

# Life Beyond Graduation: Three-Year Follow-Up Study of T.E.A.C.H. Early Childhood® Scholarship Recipients

## Year Three Report

### Background

The early care and education (ECE) field is undergoing a major transition. Extensive research continues to support the finding that high-quality early childhood education is a major factor in a child's future success in school and life. In addition, because there is increasing evidence that well-educated and competent teachers are a key component of high quality early childhood education, more attention is being directed toward the professionalization of early childhood educators. [Transforming the Workforce for Children Birth Through Age 8](#), a report from the Institute of Medicine and the National Academy of Science, recommends lead teachers in all settings should have at least a bachelor's degree in early childhood education as a foundation for their practice, basing this on the science of early childhood development. While the early childhood field is far from reaching this goal, progress is underway. The [final report](#) developed by the Power to the Profession Task Force calls for major investments in early childhood educators, including comprehensive strategies to make college degrees affordable and accessible for the incumbent workforce. The T.E.A.C.H. Early Childhood® (T.E.A.C.H.) Scholarship Initiative is a proven way to make that happen, given the post-secondary education the workforce needs and the real career and wage mobility it deserves.

With the goal that every child in an early childhood setting has a teacher who is well-educated and well-compensated, T.E.A.C.H. provides an opportunity for incumbent early childhood educators to access an affordable college education, have adequate workforce support while pursuing that education and earn fair compensation commensurate with their educational achievements. The T.E.A.C.H. scholarship consists of several components, including financial support for tuition, books and other expenses, paid release time, annual compensation enhancements upon completion of required credit hours and a counselor who provides personalized support for scholarship recipients and their employers. Currently, T.E.A.C.H. scholarship programs operate in 23 states and D.C.

The T.E.A.C.H. state programs are supported by Child Care Services Association's T.E.A.C.H. Early Childhood® National Center (National Center). The National Center provides ongoing technical assistance and resources and accountability oversight to ensure state programs maintain fidelity to the basic design of the T.E.A.C.H. model. To support this mission, the National Center created a database primarily for use as a scholarship management system. That database includes extensive information obtained at the time of scholarship application. Scholarship recipients' records are updated while they participate in the program. Because this information is monitored regularly and examined by National Center staff, it is quite useful in developing high-quality data for research and evaluation studies.

However, individual scholarship recipients are not routinely tracked in the T.E.A.C.H. database after they complete T.E.A.C.H. contracts and final retention commitments. Hence, it has been difficult to conduct systematic assessments of T.E.A.C.H. scholarship recipients' careers, especially those who graduated from early childhood education programs with a college degree. This three-year study, initiated in 2018, was developed to fill this gap by surveying recent graduates who were supported by T.E.A.C.H. scholarships while completing two- or four-year degrees. These surveys, which have been fielded every six months over a three-year period, inquire about employment, wages, career progress, professional development and other work and life situations. The resulting data allow a detailed description of T.E.A.C.H. graduates' experiences and accomplishments. This is the final report in a series of three. The [first year report](#) summarized developments over the first year after graduation, while the [second year report](#) examined developments over the second year, focusing on the similarities and differences between T.E.A.C.H. recipients who graduated with associate degrees and bachelor's degrees. This report summarizes the findings from the final two rounds of surveys that

cover the third year after graduation. The focus of this report is on developments for this workforce during the period from spring 2020 through spring 2021—a time period that overlapped significantly with the COVID-19 pandemic.

## Key Research Questions

At the inception of the study, we sought to document the trajectories of T.E.A.C.H. Early Childhood® graduates using data collected over a three-year period and to answer several specific questions. These included:

- *After T.E.A.C.H. scholarship recipients complete their coursework and obtain their college degrees, do they continue working in the ECE field upon graduation? Do they continue working in the same early childhood educational settings where they were employed when they first obtained their T.E.A.C.H. scholarship support?*
- *Do these graduates experience career progress as indicated by increased earnings?*
- *Do these graduates advance in the ECE field along a career pathway by being promoted to higher positions in their work settings or by moving up into other full- or part-time positions in the field?*
- *Do these graduates seek additional college degrees in the ECE field? Does T.E.A.C.H. support these efforts?*
- *Do these graduates become more engaged in the larger ECE professional development system by attending continuing education or participating in other professional development and professional leadership activities?*
- *Do these graduates experience increased self-confidence consistent with a stronger identity as an early childhood professional?*

How do these various outcomes in the ECE professional development process—upward mobility, external engagement and internal development—vary for different subgroups? How is a T.E.A.C.H. graduate’s career trajectory affected by their demographic and educational background, current employment situation and the type of degree they obtained?

The unprecedented and largely unforeseen occurrence of the COVID-19 pandemic posed extraordinary challenges for the early childhood workforce as well as the ongoing delivery of services to families in need of child care. As a result, additional research objectives were formulated to understand these issues and several new questions were added to the final two rounds of surveys in fall 2020 and spring 2021. These items requested information about events occurring during the first year of the pandemic and how T.E.A.C.H. graduates faced these pandemic-related challenges. These new research questions were:

- *How were T.E.A.C.H. graduates affected by the onset of the COVID-19 pandemic in terms of their employment patterns and professional development? Did T.E.A.C.H. graduates experience job loss, reductions in hours or losses in income, or were they unable to continue professional development or educational pursuits as a result of pandemic-related restrictions?*
- *Did T.E.A.C.H. graduates receive unemployment compensation or any kind of financial bonuses from federal or state sources or from their employers?*

## Methodology: Study Protocol

National Center staff identified 18 states currently operating a T.E.A.C.H. program that had a history long enough to yield alumni who graduated from associate or bachelor's degree programs since fall 2017. The leadership of each qualifying state was invited to participate in the study, and all agreed to enroll graduates in the study. All T.E.A.C.H. associate and bachelor's degree graduates in those states from fall 2017, spring 2018 and summer 2018 received invitations to participate. Participation involved committing to answer online surveys every six months for three years. State programs contacted graduates they identified in their state and then followed up with emails from the initial request through Round 1. The National Center sent the surveys in Rounds 2 through Round 6.

Individual respondents were tracked throughout the process using unique identifiers assigned by state programs. A uniform survey was designed by National Center staff and administered through SurveyMonkey. Participants were sent an email reminder one week before the surveys were released. Then individuals were sent an email with a link to the survey. Potential survey respondents were sent three to four reminders in each round. Inducements for a prompt response included a chance in a raffle of gift cards for respondents. Eight gift cards were provided at the end of each round. There were total of six follow-up surveys over a three-year period following graduation.

## Survey Response Overview

**Study sample characteristics.** More than 400 people in 18 states were invited to participate in the study and a relatively high number (N=272) responded to that invitation and agreed to enroll in the study. These individuals constitute our study sample. Participants are quite diverse geographically. They received college degrees from 137 colleges and universities across 18 states, distributed across the U.S. Of these individuals, approximately two-thirds (N=176) were graduates of an early childhood associate degree program and 96 were graduates of an early childhood bachelor's degree program. The number of unique individuals responding to at least one of the six rounds of surveys (N=241) constitutes 89% of all those who agreed to participate. The analyses in this report describe the situation of T.E.A.C.H. alumni through the third year after they attained their degree.

