



What's Happening

November 2016

# Characteristics and education outcomes of Utah high school dropouts who re-enrolled

Vanessa X. Barrat  
BethAnn Berliner  
WestEd

## Key findings

- About 19 percent of Utah public high school students who were expected to graduate in 2011 dropped out at some point during the conventional four-year high school period; during that same period about 22 percent of those dropouts re-enrolled.
- Black and English learner students were more likely to drop out and less likely to re-enroll, putting them at greater risk of not graduating.
- Among students who had dropped out and re-enrolled by 2011, 26 percent graduated on time (within four years of entering high school), and 30 percent graduated within six years of entering high school.
- Although dropping out is not necessarily a permanent outcome, re-enrollees are at risk of poor high school outcomes.

**U.S. Department of Education**

John B. King, Jr., *Secretary*

**Institute of Education Sciences**

Ruth Neild, *Deputy Director for Policy and Research*  
*Delegated Duties of the Director*

**National Center for Education Evaluation and Regional Assistance**

Joy Lesnick, *Acting Commissioner*  
Amy Johnson, *Action Editor*  
Ok-Choon Park, *Project Officer*

REL 2017–206

The National Center for Education Evaluation and Regional Assistance (NCEE) conducts unbiased large-scale evaluations of education programs and practices supported by federal funds; provides research-based technical assistance to educators and policymakers; and supports the synthesis and the widespread dissemination of the results of research and evaluation throughout the United States.

November 2016

This report was prepared for the Institute of Education Sciences (IES) under Contract ED-IES-12-C-0002 by Regional Educational Laboratory (REL) West at WestEd. The content of the publication does not necessarily reflect the views or policies of IES or the U.S. Department of Education, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.

This REL report is in the public domain. While permission to reprint this publication is not necessary, it should be cited as:

Barrat, V. X., & Berliner, B. (2016). *Characteristics and education outcomes of Utah high school dropouts who re-enrolled* (REL 2017–206). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory West. Retrieved from <http://ies.ed.gov/ncee/edlabs>.

This report is available on the Regional Educational Laboratory website at <http://ies.ed.gov/ncee/edlabs>.

## Summary

Numerous studies over the past two decades have examined the prevalence, causes, predictors, and prevention of high school dropout, but comparatively little is known about students who drop out and later re-enroll. This study contributes to an emerging body of research on re-enrollees that challenges the perception that when students drop out, they leave school for good.

This study used data from the Utah State Office of Education to follow a cohort of 41,496 students who were expected to graduate from Utah public schools in 2011 within four years of entering high school (referred to as the 2011 graduating cohort, even though some members of the cohort did not graduate that year). This report describes the extent of high school dropouts and re-enrollments statewide within this cohort; how dropout and re-enrollment rates differed over time and by demographic characteristics; how the yearly academic progress of re-enrollees before dropping out differed from that of students who graduated on time with no interruptions in schooling and that of dropouts who did not return; and the four- and six-year high school outcomes of re-enrollees who, by returning, had another chance to graduate.

About 19 percent of students in the 2011 graduating cohort dropped out, and about 22 percent of those dropouts re-enrolled by the end of 2011. More specifically, during the conventional four-year timeframe of high school (2007/08–2010/11), the number of dropouts increased each year, and students who dropped out later in high school were less likely to re-enroll.

Certain demographic characteristics were associated with having a greater likelihood of dropping out. Racial/ethnic minority students and English learner students had the highest dropout rates—more than twice those of White students and English proficient students. Re-enrollment rates by demographic characteristics showed less variation than dropout rates, but when examined together, re-enrollment and dropout rates revealed different types of enrollment interruptions. Specifically, a combination of higher than state average dropout rates and lower than state average re-enrollment rates put English learner students, Black students, and Pacific Islander students at greater risk of not graduating. In contrast, students eligible for the federal school lunch program (a proxy for low-income household status) and students with disabilities, despite having relatively high dropout rates, had re-enrollment rates above the state average, reflecting a population of students who had enrollment interruptions but did not necessarily leave school for good.

As a group, students who dropped out, including re-enrollees, had far fewer credits by the time they left school the first time—about half or less than half of the credits needed to be on track to graduate in four years, depending on the year they dropped out—than their peers who did not drop out had. On average, re-enrollees accumulated more credits before dropping out than did dropouts who did not return, but even after returning to school, most re-enrollees did not accumulate enough credits to graduate on time.

Seventy-six percent of students in the 2011 graduating cohort graduated within four years of entering high school. Among students who had dropped out and re-enrolled by 2011, 26 percent graduated on time, and 30 percent graduated by 2013—within six years of entering high school.

As part of the nationwide focus on raising graduation rates, states seek to re-engage students who have left school without a diploma. By focusing on re-enrollees, this study provides policymakers and educators with new statewide information about the prevalence, characteristics, and high school outcomes of a vulnerable student group that, if identified and successfully supported in school, could have a greater chance of graduating from high school.

## Contents

<b>Summary</b>	<b>i</b>
<b>Why this study?</b>	<b>1</b>
<b>What the study examined</b>	<b>3</b>
<b>What the study found</b>	<b>4</b>
The extent of dropout and re-enrollment in Utah	4
Dropout and re-enrollment rates by demographic characteristics	5
Academic progress	8
Four- and six-year high school completion outcomes of re-enrollees	10
<b>Implications of the study findings</b>	<b>13</b>
<b>Limitations of the study</b>	<b>14</b>
<b>Appendix A. Data and methodology</b>	<b>A-1</b>
<b>Appendix B. Frequency tables for the 2011 Utah public high school graduating cohort</b>	<b>B-1</b>
<b>Notes</b>	<b>Notes-1</b>
<b>References</b>	<b>Ref-1</b>
<b>Boxes</b>	
1 Key terms	2
2 Data sources and methods	3
<b>Figures</b>	
1 Student high school trajectories in Utah public schools, 2011 graduating cohort	5
2 The later that Utah high school students in the 2011 graduating cohort dropped out, the less likely they were to re-enroll	6
3 Dropout and re-enrollment rates for the 2011 Utah high school graduating cohort varied by student demographic characteristic	7
4 Dropouts in the 2011 Utah high school graduating cohort were behind standard graduates in accumulated credits before leaving school the first time, and the gap increased with each school year	9
5 On average, re-enrollees in the 2011 Utah high school graduating cohort who dropped out for the first time during the last two years of high school had accumulated more credits than nonreturning dropouts had but remained deficient in credits needed to graduate	10
6 On average, by the end of 2010/11 re-enrollees in the 2011 Utah high school graduating cohort had not accumulated enough credits to graduate, regardless of the year they first dropped out	11
7 About a quarter of the 2011 Utah high school graduating cohort who had left school but re-enrolled by the end of 2011 graduated on time, and two-thirds dropped out again	12

8	The six-year graduation rate for re-enrollees in the 2011 Utah high school graduating cohort was 30 percent, 4 percentage points higher than the four-year graduation rate for re-enrollees	12
---	---	----

## Tables

1	Number and percentage of Utah high school students in the 2011 graduating cohort who dropped out and re-enrolled by 2011, by number of re-enrollments	6
A1	Utah State Office of Education high school completion codes, description, and outcome group, 2012	A-2
B1	Number and percentage of students in the 2011 Utah high school graduating cohort with at least one dropout event by 2011, by student demographic characteristic	B-1
B2	Number and percentage of students in the 2011 Utah high school graduating cohort who dropped out and re-enrolled by 2011, by student demographic characteristic	B-2
B3	Raw <i>p</i> -values and <i>p</i> -values corrected for multiple testing for dropout and re-enrollment rates by 2011 among the 2011 Utah high school graduating cohort, by race/ethnicity	B-3
B4	Average number of credits accumulated each year among dropouts and standard graduates in the 2011 Utah high school graduating cohort	B-4
B5	Average number of credits accumulated each year among nonreturning dropouts and re-enrollees in the 2011 Utah high school graduating cohort	B-5
B6	Average number of credits accumulated by 2011 among re-enrollees in the 2011 Utah public high school graduating cohort, by year of first dropout event	B-5
B7	<i>P</i> -values corrected for multiple testing of re-enrollees in the 2011 Utah high school graduating cohort for average number of credits accumulated by 2011, by years of first dropout event being compared	B-6
B8	Number and percentage of students in the 2011 Utah high school graduating cohort, by four- and six-year high school completion outcomes	B-6
B9	Number and percentage of re-enrollees in the 2011 Utah high school graduating cohort, by four- and six-year high school completion outcomes	B-7

## Why this study?

In 2013, for the first time in recent history, the high school graduation rate in the United States exceeded 80 percent (U.S. Department of Education, 2015). Even student groups whose graduation rates have historically been among the lowest—racial/ethnic minority students, students eligible for the federal school lunch program (a proxy for low-income household status), and English learner students—showed gains of more than 3 percentage points from 2010/11 to 2012/13, the most recent years for which national data are available (Klein, 2015). Even so, U.S. schools continue to see roughly 1 million students drop out every year. And without a diploma these students become more likely than high school graduates to subsequently experience poverty and unemployment, depend on public assistance, have health problems, and be incarcerated (Orfield, 2004; Rumberger, 2011).

With high school graduation so crucial to adult success in the 21st century, policymakers and educators have been intent on ensuring that students at risk of dropping out receive the supports needed to get back on track academically. But what of those students who drop out anyway? Have they left school permanently? Is a high school diploma beyond their reach? Not necessarily.

Numerous studies over the past two decades have examined the prevalence, causes, predictors, and prevention of high school dropout, but comparatively little is known about re-enrollment—students who drop out and later re-enroll (see box 1 for definitions of key terms used in the report). However, an emerging body of research has shown that dropping out does not have to be a permanent high school outcome—that some students who leave school return and that even though some re-enrollees drop out again, others go on to graduate (Barrat, Berliner, & Fong, 2012; Berliner, Barrat, Fong, & Shirk, 2008; Catterall, 2011; Chuang, 1997; Metzger, 1997; Wayman, 2001, 2002).

