

EARLY-CAREER TEACHER PATHWAYS: A COMPARISON OF SPECIAL EDUCATION AND GENERAL EDUCATION TEACHERS



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Bridging Research, Policy, and Practice

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Introduction

This report is a companion to the Utah Education Policy Center's January 2022 research brief titled *Special Education Teacher Career Trajectories: Predicting Persistence in the Profession*.¹ The *Special Education Teacher Career Trajectories: Predicting Persistence in the Profession* report highlighted changes in the composition of the beginning special education teacher workforce over time and patterns in beginning special education teachers' career trajectories. To better understand the unique circumstances of beginning special education teachers, this follow-up report explores the ways in which beginning special education and general education teachers in Utah are similar and different.

Central Research Questions

- 1) How do Utah's beginning special education teachers compare to beginning general education teachers?
- 2) How do Utah's beginning special education and general education teachers' first teaching assignments compare?
- 3) How do career pathways of Utah's beginning special education and general education teachers compare?

In this longitudinal study, we investigate cohorts of beginning special education and general education teachers in Utah for five years. Teacher characteristics of focus include gender, race, and educational attainment. To account for school characteristics, CACTUS (Comprehensive Administration of Credentials for Teachers in Utah Schools) data are combined with school characteristics, including Title I status, locale, and student demographics (e.g., race and ethnicity, disability status, and achievement).²

¹ Auletto, A., Rorrer, A. & Ni, Y. (2022). *Special Education Teacher Career Trajectories: Predicting Persistence in the Profession*. Salt Lake City, UT: Utah Education Policy Center.

² Access to CACTUS data for this study were accessible for use in this study through a data sharing agreement (DSA) between the Utah State Board of Education (USBE) and the UEPC.

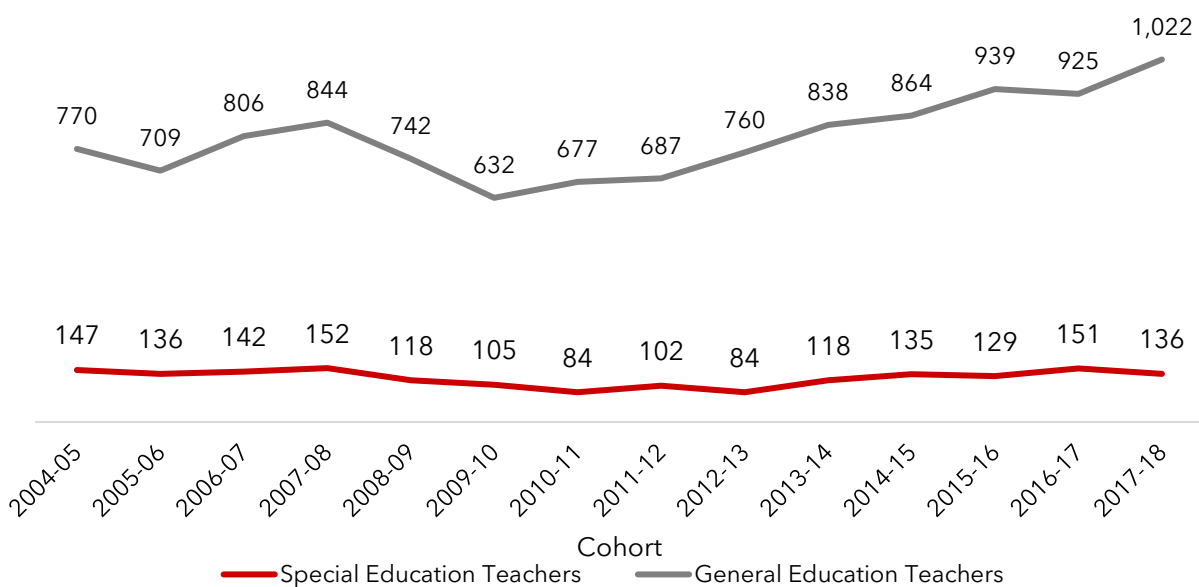
How do Utah's beginning special education teachers compare to beginning general education teachers?

Takeaways:

- ✓ This study includes 1,739 beginning special education teachers and 11,215 beginning general education teachers who began teaching between 2004-05 and 2017-18.
- ✓ The average cohort of beginning special education teachers was 124 and the average cohort of general education teachers was 801.
- ✓ Beginning special education teachers were more likely to be women and less likely to hold graduate degrees as compared to beginning general education teachers.
- ✓ Over time, racial/ethnic diversity increased among beginning special education and general education teachers

As shown in Figure 1, 1,739 new special education teachers and 11,215 new general education teachers entered the teaching profession in Utah between 2004-05 and 2017-18. On average, 124 special education teachers and 801 general education teachers entered the workforce each year. While beginning general education teacher cohort sizes have steadily increased since 2009-10, beginning special education teachers have fluctuated during the same time period.

Figure 1. Beginning Special Education and General Education Teacher Cohort Sizes over Time



As summarized in Table 1, beginning special education teachers were more likely to be women (80% vs. 77%) and less likely to hold a graduate degree in any field during their first five years of teaching (25% vs. 36%). Race/ethnicity across both groups was similar. The majority of educators were White (86-87%).