**Third year survey sample definition.** Most of the analyses in this report are based on information from the most recent and final (Round 6) survey conducted in spring 2021. However, if an eligible individual did not respond to the spring 2021 survey, data from the previous survey (fall 2020), if available, were substituted to represent that individual's status in the third year after they had graduated from college with T.E.A.C.H. support. Survey data from the two most recent surveys (Rounds 5 and 6) yielded 168 unique individuals who constitute almost two-thirds (61.7%) of the original 272 persons enrolled in the study. Most of these responding cases (N=136) came from spring 2021 Round 6 surveys; fewer (N=32 or 19%) came from the immediately previous prior survey (Round 5, fall 2020). All spring 2021 surveys were received between March 15, 2021, and April 17, 2021. Many questions in these surveys enquire about events occurring in the previous six months. Thus, data from these two most recent rounds of surveys reflect the situation from the COVID-19 pandemic, i.e., from April 2020 through March 2021. Given this particular one-year time frame for reporting events and a wide geographic distribution of the sample, it is likely that a wide range of community level COVID-19 infection rates and varied types of public health measures (i.e., facility closures, mask mandates, immunization patterns, COVID-related payments) are represented in the locales where the T.E.A.C.H. graduates in our sample live and work. Particular attention will be focused on comparing Year 2 and Year 3 responses in situations where particular contrasts or continuities can be examined.

**Third year survey response patterns.** It is important to assess how representative the third-year sample is of the population of T.E.A.C.H. graduates. This can be done by comparing the 168 respondents in the third year to the original population of 272 individuals constituting the study sample. Using the definition of survey response above, response rates were calculated for several population characteristics measured at baseline from the T.E.A.C.H. databases. Then these were compared to determine whether certain types of T.E.A.C.H. graduates might be over- or under-represented in the third-year sample. We examined race/ethnicity, family type and educational background at the time when individuals applied for T.E.A.C.H. scholarships to detect any response bias that might have occurred due to differences between survey respondents and non-respondents. Because certain demographic characteristics were collected when T.E.A.C.H. recipients applied for their scholarships, we can assess how representative the third-year survey sample is of the study's entire population at the time that these individuals applied for their T.E.A.C.H. scholarships.

## Third-Year Survey Respondents Compared to Study Population

Nearly two-thirds of the 168 third-year survey respondents had associate degree (AS) scholarships (N=102; 61%), while fewer had bachelor's degree (BA) scholarships (N=66; 39%). The response rate from BA graduates (69%) is higher than the response from AS graduates (58%). While these numbers are adequate for robust analyses of the entire sample and the two subgroups of AS and BA degree holders, this response pattern suggests that separate analyses of AS and BA degree holders will yield more useful information.

Comparisons of third-year survey sample participants and the entire sample of T.E.A.C.H. graduates from participating states suggest that degree completers in this study sample are quite similar to T.E.A.C.H. graduates generally. For example, similar percentages of single parents are found among all T.E.A.C.H. graduates and third-year survey respondents (see Table 1). Furthermore, the demographic background and life experiences study-sample participants reported when they applied for T.E.A.C.H. scholarships resemble the profile of college students who are at a relatively high risk for delayed degree completion. All participants are working and are part-time students. Nearly all T.E.A.C.H. alumni identify as women (98.9%) and many have family responsibilities. Two-thirds are mothers and more than one in five are single parents. One-third of the sample live in households without children; they are in various stages in a family life cycle, and fewer than one in 10 appear to be empty nesters.

<b>Table 1</b>				
<b>Comparison of third-year survey respondents to all T.E.A.C.H. graduates enrolled in the multi-year study</b>				
<b>Characteristics of EC educators when they applied to T.E.A.C.H. program</b>	<b>Type of ECE diploma awarded to T.E.A.C.H. graduate</b>			
	<b>AS graduates<sup>1</sup></b>		<b>BA graduates<sup>1</sup></b>	
	<b>Third-year sample [N=102]</b>	<b>All study participants [N=176]</b>	<b>Third-year sample [N=66]</b>	<b>All study participants [N=96]</b>
<b><i>Background Demographics</i></b>				
<b>Single parent</b>	<b>19%</b>	<b>23%</b>	<b>23%</b>	<b>20%</b>
<b>Person of color*</b>	<b>26%</b>	<b>31%</b>	<b>29%</b>	<b>31%</b>
<b>Average age</b>	<b>33.6</b>	<b>33.0</b>	<b>38.9</b>	<b>36.9</b>
<b><i>Educational Background</i></b>				
<b>First generation in college</b>	<b>42%</b>	<b>47%</b>	<b>42%</b>	<b>46%</b>
<b><i>Educational Achievement</i></b>				
<b>HS diploma/GED only</b>	<b>53%</b>	<b>55%</b>	<b>17%</b>	<b>18%</b>
<b>HS complete + some credits</b>	<b>25%</b>	<b>28%</b>	<b>21%</b>	<b>23%</b>
<b>One-year certificate</b>	<b>6%</b>	<b>4%</b>	<b>0%</b>	<b>0%</b>
<b>Associate degree</b>	<b>9%</b>	<b>7%</b>	<b>50%</b>	<b>49%</b>
<b>Bachelor's degree</b>	<b>8%</b>	<b>6%</b>	<b>12%</b>	<b>10%</b>
<b><i>Job at ECE Program</i></b>				
<b>Director/administrator/owner</b>	<b>15%</b>	<b>10%</b>	<b>17%</b>	<b>17%</b>
<b>EC teacher: Birth-5yrs</b>	<b>41%</b>	<b>45%</b>	<b>41%</b>	<b>42%</b>
<b>Assistant teacher/floater</b>	<b>29%</b>	<b>31%</b>	<b>30%</b>	<b>31%</b>
<b>Other job</b>	<b>0%</b>	<b>1%</b>	<b>0%</b>	<b>0%</b>
<b>Family child care home operator</b>	<b>15%</b>	<b>13%</b>	<b>12%</b>	<b>10%</b>

An early childhood associate degree includes AS, AAS or AA depending on the college; in this report the abbreviation AS will be used. An early childhood bachelor's degree may be a BA or BS; in this report the abbreviation BA will be used.

\*AS graduates who are persons of color are slightly underrepresented in the third-year sample, (p<.04).

T.E.A.C.H. program graduates held a variety of jobs at the time they applied for their T.E.A.C.H. scholarships, and the jobs of third-year sample respondents reflected the range of jobs ECE professionals in the entire study sample held (see Table 1). Among third-year respondents, more than one-quarter of scholarship recipients held director or owner status. This included center directors (AS: 15%; BA: 17%) or owners of family child care homes (AS: 15%; BA: 12%). Nearly half were teachers (AS: 41%; BA: 41%) and about one-third were assistant

teachers (AS: 29%; BA: 30%). Wage levels for the third-year sample and the entire study sample were not significantly different.

While the overall distribution of demographic factors, job titles and average baseline hourly wages of the third-year survey respondents are comparable to the same characteristics of the entire sample, there is a slight underrepresentation of people of color among third-year survey respondents. Approximately 26% of AS third-year respondents are people of color compared to 33% of study participants; among BA survey respondents no statistically significant differences between third-year survey respondents and the study population were detected.

With the exception noted above, we can be confident that characteristics of the third-year survey respondents closely mirror the characteristics of the entire study sample in terms of demographic, educational and job characteristics and thus are quite comparable to the overall study population. This gives us additional confidence that despite the fact the third-year sample constitutes less than two-thirds of the entire group who enrolled in the study, we can still generalize our findings to the larger study group.

## Third Year Outcomes

### Retention in the field and in current work settings

*After T.E.A.C.H. scholarship recipients complete their coursework and obtain their college degrees, do they continue working in the ECE field upon graduation? Do they continue working in the same early childhood educational settings where they were employed when they first obtained their T.E.A.C.H. scholarship support?*

Nearly all of the graduates (152 of 168 or 90%) have continued working in early childhood three years after the completion of their degree. This high retention rate is characteristic of AS graduates (93 of 102 or 91%) and BA graduates (59 of 66 or 89%). Some of the 152 individuals who are still working in the ECE field changed jobs in the past year and are employed in a different setting than where they were working when they graduated. T.E.A.C.H. graduates' job-change rates were similar for those with AS scholarships (6 of 59 or 10%) and those with BA scholarships (10 of 93 or 11%). These job changes are somewhat lower than were reported in the second-year sample where the AS rate was 14% and BA rate was 17%.