Barrat et al. (2012) and Berliner et al. (2008) followed a district cohort of first-time grade 9 students over five years and found that among the 35 percent of students who dropped out, 31 percent eventually re-enrolled, and about 20 percent of those students graduated within five years of entering high school. The fact that the other 80 percent of re-enrollees did not graduate within that same period suggests that re-enrollees as a group are at greater risk of not graduating. But that 20 percent of re-enrollees went on to graduate highlights a path to improving graduation rates as well as the future prospects of students who struggle in school.

America's Promise Alliance (2014) and Wilkins (2011) assert that the dropout challenge as a whole cannot be resolved without first finding and re-enrolling students who have dropped out and then keeping them in school long enough to receive needed interventions and ultimately graduate. This approach—referred to as dropout recovery, retrieval, re-entry, re-engagement, or re-enrollment—has become key to policies and practices aimed at encouraging all students to graduate.

There has been virtually no national or statewide accounting of how many dropouts return to high school, descriptions of their demographic characteristics and academic progress, or documentation of their high school outcomes. The dropout and graduation rates among re-enrollees are not reported at the national and state levels, nor are their outcomes tracked by most districts and schools.

*An emerging body of research has shown that dropping out does not have to be a permanent high school outcome—that some students who leave school return and go on to graduate*

---

## Box 1. Key terms

**2011 graduating cohort.** Utah public high school students who were expected to graduate in 2011 after four years in high school. Based on federal reporting standards, the 2011 graduating cohort is defined more specifically as all students who started grade 9 for the first time in 2007/08, plus students who subsequently transferred into the cohort minus students who subsequently transferred out.

### High school outcome groups

**Cohort dropouts.** Students who officially dropped out, withdrew, left for unknown reasons, were expelled, were still enrolled pending completion of graduation requirements during the summer after the expected graduation date but who did not complete those courses over the summer and were not enrolled in school the following year, transferred to a state-operated adult education program, and left to pursue a general educational development certificate but did not receive it.

**Continuing students.** Students who remained enrolled in high school.

**Graduates.** Students who received the state's regular high school diploma or an adult education secondary diploma.

**Nongraduates.** Students who did not receive the state's regular high school diploma or an adult education secondary diploma.

**Other completers.** Students who did not receive the state's regular high school diploma but completed high school through an alternative certificate or pathway.

### Graduate and dropout groups

**Nongraduates who never dropped out.** Students who never dropped out but did not receive a regular high school diploma by 2011. Nongraduates who never dropped out could be classified into the "other completers" or "continuing students" high school outcome groups.

**Nonreturning dropouts.** Students who left school at any point within four years of starting grade 9 in 2007/08 for an unknown reason, because they withdrew, or because they dropped out and who did not subsequently re-enroll in a Utah public school by the end of 2011. Nonreturning dropouts are classified into the "cohort dropouts" high school outcome group.

**Re-enrollees.** Students who left school at any point within four years of starting grade 9 in 2007/08 for an unknown reason, because they withdrew, or because they dropped out and who subsequently re-enrolled in a Utah public school by the end of 2011. Re-enrollees could be classified into any of the four high school outcome groups.

**Standard graduates.** Students who graduated within four years of starting grade 9 in 2007/08 and never dropped out. All standard graduates are classified into the "graduates" high school outcome group.

---

More information is needed for policymakers and educators to provide effective systems and supports for finding re-enrollees and keeping them in school through graduation. As part of the nationwide focus on raising graduation rates, Utah, like other states, seeks to reduce its dropout rate by re-engaging dropouts in their education. To that end, the Utah State Office of Education has expressed an interest in establishing a baseline of information about re-enrollees to better understand the demographic and academic characteristics



of members of this group who are at greater risk of not graduating, even after returning to school.

This study was conducted in partnership with the Utah State Office of Education to address these issues. By examining re-enrollees, this study can guide refinements to the way state data systems track students with documented dropout events and highlight areas in need of further research to help raise the graduation rates of dropouts who return to school.

### **What the study examined**

---

The study addressed four main questions about Utah public high school students:

- What is the extent of dropout and of re-enrollment in Utah high schools?
  - How many students drop out and re-enroll during the four years of high school?
  - How do these numbers vary by school year?
  - Over four years of high school, how many times do students drop out and re-enroll?
- How do dropout and re-enrollment rates differ by various demographic characteristics?
- How does average credit accumulation of re-enrollees before they drop out for the first time differ from that of nonreturning dropouts and of standard graduates?
  - How does average credit accumulation of all dropouts before they drop out for the first time differ from that of standard graduates?
  - How does average credit accumulation of re-enrollees before they drop out for the first time differ from that of nonreturning dropouts?
  - Over four years of high school, do re-enrollees accumulate the credits needed to graduate?
- What are the four- and six-year high school outcomes of re-enrollees?

*By examining re-enrollees, this study can guide refinements to the way state data systems track students with documented dropout events and highlight areas in need of further research to help raise the graduation rates of dropouts who return to school*

The comparison of dropout and re-enrollment rates by student demographic characteristics indicates which student groups are at greater risk of not graduating. Credit accumulation informs understanding of the role that academic progress plays in students' decisions about dropping out or returning and persisting. The documentation of four- and six-year high school outcomes for re-enrollees explores whether students with a past dropout event are particularly at risk for not graduating. The data sources and methods used in the study are summarized in box 2 and detailed in appendix A.

---

#### **Box 2. Data sources and methods**

##### **Data**

This report follows the 41,496 Utah public high school students in the 2011 graduating cohort. Data were collected on these students' enrollment, characteristics, courses, and high school outcomes from the Utah statewide data clearinghouse using linked, longitudinal student-level data for 2007/08–2012/13.

The 2011 graduating cohort tended to be mostly at the typical age for grade level, White, and English proficient. Ninety-two percent of students in the cohort were in the expected age group (age 14 or younger upon entering high school in September 2007); 8 percent were age 15 or older upon entering high school. Seventy-eight percent of students in the cohort were

*(continued)*

---

**Box 2. Data sources and methods** *(continued)*

White, 14 percent were Hispanic, and 8 percent were American Indian/Alaska Native, Asian, or Black. Twenty-nine percent of students in the cohort were eligible for the federal school lunch program (a proxy for low-income household status), and 5 percent of students in the cohort were English learner students (see table B1 in appendix B for details about the number and percentage of students in the cohort by demographic characteristics).

**Methodology**

All group differences were tested for statistical significance, and all differences discussed in the report are statistically significant at  $p < .05$ , unless otherwise noted. A Pearson's chi-square was used to test the equality of dropout and re-enrollment rates by demographic characteristics. Student's  $t$ -tests were used for the comparison of two group means, and a one-way analysis of variance was used for the comparison of means across groups with more than two categories. If significant effects were found for a variable with more than two categories, post hoc pairwise comparisons were performed to identify which pairs differed from each other. See appendix B for raw  $p$ -values and  $p$ -values corrected for multiple comparisons.

**Some 19 percent of students in the 2011 graduating cohort experienced at least one dropout event, and of those, 22 percent re-enrolled by 2011**

---

**What the study found**

Among the 19 percent of students in the 2011 graduating cohort who dropped out, 22 percent re-enrolled in a Utah public school. Of the students who re-enrolled, 26 percent graduated on time (in 2011), and 30 percent graduated within six years of entering high school (by the end of 2013). Thus, dropping out was not necessarily a permanent outcome for the 2011 Utah graduating cohort. But because the majority of re-enrollees did not have enough credits to graduate, they remained a population at risk of poor high school outcomes. Students with certain demographic and academic characteristics were more likely to drop out and less likely to re-enroll and thus were at greater risk of not graduating.

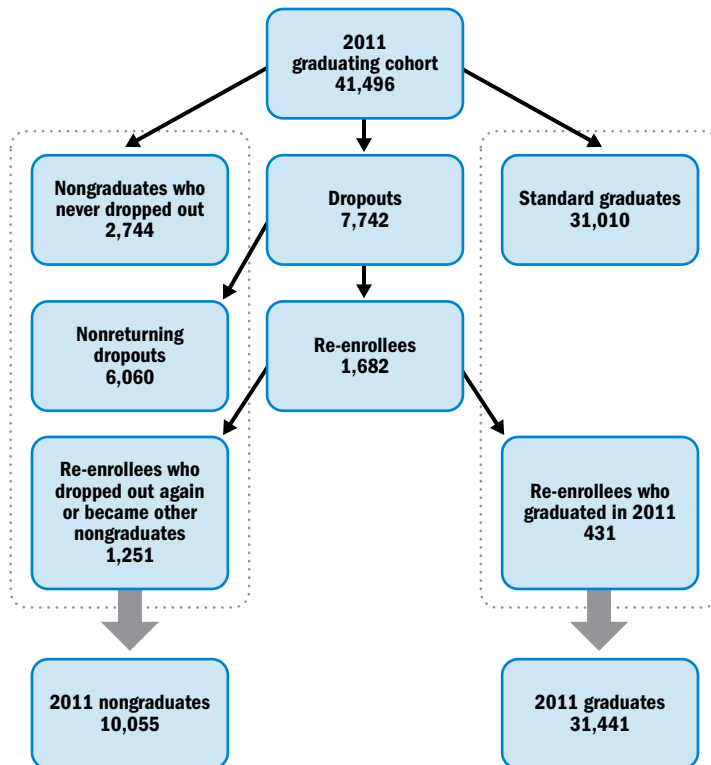
**The extent of dropout and re-enrollment in Utah**

A majority of students in the 2011 graduating cohort were continuously enrolled and graduated on time. But nearly one in five students dropped out at least once during high school.

**About one in five students in the 2011 graduating cohort dropped out of high school, and about one in five of those dropouts re-enrolled.** Some 7,742 students (19 percent) in the 2011 graduating cohort experienced at least one dropout event (figure 1). Among those dropouts, 1,682 students (22 percent) re-enrolled by 2011. And 431 of those re-enrollees (26 percent) graduated in 2011—along with 31,010 students who were continuously enrolled and graduated on time.

