean, do stuff like that, the job would have been less frustrating."

One characteristic that appeared to differentiate teachers who stayed and teachers who left, was that teachers who stayed were more willing to get "creative", with trying to find planning time. Often this occurred during children's naptime or by taking lunch with another teacher. Those who stayed did acknowledge that these workarounds were sometimes problematic. Nonetheless, they were actively looking for solutions in the scheduling of their work day.

Theme 2

The value teachers placed on professional development strongly distinguished those who stayed and those who left. Teachers who left perceived it as a job demand. Teachers who stayed viewed it as a job reward to help them advance their careers.

One of the most prevalent themes across interviews were differences in how teachers perceived professional development. While those who left did comment on the importance of professional development to their learning and growth as a teacher, many who left positioned professional development as "one more job demand." They noted that it was an additional drain on their time that they were often required to attend on off-work hours. For example, several teachers who left interpreted professional development days as days that they should have off to be with their families or to work in their classrooms. One teacher who left noted "we got trained... a lot, but sometimes I just think we were over-trained. It would have been better just to have some time away from the training and away from the children... just to be working at the center [or] working the classroom." Others who left acknowledged the organizational efforts to provide teachers with professional development opportunities, but stressed a more pressing need for "mental [health] days" instead.

Alternatively, those who stayed in their jobs frequently positioned professional development as a key job reward as opposed to a job demand. One teacher who stayed elaborated that "professional development has been a huge part of my reason for staying." When considering differences among those who stayed and those who left, those who stayed where much more likely to indicate that they took advantage of voluntary educational advancement opportunities, such as the CDA training or scholarships and funding to advance their degree attainment. Many of these teachers also already had a degree and were interested in advancing their ECE specific credentials.

Theme 3

Career advancement, feeling valued by the organization, and organizational fairness were important to all teachers. Those who stayed had a clear vision for their career and the opportunities available at MHEL. Teachers who left were more likely to perceive the organization as less fair, especially with respect to career advancement.

Across teachers, all placed high value on career advancement opportunities as an important job reward that factored into their retention and turnover decisions. Those who stayed frequently mentioned feeling valued by the organization. They also simultaneously held a clear vision for their own career and understood career advancement opportunities that might exist for them within the organization that supported their career goals. One teacher who stayed shared, "I appreciate that they promote from within and that they were willing to give me a chance on an administrative position, which I didn't really have all the qualifications I needed to for. I really appreciated that I felt valued."

Teachers who left were much more likely to express frustrations about the lack of accessibility of organizational leaders and inequitable pay and promotion criteria. Ultimately, those who left did not feel as if there was a clear pathway for them to follow that would allow them to advance in their careers, which, they felt, undermined their motivation for staying. One teacher who left mentioned feeling "discouraged there was little room for them to grow."

Theme 4

All teachers had passion for working with children, but all teachers also acknowledged the challenge of low pay in the field. Career intentionality appeared to help teachers who stayed in their jobs handle the low pay.

All teachers interviewed indicated that a passion to work with children motivated them to pursue the job in the first place and was an emotionally rewarding aspect of the job. However, what differentiated those who stayed from those who left, was how they entered into the job and how they understood the low pay. For those who stayed, many indicated that they "knew what they were getting into" with respect to low pay prior to entering the profession and that it was an intentional career choice, and that their passion for the work enabled them to stay. "Pay is challenging! Like I told you, I don't do it for the money, that's for sure!" On the other hand, those who left often "stumbled into the job" and did not fully understand the pay, and eventually could not justify it for the workload. One teacher who left stated, "I was forced into a decision of [either] working with kids, which I love, or kind of just making more money. It was so sad that it had to come down to the money." Another who left stated, "I love children, financially I just can't do it."

Theme 5

Regardless of how teachers felt about their jobs, teachers with families weighed family friendly workplace benefits into their employment decisions. Job rewards such as free or reduced rate child care tuition and work schedules that align with elementary school calendars appeared to promote retention. High health care premiums to insure family members appeared to challenge retention.