Table 1. Characteristics of Teachers who Entered the Profession between 2004-05 and 2017-18

Teacher Characteristics	Beginning Special Education Teachers (n=1,739)	Beginning General Education Teachers (n=11,215)
Female*	80%	77%
American Indian	1%	1%
Asian	1%	1%
Black/African American	1%	<1%
Hispanic	2%	3%
Pacific Islander	1%	1%
White	87%	86%
Graduate Degree*	25%	36%

* = Statistically significant difference (p<.05)
 Note: Race/ethnicity values do not sum to 100% due to missing race/ethnicity data for some educators.

Figure 2, Figure 3, and Figure 4 illustrate trends in educator gender, race/ethnicity, and educational attainment among cohorts over time. While gender has remained relatively constant (Figure 2), there was an increase in the proportion of teachers of color among both special education and general education teachers (Figure 3). There was a decrease in the proportion of graduate degree holders among both groups in recent years (Figure 4).

Figure 2. Beginning Special Education and General Education Teachers' Gender across Cohorts

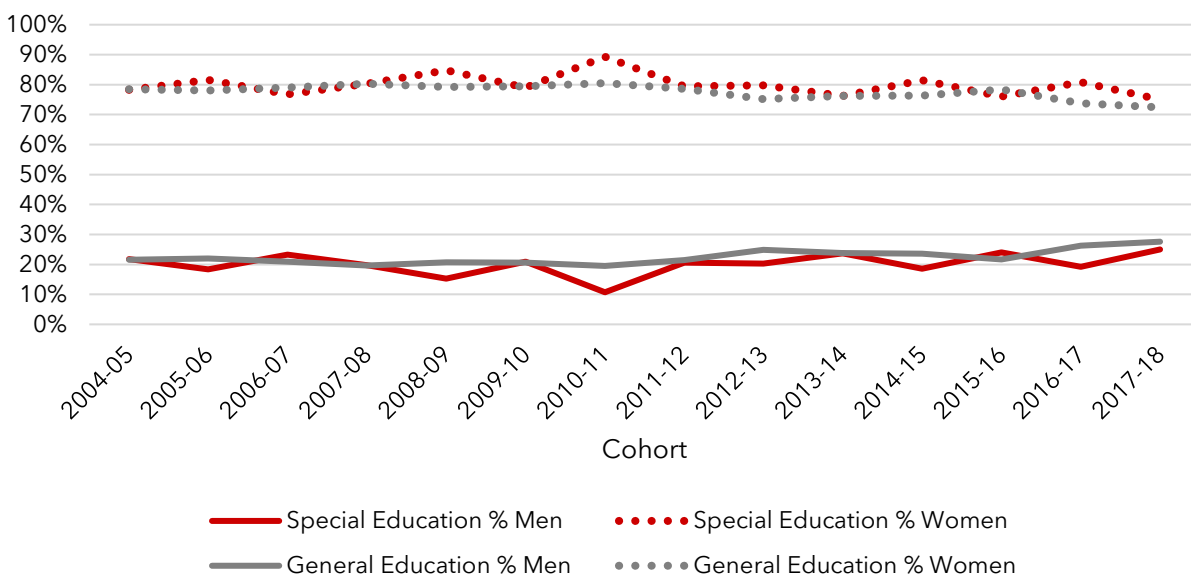


Figure 3. Proportion of Special Education and General Education Teachers of Color across Cohorts