**The number of dropouts increased each year over the conventional four-year timeframe of high school, and students who dropped out later in high school were less likely to re-enroll.** The number of students who dropped out for the first time during high school increased each year, from 1,053 in 2007/08 to 3,157 in 2010/11 (figure 2). Sixty-eight percent of students who dropped out did so during the last two years of high school, and 41 percent of students who dropped out did so in 2010/11, the cohort's expected year of graduation.

**Figure 1. Student high school trajectories in Utah public schools, 2011 graduating cohort**



*Dropping out was not necessarily a permanent outcome: about one in five dropouts re-enrolled*

Source: Authors' analysis of Utah State Office of Education data for 2007/08–2010/11.

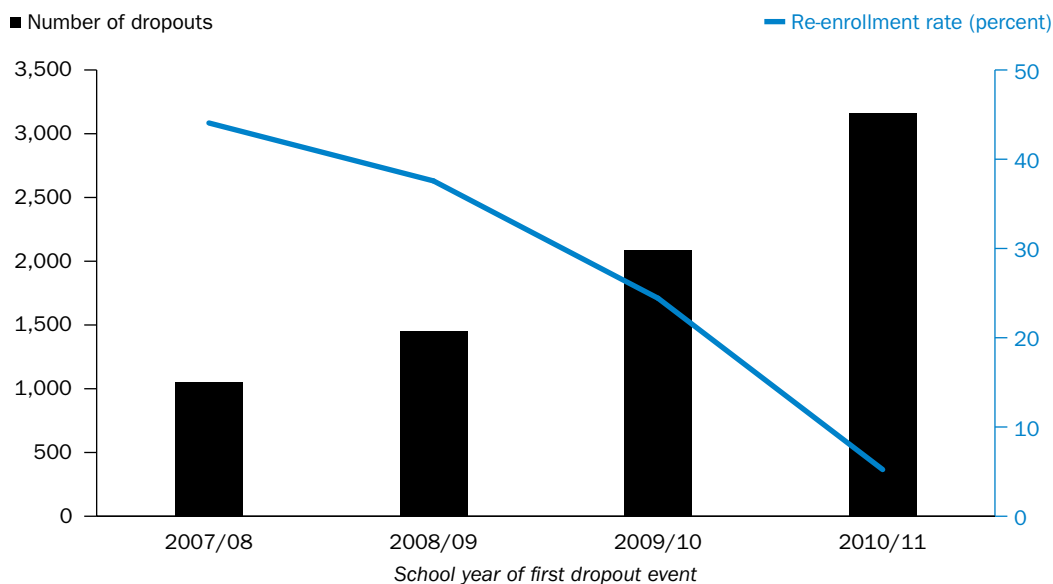
The later that students first dropped out of high school, the lower their re-enrollment rate. Forty-four percent of students who dropped out for the first time in 2007/08 later re-enrolled. The re-enrollment rate decreased to 38 percent among students who dropped out for the first time in 2008/09, to 24 percent among students who dropped out for the first time in 2009/10, and to 5 percent among students who dropped out for the first time in 2010/11—the group with the shortest timeframe for re-enrolling (that is, they could re-enroll only during the school year in which they dropped out).

*More than 1 in 10 re-enrollees dropped out and returned to school multiple times by 2011.* For some students, neither dropping out nor re-enrolling was a permanent outcome. Eighty-seven percent of students who dropped out of high school and re-enrolled in a Utah public school re-enrolled once, though they might have dropped out again. But 13 percent of students who dropped out of high school and re-enrolled did so multiple times (table 1), thus experiencing repeated interruptions to their schooling over the conventional four years of high school.

#### Dropout and re-enrollment rates by demographic characteristics

*Certain student demographic characteristics were associated with higher dropout rates.* English learner students had by far the highest dropout rate, 45 percent, nearly triple the 17 percent among English proficient students (figure 3; see also table B1 in appendix B).

**Figure 2. The later that Utah high school students in the 2011 graduating cohort dropped out, the less likely they were to re-enroll**



*While the number of dropouts increased each year over the conventional four years of high school, the percentage who re-enrolled decreased*

Source: Authors' analysis of Utah State Office of Education data for 2007/08–2010/11.

**Table 1. Number and percentage of Utah high school students in the 2011 graduating cohort who dropped out and re-enrolled by 2011, by number of re-enrollments**

Number of re enrollments	Number	Percent
1	1,469	87.3
2	184	10.9
3 or more	29	1.7
Total	1,682	100.0

Note: Percentages do not sum to 100 because of rounding.

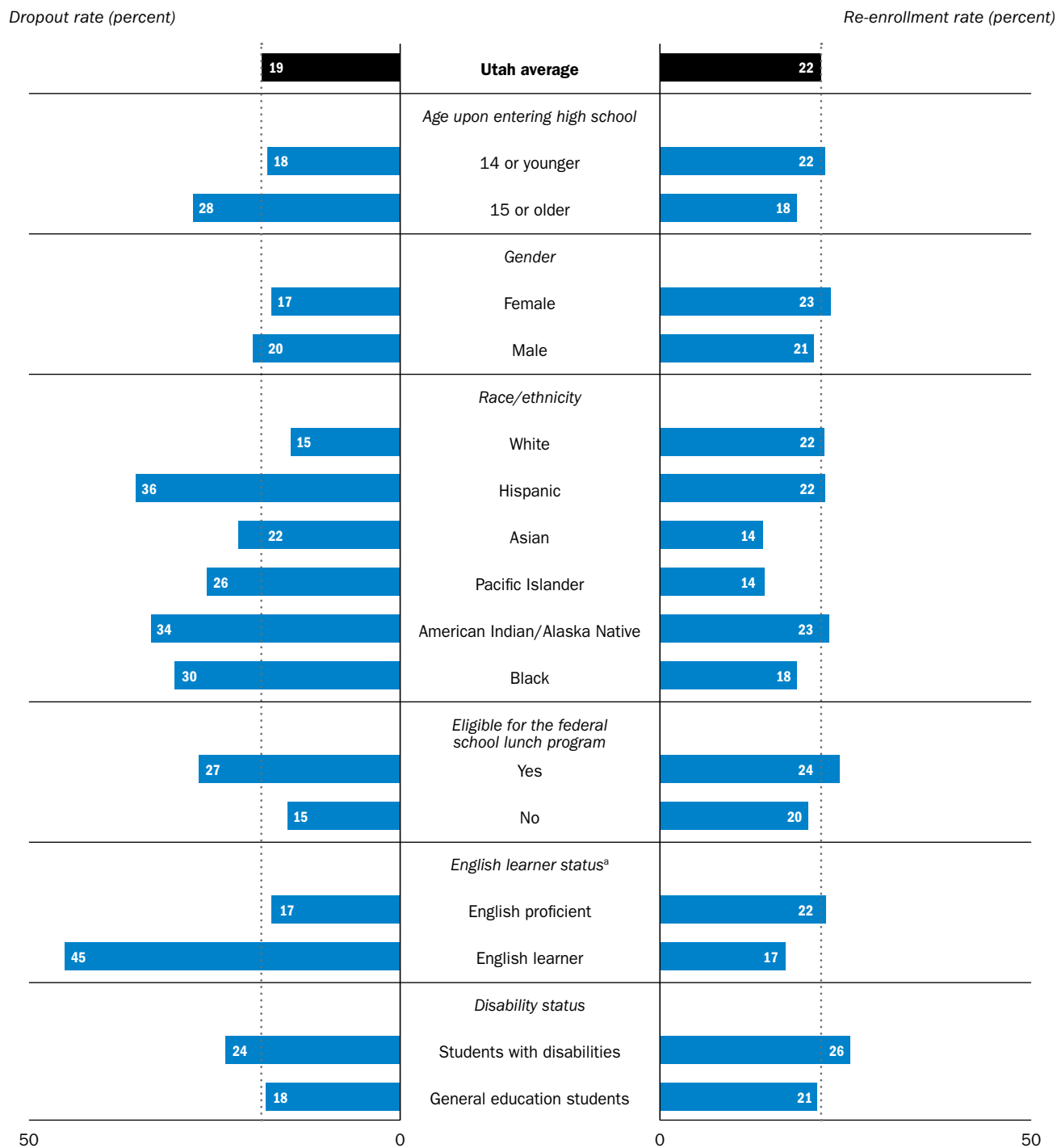
Source: Authors' analysis of Utah State Office of Education data for 2007/08–2010/11.

Dropout rates by race/ethnicity showed considerable variation. The dropout rates among Hispanic students (36 percent), American Indian/Alaska Native students (34 percent), and Black students (30 percent) were more than double the rate among White students (15 percent; see figure 3). Pacific Islander (26 percent) and Asian (22 percent) students also had a higher dropout rate than White students did.

Other student groups with dropout rates above the state average were students ages 15 or older at the beginning of high school (28 percent), students eligible for the federal school lunch program (27 percent), and students with disabilities (24 percent; see figure 3). The dropout rate was about 2 percentage points higher among male students than among female students.

*Re-enrollment rates showed less variation by demographic characteristics than dropout rates did.* Although the dropout rate among English learner students was more than twice that among English proficient students, the difference in their re-enrollment rates was only about 5 percentage points (17 percent versus 22 percent). Similarly, differences across

**Figure 3. Dropout and re-enrollment rates for the 2011 Utah high school graduating cohort varied by student demographic characteristic**



**Note:** There were 7,742 students in the 2011 graduating cohort with a dropout event from 2007/08 to 2010/11, and 1,682 of those students re-enrolled in a Utah public school by the end of 2010/11. Rates are not presented for categories with fewer than 20 dropouts or re-enrollees. See tables B1 and B2 in appendix B for frequencies. Dropout and re-enrollment rates were significantly different at the category level for all demographic characteristics presented at  $p < .05$ . Pairwise differences in dropout rates between White students or Asian students and all other racial/ethnic minority subgroups were statistically significant, while for Asian students, only the lower re-enrollment rate was significant after correction for multiple testing (see appendix A for details about the methodology and table B3 in appendix B for raw and  $p$ -values corrected for multiple comparison).

a. English learner status was missing for 124 students.