Teachers' family lives appeared to strongly shape the value they placed on particular workplace benefits. Teachers often appeared to weigh whether different workplace benefits could compensate for low pay to allow them to stay in their jobs. For example, several teachers with very young children mentioned the importance of reduced rate, on-site child care in their retention decisions. This benefit often served as a strong motivator both for taking the job and for remaining in it over the course of their children's early childhood years. One teacher left her job because there was no room at her center for her child, and several others left once their own children transitioned into elementary school and they needed work schedules that aligned with a school calendar.

Among teachers who stayed at their jobs, a subgroup also emerged who appeared to be actively wrestling with whether it was more economically advantageous for them to stay at home than to work as an ECE teacher because of health insurance premiums. For example, several teachers expressed worry about the high health insurance monthly contributions for covering their family through MHEL's policy in relation to their wages. One teacher explained, "I have to pay for health insurance [for my family]. I should be making like almost \$1,300 every payday but I only make like \$800 because I have to pay for all that." Another expanded, "I'm borderline on my income, I guess. I am married, so I have a husband and I'm a family of three. So, right now we hit the borderline to get any kind of insurance or assistance. We make too much to get any assistance, but we make too little to actually afford to be able to pay it. So currently none of them have any health insurance because of that. So I'm like, well it's a winlose situation." Another teacher with no immediate plans to leave the organization remarked, "if someone walked up to me and said, 'We will offer you a job that pays the same, but we'll give your son health insurance, I would walk away and I would take that job because I have no choice."

Theme 6

Relationships with co-workers are critical to employment decisions. Teachers who stayed felt a sense of cohesion and social support among their colleagues. Teachers who left almost all cited having challenges with other teachers.

Overall, teachers who stayed and teachers who left had a common understanding of the workplace community in which they wished to work. Across teachers, they described their desired workplace as one in which teachers are supportive of one another and where there is an active learning community where professional development activities build relationships and cooperation among teachers to enable them to learn and grow. They also described an accessible leadership team that grounds their work in the needs of children and teachers, that protects teachers' interests and encourages teachers to want to stay in the field. However, what appeared to clearly distinguish teachers who stayed from teachers who left was the extent to which their ideal workplace climate and community matched their appraisals of their actual workplace and that these appraisals varied even among teachers working in the same center.

For example, teachers who stayed all appraised their workplace as collegial. Often these teachers mentioned the social support they received from other teachers in their centers and described their relationships as "having our own little family." In addition to having a sense of collegiality among co-workers, those who stayed mentioned having mentors among their co-workers who helped them to be more effective teachers. Many shared that their positive relationships with other co-workers buffered them from frustrations that they may have felt from the demands of the job. Several teachers who stayed also mentioned the importance of having a shared sense of values and purpose in their work among their co-workers, with one teacher mentioning how paramount their co-worker relationships were to feeling as if "[we are] a part of something bigger." In turn, this shared sense of purpose and collegiality felt by many who stayed, fortified cohesiveness among teachers that motivated them to stay.

Teachers who left MHEL almost unanimously described their relationships with other teachers and leaders at their centers as marked by a lack of cooperation and collegiality. Frequent co-worker conflicts prompted at least a few to "keep their distance" from other teachers, withdraw from their work, which ultimately prompted them to leave their jobs. Several also mentioned that they did not feel as if workplace conflicts were handled fairly.

Theme 7

Co-teaching relationships are critically important to job satisfaction and goodness of fit among co-teachers is paramount to retention. Emergency hiring makes building positive co-teacher relationships challenging, often fosters some resentment among veteran teachers, and frequently causes newcomers to leave the organization quickly.