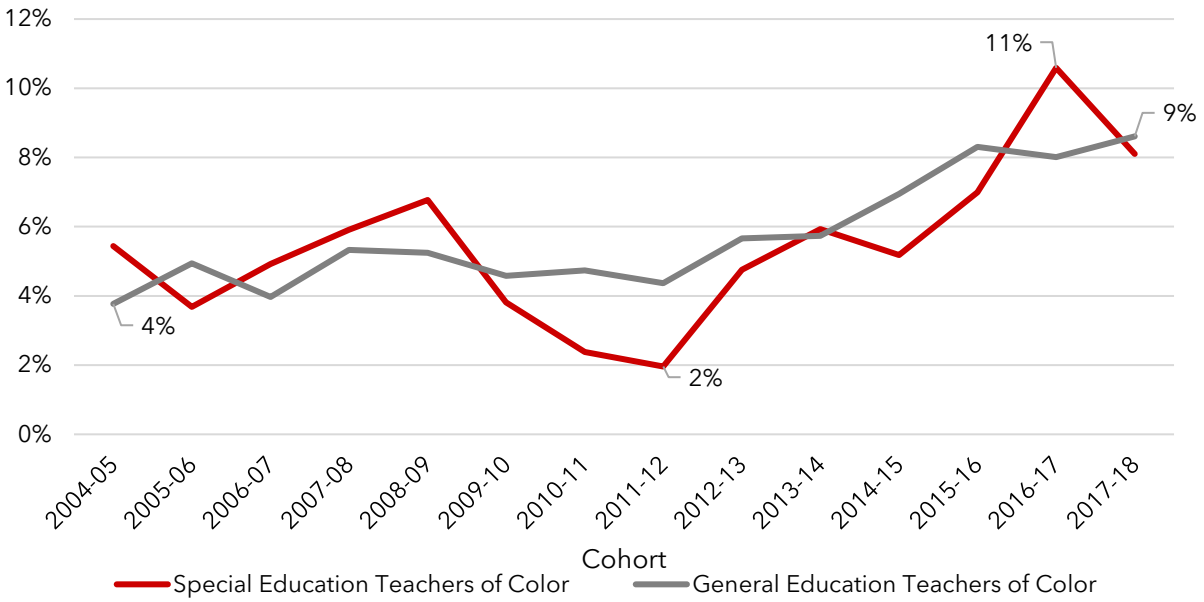
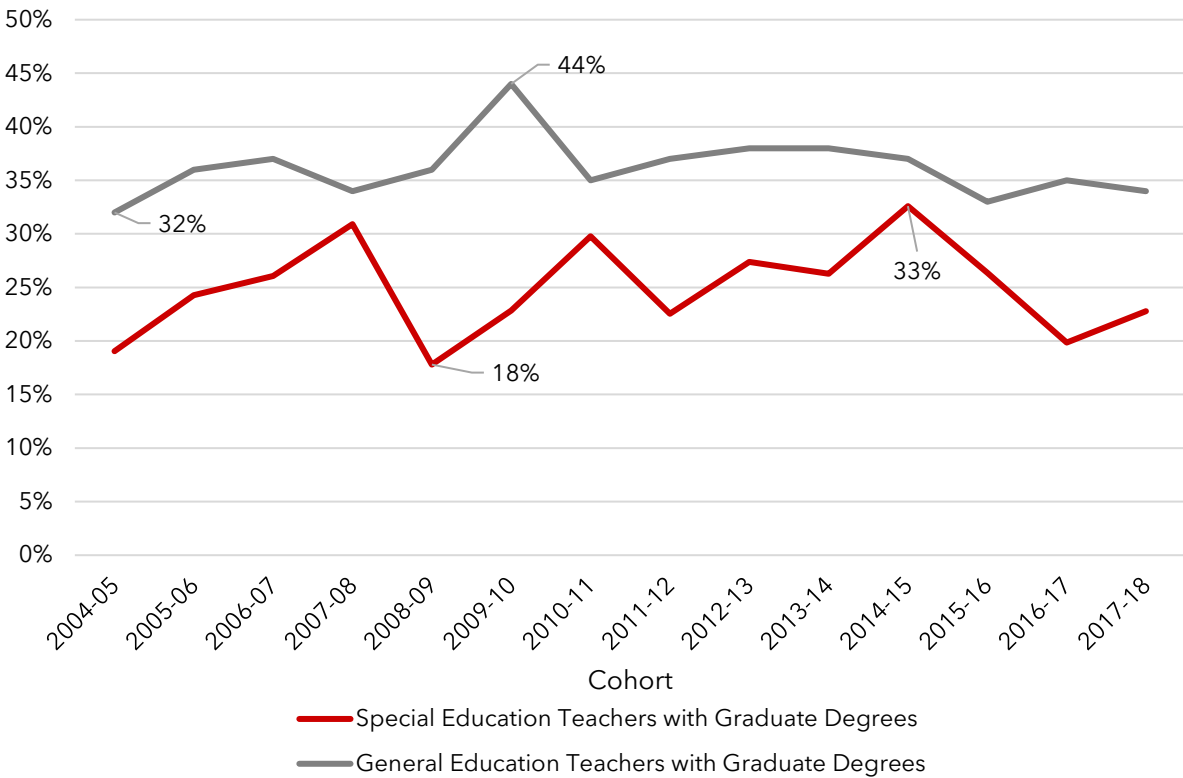


Figure 4. Beginning Special Education and General Education Teachers' Graduate Degree Status across Cohorts



How do Utah’s beginning special education and general education teachers’ first teaching assignments compare?

Takeaways:

Compared to beginning general education teachers, beginning special education teachers were:

- ✓ Less likely to begin their careers in Title I schools.
- ✓ More likely to begin their careers in schools with higher proportions of students receiving special education services.
- ✓ More likely to start their careers in suburban settings rather than begin in an urban or rural setting.

Table 2 provides a summary of the school characteristics of educators’ first teaching assignments.³ Although school-level student race/ethnicity was similar for both groups, beginning special education teachers were less likely to teach in Title I schools and more likely to begin their careers in schools with higher proportions of students receiving special education services. Special education teachers were more likely to teach in suburban settings and less likely to teach in urban or rural settings when compared to beginning general education teachers.

Table 2. First Teaching Assignment Characteristics of Teachers who Entered the Profession between 2004-05 and 2017-18

School Characteristics	Beginning Special Education Teachers (n=1,739)	Beginning General Education Teachers (n=11,215)
Title I*	15%	19%
American Indian	2%	2%
Asian	2%	2%
Black/African American	2%	1%
Hispanic	16%	15%
Multiple Races	1%	1%
Pacific Islander	2%	1%
White	77%	77%
Percentage of Students Receiving Special Education Services*	18%	14%
School-wide Math Proficiency Rate on State Assessment	56%	56%
Urban*	15%	18%
Suburban*	65%	61%
Town	11%	10%
Rural*	9%	11%
* = Statistically significant difference (p<.05)		

³ If educators were observed teaching in more than one building during their first year, they were attributed to the building in which they held the greatest FTE teaching assignment.