**Source:** Authors' analysis of Utah State Office of Education data for 2007/08–2010/11.

racial/ethnic categories were less pronounced in re-enrollment rates than in dropout rates. Hispanic students, American Indian/Alaska Native students, and White students all had re-enrollment rates of roughly 22 percent, on a par with the statewide average.

*The combination of high dropout rates and low re-enrollment rates indicates that some students are at greater risk of not graduating.* A high dropout rate and low re-enrollment rate for a group of students show that those students are at greater risk of dropping out permanently. Conversely, a high dropout rate and a high re-enrollment rate show that dropout events can be temporary interruptions and not necessarily permanent high school outcomes. Specifically, English learner students, students ages 15 or older when entering high school, Black students, and Pacific Islander students in the 2011 graduating cohort were at greater risk of poor high school outcomes given their high dropout rates (45 percent, 28 percent, 30 percent, and 26 percent) and low re-enrollment rates (17 percent, 18 percent, 18 percent, and 14 percent). In contrast, students eligible for the federal school lunch program and students with disabilities have high dropout rates (24 percent and 27 percent) and re-enrollment rates above the state average, reflecting a group whose members dropped out but did not necessarily leave school for good.

*English learner students, students ages 15 or older when entering high school, Black students, and Pacific Islander students in the 2011 graduating cohort were at greater risk of poor high school outcomes given their high dropout rates and low re-enrollment rates*

### Academic progress

Students who dropped out—both re-enrollees and nonreturning dropouts—struggled to accumulate the credits required to advance grade levels. As a consequence of falling behind academically, graduating in four years was out of reach for a large portion of re-enrollees.

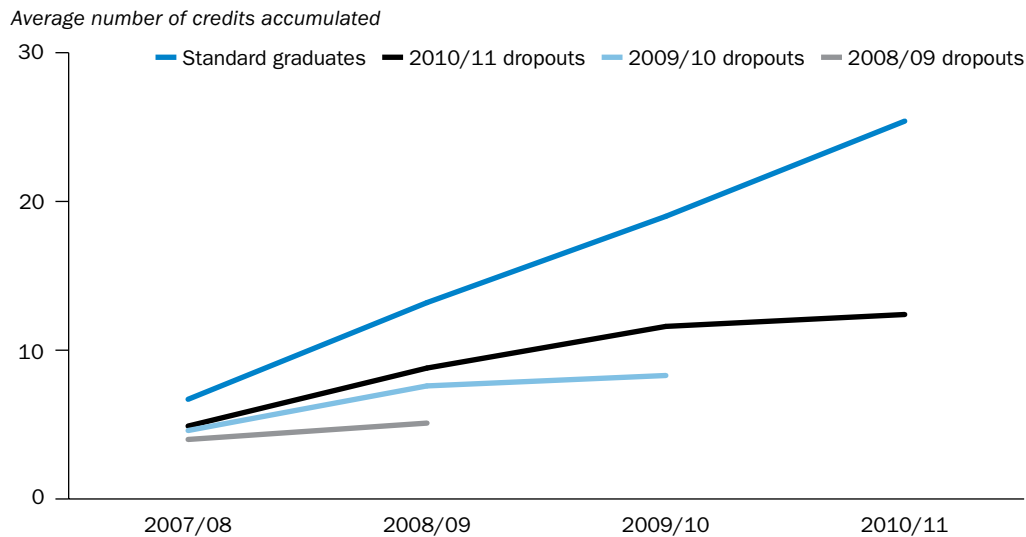
*Over the four years of high school, dropouts as a group were deficient in accumulated credits before leaving school the first time.* On average, standard graduates showed an expected pattern of credit accumulation for a four-year, on-time graduation: approximately 6 credits each year, thereby accumulating the state's minimum requirement of 24 core curriculum credits to receive a diploma (figure 4).

But dropouts were behind standard graduates in credit accumulation by the end of the cohort's first year in high school, 2007/08, and the gap increased with each school year. At the time students dropped out for the first time, they had accumulated 39–51 percent of the credits needed to be on track to graduate on time, depending on the year of dropout.

Within each year, the gap in accumulated credits was larger between standard graduates and students who dropped out earlier than between standard graduates and students who dropped out later. For example, in 2008/09, standard graduates accumulated an average of 13.2 credits, while students who dropped out that year accumulated 5.1 credits, students who remained in school that year but dropped out in 2009/10 accumulated 7.6 credits, and students who remained in school that year but dropped out in 2010/11 accumulated 8.8 credits.

*Among students who dropped out for the first time during the first two years of high school, re-enrollees and nonreturning dropouts had roughly the same number of credits before dropping out, but among students who dropped out for the first time during the last two years of high school, re-enrollees had more credits before they dropped out than nonreturning dropouts had.* During the first two years of high school, re-enrollees and nonreturning dropouts earned about the same number of course credits on average by the first

**Figure 4. Dropouts in the 2011 Utah high school graduating cohort were behind standard graduates in accumulated credits before leaving school the first time, and the gap increased with each school year**



*Within each year, the gap in accumulated credits was larger between standard graduates and students who dropped out earlier than between standard graduates and students who dropped out later*

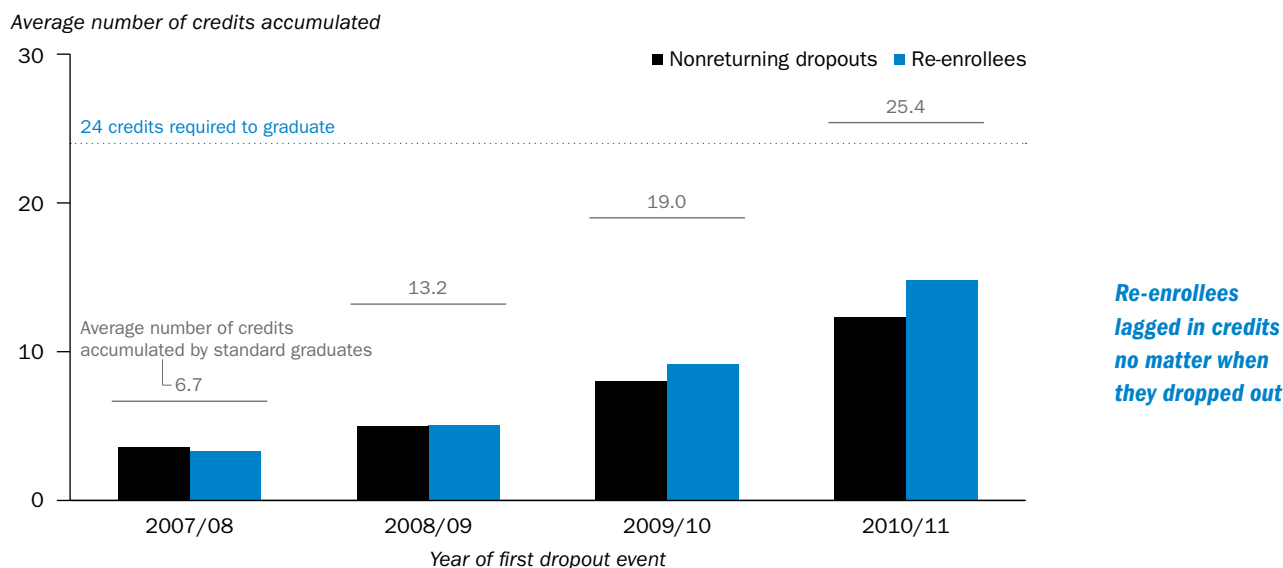
**Note:** There were 31,010 standard graduates and 7,742 dropouts in the 2011 graduating cohort. Students who dropped out for the first time in 2007/08 are not displayed but accumulated an average of 3–4 credits. Credit accumulation is calculated up to the year students first dropped out. For each school year the null hypothesis that all the means are equal was rejected at  $p < .01$ . Post hoc tests testing each pairwise comparison found all pairs of means to be significantly different at  $p < .01$  (see appendix A for details about the methodology and table B4 in appendix B for population sizes, average number of credits accumulated, and standard errors).

**Source:** Authors' analysis of Utah State Office of Education data for 2007/08–2010/11.

dropout event. Among students who dropped out for the first time in 2007/08, re-enrollees had accumulated an average of 3.3 credits before they dropped out, and nonreturning dropouts had accumulated an average of 3.6 credits. Among students who dropped out for the first time in 2008/09, re-enrollees had accumulated an average of 5.1 credits before they dropped out, and nonreturning dropouts had accumulated an average of 5.0 credits (figure 5). However, the difference in average course credits between re-enrollees and nonreturning dropouts during those two years was not statistically significant.

Among students who dropped out for the first time during the last two years of high school, re-enrollees had earned more course credits by the first dropout event than nonreturning dropouts. Among students who dropped out for the first time in 2009/10, re-enrollees had accumulated an average of 9.2 credits before they dropped out, and nonreturning dropouts had accumulated an average of 8.0 credits. Among students who dropped out for the first time in 2010/11, re-enrollees had accumulated an average of 14.8 credits before they dropped out, and nonreturning graduates had accumulated an average of 12.3 credits. Re-enrollees as a group remained largely deficient in credits accumulated compared with standard graduates, with a gap of about 10 credits during the last two years of high school. This gap made graduating within the standard four-year time period of high school out of reach for most re-enrollees.

**Figure 5. On average, re-enrollees in the 2011 Utah high school graduating cohort who dropped out for the first time during the last two years of high school had accumulated more credits than nonreturning dropouts had but remained deficient in credits needed to graduate**



**Note:** The average number of credits accumulated includes courses taken with a passing grade up to the end of the school year of the first dropout event. There were 31,010 standard graduates, 6,060 nonreturning dropouts, and 1,682 re-enrollees in the 2011 graduating cohort. Among students who dropped out during the first two years of high school (2007/08 or 2008/09) the difference in the average number of credits accumulated between re-enrollees and nonreturning dropouts was not significant, but among students who dropped out during the last two years of high school (2009/10 or 2010/11) the average number of credits accumulated was significantly higher among re-enrollees than among nonreturning dropouts at  $p < .01$ . See appendix A for details about the methodology and table B5 in appendix B for population size, average course credits, and standard errors for each year.