The extent of retention in the ECE field and the likelihood of changing employers were compared for different sub-groups of T.E.A.C.H. graduates with various background characteristics. Neither outcome—overall retention in the ECE field nor changes in employment setting—was systematically related to any of the individual demographics examined. Thus, it appears that T.E.A.C.H. graduates are strongly committed to the ECE field and exhibit substantial employment stability regardless of their race, ethnicity, age, first generation college student status, family structure or educational background. This is even more noteworthy given the pandemic.

## Upward Mobility: Wage Gains, Promotions and Career Advancement

### Upward Mobility: Wage Gains

*Do these graduates experience career progress as indicated by increased earnings?*

The various rounds of surveys requested data from T.E.A.C.H. graduates to estimate the actual hourly wages of all graduates in the sample. Statistical analyses were conducted on various samples of respondents with available wage data for two points in time using paired comparison data that assess actual wage differences

for individuals in the third-year sample. Initial wage data were collected and verified for all T.E.A.C.H. participants at the time they applied for their scholarships and at the time they graduated; more recent wage data is only for a subsample of survey respondents in the second- and third-year survey samples. Data from Round 3 and 4 surveys were used to estimate second-year hourly wages, while data from Round 5 and 6 surveys were used to estimate hourly wages for the third-year sample. All the dollar values were adjusted for inflation using the consumer price index and are expressed in 2021 dollars. This adjustment is especially important in the current context, because inflation in the current year has affected the purchasing power of all workers. Therefore, it is important to assess whether the apparent wage increases T.E.A.C.H. graduates might experience are being eroded by inflation.

<b>Table 2</b> <b>Wage levels and wage growth of T.E.A.C.H. graduates</b> <b>from starting T.E.A.C.H. to third year after their attaining their degree</b> <b>by type of scholarship and initial year job title</b>								
Degree type	Job title at graduation	N	Hourly Wage		Hourly Wage Gain			
			At graduation	In third year	Mean	Std. error	Sig. (2-tailed)	Relative wage gain
<b>Both types</b>	<b>All job titles</b>	<b>150</b>	<b>\$12.98</b>	<b>\$17.62</b>	<b>\$4.64</b>	<b>\$0.61</b>	<b>.000</b>	<b>36%</b>
<b>AS</b>	<b>All job roles</b>	<b>89</b>	<b>\$12.38</b>	<b>\$16.29</b>	<b>\$3.90</b>	<b>\$0.73</b>	<b>.000</b>	<b>32%</b>
	<b>Director</b>	<b>11</b>	<b>\$16.79</b>	<b>\$18.65</b>	<b>\$1.85</b>	<b>\$1.99</b>	<b>.372</b>	<b>11%</b>
	<b>Teacher</b>	<b>38</b>	<b>\$11.65</b>	<b>\$14.90</b>	<b>\$3.25</b>	<b>\$0.89</b>	<b>.001</b>	<b>28%</b>
	<b>Asst. teacher</b>	<b>30</b>	<b>\$12.20</b>	<b>\$15.34</b>	<b>\$3.14</b>	<b>\$0.97</b>	<b>.003</b>	<b>26%</b>
	<b>FCCE</b>	<b>10</b>	<b>\$10.87</b>	<b>\$21.81</b>	<b>\$10.94</b>	<b>\$3.70</b>	<b>.016</b>	<b>101%</b>
<b>BA</b>	<b>All job roles</b>	<b>61</b>	<b>\$13.84</b>	<b>\$19.56</b>	<b>\$5.72</b>	<b>\$1.04</b>	<b>.000</b>	<b>41%</b>
	<b>Director</b>	<b>8</b>	<b>\$16.92</b>	<b>\$25.50</b>	<b>\$8.58</b>	<b>\$3.82</b>	<b>.059</b>	<b>51%</b>
	<b>Teacher</b>	<b>26</b>	<b>\$14.07</b>	<b>\$17.54</b>	<b>\$3.48</b>	<b>\$1.41</b>	<b>.021</b>	<b>25%</b>
	<b>Asst. teacher</b>	<b>20</b>	<b>\$13.55</b>	<b>\$18.58</b>	<b>\$5.03</b>	<b>\$1.19</b>	<b>.000</b>	<b>37%</b>
	<b>FCCE</b>	<b>7</b>	<b>\$10.30</b>	<b>\$23.08</b>	<b>\$12.78</b>	<b>\$4.24</b>	<b>.024</b>	<b>124%</b>

All wage data have been adjusted to 2021 dollar values to account for inflation. Average hourly wage values for the same years vary slightly across different tables because they are based on slightly different samples due to missing data for some individuals for different years. "Director" includes directors, assistant directors, administrators or owners of child care centers. "Teacher" includes teachers working with children from birth to age 5 years. "Asst. Teacher" includes assistant teachers and floaters. "FCCE" includes family child care home owners and operators. "Relative Wage Gain" is the mean hourly wage gain divided by the mean hourly wage level at the earlier time period.

The results are displayed in Table 2. Nearly all of the third-year respondents (150 of 168 or 89%) provided enough data to construct wage estimates on those individuals for two points in time. Estimates of wage gains could be developed for all of these individuals, because baseline estimates were available for all participants in the original study population. These baseline wage measures were then rescaled to reflect 2021 dollar values and these real dollar estimates of wages were subtracted to construct estimates of wage gains over the period from the beginning of T.E.A.C.H. involvement through the third year after graduation, typically a span of some three years altogether expressed in “real” 2021 dollars.

Table 2 shows starting hourly wages, 2021 wages and wage gains for the entire sample (N=150) with useable data, and for AS and BA graduates as a whole, for those with each type of degree, further broken down by their initial job titles (e.g., directors, teachers and assistant teachers). There are also estimates of hourly compensation for family child care educators. These positions were those that survey respondents reported at the time of their initial application for a T.E.A.C.H. scholarship, which is typically well before the completion of their college degree. Current wage levels may reflect wage increases, promotions and/or employment changes, which will be discussed below. They also reflect employment in a wide variety of communities, job settings and auspice types.

Overall, the 150 T.E.A.C.H. graduates increased their hourly earnings by \$4.64 or 36% from an average hourly wage of \$12.98 when they graduated with their T.E.A.C.H. scholarship to \$17.62 in 2021. Wage gains for all 89 of the AS degree holders increased from \$12.38 to \$16.29, an increase of \$3.90 or 32%. The 61 T.E.A.C.H. alumni who were BA degree holders reported higher initial and current wages and larger wage gains, both in absolute and relative terms. These 61 individuals started T.E.A.C.H. with an average hourly wage of \$13.84, which increased to \$19.56 by 2021, an average increase of \$5.72 or 41%.

These wage gains were distributed across various job titles. Starting with AS degree recipients and focusing on those employed in ECE centers initially, the 11 directors started with an hourly wage of \$16.79 which increased to \$18.65 in 2021. This hourly wage gain is a comparatively modest amount (\$1.85 or 11%) that was not statistically significant. Teachers displayed a 28% gain of \$3.25 from an initial wage of \$11.65 to \$14.90, while assistant teachers’ relative wage gain was 26%, increasing their hourly wages from \$12.20 to \$15.34.

The eight BA degree holders who were directors saw an average wage gain of \$8.58 or 51%, rising from \$16.92 to \$25.50. BA-level teachers’ average hourly wage increased by \$3.48 or 25%. Assistant teachers earned on average \$5.03 more per hour, a relative gain of 37%.