All teachers noted the especially important role that a teacher's classroom co-teachers play in shaping teachers' employment decisions. One teacher who stayed summarized, "with the right co-teacher, the job can be so rewarding." Yet given the value-laden nature of teaching in early childhood, co-teaching relationships were also acknowledged as ripe for conflict. High rates of turnover among teachers at MHEL appeared to create conditions in which classroom teacher vacancies needed to be filled immediately and teachers often found themselves in positions where they were not asked to give input into new teacher hires for their classrooms. This, in turn, appeared to foster a degree of strife among teachers, especially among veteran teachers and newcomers to classroom teams. Both teachers who stayed and teachers who left frequently mentioned that there was not an extensive team-building or onboarding process among new hires, making it difficult for new hires and veteran teachers to build positive relationships. As such, several teachers who were new to their jobs left quickly and expressed that they experienced resentment from veteran teachers for trying to "see things in a fresh way." One teacher who left further explained that emergency hiring created an environment in which "we were so short on staff [that] relationships with teachers got damaged and nobody had the time [to handle] that."

CHAPTER 5: TEACHER SURVEYS

This chapter presents the results of the quantitative portion of the study that sought to understand whether similar factors identified by teachers during interviews contributed to retention and turnover among a larger sample of teachers at MHEL during the second year after the new salary scale was introduced.

This portion of the study drew from 40 teachers employed at MHEL during the first week of May 2019 who completed a work climate survey and for whom we had administrative data about their employment status as of February 2020. Of these teachers, 19 persisted in their jobs during the second year after the pay raise; 16 of these teachers identified as lead teachers and three identified as assistant teachers or staff aides. Of the 21 teachers who left, 15 were lead teachers and six were assistant teachers. The sample of teachers who stayed working at MHEL consisted of more infant toddler teachers while the sample of teachers who left was comprised of more preschool teachers.

To explore the workplace factors that predicted teachers' turnover and retention decisions, we drew from survey questions aligned with findings from the qualitative portion of the study. We were unable to examine all potential factors that could drive turnover and retention given the small sample size therefore we prioritized triangulating qualitative findings. Thus, we included factors such as wages, classroom teacher and assistant teacher classroom turnover rates, and the number of children teachers identified as having challenging behaviors in their classrooms. In addition, we included a teacher rating of the extent to which they perceived that they receive adequate planning time; scores of 5 represent strong agreement of having adequate planning time.

We also included several indices of organizational climate drawn from the Comprehensive Organizational Health Assessment (COHA). The subscales we included were: (1) Clarity and Innovation, which measured the extent to which the organization is clear in their expectations for teaching and learning and engages in ongoing organizational improvement. The second, Learning Community, focuses on the extent to which teachers believe the organization promotes collaboration among teachers to improve services for young children. The third, Lack of Job Control, assesses the extent to which teachers perceive that they have a lack of autonomy in their work. The fourth, Caring and Equitable measures the extent to which teachers feel that the organization and leadership care about them and are fair, transparent, and collaborative in decisions that are made that affect teachers. The final scale, Professionalized Labor measures the extent to which teachers feel that their job requires important skills and that the organization supports teacher growth and improvement. Higher scores (e.g., 5.00) on each of these scales, with the exception of Lack of Job Control, represent greater perceived organizational health. On the lack of Job Control scale, lower scores represent greater organization health.

Table 4 shows that of the factors examined, two significantly predicted teachers' job decisions. Teachers with fewer children who they perceived to exhibit challenging behaviors predicted teachers who were more likely to stay in their jobs. Teachers who left MHEL identified having between three and four children, on average, in their classrooms with challenging behaviors

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and their responses ranged from having no children in their classroom with behavioral challenges to having 14. In contrast, teachers who stayed identified having, on average, approximately two children in their classrooms with challenging behaviors and their responses ranged from having no children in their classrooms with behavioral challenges to having eight children. Importantly, teachers working in the same classroom often had different perceptions of children who they believed to exhibit challenging behaviors with teachers who left identifying more children with behavioral challenges than teachers in the same classroom who persisted in their jobs.