**Source:** Authors' analysis of Utah State Office of Education data for 2007/08–2010/11.

*On average, even after returning to school, re-enrollees did not accumulate enough credits to graduate on time.* On average, re-enrollees accumulated 11.6 credits by 2011, well short of the 24 credits needed to graduate (see table B6 in appendix B).

Re-enrollees lagged in credits no matter when they dropped out. While re-enrollees who dropped out for the first time in 2007/08—the first year of high school for the cohort—and re-enrollees who dropped out for the first time in 2010/11—the final year of high school for the cohort—accumulated more credits (13.1 and 14.8) than did re-enrollees who dropped out for the first time in 2008/09 or 2009/10 (9.5 and 11.4), all re-enrollees were, on average, far from reaching the 24 credits needed to graduate by 2011 (figure 6).

#### Four- and six-year high school completion outcomes of re-enrollees

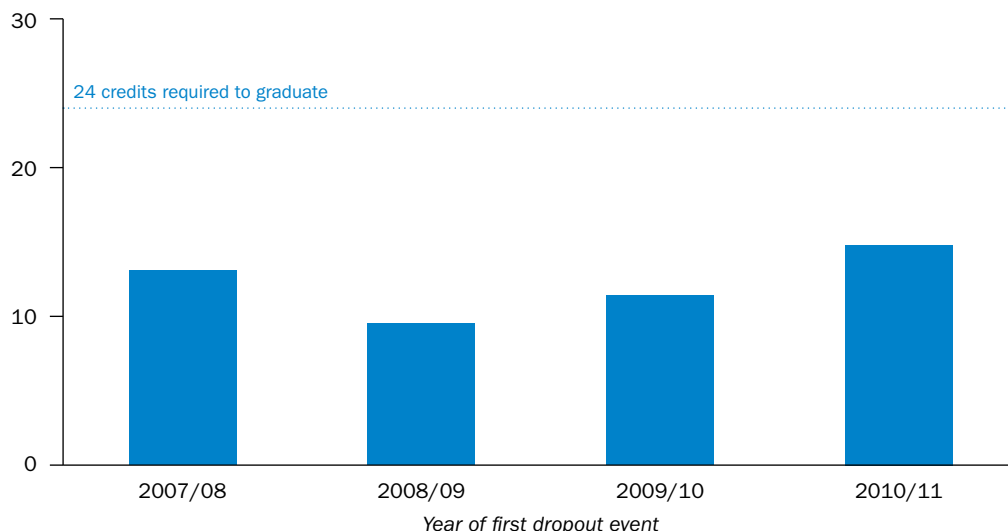
Seventy-six percent of the 2011 graduating cohort graduated within four years. Remaining students in the cohort were classified as cohort dropouts (21 percent), other completers (1 percent), or continuing students (2 percent; see table B8 in appendix B).

*A quarter of students who had dropped out and re-enrolled within four years of starting high school graduated in 2011, and two-thirds dropped out again.* Four years after



**Figure 6. On average, by the end of 2010/11 re-enrollees in the 2011 Utah high school graduating cohort had not accumulated enough credits to graduate, regardless of the year they first dropped out**

Average number of credits accumulated



**Regardless of when re-enrollees first dropped out, they were, on average, far from reaching the 24 credits needed to graduate by 2011**

**Note:** Course completion information was available for 1,678 re-enrollees. The null hypothesis that all the means are equal was rejected at  $p < .01$ . Post hoc tests testing each pairwise comparison found all pairs of means to be significantly different at  $p < .05$  except for the difference in the average number of credits accumulated between students who dropped out for the first time in 2007/08 and students who dropped out for the first time in 2010/11. See table B6 in appendix B for population size and average course credits; see table B7 in appendix B for  $p$ -values for multiple comparisons.

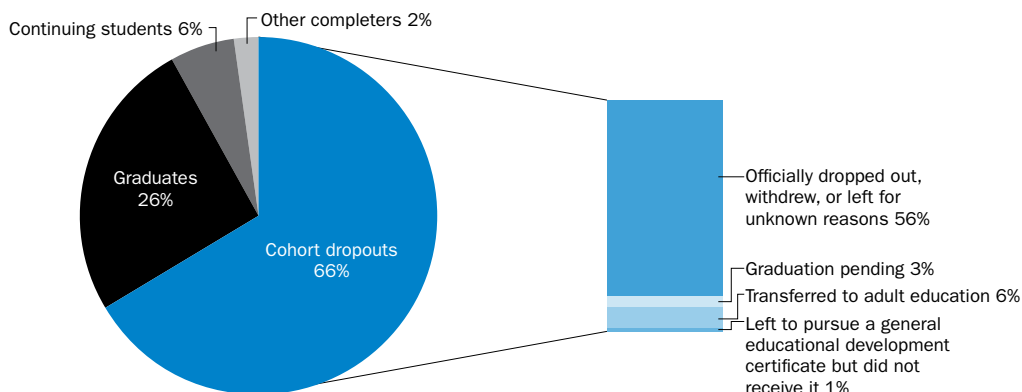
**Source:** Authors' analysis of Utah State Office of Education data for 2007/08–2010/11.

starting high school, 26 percent of re-enrollees had accumulated enough credits to graduate on time, but 66 percent had dropped out again. All other re-enrollees were either continuing students (6 percent) or other completers (2 percent; figure 7).

Among re-enrollees in the 2011 graduating cohort classified as cohort dropouts in 2011, 56 percent were classified as cohort dropouts because they officially dropped out, withdrew, or left for unknown reasons, 3 percent because they had their graduation pending the completion of required credits but were not enrolled in school the following year to complete those credits, 6 percent because they transferred to a state-operated adult education program, and 1 percent because they left school to pursue a general educational development certificate but did not receive it.<sup>1</sup>

**The graduation rate was 26 percent among dropouts who re-enrolled by 2011 and 30 percent among dropouts who re-enrolled by 2013.** Extending the period of analysis by two years for the 2011 graduating cohort showed that 326 additional students graduated by 2013. As a result, the high school graduation rate increased about 1 percentage point, to 77 percent (see table B8 in appendix B). For re-enrollees the additional two years increased the graduation rate 4 percentage points to 30 percent (figure 8), but the percentage of re-enrollees classified as continuing students (7 percent) or other completers (3 percent) varied less than 1 percentage point.

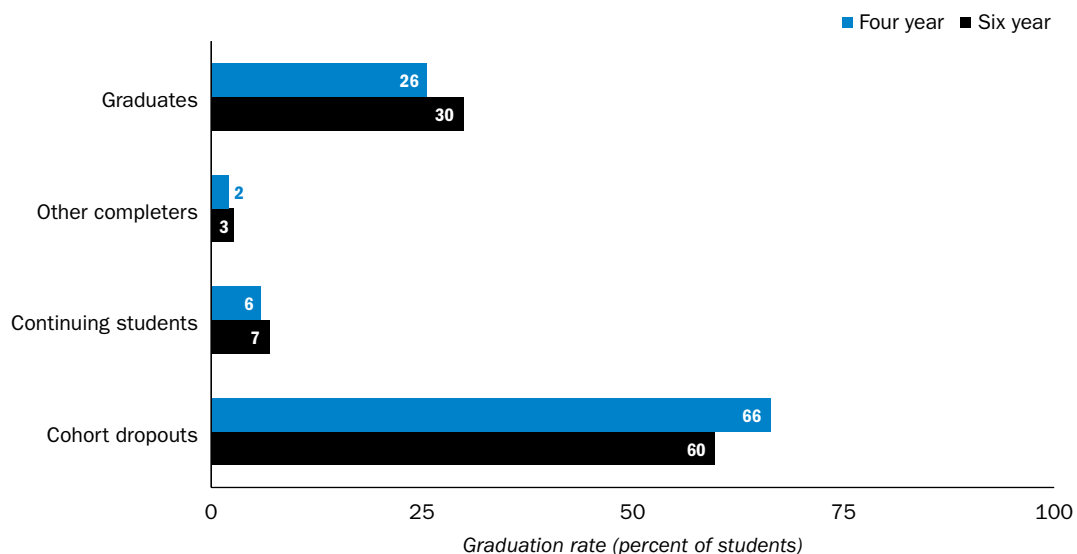
**Figure 7. About a quarter of the 2011 Utah high school graduating cohort who had left school but re-enrolled by the end of 2011 graduated on time, and two-thirds dropped out again**



**Note:** In the 2011 graduating cohort there were 1,682 dropouts who re-enrolled by 2011. Students who were suspended or expelled ( $n < 10$ ) are included with students who officially dropped out, withdrew, or left for unknown reasons. See table B9 in appendix B for frequencies. Cohort dropouts include students who left to pursue a general educational development certificate but did not receive it by the following September 30; other completers are students who left and completed a general educational development certificate by September 30.

**Source:** Authors' analysis of Utah State Office of Education data for 2007/08–2010/11.

**Figure 8. The six-year graduation rate for re-enrollees in the 2011 Utah high school graduating cohort was 30 percent, 4 percentage points higher than the four-year graduation rate for re-enrollees**



**Note:** In the 2011 graduating cohort there were 1,682 dropouts who re-enrolled by 2011 and 2,026 dropouts who re-enrolled by 2013. Students who were suspended or expelled ( $n < 10$ ) are included as dropouts. Excludes 17 students who transferred out of the Utah public school system by 2013. See table B9 in appendix B for frequencies.

**Source:** Authors' analysis of Utah State Office of Education data for 2007/08–2012/13.

The majority of the 60 percent of re-enrollees classified as cohort dropouts in 2013—about a 6 percentage point decrease from 2011—left school by dropping out (see table B9 in appendix B). Despite the extended high school timeframe, the percentage of re-enrollees who transferred to a state-operated adult education program (6 percent), whose graduation was pending the completion of required course credits but were not enrolled the following school year (3 percent), and who pursued a general educational development certificate (1 percent) did not change from 2011.