Figures 5-9 illustrate trends over time in the school characteristics found in Table 2:

- Figure 5 shows that the proportions of beginning special education and general education teachers in Title I schools have remained relatively constant over time.
- Figure 6, in contrast, indicates that both beginning special education and general education teachers worked in schools with greater proportions of students of color over time (just under 20% in 2004-05 up to around 30% in 2016-17).
- The proportion of students receiving special education services in schools where beginning teachers are employed has increased slightly over time for both special education teachers and general education teachers (Figure 7).
- Between 2009 and 2014, average schoolwide math proficiency rates in beginning teachers' first teaching assignments held steady between 60% and 70%. Proficiency rates dropped beginning in 2013-14 when Utah changed from the CRT/DWA tests to the SAGE test (Figure 8).
- Finally, the proportions of beginning teachers working in various locales (urban, suburban, town, rural) for their first teaching assignments remained relatively constant over time for both groups of educators (Figure 9).

Figure 5. Proportion of Beginning Special Education and General Education Teachers' First Teaching Assignments in Title I Schools by Cohort

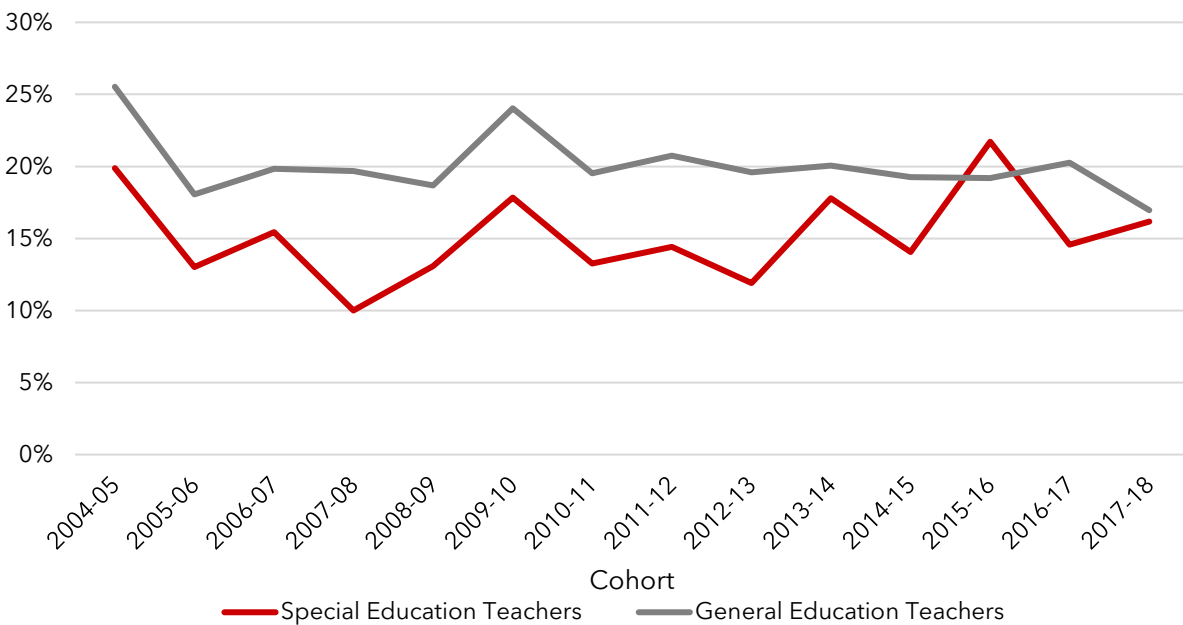


Figure 6. Proportion of Students of Color in Beginning Special Education and General Education Teachers' First Teaching Assignments by Cohort