These reports of wage gains clearly suggest that all three categories of ECE professionals typically employed in ECE centers or programs, (i.e., directors, teachers and assistant teachers) experienced wage gains that were sometimes quite sizeable, regardless of the degree they attained. BA degree holders, not surprisingly, had higher starting wages and larger absolute wage gains than their AS counterparts holding similar job titles.

Family child care educators with an AS degree experienced a doubling in hourly wages from \$10.87 to \$21.81 (\$10.94 or 101% relative wage gain) in their estimated hourly compensation. If they had a BA degree, they averaged a more sizeable wage gain of \$12.78 (or 124%). We have less confidence in the accuracy of hourly wage estimates for family child care homes, not only because of the small numbers involved in calculating averages, but also because they are not reported as comprehensively or calculated as easily as hourly wages from individuals paid on a regular periodic basis. Family child care educators (FCCes) control both their income (fees charged and collected) and expenses (profits and/or wages paid). Thus, these large gains may not be surprising given the likelihood that FCCes may acquire or develop extensive business and management skills in ECE degree programs. Further, given the magnitude of the estimated wage gains, it seems plausible that most FCCes experienced income growth over the three-year observation period.



As ECE professionals progress in their careers, wage growth can occur in a number of ways. It could be a result of raises (increased compensation for the same job title), promotions (movement into a different better paying position at the same workplace) or movement to a different workplace, which could involve either a raise and/or a promotion. In order to assess the extent to which changes in job titles are associated with wage gains, the hourly wages of those who maintained the same job title over the three-year study period were compared with those whose job title changed sometime during that interval. The results of that analysis are displayed in Tables 3 and 4.

<b>Table 3</b> <b>Wage growth of T.E.A.C.H. alumni with the same or different job titles</b> <b>arrayed by type of T.E.A.C.H scholarship and job titles at graduation and in 2021</b>							
		N	Hourly wage		Wage growth over study period		
Type of T.E.A.C.H. scholarship	Same or different job title at end of Year 3		At Start of study	During third year	Wage difference	Std. error of mean wage diff	Relative wage growth
Either degree	Entire sample	150	\$12.98	\$17.62	\$4.64	\$0.61	36%
	Different job title	80	\$12.21	\$17.03	\$4.82	\$0.79	39%
	Same job title	70	\$13.85	\$18.29	\$4.44	\$0.94	32%
AS	Different job title	48	\$11.74	\$15.63	\$3.89	\$1.07	33%
	Same job title	41	\$13.14	\$17.06	\$3.93	\$0.99	30%
BA	Different job title	32	\$12.90	\$19.13	\$6.23	\$1.14	48%
	Same job title	29	\$14.87	\$20.03	\$5.16	\$1.81	35%

All wage data have been adjusted to 2021 dollar values to account for inflation. Average hourly wage values for the same years vary slightly across different tables because they are based on slightly different samples due to missing data for some individuals for different years. "Director" includes directors, assistant directors, administrators or owners of child care centers. "Teacher" includes teachers working with children from birth to age 5 years. "Asst. Teacher" includes assistant teachers and floaters. "FCCE" includes family child care home owners and operators. "Relative Wage Growth" is the mean hourly wage gain divided by the mean wage level at the earlier time period.

Table 3 reveals that among the entire third-year study sample, regardless of which degree was attained, these T.E.A.C.H. alumni experienced substantial wage growth approaching \$5.00 per hour whether they kept the same job title (\$4.44 or 32%) or had a different job title (\$4.82 or 39%) at the end of the study period. When these individuals were broken down by degree type, it is evident that those with the BA degree experienced a somewhat larger relative wage growth than those with the AS degree. BA degree recipients also had increases in real hourly wages that were substantially larger—more than \$5.00 per hour—than their AS counterparts, whose wages increased by less than \$4.00 per hour. All of these differences reflecting wage gains over the three-year period were highly statistically significant ( $p < .001$ ), suggesting widespread wage growth is characteristic of T.E.A.C.H. graduates.

Table 4 Wage growth of T.E.A.C.H alumni with the same or different job title arrayed by initial job title							
Job title		N*	Hourly wage		Wage growth over study period		
At start of T.E.A.C.H.	At end of year 3		At Start of study	During third year	Wage difference	Std. Error of mean wage diff	Relative wage growth
Director	Different job title	4	---	---	---	---	---
	Same job title	15	\$16.90	\$23.28	\$6.38	\$2.27	38%
Teacher	Different job title	23	\$11.58	\$14.77	\$3.19	\$1.09	28%
	Same job title	41	\$13.22	\$16.65	\$3.43	\$1.05	26%
Asst. teacher	Different job title	46	\$12.74	\$17.02	\$4.28	\$0.80	34%
	Same job title	4	---	---	---	---	---
FCCE	Different job title	7	\$8.20	\$25.69	\$17.49	\$3.49	213%
	Same job title	10	\$12.34	\$19.98	\$7.64	\$3.48	62%

All wage data have been adjusted to 2021 dollar values to account for inflation. Average hourly wage values for the same years vary slightly across different tables because they are based on slightly different samples due to missing data for some individuals for different years. "Director" includes directors, assistant directors, administrators or owners of child care centers. "Teacher" includes teachers working with children from birth to age 5 years. "Asst. Teacher" includes assistant teachers and floaters. "FCCE" includes family child care home owners and operators. "Relative Wage Growth" is the mean hourly wage gain divided by the mean wage level at the earlier time period.

\*Statistics have not been calculated for cells with less than five cases.

Table 4 examines the same data broken down by specific job titles. ECE directors, almost all of whom maintained their same job title, increased their hourly earnings by \$6.38 or 38%, while T.E.A.C.H. graduates who started as teachers saw earnings increase by more than \$3.00 per hour, a relative wage gain of approximately 25%. This was true whether or not they maintained their status as teachers or moved to other

positions. Assistant teachers, nearly all of whom were promoted to teachers in the second year of the study, experienced increased compensation going from an average wage of \$12.74 to \$17.02. This sizeable wage gain experienced by assistant teachers (\$4.28 or 34%) was larger than that of individuals who started as teachers. This likely occurred because T.E.A.C.H.-sponsored assistant teachers may be working in ECE programs that are large enough and have sufficient resources to promote these ECE professionals.

Finally, the growth in wages of family child care educators is quite remarkable whether they kept running their business (\$7.64 or 62%) or changed jobs (\$17.49 or 213%). Some of those who changed job titles experienced hourly wage increases by expanding their businesses to become ECE centers, while others increased their incomes by using their degree to obtain management positions in other ECE-related settings. Most of these job-title changes involved increasing the extremely low hourly compensation levels characteristic of a “round the clock” family-owned business by shifting to teaching or management positions in settings with more regular working hours and wage structures. Again, estimates for hourly wage levels for FCCEs were quite difficult to specify given the data available.

### **Upward Mobility: Promotions**

*Do these graduates advance in the ECE field along a career pathway by being promoted to higher positions in their work settings or by moving up into other full or part-time positions in the field?*

In order to assess career progress in terms of promotions, graduates were classified according to their initial job title. If we examine the career progress of the 150 respondents currently working in the ECE field in our third-year sample for whom we have wage data, there is clear evidence of widespread upward mobility in terms of changes in job titles. Most of these early childhood educators have continued working in the same child care programs where they were employed when they applied for their T.E.A.C.H. scholarship. Among all people in the third-year sample, there were enough with wage and job title data to conduct a statistical analysis.

