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TEACHER TURNOVER IN UTAH
BETWEEN 2013-14 AND 2014-15

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Introduction

In collaboration with the Utah State Board of Education (USBE), the Utah Education Policy Center (UEPC) is exploring issues related to Utah's educator workforce through a series of research briefs. The first brief in this series, *At First Glance: Teachers in Utah*, explored available data related to educator supply, demand, and shortage. Another brief, *Beginning Teacher Turnover in Utah Between 2008-09 and 2014-15,* studies a cohort of beginning teachers over an 8-year period, reporting on the rates of stayers, movers, and leavers. This brief examines teacher turnover in Utah for all teachers, between two recent school years, looking specifically at turnover by various teacher and school characteristics.

Data Source and Methodology

This brief uses the Comprehensive Administration of Credentials for Teachers in Utah Schools (CACTUS) database maintained by the USBE. This database contains Utah educator demographic, credential, and assignment data. In accordance with USBE data use guidelines, data are not reported in cases where the N size is less than 10. This report identifies classroom teachers[1] from CACTUS during the 2013-14 school year, and then looks at their status in CACTUS in the 2014-15 school year to quantify teacher turnover. Teacher turnover refers to any time a teacher left a school, whether they moved to a different school, or left the teaching profession. Teacher turnover is identified by observing a teacher's status once in the 2013-14 school year and then once again in the 2014-15 school year. Therefore, we do not capture a teacher's turnover that could occur within one school year. If a teacher was assigned to multiple schools or multiple teaching assignments in the same school year, the teacher was defined as being in one school or teaching one subject, based on the highest FTE percentage or the earliest begin date (if FTEs were equal). In addition, because teacher characteristics and turnover rates at small schools can be greatly influenced by one individual teacher, this report uses schools with 6 or more classroom teachers for school-level analyses.

Teacher Turnover Definitions

Stayer	• A teacher who stayed at the same school in both years of the study, 2013-14 and 2014-15.
Mover within LEA	• A teacher who moved to a different school in the same LEA for the 2nd year of the study.
Mover between LEAs	• A teacher who moved to a different school in a different LEA for the 2nd year of the study.
Leaver	• A teacher who was a Utah classroom teacher in 2013-14, but not identified in CACTUS as a Utah classroom teacher in 2014-15.

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[1] The present study includes Utah classroom teachers only, not all licensed educators as in the *At First Glance* brief.

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Teacher and School Characteristics

Table 1 identifies characteristics of the 28,123 Utah classroom teachers from 951 public schools, including charter schools, during the 2013-14 school year. The range of teachers' ages was 21 to 83 years old. Table 2 identifies general characteristics of Utah's public schools, including charter schools.

Table 1. Utah Public School Teacher Characteristics, School Year 2013-14

Teacher Characteristic	Percent (N=28,123)
Age (Mean)	44
Female	76%
White	90%
Elementary	48%
Secondary	43%
Math Teachers	7%
Science Teachers	5%
Other Subjects	31%
Special Education Teachers	9%

Table 2. Characteristics of Utah Public Schools, School Year 2013-14

School Characteristic	Number*	Percent
District School	807	90%
Charter School	94	10%
Elementary	538	60%
Middle	169	19%
High	192	21%
City	148	17%
Suburban	468	53%
Rural	273	31%
Not Title 1	606	67%
Title 1	295	33%

*School-level analysis excludes Utah public schools with 5 or fewer teachers

Overall Teacher Turnover

Table 3 identifies the average rates for each turnover category for all teachers from the 2013-14 school year to the 2014-15 school year. The vast majority of teachers stayed in the same school.

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Table 3. Teacher Turnover

Teacher Turnover Category (N=28,123)	Number	Percent
Stayer	22,747	81%
Turnover (movers and leavers)	5,376	19%
Mover	2,042	7%
Mover between LEAs	953	3.4%
Mover within LEA	1,089	3.9%
Leaver	3,334	12%

Teacher Turnover by Teacher Characteristics

Table 4. Teacher Turnover Rates by Teacher Characteristic

Characteristic	Number	Movers	Leavers	Total Turnover*
Female	21,245	7%	12%	19%
Male	6,860	7%	11%	18%
Nonwhite	2,938	8%	13%	21%
White	25,185	7%	12%	19%
Elementary	13,487	7%	12%	19%
Secondary	11,981	6%	12%	18%
Math	2,112	8%	10%	18%
Science	1,355	9%	12%	21%
Other Subjects	8,861	6%	12%	18%
Special Education	2,655	11%	12%	23%
Age Range:				
<=25	1,317	13%	18%	31%
26-30	3,729	10%	18%	28%
31-40	7,162	9%	11%	20%
41-50	6,489	7%	7%	14%
50+	9,426	4%	13%	17%
*Turnover refers to any movement from a school, moving or leaving.				

- In almost every characteristic (See Table 4), there were more leavers than movers.
- The turnover rate for male and female teachers was similar.
- The turnover rate for Nonwhite teachers was slightly higher than for White teachers.
- Secondary science teachers had the higher turnover rates compared with math teachers and other subject teachers.
- Special education teachers had higher rates of moving than general education teachers.
- Teachers in the youngest age group (<=25) were found to have the highest turnover rates.