### **Implications of the study findings**

More research is needed to better identify potential dropouts and to develop effective approaches to prevent students from leaving school without a diploma. Further, the extensive research on dropout issues is limited when it comes to dropouts who return to high school. This study helps fill that information gap by providing educators and policymakers with state-level information about which student groups have a high dropout rate and a low re-enrollment rate and are thus at greater risk of dropping out of high school and not returning. It also explores how well dropouts who return to school fare at graduating on time with their cohort or in an extended six-year timeframe. It shows that only about a quarter of dropouts who re-enroll graduate in four years and that the majority of re-enrollees do not accumulate the credits needed to graduate.

This information can be used to help focus school and state planning to increase the number of dropouts who return to school and to then get re-enrollees on track to graduate through interventions such as individualized graduation plans, alternative pathways to earning a diploma, and other promising re-engagement strategies (Reyna, 2011). This study contributes evidence to the policy conversation about the potential value of reporting six-year graduation rates in addition to four-year graduation rates as a more complete way to document student enrollment trajectories and outcomes of dropouts who return to school by including students who take longer than the conventional timeframe to graduate from high school. It also lays the groundwork for further investigation into re-enrollees that may inform policies and practices to better support students at risk of not graduating.

Among the questions prompted by this study are how students become so deficient in credits that graduating on time is beyond their reach and why most re-enrollees do not accumulate the credits needed to graduate, even when the high school timeframe is extended by two years. Previous studies have cited credit deficiency and the number of core courses failed as risk factors for dropping out, but further investigation is needed to understand the relationship between the rate at which re-enrollees accumulate credits (both before dropping out and after re-enrolling) and their high school outcomes.

More information is also needed about which courses re-enrollees pass or fail. Existing research shows that students fall off track for graduation when they fail to earn credits in math and English courses, especially in grades 9 and 10 (Rumberger, 2011). It is unclear whether re-enrollees make up those gateway courses after returning to school or whether their inability to catch up is related to failing other courses and, in turn, giving up on school.

To obtain a more complete understanding of the high school outcomes of re-enrollees, information is needed about interventions currently provided for them. Seventy percent of

***This study contributes evidence to the policy conversation about the value of reporting six-year graduation rates in addition to four-year graduation rates as a more complete way to document student enrollment trajectories and outcomes of dropouts who return to school***

re-enrollees in the 2011 Utah graduating cohort did not graduate within four or six years. Little is known about whether those nongraduates received interventions and, if so, what the nature of those interventions was, whether the interventions led to better high school outcomes for those who received them, and what new learning options might better help dropouts return.

Nationally, graduation rates are rising, and the graduation rate gaps for racial/ethnic minority students and other student groups with historically high dropout rates are closing (U.S. Department of Education, 2015). But there is no comparative longitudinal information about how well re-enrollees are faring. Whether their dropout and graduation rates have improved over time remains virtually unexamined. To help stakeholders better understand these outcomes, school, state, and national data could identify re-enrollees and report the number of diplomas they earn.

### **Limitations of the study**

The findings exclude students who transfer out of the Utah State Office of Education system or students who are enrolled in private schools or being home-schooled because those students are outside the state data system.

With the exception of the analysis in the last research question, re-enrollees included only students who dropped out and re-enrolled during the first four years of high school. The last research question extends the analysis by two years and includes students who may have re-enrolled in 2011/12 or 2012/13, but it does not include data after 2012/13.

In terms of credit accumulation, the data presented include courses taken with a passing grade up to the end of the school year of the first dropout event. In the absence of exact dates for those courses, it is possible that some credits were accumulated after students re-enrolled during the same school year of the dropout event.

While the high school outcomes by student demographic characteristics for the whole cohort are available on the Utah State Office of Education website, some related analyses of interest, such as an examination of high school outcomes by student demographic characteristics specifically for re-enrollees, were not pursued because of small cell sizes.

Finally, this analysis examines only a single cohort. Using multiple cohorts would bolster conclusions about whether the findings could be generalized.

***To help stakeholders better understand whether dropout and graduation rates have improved over time, school, state, and national data could identify re-enrollees and report the number of diplomas they earn***

## Appendix A. Data and methodology

This appendix describes the data and methodology used in the report.

### Data

This study used linked longitudinal student-level data on the enrollment, characteristics, courses, and outcomes of the 41,496 students in the 2011 graduating cohort (the group of students who were expected to graduate in 2011 within four years of entering high school or, following federal reporting standards for graduation and dropout rates, all students who started grade 9 for the first time in 2007/08 plus students who subsequently transferred into the cohort and minus students who subsequently transferred out) extracted from the Utah State Office of Education longitudinal data system.

Data were linked across students using unique statewide student identifiers and included:

- Demographic characteristics: age, gender, race/ethnicity, eligibility for the federal school lunch program (a proxy for low-income household status), English learner status, and disability status.
- High school outcome group: graduates, other completers, continuing students, and cohort dropouts.
- Enrollment records and exit codes: enrollment status for 2007/08–2012/13.
- Course-level data: all courses that each student took at state high schools during 2007/08–2012/13, including credits attempted and accumulated.

Students were classified based on their four-year high school completion outcomes and on whether they dropped out at any point during the period of study.

**High school outcome groups.** The Utah State Office of Education assigns a four-year high school completion code to each student in its data system. The codes classify students into one of four high school outcome groups (table A1):

- *Graduates.* Students who received the state’s basic high school diploma or an adult education secondary diploma based on completion of class-time requirements with a passing grade.
- *Other completers.* Students who did not receive the state’s regular high school diploma but completed high school through an alternative certificate or pathway—such as a general educational development certificate while in high school, a Utah high school completion diploma (which is earned by passing the five general educational development tests in an adult education program), a Certificate of Completion, or a high school diploma earned by students with disabilities who participated in the Utah Alternate Assessment (the state’s criterion-referenced test individualized for students with significant cognitive disabilities—and students who aged out of special education at age 22).
- *Continuing students.* Students who remained enrolled in school after the “on-time” part of their cohort graduated, including students with disabilities (some of whom were eligible to be continuously enrolled until age 22 if additional time in school was indicated in their individualized education program) and students who transferred to higher education or the Utah College of Applied Technology without receiving a high school diploma.

**Table A1. Utah State Office of Education high school completion codes, description, and outcome group, 2012**

Code	Description	High school outcome group
GR	Basic high school diploma	Graduates
GC	Adult education secondary diploma	Graduates
G1	Basic high school diploma, 3 or more attempts to pass Utah Basic Skills Competency Test	Graduates
G2	Basic high school diploma, 1 or 2 attempts to pass Utah Basic Skills Competency Test	Graduates
CT	Certificate of completion	Other completers
GG	Utah high school completion diploma	Other completers
G3	Basic high school diploma—assessment thru Utah Alternative Assessment	Other completers
AO	Aged out of special education	Other completers
RT	Retained senior	Continuing students
UC	Transferred to Utah College of Applied Technology	Continuing students
UN	Unknown	Cohort dropouts
DO	Dropout	Cohort dropouts
GP	Graduation pending	Cohort dropouts
AE	Transferred to adult education	Cohort dropouts
GE	General educational development certificate	Cohort dropouts
WD	Withdraw	Cohort dropouts
EX	Expelled	Cohort dropouts
SU	Suspended	Cohort dropouts

Source: Utah State Office of Education enrollment data.

- *Cohort dropouts.* Students who officially dropped, withdrew without requesting a transcript for re-enrollment elsewhere, left for unknown reasons, were expelled, were still enrolled in school pending completion of graduation requirements over the summer but were not enrolled the following school year, transferred to a state-operated adult education program, and those who left to pursue a general educational development certificate.<sup>2</sup>

**Graduate and dropout groups.** Students in the 2011 cohort were classified into three broad categories—based on their final high school outcomes and on whether they dropped out at any point during the four years of the study. The groups are defined as follows:

- *Standard graduates.* Students who earned a regular high school diploma from a Utah public school within four years of starting grade 9 in 2007/08, without any interruption in enrollment, dropout event, or transfer outside of the school system. The study distinguishes between standard graduates and all high school graduates. The latter category includes dropouts and other students who experienced an interruption in their enrollment but nonetheless graduated from a Utah public school within the study timeframe. All standard graduates are classified into the “graduates” high school outcome group.
- *Dropouts.* Students in the 2011 graduating cohort whose first exit from a Utah public school within four years of starting grade 9 in 2007/08 was a dropout event. Utah students are coded as dropouts when their enrollment records show 10 or more consecutive unexcused absences and when they cannot be accounted for by

any other exit code. Dropouts are also defined as any of the following, according to guidelines established by the National Governors Association (2005):

- High school students who officially withdrew from school before graduating but were not known to have been in an education program that led to a high school diploma or its equivalent but have not died.
- High school students who did not formally withdraw from school before graduating but were under the compulsory school attendance age of 18 and stopped attending school and could not be located.
- High school students who reported transferring to another district without having their transcripts sent to the receiving district and were not known to be in an education program that led to a high school diploma or equivalent.

Using the longitudinal data that tracks every enrollment record for all students in Utah public schools, the study team further classified dropouts as either re-enrollees or nonreturning dropouts based on whether they eventually re-enrolled to a Utah public high school—not necessarily the same school they left—by the end of 2010/11:

- Re-enrollees. High school dropouts who re-enrolled in a Utah public school by the end of 2010/11. Re-enrollees could be classified into any of the four high school outcomes groups.
- Nonreturning dropouts. High school dropouts who did not re-enroll in a Utah public school by the end of 2010/11. All nonreturning dropouts were classified into the “cohort dropouts” high school outcome group.
- *Nongraduates who never dropped out.* Students who never dropped out but did not receive a regular high school diploma by 2011. This category includes students who earned an alternative high school completion certificate before either dropping out or graduating, students who were continuously enrolled in Utah high schools from 2007/08 to 2010/11 without dropping out or graduating and were still enrolled in 2011, and students who transferred out of Utah public schools before graduating or dropping out and re-entered the cohort by 2011.<sup>3</sup> All nongraduates who never dropped out were classified into either the “other completers” or “continuing students” high school outcome groups.