Table 4. Workplace Factors Related to Teacher Turnover and Retention

	MEAN	SD	ESTIMATE	SE	CHI-SQUARE	Р
Intercept			2.29	10.31	0.05	0.82
Clarity	3.56	0.60	-3.15	1.90	2.74	0.10
Care & Equity	3.27	0.68	-0.31	0.63	0.25	0.62
Learning Community	2.89	1.06	-0.19	0.53	0.12	0.73
Lack of Job Control	2.78	0.61	-0.96	0.79	1.50	0.22
Professionalized Labor	3.91	0.59	3.64	0.96	14.35	>.001**
Planning Time	2.85	1.33	0.33	0.65	0.27	0.60
Wage	\$17.39	2.36	0.03	0.43	0.00	0.95
Lead Teacher Turnover	19.34	14.24	-0.04	0.02	2.59	0.11
Asst. Teacher Turnover	14.20	8.06	-0.02	0.02	1.17	0.28
Challenging Behaviors	3.25	3.13	-0.73	0.32	5.21	0.02*
Position Type: Teacher	83%	N/A	0.63	1.18	0.28	0.59

In addition, teachers who scored higher on the *Professionalized Labor* scale were more likely to remain working at MHEL. Teachers who scored higher on this scale and who were more likely to stay tended to more strongly view their work as professional and as a job that needed a specialized set of knowledge and skills. They also tended to more strongly perceive MHEL as viewing them as professional and supporting their growth as a teacher. Teachers who stayed, on average, scored slightly over half a standard deviation higher on this scale than teachers who left.

CHAPTER 6: DISCUSSION

Several important themes emerged from this mixed methods study that point to potential drivers of retention and turnover at MHEL that can potentially aid the organization in developing and refining hiring and retention policies.

Self-Efficacy, Professionalism, and Resilience

The first is that there may be important links between teacher self-efficacy and professionalism that fosters resilience and prompts teachers to stay in their jobs. When these qualities are less fortified in teachers, it may cause greater job stress and prompt them to leave their jobs; particularly when they feel there is a lack of workplace supports. For example, a large majority of teachers indicated that children with challenging behaviors and the amount of paperwork and planning that comes with programs that blend multiple funding sources are sources of job stress. This is especially true when teachers do not feel as if they have key job resources such as behavioral health specialists and planning time to meet job demands. Teachers who left indicated that their sense of confidence and teaching efficacy were challenged by not having these job resources, which prompted them to leave their jobs. Teachers who left also did not a clear vision for their own professional career path and viewed professional development as more of a job demand than a job reward or support in helping them to improve their professional practice.

On the other hand, teachers who indicated that they had a role to play as part of being a professional in problem-solving job challenges, such as being creative with finding planning time or seeking out more professional development to learn more about supporting children's emotional and behavioral challenges, were more likely to stay in their jobs. These were also the teachers who tended to view professional development as a key job reward that kept them in their jobs. They also were more likely to understand advancement opportunities in the organization and pursue them through advancing their professional qualifications. These findings were corroborated with the quantitative portion of the study that found that teachers who viewed their work as professional and needing skills and knowledge to do the job well and who viewed MHEL as an organization that supported teacher growth and development were more likely to stay in their jobs.

These findings lead to several potential areas for MHEL to consider in teacher retention efforts. For example:

- 1. MHEL might consider ways in which the organization can infuse the promotion of selfefficacy into the job. This may mean giving teachers within centers professional problems to identify and solve. Consistently engaging in collaborative problem-solving may help to instill a sense of confidence, leadership, and creativity, leading to greater feelings of professionalism and job commitment and to an organizational expectation about shared responsibility for organizational improvement across job roles.
- 2. Similarly, MHEL might also consider professional development efforts aimed at promoting teacher coping skills. Prior research has found that professional development efforts to help teachers cognitively re-frame their emotional responses to their jobs (e.g., challenging

- co-worker interactions or children's behaviors) through building coping, resiliency, and emotional regulation skills have resulted in increased job satisfaction and retention, and reduced stress¹⁹.
- 3. MHEL might also consider increasing the professional qualifications of new hires. Across all sub-studies and cohorts examined for this project, one consistent finding continues to emerge: teachers are struggling with behaviors from children that they find challenging. Given the amount of support MHEL provides for children exhibiting challenging behaviors and for their teachers (e.g., mental health consultants, Pyramid Plus Training, low teacher to child ratios, etc.), it may be important to consider the depth of knowledge that teachers have regarding child development, social-emotional learning, and stress and trauma among children. Given the consistency of these findings, it may point to the need to staff each preschool classroom with a teacher with a background in early childhood special education or with a much deeper background in child development and pedagogy who are well prepared to meet the needs of all children in ECE settings.
- 4. MHEL might also continue to consider how to restructure teachers' days to allow for paid planning time consistently and consider where there are places to streamline paperwork and reporting.