Teacher Turnover by School Characteristics

We also examined turnover at the school level, identifying turnover rates by various school characteristics, as shown in Table 5. The average teacher turnover at the school level was 19%. Charter schools had much higher turnover rates than other traditional public schools (31% vs 18%), consistent

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with national trends[i]. The average teacher turnover in Title 1 schools was 23%, five percentage points higher than for non-Title 1 schools (18%), also consistent with the findings from studies in other places [ii].

Table 5. Teacher Turnover Rates by School Characteristic

School Characteristic	Number	Teacher Turnover Rate		
		Average	Minimum	Maximum
All Schools	901	19%	0%	94%
District School	807	18%	0%	65%
Charter School	94	31%	4%	94%
Elementary	538	19%	0%	65%
Middle	169	20%	0%	64%
High School	192	20%	0%	79%
City	148	19%	0%	54%
Suburban	468	19%	0%	94%
Rural	273	19%	0%	60%
Not Title 1	606	18%	0%	79%
Title 1	295	23%	0%	94%

Teacher Turnover by Student Characteristics in a School

Table 6 displays teacher turnover rates by various student characteristics at the school. All traditional public schools were equally divided into four groups based on specific student characteristics in school. Charter schools were also divided into four groups in a similar fashion. The quartile analysis allows us to observe differences in schools with high or low percentages of the various student characteristics.

First, it is interesting to observe the uneven distribution of students with certain characteristics in different schools across the system, as represented in the 2nd and 4th columns of Table 6. For instance, some schools enrolled significantly higher percentages of low-income, minority, special education, and English Language Learners (ELLs) than the majority of schools.

Second, the 3rd column of Table 6 shows how the turnover rates vary across traditional public schools in these quartiles. The schools in the highest quartile for the percentages of students of color, students who are low income, or ELL students had the highest average turnover rates, compared with schools in other three quartile groups that were serving lower percentages of students with diverse needs. Interestingly, this was not the case for turnover rates in schools with different percentages of special education students. The teacher turnover rates were similar across schools in all four quartiles for special education enrollment.

On average, charter schools had much higher teacher turnover rates than traditional public schools serving students with similar characteristics (See Columns 3 and 5 of Table 6). However, the association between student characteristics and teacher turnover rate was less obvious in charter schools than traditional public schools.

Table 6. Teacher Turnover Rates in Traditional Public Schools and Charter Schools, by Student Characteristics

	Traditional Public Schools (N=807)		Charter Schools (N=94)	
Students of Color	**Percent of Students in School**	**Teacher Turnover Rate**	**Percent of Students in School**	**Teacher Turnover Rate**
1st Quartile	8%	16%	10%	32%
2nd Quartile	15%	16%	14%	28%
3rd Quartile	24%	17%	20%	35%
4th Quartile	54%	22%	49%	31%
Students Who are Low-income	**Percent of Students in School**	**Teacher Turnover Rate**	**Percent of Students in School**	**Teacher Turnover Rate**
1st Quartile	18%	17%	11%	29%
2nd Quartile	33%	17%	21%	32%
3rd Quartile	49%	18%	35%	32%
4th Quartile	71%	20%	59%	32%
Students with Special Needs	**Percent of Students in School**	**Teacher Turnover Rate**	**Percent of Students in School**	**Teacher Turnover Rate**
1st Quartile	9%	18%	7%	32%
2nd Quartile	12%	18%	11%	28%
3rd Quartile	15%	18%	14%	32%
4th Quartile	26%	18%	21%	34%
English Language Learners	**Percent of Students in School**	**Teacher Turnover Rate**	**Percent of Students in School**	**Teacher Turnover Rate**
1st Quartile	1%	17%	0%	29%
2nd Quartile	3%	17%	1%	32%
3rd Quartile	7%	17%	4%	36%
4th Quartile	25%	22%	25%	32%

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For example, while charter schools with the lowest percentages of low-income students had the lowest average teacher turnover rates (29%) compared with schools in other quartile groups (32%), charter schools with the highest percentage of students of color had lower teacher turnover rates (31%) compared with schools in the third quartile group (35%).

Teachers' Moving Patterns

As shown previously, 7% of all Utah public school teachers moved from one school to another between the 2013-14 and 2014-15 school years. Among all the movers (2,042), roughly half moved between LEAs with the other half moving within their current LEA. Comparing the characteristics of the schools the teachers left (sending schools) to the schools they moved to (receiving schools) can address the equity issue. Further, distinguishing between the two types of movements (between-LEA and within-LEA) can help policymakers gauge whether the equity issue should be addressed at a district or state level. Table 7 presents a systematic look at the patterns for these movers.