Among the group who started out as center directors, by 2021, one had opened a family care home while five others became ECE teachers in different programs. Two others obtained non-teaching work in the ECE field. Of the 69 who initially were teachers, 38 (55%) still held their teaching positions while 10 (14%) had become center directors. Three (4%) began operating their own family care homes while six (9%) began working as assistant teachers, typically in positions at different ECE programs that may have had better compensation, benefits or working conditions. The remaining teachers were not currently working or worked in other non ECE-jobs. Among the 50 who were assistant teachers when they enrolled in the study, 41 (82%) had become teachers by the end of the third year, while two (4%) had become center directors. Most of these promotions of assistant teachers had already happened by the end of the second year of the study. Promotion rates were comparable and at levels exceeding 80% for both AS and BA graduates who started as assistant teachers. Almost all of these transitions from assistant teacher to teacher occurred within the same workplaces. Overall, given a three-year time frame, the T.E.A.C.H. graduates seem to have experienced substantial career progress as proven by promotions to more financially rewarding positions.

Third year job title	Table 5: Reported type of job change in the prior 12 months by job title in the third year			N
	Promotion	New employer	Raise	
Director	9%	0%	63%	32
Teacher	6%	13%	55%	83
Asst. teacher	9%	18%	64%	11
FCCE	5%	0%	32%	19
Other*	43%	43%	29%	7
All job titles	9%	11%	53%	152

\*Other includes those working in ECE positions that not directly involved in teaching.

Another way to assess the extent of career progress of T.E.A.C.H. graduates is to examine responses in the third-year sample that describe transitions that occurred during the previous year. Table 5 shows that among the 152 third-year survey respondents still employed in the ECE field in the third year of the study, about one in 10 reported receiving a promotion or changing jobs, while slightly more than half reported receiving at least one raise during the previous year. These career progress indicators are distributed across all job titles, with one-half to two-thirds of center-based ECE professionals (directors, teachers and assistant teachers) reporting that they received at least one raise in the previous year. Half of the individuals who reported receiving raises reported this event as occurring in the prior six months in both their Round 5 and Round 6 surveys. While fewer of the 2021 assistant teachers reported recent promotions, some (18%) did change employers and most (64%) got raises at least once during the most recent one-year period. It should be recalled that most of the T.E.A.C.H.-sponsored assistant teachers originally enrolled in the study had been already promoted to teachers. Yet two-thirds of the 11 individuals with the current assistant teacher job title reported receiving a raise in the past year, and half of these reported more than one raise over that time period. A notable percentage of the seven individuals working in the ECE field but not directly in teaching also reported recently moving to a new employment setting and receiving a promotion. This strongly suggests that these individuals took advantage of opportunities to apply their newly acquired ECE skills and knowledge in a non-teaching support role. Finally, while only one-third of the 19 current family child care home-based ECE professionals reported receiving a raise in the previous year, our earlier analysis using estimated hourly wage data suggests that, in fact, these home-based individuals did receive substantial increased compensation even if they chose not to use the term “raise” to describe this situation.

### Upward Mobility: Educational Advancement

*Do these graduates seek additional college degrees in the ECE field? Does T.E.A.C.H. support these efforts?*

The third-year sample of T.E.A.C.H. graduates continue to be involved in furthering their education. See the last four columns of Table 6. Of the 168 third-year respondents, 38 (23%) reported taking college courses sometime during the third year. Thirty (18%) of these individuals were working toward a BA degree in ECE, and most of these ECE professionals (70%) were doing so with T.E.A.C.H. support.

Similarly, eight people were pursuing a master’s (MA) degree, and a quarter of these were supported by T.E.A.C.H. scholarships. These numbers and percentages can be compared to the similar tabulations of the second-year sample in the first four columns of Table 6. Of the 189 second-year respondents, 53 (28%) reported taking ECE college courses leading to a degree during the second year. At that time 44 (23%) of these individuals were working toward a BA degree in ECE, and the overwhelming share of these ECE professionals (84%) were doing so with T.E.A.C.H. support. Another group of nine individuals (5%) sought ECE master’s degrees, and one of these was on a T.E.A.C.H. scholarship. These numbers are similar to those found in the Year 1 T.E.A.C.H. alumni follow-up study, suggesting that many T.E.A.C.H. graduates are continuing their educational journey.

<b>Table 6: Third-year college course activity and ongoing T.E.A.C.H. support</b>								
<b>Degree sought</b>	<b>Second-year sample</b>				<b>Third-year sample</b>			
	<b>All pursuing ECE degrees</b>		<b>Pursuing degree with T.E.A.C.H. support</b>		<b>All pursuing ECE degrees</b>		<b>Pursuing degree with T.E.A.C.H. support</b>	
	<b>N</b>	<b>Pct.*</b>	<b>N</b>	<b>Pct.#</b>	<b>N</b>	<b>Pct.**</b>	<b>N</b>	<b>Pct.#</b>
<b>BA</b>	<b>44</b>	<b>23%</b>	<b>37</b>	<b>84%</b>	<b>30</b>	<b>18%</b>	<b>21</b>	<b>70%</b>
<b>MA</b>	<b>9</b>	<b>5%</b>	<b>1</b>	<b>11%</b>	<b>8</b>	<b>5%</b>	<b>2</b>	<b>25%</b>
<b>Either degree</b>	<b>53</b>	<b>28%</b>	<b>38</b>	<b>71%</b>	<b>38</b>	<b>23%</b>	<b>23</b>	<b>61%</b>

\*Calculated using denominator of second-year sample: N=189.  
 \*\*Calculated using denominator of third-year sample: N=168.  
 #Calculated using the number of persons pursuing an ECE degree as the denominator.

When the second- and third-year samples are compared, it appears that the percentage of T.E.A.C.H. graduates enrolled in college and seeking an additional higher ECE degree may have declined slightly from 28% to 23% during the past year. There may be a decline as well in the percentage of those pursuing ECE degrees with T.E.A.C.H. support. This relatively small difference in reported occurrence could have happened for any number of reasons; it simply may be due to sampling differences. It also could be that some individuals may have completed the degree they sought, and therefore were no longer enrolled in college. However, it is clear that almost three-quarters of those T.E.A.C.H. graduates seeking an ECE BA are doing so with T.E.A.C.H. Far fewer of the smaller number of those seeking ECE MA degrees seem likely to be receiving T.E.A.C.H. scholarships. This pattern of support is likely due to a number of factors, not the least of which is the fact that many states do not offer master’s-level T.E.A.C.H. scholarships.

Together these data suggest that the T.E.A.C.H. graduates are continuing their ECE education. This is especially true of those who initially obtained an associate degree. About one-quarter are currently enrolled in ECE courses leading to a BA or MA degree and well more than half of these students are being supported in this effort by additional T.E.A.C.H. scholarship assistance.

## Professional Engagement and Leadership Activities

*Do these graduates become more engaged in the larger ECE professional development system by attending continuing education or participating in other professional development and professional leadership activities?*

Table 7 compares second- and third-year participation in six specific types of professional development activities. In each survey round, respondents reported their participation in each activity during the previous six months. Activities that were reported in Round 3 and/or Round 4 surveys indicate participation in Year 2, while activities reported in Round 5 and/or Round 6 surveys were recorded as occurring in Year 3.

<b>Table 7: T.E.A.C.H. sample participation in professional development activities: Second and third years after graduation</b>		
<b>Professional development activity</b>	<b>Year 2* Apr. 2019 – Mar. 2020</b>	<b>Year 3* Apr. 2020 – Mar. 2021</b>
<b>Attended ECE professional meeting at the state or national level</b>	<b>58%</b>	<b>37%</b>
<b>Joined or rejoined an ECE professional association</b>	<b>35%</b>	<b>30%</b>
<b>Served on an ECE advisory board or committee</b>	<b>19%</b>	<b>8%</b>
<b>Attended a statewide or local EC advocacy event</b>	<b>18%</b>	<b>8%</b>
<b>Advocated for ECE policy or program funding or services</b>	<b>16%</b>	<b>18%</b>
<b>Presented at ECE workshop or conference: local, state or national level</b>	<b>13%</b>	<b>7%</b>
*An activity was indicated as occurring in Year 2 if it was reported as occurring in Round 3 and/or Round 4 surveys. Similarly, an activity reported in Round 5 and/or Round 6 surveys was recorded as occurring in Year 3.		