Hiring and Mentoring

A second theme that emerged across studies focused on new teachers and the hiring process. A consistent finding in prior quantitative reports and in the qualitative portion of this study is that a significant number of lead and assistant teachers leave within the first year of employment. Teachers also shared that given the emergency nature of hiring, that good classroom team matches do not always occur and that there is little time for team building, which often creates turf challenges and prompts new teachers to leave.

- 5. MHEL might consider re-imagining hiring processes to include classroom teaching team members in interview and hiring processes and developing comprehensive onboarding protocols that intentionally include team-building experiences among classroom staff members. It may also be helpful to consider moving to annual salaries (as opposed to hourly wages) and instituting annual teaching contracts that may help promote some of the teacher turnover to occur on a more consistent schedule (e.g., over the summer) so that onboarding can be more coordinated.
- 6. MHEL might also consider targeting coaching to newly configured classroom teams and direct individual reflective supervision to new hires since the first year working at MHEL influences the retention trajectories. There are several induction teacher mentoring programs that are being implemented in districts that might serve as a helpful model for MHEL. These models also tend to include an intentional focus on problem-solving, resilience, and handling job stress and have been found to significantly improve teacher retention in K-12 settings²⁰.

Job Rewards

Teachers also offered information about ways in which different job rewards and benefits factor into their employment decision-making. For teachers with young children, free or reduced rate child care was an important benefit aiding in retention and for teachers with older children, working on an academic schedule aided in retention. A key benefit that may distinguish teachers who stay and teachers who leave is health insurance premiums for family members. Namely, teachers who needed to provide health insurance for their families through the MHEL policy found it very expensive to do so, which prompted them to consider finding other employment. These findings held in both the qualitative portion of the study and in additional quantitative analyzes found in Appendix A. Another job reward theme that emerged from interviews focused on career advancement. Teachers who stayed appeared to understand their path to job advancement and promotion within MHEL, while those who left did not feel like there were advancement opportunities at MHEL available for them. Thus:

- 7. MHEL might consider providing human resource technical assistance to teachers to help them identify sources of public support that may be available to help their families access subsidized health insurance. MHEL might also consider whether funds might exist within the organization to offset teachers' family health insurance costs.
- 8. MHEL might also consider developing a similar education and salary scale for administrative positions within centers and the central office to make transparent different career and advancement trajectories and educational pathways towards attaining promotions.

CONCLUSION

MHEL has made substantial investments in teacher wages over the past several years to support teacher retention. While there have been fluctuations in teacher turnover since the inception of the new salary scale, results suggest that over time, MHEL has experienced a 33% reduction in turnover among lead teachers and a 44% reduction in turnover among assistant teachers. Wage increases have also served to reduce financial stress and strain among teachers and have reduced the financial sacrifices that they have needed to make in basic necessities²¹. At the same time, the results of this study also point to several additional areas that may aid further in teacher retention. Efforts to strengthen the professional capacity of teachers with respect to their knowledge of child development, and in their own coping and resilience skills, and sense of teaching-efficacy may be important teacher development focal areas. In addition, organizational efforts to improve administrative practices around hiring, providing induction mentoring, developing administrative career ladders, and in changing the structure of teachers' days to include planning time also may be important retention strategies. Together, these recommendations support elevating the professions' capacity and ensuring that they have a professionalized work environment that match the demands of the job and promote longlasting careers within the organization.