Table 7. Student Characteristics in Sending and Receiving Schools for Movers

	Within-LEA Movers (N=1,089)				Between-LEA Movers (N=953)		
	2013-14 School (sending)	2014-15 School (receiving)	Difference		2013-14 School (sending)	2014-15 School (receiving)	Difference
Student Enrollment	1,955	2,011	56		1,988	2,167	197*
% White	71.5%	73.2%	1.7*		72.0%	73.0%	1.0
% Black	1.9%	1.7%	-0.2*		1.5%	1.5%	0
% Hispanic	19.8%	18.3%	-1.5*		18.6%	18.2%	-0.4
% Asian	2.1%	2.1%	0		2.0%	1.9%	-0.1
% ELL	10.8%	9.3%	-1.5*		9.5%	9.1%	-0.4
% Special Ed	14.9%	14.0%	-0.9		13.6%	13.3%	-0.3
% Low Income	42.2%	39.0%	-3.2*		40.2%	38.4%	-1.8*
% Proficient in Math	36.6%	41.6%	5.0*		33.7%	38.3%	4.6*
% Proficient in Science	40.2%	43.0%	2.8*		38.4%	40.6%	2.2*
% Proficient in Language Arts	39.0%	40.3%	1.3*		38.3%	37.9%	-0.4

* p<0.01.

Within-LEA Movers. Teachers who made within-LEA transfers tended to move to schools with a statistically significant higher proportion of White students (1.7% higher), lower proportions of African American students and Hispanic students, a lower proportion of ELL students (1.5% lower), a lower proportion of low-income students (3.2% lower), and a higher proportion of students who are proficient in math/science/language arts (5.0%, 2.8, and 1.3% higher, respectively). These results are consistent

with findings from previous studies that teachers tend to move to schools serving fewer students with additional learning needs.iii

Between-LEA Movers. As Table 7 shows, teachers who moved to another school outside of their original LEA, tended to move to schools with a statistically significant larger student enrollment (197 more), a lower proportion of low-income students (1.8%), and a higher proportion of students who were proficient in math and science (4.6% and 2.2%, respectively).

These results imply that, compared with the within-LEA movements, between-LEA transfers showed less prominent patterns of reshuffling of teachers between schools with different student characteristics. Most of the student characteristics between sending and receiving schools were not statistically significant. For the differences that were statistically significant, the magnitudes were smaller than those for the within-LEA transfers.

Concluding Observations

This brief provides a cross-sectional analysis of teacher turnover rates among all Utah public school teachers between the 2013-14 and 2014-15 school years. Among all teachers identified in the first year of the study, 19% were no longer teaching in the same school the next year. Among these teachers, more of them (12%) left teaching than moved to a different school (7%).

Several patterns emerged when analyzing turnover rates by teacher and school characteristics:

- Teacher turnover rates were the highest among young teachers compared to older teachers, both in terms of moving to a different school and leaving teaching altogether.
- Special education teachers were more likely to move to a different school than general education teachers.
- At the secondary level, science teachers had the highest turnover rates compared with math teachers and other subject teachers.
- The turnover rate for Nonwhite teachers was slightly higher than for White teachers.
- Charter schools had much higher turnover rates than traditional public schools.
- Traditional public schools with higher percentages of students with diverse needs tended to have higher teacher turnover rates.
- The association between student characteristics and teacher turnover rate was less obvious in charter schools than traditional public schools.

When teachers moved between schools:
- Teachers who made within-LEA transfers tended to move to schools with lower percentages of students of color, lower percentages of low-income students and ELL students, and higher test scores.
- Compared with within-LEA transfers, between-LEA transfers showed less prominent patterns of reshuffling of teachers between schools with different student characteristics.

Further Considerations

On average, Utah teachers tend to leave teaching rather than move to a different school. This implies that policymakers need to consider programs and strategies to retain teachers, especially young

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teachers, who had the highest turnover rates (both in terms of moving and leaving). District leaders may be in a better position to address equity issues of teacher distribution within a district, because teachers who move within LEAs tend to move to schools with higher test scores that serve students with less diverse needs.

Further research examining the reasons why teachers stay in their current schools, move to different schools, or leave teaching altogether is crucial to understand which support services are needed in retaining teachers in schools, especially schools serving disadvantaged students.

Finally, given the results of this study, further examination of the distribution of resources across the system of schools may be necessary. As a small number of schools are educating the majority of the students with additional learning needs and supports, there may be higher-costs associated with providing an equitable and quality education.

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[i] Goldring, R., Taie, S., & Riddles, M. (2014). Teacher Attrition and Mobility: Results from the 2012-13 Teacher Follow-Up Survey. First Look. NCES 2014-077. *National Center for Education Statistics*.

[ii] Allensworth, E., Ponisciak, S., & Mazzeo, C. (2009). The schools teachers leave: Teacher mobility in Chicago Public Schools. *Consortium on Chicago School Research*.
Clotfelter, C. T., Ladd, H. F., & Vigdor, J. L. (2011). Teacher mobility, school segregation, and pay-based policies to level the playing field. *Education Finance and Policy*, 6(3), 399–438.

[iii] Ingersoll, R., & May, H. (2012). The magnitude, destinations and determinants of mathematics and science teacher turnover. *Educational Evaluation and Policy Analysis*, 34(4), 435-464.

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