Comparisons between Year 2 and Year 3 suggest that participation in most professional development activities declined substantially during the pandemic period when compared to activities during the previous 12 months. While more than half of the T.E.A.C.H. alumni (58%) reported attending at least one ECE professional meeting in study Year 2, only slightly more than one-third (37%) did so in Year 3. Similarly, although in Year 2 more than one-third (35%) joined or renewed their membership in an ECE professional association, that percentage declined somewhat in the third year to 30%.

Participation in several other activities was cut in half during the pandemic year. Service on an ECE advisory board or committee declined from 19% to 8%. Attendance at statewide or local advocacy events similarly declined from 18% to 8%, and presentations at an ECE workshop/conference at the local, state or national level dropped from 13% to 7%. A small number of respondents (5%) reported participating in additional professional development activities not identified above. This decline in participation in events which required in-person attendance is not surprising given the pandemic restrictions on large gatherings.

The single exception to the pattern of declining participation involved advocacy for ECE policies or for funding of ECE programs or services. Participation in this activity actually increased from 16% in Year 2 to 18% in Year 3. This may have been related to the many challenges and opportunities presented to the ECE workforce during the pandemic year. It is noteworthy that a comparable level of participation in professional development activities was found for both types of degree holders and for educators with various job titles. Further, there were no differences in overall participation levels in the six professional development activities between those currently seeking an additional ECE college degree and others.

Commitment to the ECE field is also suggested by the small number of individuals (N=7 or 4%) employed part time in addition to their ongoing teaching or administrative responsibilities in their primary ECE-related work setting. Part-time positions include work as an ECE technical specialist, community college instructor, professional development specialist, early childhood consultant or other part-time work directly involved with children, including pre-K ministry at a church. Several others noted participation in “virtual teaching” either as part time employment or on a volunteer basis. This pattern of work outside a primary work setting confirms that professional engagement continues for T.E.A.C.H. alumni.

### ***Internal Development and Professional Identity***

*Do these graduates experience increased self-confidence consistent with a stronger identity as an early childhood professional?*

Of the 168 T.E.A.C.H. recipients in the third-year sample, 82 or 49% said they “feel more confident in their knowledge and skills in early childhood education.” This increased confidence was widespread and about half of all respondents reported this increased sense of confidence regardless of the type of job they currently held or the type of degree earned. Many expressed an increased sense of confidence in the Round 5 and Round 6 surveys.

In order to assess what personal characteristics and circumstances might be associated with increased confidence, we examined a number of background characteristics and concurrent activities and measured the percent of T.E.A.C.H. graduates expressing enhanced professional confidence in each subgroup. As in the Year 2 study, we conducted an extensive examination of these background characteristics and found that race, ethnicity, age, family status, individual educational achievement at the time they applied for a T.E.A.C.H. scholarship or type of scholarship were not associated with increased professional confidence. However, contrary to last year’s findings, T.E.A.C.H. alumni who were first-generation college students reported increased professional confidence at the same rate as others.

Then we examined a range of concurrent experiences and circumstances that occurred during the third year that might be associated with enhanced professional confidence. As before, actual dollar wage gains were not found to be associated with increased confidence. Also, no systematic differences in increased professional confidence were found when various job titles were compared. Similarly, most of the professional development activities described in the survey were not associated with increased confidence. Only two specific activities or events reported during the third-year survey were significantly associated with increased confidence. These were: (1) current enrollment in one or more college courses in the ECE field, and (2) reporting having received a raise in the previous six months. As was the case in the Year 2 survey, about half of all survey respondents expressed increased confidence. However, there was a dramatic difference in increased confidence between those who had received a raise and those who had not received a raise (18 of 83 or 22%) compared with those who had received a raise (64 of 85 or 75%). See Table 8.

<b>Table 8:            Increased confidence of T.E.A.C.H. third-year sample            by degree currently sought and whether or not a raise was received            in the past six months</b>				
Type of degree sought	Reported receipt of raise in past six months	Percent with increased confidence	N: Number with increased confidence	N: Number by degree sought
No ECE degree sought	No raise	16%	11	70
	Received raise	73%	44	60
	Total	42%	55	130
BA ECE degree sought	No raise	33%	3	9
	Received raise	76%	16	21
	Total	63%	19	30
MA ECE degree sought	No raise	100%	4	4
	Received Raise	100%	4	4
	Total	100%	8	8
Total	No raise	22%	18	83
	Received raise	75%	64	85
	Total	49%	82	168

The pattern is somewhat different, however, for those pursuing degrees. All eight of the individuals seeking ECE master’s degrees reported increased confidence whether or not they had received a raise, while approximately three-quarters of those seeking ECE BA degrees (N=21 or 76%) reported increased confidence if they had received a raise in the previous six months. In contrast, relatively few of the nine students seeking BA degrees that had not received a raise, reported feeling increased confidence (N=3 or 33%). Almost three-quarters of those not currently seeking a degree expressed increased confidence if they had received a raise (44 of 60 or 73%). If they were not pursuing a degree and also had not received a raise, respondents were strikingly less likely to express increased self-confidence (11 of 70 or 16%). This pattern suggests that the attainment and current pursuit of college degrees builds confidence, and that recognition of those achievements requires ongoing economic rewards to build and maintain that sense of accomplishment in the ECE professional workforce.

## The Challenges of the Pandemic Year

In each of the six surveys, respondents were asked about various events that may have occurred outside of their work setting that might be sources of stress. These questions were intended to assess the extent to which personal or family life challenges might affect how these ECE professionals negotiate their careers in the field. Four items were used to represent commonly occurring stressful life events. These were: (1) “changed my place of residence” (moved); (2) “birthed or adopted a child” (new child); (3) “took on increased or new caregiving responsibilities for a parent or other family member” (new caregiving responsibilities); and (4) “had



a change in health or family circumstances that increased stress in my life” (new health or family stress). A fifth “other” question was asked in an open-ended way that allowed survey respondents to describe important life events that had not been identified in previous questions. The responses to these items were coded to represent positive or negative life events, and the negative instances were defined as “other stressful life events” and included in Table 9.

The presence of these five items in all six survey rounds provides us with an unanticipated opportunity to examine how the pandemic year (spring 2020 through winter 2021) might have differed from the previous years in terms of its impact on these individuals in the ECE workforce. Table 9 displays the results of our analysis of the stressful life events occurring among the 168 individuals in the third-year sample. We also tabulated comparable information for previous years and report these data for comparative purposes. First, some stressful life events are more common than others even in normal times. Thus, birth or adoption of a child is a fairly rare event occurring in less than 5% of all cases in most years, including the pandemic year. The second observation is that many stressful life events vary by marital status and household composition. This is true in the most recent survey data (Table 9) and in the data from prior surveys summarized in the last column of Table 9. Thus, the stress of “new caregiving responsibilities” is quite elevated in the pandemic year among all types of families. While it appears to have increased from a range of 5-10% in prior years to 24% in the pandemic year for the entire sample, for single parents the pandemic year rate is 46%.

Not surprisingly, single parents (or single custodial grandparents) are at a particular risk of experiencing multiple sources of stress. One in five has moved in the previous year and a similar percentage report another stressful life event. Single people living without children in their home were also more likely to have moved in the pandemic year, while about a quarter of married people—both those with and without children in their home—also reported having to take on new caregiving responsibilities. More than one-third of those who had been married but without children in their homes also reported new stressful life events, compared to a previous level under 10% for the study samples in prior years. Examination of the open-ended comments suggests that a large proportion of these new caregiving responsibilities and other stressful life events reported in Round 5 and Round 6 surveys involved attempting to take care of children at home who could not attend regular school due to COVID-19-related school closures. Examples of these comments include: “Left my job to homeschool my children” and “I became an e-learning teacher for my daughter.”