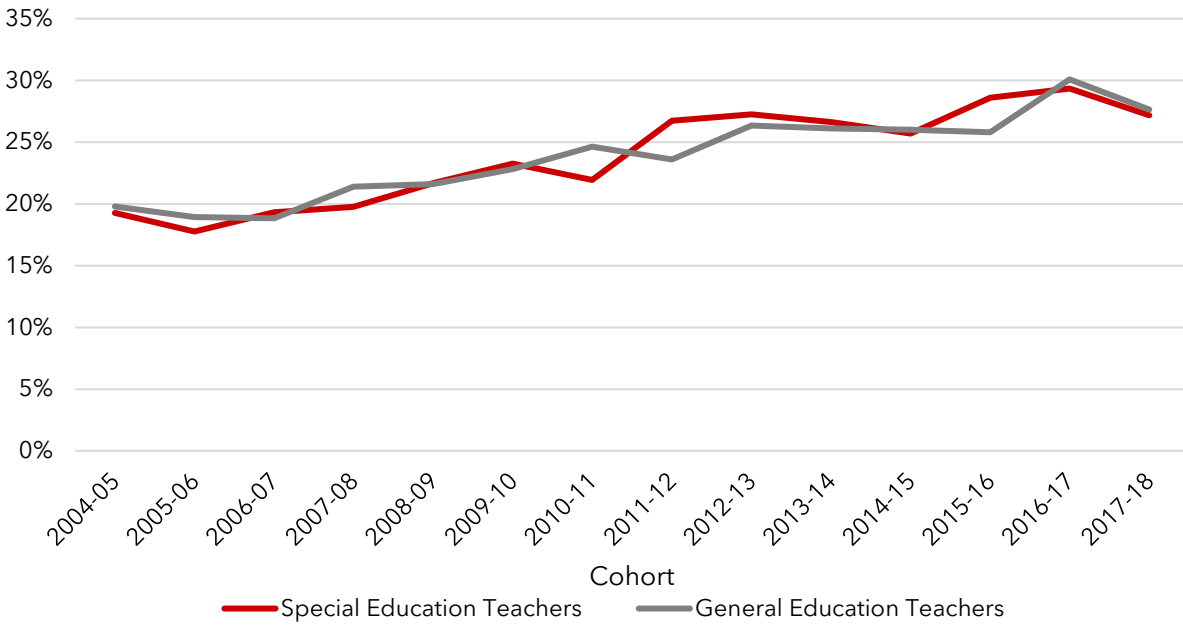


Figure 7. Proportion of Students Receiving Special Education Services in Beginning Special Education and General Education Teachers' First Teaching Assignments by Cohort

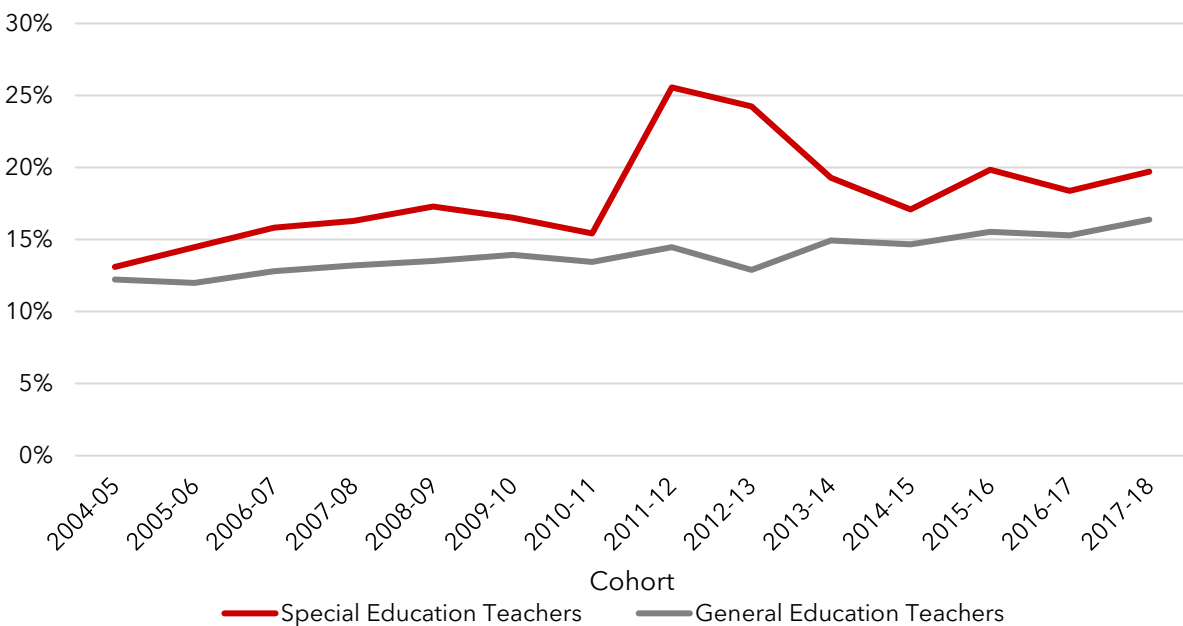


Figure 8. Schoolwide Student Math Proficiency on State Assessments in Beginning Special Education and General Education Teachers' First Teaching Assignments by Cohort