## Methodology

This study describes the dropout and re-enrollment rates of all Utah public high school students in the 2011 graduating cohort. To allow inferences for other cohorts about the comparisons in the report, all group differences were tested for statistical significance.<sup>4</sup> All differences discussed in the report are statistically significant at  $p < .05$ , unless otherwise noted.

The equality of dropout and re-enrollment rates for each demographic characteristic (see figure 3 in the main report) was tested for statistical significance using a Pearson’s chi-square test for independence.

For rates by race/ethnicity, a category that included more than two subgroups, follow-up post hoc tests were run to discover which pairs of cells were significantly different. P-values were reported raw and, to control the familywise error rate, with Bonferroni stepdown (Holm, 1979) and bootstrap stepdown (Westfall & Young, 1993) corrections for multiple comparisons; they are reported in table B4 in appendix B.<sup>5</sup>

Differences in average course credits within a school year (see figure 4 in the main text) between standard graduates and the different dropout subgroups (2007/08 dropouts, 2008/09 dropouts, 2009/10 dropouts, and 2010/11 dropouts) were tested for statistical significance using a one-way analysis of variance.<sup>6</sup> Follow-up post hoc tests using a Tukey-Kramer test were used to test each pairwise comparison (Kramer, 1956). (See table B5 in appendix B for population sizes, average number of credits accumulated, and standard errors.)

Comparisons of average number of credits accumulated between re-enrollees and nonreturning dropouts for each year of analysis (see figure 5 in the main text) were tested for statistical significance using two-tailed Student's *t*-tests. (See appendix B table B5 for population size, average course credits, and standard errors for each year.)

Differences in average number of credits accumulated by 2011 among re-enrollees by year of first dropout event (see figure 6 in the main text) were tested for statistical significance using a one-way analysis of variance. (See table B6 in appendix B for population sizes, average credits, and standard errors.) Follow-up post hoc tests using a Tukey-Kramer test were used to test each pairwise comparison. (See table B7 in appendix B for adjusted *p*-values for each pairwise comparison.)

According to Utah State Office of Education convention, no cell sizes of fewer than 10 students were reported; rates for categories with fewer than 20 students dropping out or re-enrolling were also not reported in the study's figures.



## Appendix B. Frequency tables for the 2011 Utah public high school graduating cohort

Appendix B comprises tables presenting frequencies and other analysis results.

**Table B1. Number and percentage of students in the 2011 Utah high school graduating cohort with at least one dropout event by 2011, by student demographic characteristic**

Student demographic characteristic	All cohort		Dropouts (number)	Dropout rate (percent)
	Number	Percent		
All cohort	41,496	100.0	7,742	18.7
<b>Age as of September 2007**</b>				
14 or younger	38,185	92.0	6,818	17.9
15 or older	3,311	8.0	924	27.9
<b>Gender**</b>				
Female	19,975	48.1	3,479	17.4
Male	21,521	51.9	4,263	19.8
<b>Race/ethnicity**</b>				
White	32,258	77.7	4,734	14.7
Hispanic	6,005	14.5	2,139	35.6
Asian	920	2.2	201	21.8
Pacific Islander	704	1.7	184	26.1
American Indian/Alaska Native	693	1.7	232	33.5
Black	608	1.5	185	30.4
Multiracial	280	0.7	40	14.3
<b>Low-income household status**</b>				
Students not from low-income households	29,471	71.0	4,480	15.2
Students from low-income households	12,025	29.0	3,262	27.1
<b>English learner status**<sup>a</sup></b>				
English proficient	39,486	95.4	6,852	17.4
English learner	1,886	4.6	853	45.2
<b>Special education status**</b>				
General education students	37,529	90.4	6,810	18.1
Students with disabilities	3,967	9.6	932	23.5

\*\* Significant at  $p < .01$ .

**Note:** Values are not presented for categories with fewer than 20 dropouts. The equality of dropout rates across groups for each characteristic was tested using an omnibus Pearson's chi-square test for independence.

**a.** English learner status was missing for 124 students.

**Source:** Authors' analysis of Utah State Office of Education data for years 2007/08–2010/11.

**Table B2. Number and percentage of students in the 2011 Utah high school graduating cohort who dropped out and re-enrolled by 2011, by student demographic characteristic**

Student demographic characteristic	All dropouts	Re-enrollees	Re-enrollment rate (percent)
All dropouts	7,742	1,682	21.7
<b>Age as of September 2007**</b>			
14 or younger	6,818	1,512	22.2
15 or older	924	170	18.4
<b>Gender*</b>			
Female	3,479	800	23.0
Male	4,263	882	20.7
<b>Race/ethnicity**</b>			
White	4,734	1,045	22.1
Hispanic	2,139	475	22.2
Asian	201	28	13.9
Pacific Islander	184	26	14.1
American Indian/Alaska Native	232	53	22.8
Black	185	34	18.4
Multiracial	40	a	a
Unknown	27	a	a
<b>Low-income household status**</b>			
Students not from low-income households	4,480	894	20.0
Students from low-income households	3,262	788	24.2
<b>English learner status**<sup>b</sup></b>			
English proficient	853	144	16.9
English learner	6,852	1,531	22.3
<b>Special education status**</b>			
General education students	6,810	1,443	21.2
Students with disabilities	932	239	25.6

\* Significant at  $p < .05$ ; \*\* significant at  $p < .01$ .

**Note:** The equality of re-enrollment rates across groups for each characteristic was tested using an omnibus Pearson's chi-square test for independence.

**a.** Value is suppressed because the cell size or cell size used to calculate the value is less than 10.

**b.** English learner status was missing for 37 students.

**Source:** Authors' analysis of Utah State Office of Education data for 2007/08–2010/11.

**Table B3. Raw *p*-values and *p*-values corrected for multiple testing for dropout and re-enrollment rates by 2011 among the 2011 Utah high school graduating cohort, by race/ethnicity**

Comparison	Raw <i>p</i> -value	Corrected <i>p</i> -value	
		Stepdown Bonferroni	Stepdown Bootstrap
<b>Dropout rates</b>			
White vs. Pacific Islander	< .0001	< .0001	< .0001
White vs. Black	< .0001	< .0001	< .0001
White vs. American Indian/Alaska Native	< .0001	< .0001	< .0001
White vs. Hispanic	< .0001	< .0001	< .0001
White vs. Asian	< .0001	< .0001	< .0001
Asian vs. Hispanic	< .0001	< .0001	< .0001
Asian vs. American Indian/Alaska Native	< .0001	< .0001	< .0001
Asian vs. Black	.0002	.0013	.0010
Asian vs. Pacific Islander	.0455	.1819	.1407
Hispanic vs. American Indian/Alaska Native	.2755	.5161	.3771
Hispanic vs. Black	.0110	.0551	.0422
Hispanic vs. Pacific Islander	< .0001	< .0001	< .0001
American Indian/Alaska Native vs. Black	.2580	.5161	.3771
American Indian/Alaska Native vs. Pacific Islander	.0028	.0171	.0130
Pacific Islander vs. Black	.0852	.2557	.1902
<b>Re-enrollment rates</b>			
White vs. Pacific Islander	.0105	.1366	.0730
White vs. Black	.2768	1.0000	.7647
White vs. American Indian/Alaska Native	.8079	1.0000	.9899
White vs. Hispanic	.9001	1.0000	.9899
White vs. Asian	.0051	.0767	.0413
Asian vs. Hispanic	.0053	.0767	.0415
Asian vs. American Indian/Alaska Native	.0191	.2096	.1161
Asian vs. Black	.2677	1.0000	.7647
Asian vs. Pacific Islander	1.0000	1.0000	1.0000
Hispanic vs. American Indian/Alaska Native	.8037	1.0000	.9888
Hispanic vs. Black	.2659	1.0000	.7647
Hispanic vs. Pacific Islander	.0114	.1366	.0752
American Indian/Alaska Native vs. Black	.2775	1.0000	.7647
American Indian/Alaska Native vs. Pacific Islander	.0320	.3197	.1704
Pacific Islander vs. Black	.3235	1.0000	.7647

**Note:** Rates were not presented or tested for categories with fewer than 20 dropouts or re-enrollees. See table B2 for population sizes.

**Source:** Authors' analysis of Utah State Office of Education data for 2007/08–2010/11.

**Table B4. Average number of credits accumulated each year among dropouts and standard graduates in the 2011 Utah high school graduating cohort**

Year and student group	Number of students with credit information	Average number of course credits accumulated	Standard error
<b>2007/08**</b>			
2007/08 dropouts	957	3.41	0.10
2008/09 dropouts	1,180	4.00	0.09
2009/10 dropouts	1,604	4.56	0.08
2010/11 dropouts	2,545	4.95	0.06
Standard graduates	29,123	6.67	0.02
<b>2008/09**</b>			
2008/09 dropouts	1,415	5.08	0.11
2009/10 dropouts	1,795	7.55	0.10
2010/11 dropouts	2,720	8.79	0.08
Standard graduates	29,972	13.18	0.02
<b>2009/10**</b>			
2009/10 dropouts	2,068	8.31	0.12
2010/11 dropouts	2,881	11.57	0.10
Standard graduates	30,553	19.04	0.03
<b>2010/11**</b>			
2010/11 dropouts	3,129	12.39	0.11
Standard graduates	30,854	25.37	0.04

\*\* Significant at  $p < .01$ .

**Note:** Differences in the average number of course credits each year among the different student subgroups (standard graduates, 2007/08 dropouts, 2008/09 dropouts, 2009/10 dropouts, and 2010/11 dropouts) were tested for statistical significance using a one-way analysis of variance. For each school year the null hypothesis that all the means are equal was rejected at  $p < .01$ . Follow-up post hoc tests using a Tukey-Kramer test were used to test each pairwise comparison, and all pairs of means were found to be significantly different at  $p < .01$ .