**Table 9:  
Comparison of stressful life events in the pandemic year  
with comparable events in prior years  
by family type**

Type of Event	Family Status in 2021					Avg. of Prior Surveys
	Single parent/ grand-parent; children in home	Single; no children in home	Married, children in home	Married, no children in home	All types of Families	All types of Families
Moved	21%	23%	6%	10%	12%	8%
New child	0%	0%	6%	0%	3%	4%
New caregiving responsibilities	46%	12%	20%	27%	24%	6%
New health or family stress	14%	8%	6%	23%	11%	12%
Other stressful life event	21%	8%	13%	37%	18%	9%
Number of cases	28	26	84	30	168	Varies

The challenges for ECE professionals at home were paralleled by challenges at work, including temporary or permanent closures of ECE centers, scaling back of hours and temporary or permanent layoffs. Clearly stress seems to have increased as a result of working (or not working) in a pandemic. Only four individuals in the third-year sample explicitly specified that they lost their jobs because of the COVID-19 pandemic. One reported changing career to a different field, while a second gave no information about their current employment status. The situations of the other two respondents suggest the resilience of T.E.A.C.H. graduates. A family child care educator in Michigan was forced to close her child care home, but continued pursuing her BA degree with T.E.A.C.H. support, possibly at an accelerated pace that might not have occurred otherwise. In the latest survey, she reported that she was offered a teaching job starting for the 2021-2022 school year and is expecting to start in fall 2021. As a second example, another T.E.A.C.H. recipient is an African American single parent in Florida who started as an assistant teacher in a Head Start program. She applied for a T.E.A.C.H. scholarship in 2016 when she was in her mid-30s. She obtained her AS through T.E.A.C.H. and was promoted to teacher (state-funded pre-K) by the time of the second year of the study. During the first two years of the study, she continued pursuing her education seeking her ECE BA with T.E.A.C.H. support. She has continued to be active in the profession attending conferences and maintaining her membership in a professional association. She continues to identify herself as an ECE professional. Although she was laid off due to COVID-19, she is still pursuing her BA but currently without T.E.A.C.H. support.

The pandemic affected early childhood educators, resulting in unprecedented disruptions that occurred because of the pandemic itself as well as the public health measures taken that restricted travel and employment and closed businesses, including ECE centers and homes. A variety of measures were taken by employers and governmental authorities in various jurisdictions to mitigate this situation.

In order to assess what impact these measures may have had on the study participants, several new questions were introduced in Rounds 5 and 6 of the survey. The results are reported in Table 10. About one-quarter of the sample reported that they experienced a temporary layoff sometime during the year and received some unemployment payments. A similar proportion reported having a temporary layoff sometime during the year but with continuing pay from their employer. A significant proportion of these people were affected for some time, as 1 in 12 reported in both surveys that they were temporarily laid off and receiving unemployment compensation, while about 1 in 9 reported that they had experienced a temporary layoff but were still receiving some wages from their employer. A much smaller percentage, less than 3%, said their layoff was permanent. Only a few individuals reported experiencing temporary layoffs with pay from their employer and from unemployment compensation, and these different types of payments occurred in different time periods. Clearly there may have been different challenges related to employment that were not covered in our questions, and some of the open-ended responses suggest that this is the case. One center owner, for example, reported: “had to close my business temporarily due to the virus. I have reopened. Praying for children to return!” Another teacher stated: “Later during the pandemic, my hours were severely cut and I left my job.”

<b>Table 10:</b>			
<b>Third-year sample reports of COVID-19-related employment disruptions during the pandemic year</b>			
<b>Type of disruption</b>	<b>Percent reporting situation</b>		
	<b>Neither survey</b>	<b>One survey</b>	<b>Both surveys</b>
<b>Temporary layoff with unemployment payment</b>	<b>75.0%</b>	<b>16.7%</b>	<b>8.3%</b>
<b>Temporary layoff with continued payment</b>	<b>76.8%</b>	<b>11.3%</b>	<b>11.9%</b>
<b>Permanent layoff with new ECE job</b>	<b>97.0%</b>	<b>1.2%</b>	<b>1.8%</b>
<b>Permanent layoff unemployed</b>	<b>97.6%</b>	<b>2.4%</b>	<b>0.0%</b>
<b>Received a COVID-19-related bonus</b>	<b>49.4%</b>	<b>8.0%</b>	<b>10.7%</b>

Governmental agencies, especially the federal government, attempted to respond to pandemic-related business and employment disruptions in a variety of ways, including payments to offset the impact of employment reductions and interruptions. These efforts varied across states, affected different sectors and were in effect for different time periods. In an effort to assess the impact of these policies on the study sample, a number of questions were asked about bonuses that individuals may have received to offset the impact of employment disruptions, including whether or not an individual had received a bonus from a federal government source, a state government source or from their employer. The resulting data are displayed in Table 11. Slightly more than half of respondents reported receiving such a bonus, and many received payments from multiple sources. Clearly the federal government is the most prevalent source, followed by state governments and employers.

<b>Table 11:  Reported source of COVID supplemental payments  in Round 5 and/or Round 6 surveys</b>		
Reported sources of COVID-related bonus payments	N	Percent
1. No bonus	83	49.4
2. Federal government only	28	16.7
3. State government only	18	10.7
4. Employer only	15	8.9
5. Federal and state governments	8	4.8
6. State government and employer	3	1.8
7. Federal government and employer	2	1.2
8. Federal and state government and employer	3	1.8
9. Bonus: Source unreported	8	4.8
<b>Total</b>	<b>168</b>	<b>100.0</b>

Some of the bonuses reported in Table 11 may have been payments from governmental sources to businesses or employers aimed as supporting wage payments to their employees; therefore, we conducted a separate analysis limited to those individuals who were clearly employees, i.e., teachers and assistant teachers. Furthermore, because T.E.A.C.H. programs operate in a number of states, it was important to understand the different ways the ECE workforce may have been supported. Thus, we broke down the third-year sample of ECE employees by state. Teachers and assistant teachers in each state who reported bonuses from each of the sources were identified and the states were arrayed from high-to-low in terms of the average number of *different* sources of COVID-19-related bonuses individuals in that state reported. The results are displayed in Table 12.

