Dropping Out and Into Sight

Graduation and Dropout Rates for Colorado Students in Foster Care: 5-Year Trend Analysis (2007–08 to 2011–12)

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Office of Dropout Prevention and Engagement
Colorado Department of Education

Division of Child Welfare
Colorado Department of Human Services

[TREND STUDY]

The results from this study tell a compelling story: The majority of Colorado's students in foster care are not graduating from high school. These findings are best used to raise awareness about the dire educational realities of youth in foster care and to leverage support to help these students.

Supporting Organizations

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Colorado Department of Education
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Division of Child Welfare
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Data Sources

Out-of Home placement data are from the Colorado Trails Child Welfare application. The Colorado Department of Human Service, Division of Child Welfare has approved this publication. Educational data are from the Colorado Department of Education's Data Services Office.

Acknowledgments

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Graduation and Dropout Trends for Students in Foster Care

Colorado is among the first states to engage in the process of bringing the educational outcomes of youth in foster care into plain sight. These students have been described as a population with an "invisible achievement gap" because, as a group, they are not often identified in statewide educational datasets (Barrat & Berliner, 2013). A data use agreement between Colorado Department of Education (CDE) and Colorado Department of Human Services (CDHS) is making it possible to make more visible the achievement gap these students experience and raise awareness of their educational issues.

The purpose of this report is to provide a description of trends in graduation and dropout rates for Colorado students in foster care during the 2007–08 to 2011–12 fiscal years. These findings are then compared to statewide averages for students across demographic characteristics and unique populations. The trend findings coupled with the comparison data shed light on this population in Colorado and establish a foundation for setting benchmarks and targets for the coordinated efforts and responses.

Key Findings

- Fewer than 1 in 3 Colorado students who were in foster care during high school graduated within four years of entering 9th grade.
- Although the on-time graduation rate for Colorado students as a whole has steadily improved, the rates for students in foster care remained stable and well below their non-foster care peers.
- Approximately 1 in 11 students in foster care dropped out one or more times.
- Students in foster care dropped out earlier in their educational careers than did other unique populations.

The achievement gap between Colorado students as a whole and students in foster care widened over the five-year period. Even as the number of students in foster care who were reported as dropouts declined and the statewide graduation rates improved, the graduation rates for students in foster care

remained stable. The gap in on-time graduation rates between students in foster care and the state average increased from 39.7% (2007–08) to 46.7% (2011–12).

Closing achievement gaps is a priority for education leaders at the school, district, and state levels. Although data like these can help us understand that students in foster care[1] are not performing at the same level as students in other populations, more research is needed to guide the policy and practice for improving the educational supports for students in foster care.

Context for Understanding Results

Throughout this study, there are two different approaches to calculating educational outcomes for students in foster care.

- Some analyses are based on the youth being in foster care during a particular year.
- Other analyses are cohort based, indicating the youth was in foster care at some point during the grades 9–12.

Definition

The term "student in foster care" means that an individual has experienced an out-of-home placement[1] and has been enrolled in a Colorado public school during the time period or school year referenced. The out-of-home placement could be brief, such as a few days, or might occur across multiple years.

These distinctions have implications for understanding the results of this study as well as for comparing the findings to statewide results published by Colorado Department of Education. References are made throughout the report to the different approaches and guidance is provided on interpreting the findings.

It is important to note that the graduation and dropout rates for students in foster care reported in this study are not official Colorado Department of Education rates. Appendix A includes a detailed description of how rates were calculated for the purposes of this study.

[1] An out-of-home placement for students in foster care includes congregate care settings such as group homes, residential child care, detention and youth corrections, and psychiatric facilities; as well as family-like settings including foster care, certified and non-certified kinship; and even those youth in an Independent Living Arrangement.

Profile of Students in Foster Care: A Unique Population

The student profile of youth in foster care is distinct from other populations of students for whom graduation and dropout rates are regularly disaggregated. For the purposes of describing the unique characteristics of students in foster care, key demographic trends during the five-year period of 2007–08 to 2011–12 are presented. Additionally, comparisons are made to the general state population and existing categories of unique student populations (also known as Instructional Program Service Types).

Enrollment in Grades 7 through 12

The total number of youth in foster care[2] enrolled in grades 7 through 12 declined in Colorado over the five-year period investigated in this study (see table 1). During the 2007–08 school year, a total of 4,071 Colorado youth with an active foster care placement were enrolled in grades 7 through 12. During the 2011–12 school year, a total of 3,259 7th through 12th grade youth were in foster care.

The average enrollment by grade level is presented in figure 1. There were substantially fewer students in foster care enrolled in grades seven and eight than in grades nine through twelve. Enrollment peaked in grades nine and ten.