APPENDIX A

Distinguishing Characteristics of Teachers Who Stayed and Left

We were able to additionally examine data from 54 teachers²² who were employed at MHEL as of April 2018, the day the pay raise was given and track their employment outcomes over time. These teachers completed a survey on their demographic characteristics, perceptions of MHEL's organizational climate, perceptions of their preparation for the job, and their financial and emotional well-being. We linked these data to human resource data as of February 28, 2020 to understand factors that might distinguish teachers who stayed and teachers who left the organization.

Of these 54 teachers, 35 (25 lead teachers, 10 assistant teachers/staff aides) left MHEL since the pay raise and 19 (16 lead teachers, 3 assistant teachers/staff aides) continue to work at MHEL. We conducted many comparisons between the groups, but for the sake of readability, we present key findings that *may potentially* distinguish teachers who stayed and teachers who left. Most comparisons were not statistically significant, likely due to the small sample size. However, we do present differences that may have practical significance and represent important areas in which MHEL may want to track and learn more.

Demographic and Employment Characteristics

- Teachers who stayed were more likely to be teachers of color compared to teachers who left, who were more likely to be white ($X^2 = 17.94$; p = 0.001).
- While there were no significant differences among teachers who stayed and teachers who left with respect to bachelor's degree attainment; 37% of degreed teachers who left had a degree in ECE compared to 54% of degreed teachers who stayed who had a degree in ECE.

Financial Well-Being

While the following financial well-being indices that we collected were not statistically different between groups, differences are large enough to warrant further analysis because they may point to the possibility that teachers who stayed were more financially well-resourced and better able to stay in low-wage jobs compared to teachers who left who may be less resourced and unable to make the job financially work.

- 20% of teachers who left held a second job compared to 6% of teachers who stayed who held a second job.
- 40% of teachers who left received at least one public subsidy reserved for low-income children or families compared to 28% of teachers who stayed who received at least one public subsidy.
- Teachers who left made between 5 and 6 financial scarifies in necessities (e.g, lived on credit, borrowed money, canceled insurance, forewent medical needs, etc.) over the prior 12-months in comparison to teachers who stayed, who made between 2 and 3 financial sacrifices.

22 In chapter 4, we examined teachers who were employed at MHEL as of May 2019 because we focused on the second year of the new salary scale implementation. Conversely, teachers in Appendix A participated in the project at the time of the pay raise and we tracked their employment outcomes through February 2020.

Emotional Well-Being

Similarly, differences in emotionally well-being indicators were not statistically different between the groups. However, the large differences in the emotional exhaustion scores and depression rates between the two groups warrant further examination and suggest that teachers who left MHEL may be more challenged with job exhaustion and depression in comparison to teachers who stayed. These results should be interpreted with caution due to the small sample size and because differences do not reach professional standards for statistical differences. In addition, positive attributes of emotional health, such as self-efficacy, fulfillment with the job, and engagement with the job did not differ between groups, nor did adverse early experiences scores or reports of secondary trauma. Nonetheless, we did find that:

- Teachers who left scored almost one point, on a five-point scale, higher on the emotional exhaustion dimension of occupational burnout compared to teachers who stayed.
- 50% of teachers who left self-reported clinical levels of depression, compared to 28% in the sample of teachers who stayed.

Job Motivations and Frustrations

Teachers, regardless of employment status, also indicated that a passion to work with children and families drove their motivation for the job. Alternatively, figure 5 displays teachers' most frequently nominated job frustrations. The blue bars reflect responses from teachers who stayed in their jobs post pay raise and the red bars reflect responses from teachers who left MHEL. Across teachers, pay, children teachers perceive to have challenging behaviors, working a 12-month calendar year, paperwork, and teacher turnover appear to be common job frustrations across teachers, but did not distinguish those who stayed and those who left. The only job frustration to significantly differ between the two groups are their feelings about MHEL benefits. Those who left were significantly more likely to be frustrated by the benefits package compared to those who stayed (t = 2.66; p = 0.012). The results of the qualitative study suggest that this may be related to the cost of obtaining health insurance for family members.