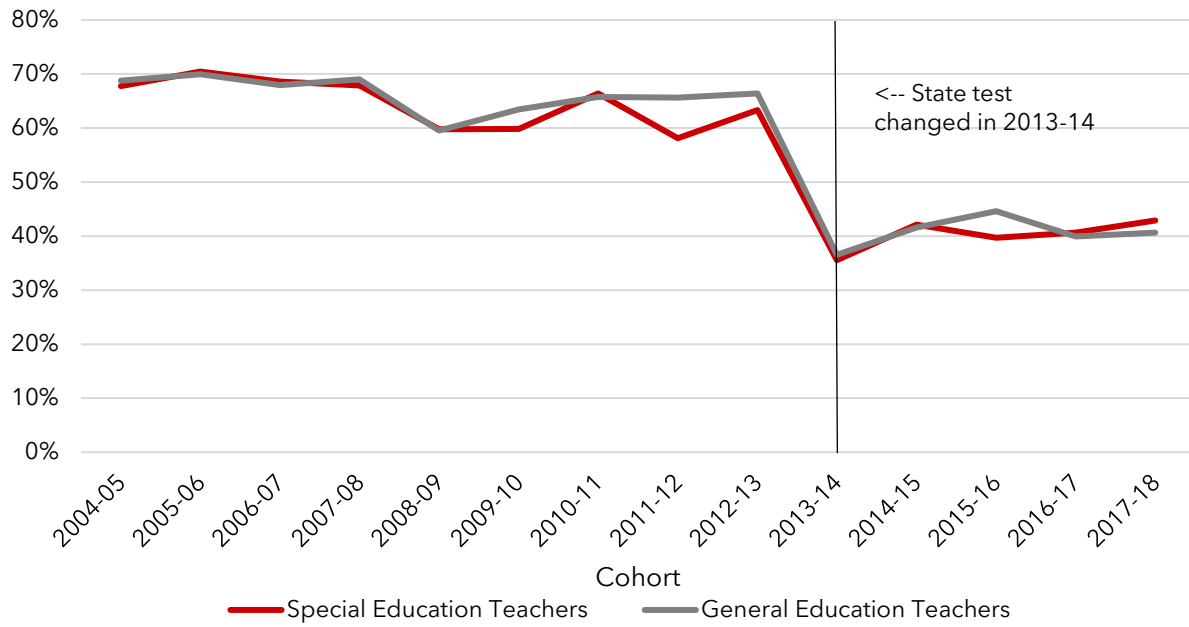
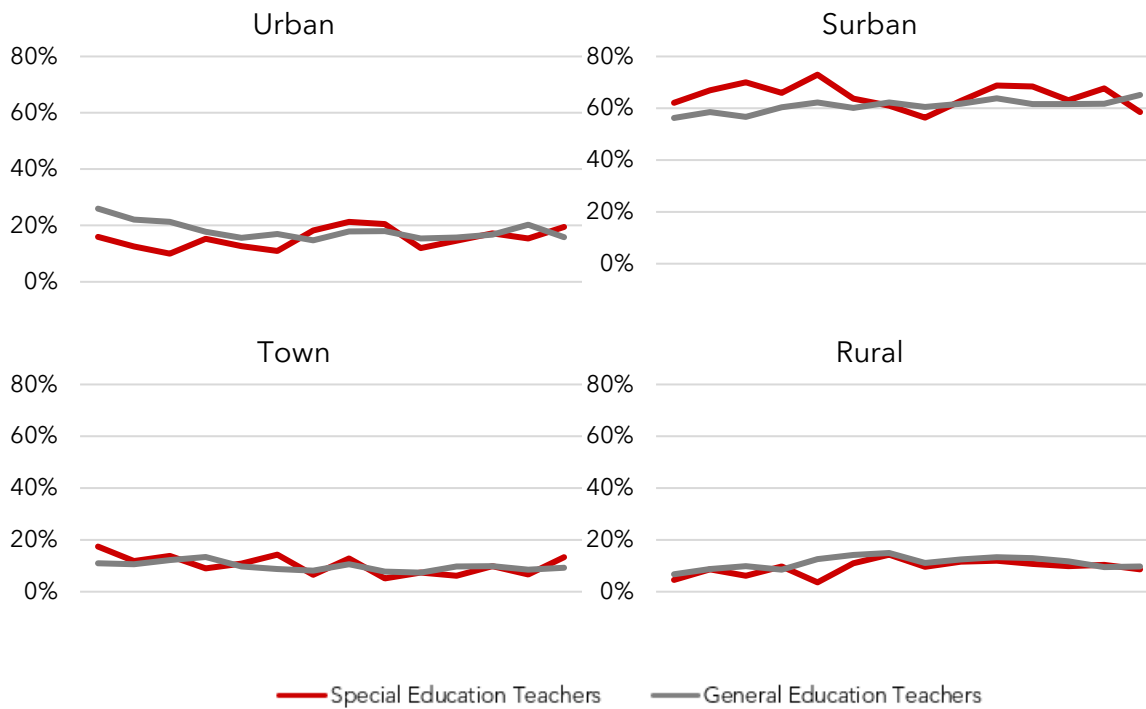


Figure 9. Locale of Beginning Special Education and General Education Teachers' First Teaching Assignments by Cohort



How do career pathways of Utah’s beginning special education and general education teachers compare?

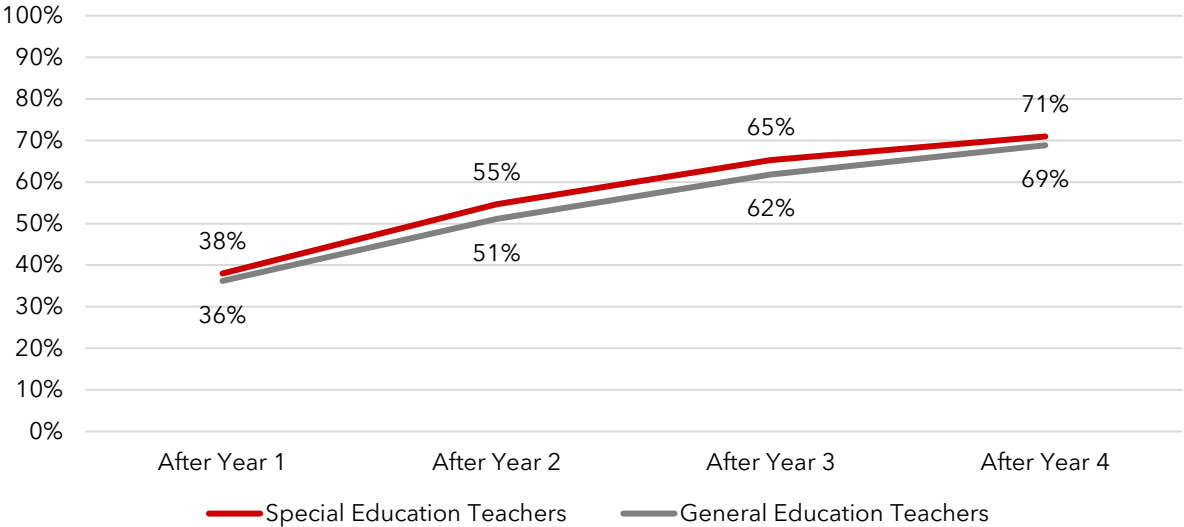
Takeaways:

- ✓ Although their overall mobility rates were the similar, beginning special education teachers were more likely to transfer and less likely to exit than beginning general education teachers.
- ✓ For both beginning special education and general education teachers, transfer and exit were most common at the end of the first year of teaching.