<b>Table 12: Pattern of COVID-19-related wage support for ECE teachers and assistant teachers by state and type and source of support</b>						
<b>STATE</b>	<b>N</b>	<b>Source of COVID-19-related Wage Support</b>			<b>Enhanced unemployment compensation</b>	<b>Average number of sources per person</b>
		<b>Federal government</b>	<b>State government</b>	<b>Employer</b>		
<b>WI</b>	<b>6</b>	<b>33%</b>	<b>33%</b>	<b>33%</b>	<b>17%</b>	<b>1.17</b>
<b>AL</b>	<b>3</b>	<b>33%</b>	<b>33%</b>	<b>0%</b>	<b>33%</b>	<b>1.00</b>
<b>MN</b>	<b>4</b>	<b>25%</b>	<b>25%</b>	<b>25%</b>	<b>25%</b>	<b>1.00</b>
<b>MO</b>	<b>3</b>	<b>67%</b>	<b>0%</b>	<b>0%</b>	<b>33%</b>	<b>1.00</b>
<b>NV</b>	<b>2</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>1.00</b>
<b>RI</b>	<b>2</b>	<b>50%</b>	<b>0%</b>	<b>0%</b>	<b>50%</b>	<b>1.00</b>
<b>NC</b>	<b>10</b>	<b>20%</b>	<b>50%</b>	<b>10%</b>	<b>18%</b>	<b>0.90</b>
<b>OH</b>	<b>9</b>	<b>11%</b>	<b>0%</b>	<b>22%</b>	<b>44%</b>	<b>0.78</b>
<b>NE</b>	<b>4</b>	<b>75%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0.75</b>
<b>PA</b>	<b>3</b>	<b>0%</b>	<b>0%</b>	<b>33%</b>	<b>25%</b>	<b>0.67</b>
<b>DE</b>	<b>2</b>	<b>0%</b>	<b>0%</b>	<b>50%</b>	<b>0%</b>	<b>0.50</b>
<b>IN</b>	<b>9</b>	<b>11%</b>	<b>0%</b>	<b>33%</b>	<b>0%</b>	<b>0.44</b>
<b>IA</b>	<b>5</b>	<b>40%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0.40</b>
<b>MI</b>	<b>21</b>	<b>10%</b>	<b>10%</b>	<b>5%</b>	<b>10%</b>	<b>0.33</b>
<b>FL</b>	<b>10</b>	<b>30%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0.30</b>
<b>SC</b>	<b>2</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0.00</b>
<b>Average</b>	<b>5.94</b>	<b>32%</b>	<b>9%</b>	<b>13%</b>	<b>16%</b>	<b>0.70</b>
<b>Median</b>	<b>4.0</b>	<b>28%</b>	<b>0%</b>	<b>2%</b>	<b>13%</b>	<b>0.76</b>

While it is difficult to draw conclusions from these data on the situation in particular states, some general observations are warranted. First, federal sources are the most prevalent purveyor of financial assistance for displaced or disrupted ECE workers in many of the states. In the average state, approximately one-third (32%) of ECE workers reported having received some kind of bonus payment from the federal government. Secondly, ECE workers in many states seem not to have received any financial support from their state governments. Only 9% of ECE workers in the average state received help from this source and, in nine of the 16 states, no ECE worker in the sample reported receiving a state originated bonus. Thirdly, states are quite variable in terms of how well workers are supported by employers. Clearly these attributions of sources of support may not reflect the actual situation of the entire ECE workforce, much less those in any particular states. Survey respondents may have incomplete or inaccurate perceptions of the sources of funds they may have received, and because of the small number of cases in many states, the clearest conclusion that can be drawn is that approximately half of all ECE workers in the third-year sample received some compensation

related to the pandemic from one or more sources and that the number and variety of sources likely varied depending on which stated in which they worked.

## Study Limitations

Even though we have a high response rate and a motivated set of respondents, we need to be cautious in drawing conclusions. This study population contains only those who agreed to participate. While participants (N=272) likely constitute more than half of the total number of people who would have been eligible to participate, it is possible that individuals who declined to participate may have characteristics that differ from survey respondents. Interpretations of the data presented here are subject to caution for two reasons: (1) people who moved out of the field or who have not made much career progress might be less likely to answer the survey, causing us to underestimate how many may have left; and (2) there may be some inconsistencies or imprecisions in job descriptions, especially among people who work in family child care homes or have administrative roles. As was noted earlier, many of the COVID-19-related questions may require respondents to provide information about situations that they may not be well-informed about, so drawing conclusions based on these responses—or lack thereof—should be done cautiously.

Despite these limitations, because this longitudinal panel study had six rounds of data collection, it has allowed tracking of individual T.E.A.C.H. graduates over a three-year period, providing near real time reporting of how their lives and careers have evolved over that time period. In addition, the original panel study design was flexible enough to allow questions to be introduced in the last two rounds that could capture the changing circumstances of our study cohort during the pandemic year. Further, the onset of the pandemic and the occurrence of some of its major peaks fortuitously corresponded to survey administration intervals. This feature has allowed us to compare the situation of individuals in a recent cohort of T.E.A.C.H. graduates in normal times to those same individuals in a pandemic year.

## Summary and Conclusions

This report describes the results of a comprehensive, three-year longitudinal study of recent college graduates supported by the T.E.A.C.H. Early Childhood® Scholarship Initiative. Analyses of six waves of survey data, along with archival records of a cohort of 272 T.E.A.C.H.-supported AS and BA graduates from 2017-2018, provided additional evidence that this program is achieving its original goals. One primary objective of T.E.A.C.H. is to help members of the current workforce earn the post-secondary education and academic credentials that will allow them to achieve and sustain widespread, high-quality early childhood education programs and jobs. It is built on the premise that investing in and professionalizing such a workforce can reap rewards for the scholarship recipients, their employers, the ECE teaching profession as a whole and importantly for the children and families that ECE programs serve.

The achievements of the T.E.A.C.H. program documented in this report are quite impressive given the fact that T.E.A.C.H. recipients closely reflect typical members of the existing ECE workforce in terms of their educational backgrounds and demographic characteristics. This is in contrast to the typical image of college students. T.E.A.C.H. graduates have attended college on a part-time basis, sometimes for a lengthy period of time, while continuing to work in ECE programs, often for relatively low wages. They are often women of color and first-generation college students. Many are single parents, while some are returning to school after a long absence from an academic setting. Nonetheless, as these non-traditional students graduate, they are helping stabilize the ECE workforce. Their commitment to the profession and their current employer or worksite helps reduce

attrition from the ECE field and lowers employee turnover in the ECE programs where they work. In the process, these graduates are experiencing real career and wage mobility, driving their own ongoing professional development, exhibiting professional engagement and demonstrating leadership potential.

Throughout this process, T.E.A.C.H. graduates have secured the recognition of their employers in the form of meaningful promotions and upgraded compensation. In this process, these graduates are also becoming ECE professionals and building their own self-confidence, which is likely to further increase their employment options and career progress. A significant proportion of these graduates are continuing their own formal education by pursuing additional degrees, seeking to complete their BA and MA in the ECE field often with ongoing T.E.A.C.H. support.

In conclusion, T.E.A.C.H. graduates have a chance to enhance the quality and stability of the settings where they work and the lives of the families and children they work with, while they also are poised to make a significant contribution to the transformation of the ECE workforce that is required in the coming decades of the 21<sup>st</sup> century.

## Special Thanks

**Special thanks to:** 1) our study advisory committee members: John Cregg, Nevada AEYC; Amy Duffy, Child Care Services Association, T.E.A.C.H. NC; Phyllis Kalifeh, the Children’s Forum; Jill Arnold, T.E.A.C.H. Early Childhood® National Center at Child Care Services Association and Thomas R. Konrad, evaluator; 2) this paper’s authors: Thomas R. Konrad, Ph. D., Senior Fellow, Sheps Center for Health Services Research, University of North Carolina at Chapel Hill and Susan Russell, former Executive Director, T.E.A.C.H. Early Childhood® National Center at Child Care Services Association; and 3) the W.K. Kellogg Foundation, whose generous support made this project possible. We thank them for their support, but acknowledge that the findings and conclusions presented in this report are those of the authors alone and do not necessarily reflect the opinions of this organization. We also thank the T.E.A.C.H. program counselors and other staff who work so hard to help T.E.A.C.H. scholarship recipients achieve their goals. Finally, we thank all the T.E.A.C.H. college graduates that participated in the study and who continue to commit their knowledge, skills and affection to the young children of our nation.

**Participating States:** Alabama, Washington, D.C., Delaware, Florida, Indiana, Iowa, Michigan, Minnesota, Missouri, Nebraska, Nevada, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Texas and Wisconsin

**Suggested Citation:** Konrad, T.R. and Russell, S.D. (2021). *Life Beyond Graduation: Three-Year Follow-Up Study of T.E.A.C.H. Early Childhood® Scholarship Recipients-Year Three*. <https://www.teachecnationalcenter.org/wp-content/uploads/2021/09/T.E.A.C.H.-Alumn-Study-FINAL-9-20-21.pdf>.



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