**Source:** Authors' analysis of Utah State Office of Education data for 2007/08–2010/11.

**Table B5. Average number of credits accumulated each year among nonreturning dropouts and re-enrollees in the 2011 Utah high school graduating cohort**

Year and student group	Number of students	Average number of credits accumulated	Standard error
2007/08			
Nonreturning dropouts	496	3.6	0.31
Re-enrollees	461	3.3	0.21
Difference	na	0.3	0.39
2008/09			
Nonreturning dropouts	871	5.0	0.14
Re-enrollees	544	5.1	0.17
Difference	na	-0.1	0.23
2009/10			
Nonreturning dropouts	1,560	8.0	0.15
Re-enrollees	508	9.2	0.24
Difference**	na	-1.1	0.30
2010/11			
Nonreturning dropouts	2,964	12.3	0.14
Re-enrollees	165	14.8	0.53
Difference**	na	-2.6	0.59

\*\* Significant at  $p < .01$ .

na is not applicable.

**Note:** Credit accumulation information was missing for 4 re-enrollees and 169 nonreturning dropouts. Differences in the average number of credits accumulated between nonreturning dropouts and re-enrollees each year were tested for statistical significance using two-tailed Student's *t*-tests.

**Source:** Authors' analysis of Utah State Office of Education data for 2007/08–2010/11.

**Table B6. Average number of credits accumulated by 2011 among re-enrollees in the 2011 Utah public high school graduating cohort, by year of first dropout event**

Year of first dropout event	Number of re-enrollees	Average number of credits accumulated by 2011	Standard error
2007/08	461	13.1	0.41
2008/09	544	9.5	0.38
2009/10	508	11.4	0.39
2010/11	165	14.8	0.68
All re-enrollees	1,678	11.6	0.22

**Note:** Credit accumulation information was missing for four re-enrollees. Differences in average number of credits accumulated by 2011 by year of first dropout event were tested for statistical significance using a one-way analysis of variance. The null hypothesis that all the means are equal was rejected at  $p < .01$ . Follow-up post hoc tests using a Tukey-Kramer test were used to test each pairwise comparison; results are presented in table B8.

**Source:** Authors' analysis of Utah State Office of Education data for 2007/08–2010/11.

**Table B7. P-values corrected for multiple testing of re-enrollees in the 2011 Utah high school graduating cohort for average number of credits accumulated by 2011, by years of first dropout event being compared**

Years of first dropout event being compared	P-values adjusted for multiple comparisons (Tukey-Kramer)
2007/08 and 2008/09	< .0001
2007/08 and 2009/10	.0106
2007/08 and 2010/11	.1398
2008/09 and 2009/10	.0033
2008/09 and 2010/11	< .0001
2009/10 and 2010/11	< .0001

Source: Authors' analysis of Utah State Office of Education data for 2007/08–2010/11.

**Table B8. Number and percentage of students in the 2011 Utah high school graduating cohort, by four- and six-year high school completion outcomes**

High school completion outcome	Four year		Six year	
	Number of students (n = 41,496)	Percentage of students	Number of students (n = 41,496)	Percentage of students
Graduates	31,441	75.8	31,767	76.6
Other completers	384	0.9	426	1.0
Continuing students	865	2.1	581	1.4
Cohort dropouts	8,806	21.2	8,685	20.9
Officially dropped out, withdrew, or left for unknown reasons	7,026	16.9	6,941	16.7
Graduation pending	841	2.0	788	1.9
Transferred to adult education	776	1.9	786	1.9
Left to pursue a general educational development certificate	163	0.4	170	0.4
Transferred out of Utah public schools	na	na	37	0.1

na is not applicable because students who transferred out of Utah public schools by 2011 are by definition not part of the 2011 graduating cohort.

Note: Students whose final four- or six-year high school completion outcome was suspended or expelled (n < 30) are included as dropouts.

Source: Authors' analysis of Utah State Office of Education data for 2007/08–2012/13.

**Table B9. Number and percentage of re-enrollees in the 2011 Utah high school graduating cohort, by four- and six-year high school completion outcomes**

High school completion outcome	Four year		Six year	
	Number of re-enrollees (n = 1,682)	Percentage of re-enrollees	Number of re-enrollees (n = 2,026)	Percentage of re-enrollees
Graduates	431	25.6	605	29.9
Other completers	35	2.1	55	2.7
Continuing students	99	5.9	139	6.9
Cohort dropouts	1,117	66.4	1,210	59.7
Officially dropped out, withdrew, or left for unknown reasons	947	56.3	1,012	50.0
Graduation pending	53	3.2	63	3.1
Transferred to adult education	102	6.1	115	5.7
Left to pursue a general educational development certificate	15	0.9	20	1.0
Transferred out of Utah public schools	na	na	17	0.8

na is not applicable because students who transferred out of Utah public schools by 2011 are by definition not part of the 2011 graduating cohort.

**Note:** Students whose final four- or six-year high school completion outcome was suspended or expelled (n < 10) are included as dropouts.

**Source:** Authors' analysis of Utah State Office of Education data for 2007/08–2012/13.

## Notes

1. Students who left to pursue a general educational development certificate but did not receive it by the following September 30 were classified as cohort dropouts; students who left and completed it by then were classified as other completers.
2. Students who left to pursue a general educational development certificate but did not receive it by the following September 30 were classified as cohort dropouts; students who left and completed it by then were classified as other completers.
3. Students who transferred out of the 2011 graduating cohort and did not re-enter were by definition not included in the cohort.
4. The data analysis for this report was generated using SAS/STAT software, Version 9.4 for Windows. Copyright © 2015 SAS Institute Inc. SAS and all other SAS Institute Inc. product or service names are registered trademarks or trademarks of SAS Institute Inc., Cary, NC, USA.
5. Corrections for multiple comparisons were calculated using the SAS/STAT software MULTTEST procedure.
6. One-way analysis of variance was used to test for differences among the students' group using SAS/STAT PROC GLM that can handle unbalanced data.



## References

- America's Promise Alliance. (2014). *Don't call them dropouts: Understanding the experiences of young people who leave high school before graduation*. Washington, DC: Author. <http://eric.ed.gov/?id=ED545308>
- Barrat, V., Berliner, B., & Fong, A. (2012). When dropping out is not a permanent school outcome: Student characteristics, motivations, and reenrollment challenges. *Journal of Education for Students Placed at Risk*, 17(4), 217–233. <http://eric.ed.gov/?id=EJ985170>
- Berliner, B., Barrat, V., Fong, A., & Shirk, P. (2008). *Reenrollment of high school dropouts in a large, urban school district* (REL 2008–056). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory West. <http://eric.ed.gov/?id=ED502274>
- Catterall, J. (2011). The societal benefits and costs of school dropout recovery. *Educational Research International* 2011(4), 1–8.
- Chuang, H. (1997). High school youths' dropout and re-enrollment behavior. *Economics of Education Review*, 16(2), 171–186. <http://eric.ed.gov/?id=EJ540870>
- Holm, S. (1979). A simple sequentially rejective Bonferroni test procedure. *Scandinavian Journal of Statistics*, 6(1), 65–70.
- Klein, A. (2015, March 16). Graduation gaps between white, minority students is narrowing but persistent. *Education Week*. Retrieved March 27, 2015, from [http://blogs.edweek.org/edweek/campaign-k-12/2015/03/graduation\\_gap\\_between\\_white\\_m.html](http://blogs.edweek.org/edweek/campaign-k-12/2015/03/graduation_gap_between_white_m.html).
- Kramer, C. (1956). Extension of multiple range tests to group means with unequal numbers of replications. *Biometrics*, 12(1), 307–310.
- Metzer, D. (1997, March). *When do high school dropouts return to education and why?* Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL. <http://eric.ed.gov/?id=ED411125>
- National Governors Association Task Force on State High School Graduation Data. (2005). *Graduation counts: A report of the National Governors Association Task Force on state high school graduation data*. Washington, DC: Author. Retrieved January 12, 2016, from <http://www.nga.org/cms/home/nga-center-for-best-practices/center-publications/page-edu-publications/col2-content/main-content-list/graduation-counts-a-report-of-th.html>.
- Orfield, G. (2004). *Dropouts in America: Confronting the graduation rate crisis*. Cambridge, MA: Harvard University Press.
- Reyna, R. (2011). *State policies to reengage dropouts*. Washington, DC: National Governors Association Center for Best Practices. Retrieved January 12, 2016, from <http://nga.org/files/live/sites/NGA/files/pdf/1107REENGAGEDROPOUTS.PDF>.

- Rumberger, R. (2011). *Dropping out: Why students drop out of high school and what can be done about it*. Cambridge, MA: Harvard University Press.
- U. S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. (2015). Common Core of Data. Public high school 4-year adjusted cohort graduation rate (ACGR), by race/ethnicity and selected demographics for the United States, the 50 states, and the District of Columbia: School year 2012–13. Retrieved March 27, 2015, from [http://nces.ed.gov/ccd/tables/ACGR\\_RE-characteristics\\_2012-13.xlsx](http://nces.ed.gov/ccd/tables/ACGR_RE-characteristics_2012-13.xlsx).
- Wayman, J. (2001). Factors influencing GED and diploma attainment of high school dropouts. *Education Policy Analysis*, 9(4), 1–19.
- Wayman, J. (2002). The utility of educational resilience for studying degree attainment in school dropouts. *Journal of Educational Research*, 95(3), 167–177.
- Westfall, P., & Young, S. (1993). *Resampling-based multiple testing*, New York, NY: John Wiley & Sons.
- Wilkins, J. (2011). *Reentry programs for out-of-school youth with disabilities: The need for a broad range of options*. Clemson, SC: National Dropout Prevention Center for Students with Disabilities, Clemson University.

## The Regional Educational Laboratory Program produces 7 types of reports



### **Making Connections**

Studies of correlational relationships



### **Making an Impact**

Studies of cause and effect



### **What's Happening**

Descriptions of policies, programs, implementation status, or data trends



### **What's Known**

Summaries of previous research



### **Stated Briefly**

Summaries of research findings for specific audiences



### **Applied Research Methods**

Research methods for educational settings



### **Tools**

Help for planning, gathering, analyzing, or reporting data or research