Beginning special education and general education teachers who started teaching between 2004-05 and 2017-18 were tracked for five years. To understand how career pathways differed across groups, Figure 10 provides a summary of cumulative mobility rates. In this analysis, mobility refers to transfer and exit. A teacher who transferred was someone for whom no schools in the current school year matched any schools in the previous year, and a teacher who exited was someone who was not observed teaching in the current school year.





As shown in this figure, by the beginning of their fifth year of teaching, 71% of special education teachers and 69% of general education teachers had transferred or exited at least once.

Figure 10. Cumulative Mobility Rates among Beginning Special Education and General Education Teachers



Although special education teachers had slightly higher mobility rates than general education teachers, a Cox proportional hazards model⁴ was conducted to determine whether these differences in mobility rates were statistically significant. This statistical approach accounted for teacher and school characteristics to better isolate differences in beginning special education and general education teachers. The results of this model indicated that, all else equal, special education teachers were no more likely than general education teachers to be mobile at any given point in time during their first five years of teaching.

Finding no differences in overall mobility between beginning special education and general education teachers, career pathways were organized into four unique categories—stayers, single movers, multiple movers, and leavers—to provide additional insight.

 <p>Stayers: Those who did not transfer or exit during their first five years.</p>	 <p>Single Movers: Those who engaged in one transfer or one exit and return.</p>
 <p>Multiple Movers: Those who engaged in more than one transfer and/or exit with or without return.</p>	 <p>Leavers: Those who exited the profession without returning or transferring.</p>

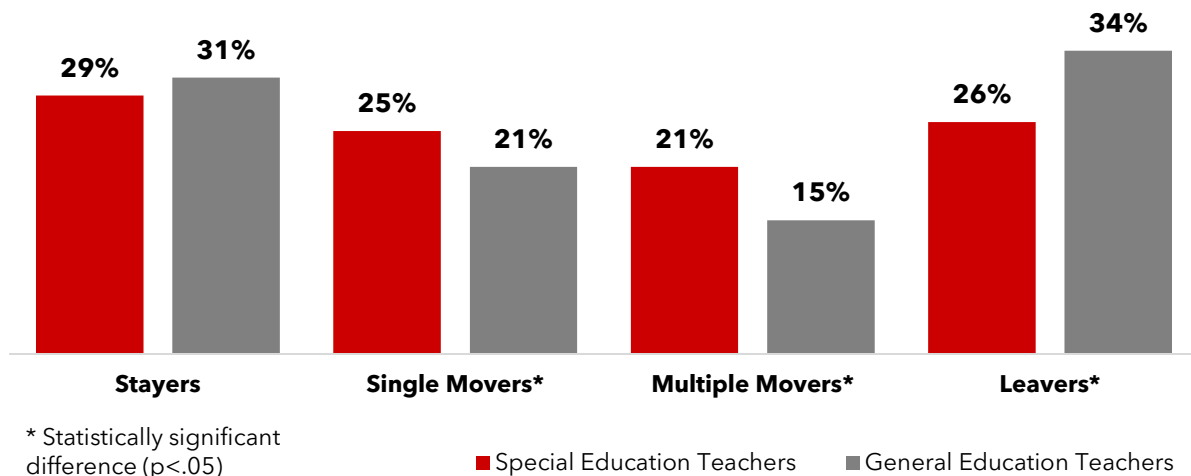
A multinomial logistic regression was used to determine whether beginning special education teachers were more or less likely than beginning general education teachers to fall into each of the categories noted above, holding constant teacher and school characteristics. This statistical approach allows for the inclusion of multiple outcomes (i.e., the four categories noted above).

As noted in Figure 11, a more nuanced pattern in career pathways emerged. Although beginning special education teachers were more likely to be Single Movers and Multiple Movers (25% vs. 21%; 21% vs. 15%), they were less likely to be Leavers (26% vs 34%).

Collectively, these findings indicate that although overall rates of mobility among beginning special education and general education teachers were similar (Figure 10), the type of movement each group engaged in was different. Beginning special education teachers were significantly more likely to transfer and significantly less likely to exit the profession.

⁴ The Cox proportional hazards model estimates covariates of interest that may be associated with the cumulative risk of a certain event occurring over time (in this case, mobility).

Figure 11. Career Trajectories of Beginning Special Education and General Education Teachers



Also worth noting is the timing of beginning educators' movements. Exit and transfer for both groups of educators was most common after the first year. Among beginning special education teachers who ever transferred during their first five years, 55% did so after their first year. For general education teachers, this rate was 42% (Figure 12). For those who exited during the first five years, 37% of special education teachers and 55% of general education teachers did so after the first year (Figure 13).

Figure 12. Timing of First Transfer among Beginning Special Education and General Education Teachers Who Ever Transfer

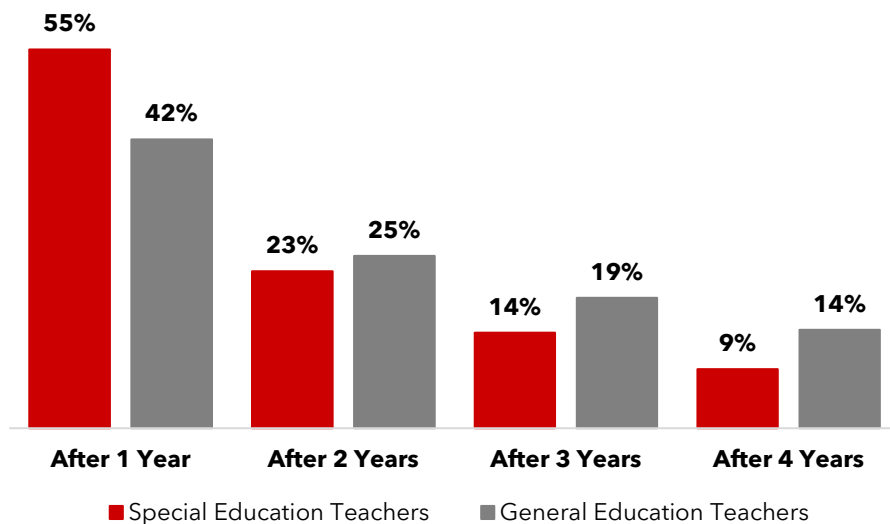
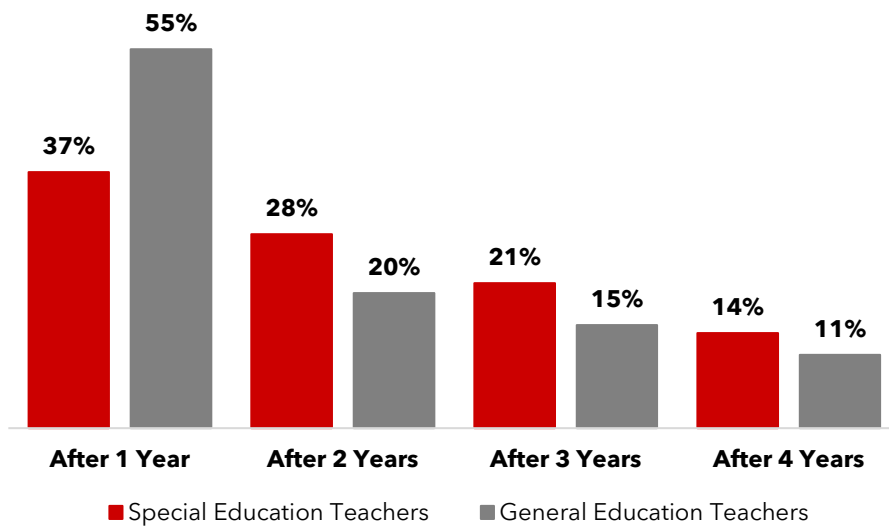


Figure 13. Timing of First Exit among Beginning Special Education and General Education Teachers



Key Takeaways and Implications

#1

Although their overall mobility rates were the same, beginning special education teachers were more likely to transfer and less likely to exit than beginning general education teachers.

When teachers leave their positions, whether to exit the profession entirely or transfer to a new position, climate and student learning are disrupted (Hanushek et al., 2016; Ronfeldt et al., 2013). In this study, special education teachers did both exit and transfer at high rates after their first year in the profession. Despite these disruptions, beginning special education teachers in this study remained in the profession at higher rates overall than beginning general education teachers. This finding challenges the rhetoric around special education teacher shortages and suggests that, instead, special education teachers are more likely to “shop around” for the right position rather than exit teaching all together.

Research nationally indicates that factors such as poor working conditions, lacking administrative support, and salary and benefits may be common reasons that teachers transfer (Carver-Thomas & Darling-Hammond, 2017; Geiger & Pivovarova, 2018). Here we recognize that not all transfers are disruptive, and that consideration needs to be given to both the voluntary and involuntary transfers. However, understanding the reasons why special education teachers transfer and what the impact is on students and schools will be a necessary next step for school and district leaders to develop strategies to mitigate the conditions that lead to out-migration from schools and districts. In our next study, we will explore these factors and their role in transfer and exit patterns.

#2

The first year of teaching is critical for both special education and general education teachers.

For both groups of educators, the probability of exit and transfer are highest at the end of the first year of teaching. This finding suggests that further support for first-year teachers may be a promising strategy to reduce mobility rates among both special education and general education teachers. Specifically, first-year teachers might benefit from strategic induction, on-boarding, and mentorship activities, structured professional learning and collaboration (e.g., co-teaching, assistance with behavior and classroom management, instructional modeling, lesson planning), and reflective peer coaching (Kent et al., 2009; Villar & Strong, 2007; Wang et al., 2008). Collaborative professional learning opportunities, especially those that are linked to academic content, are another promising approach (Garet, et al., 2001; Wei et al., 2009). Further, intentional coaching on work-force and career transitions may be beneficial to support the professional identity development, confidence, and competence of beginning educators.

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