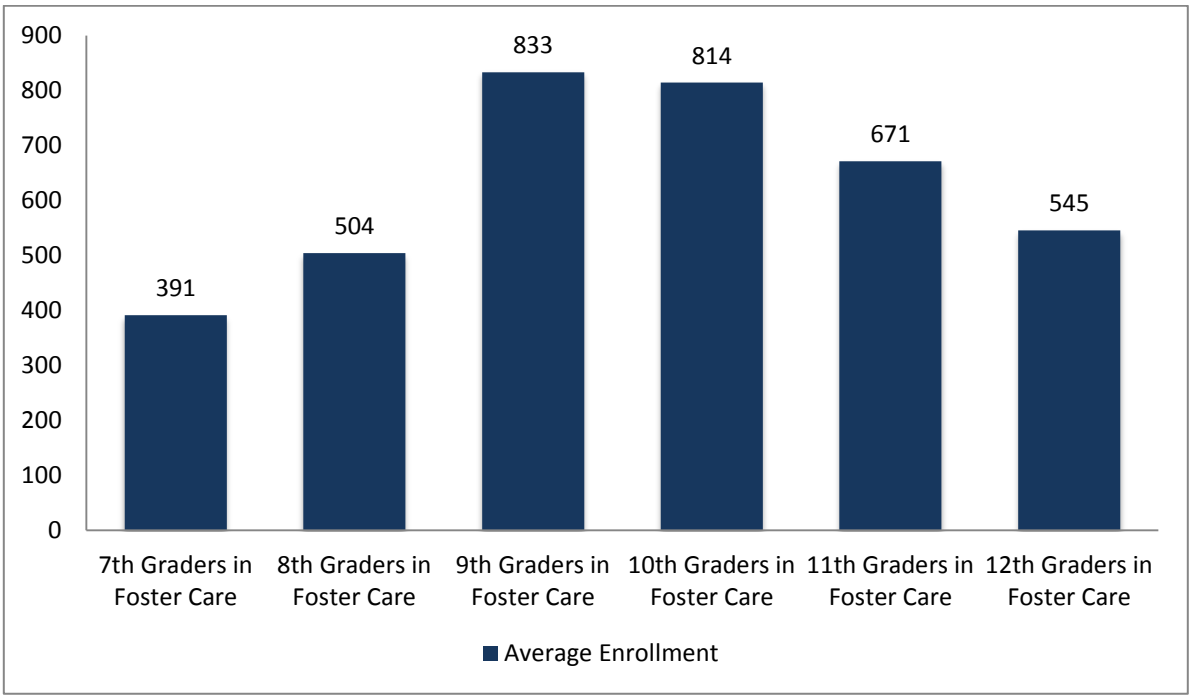
These findings can be contextualized by the trends in open welfare cases. Colorado Department of Human Services (2012) reported that during the 2008–12 fiscal years, there were substantially fewer open welfare cases for youth ages 11–13 than for youth ages 14–17. Thus, the finding of lower enrollment in grades seven and eight for students in foster care parallels open welfare case trends. The finding that enrollment peaks in grades nine and ten and then sharply declines in grades eleven and twelve may have practical relevance when considered in tandem with dropout rates by grade level patterns, which is presented later in this report.

[2]Calculations are based on those youth that had foster care records in the CDHS TRAILS system that could be matched to CDE's RITS system.

Table 1. Number of students by grade level and year.

	2007-08	2008-09	2009-10	2010-11	2011-12
7th Graders in Foster Care	464	414	400	366	310
8th Graders in Foster Care	584	527	520	453	434
9th Graders in Foster Care	1011	931	832	727	664
10th Graders in Foster Care	915	954	830	690	680
11th Graders in Foster Care	670	708	714	671	590
12th Graders in Foster Care	427	519	547	653	581
Total	**4071**	**4053**	**3843**	**3560**	**3259**

Figure 1. Average enrollment by grade (2007–08 to 2011–12).



Unique Populations

CDE analyzes graduation, completion, and dropout rates for unique populations of students. These populations are described by categories of services, or Instructional Program Service Types (IPST).

These IPST categories are helpful for understanding the profile of students in foster care. They are also needed for determining if youth in foster care are distinct from existing classifications of students.

The percentage of students in foster care who are identified as belonging to one or more of these Instructional Program Service Types provides context for graduation and dropout rates. There is evidence that students (in general) who are members of Instructional Program Service Types graduate and dropout at rates that differ from the statewide rates for all students.

Instructional Program Service Type (IPST)

IPST consist of seven categories:

- Students with Disabilities
- Limited English Proficient
- Economically Disadvantaged
- Migrant
- Title I
- Homeless
- Gifted and Talented

Educators disaggregate data based on these service types to understand outcomes for sub-groups of students.

Figure 2 provides a close look at the most recent year of data used in this trend study. This figure illustrates the percentage of youth in foster care by IPST during the 2011–12 academic year.

Definitions of IPST may be found online

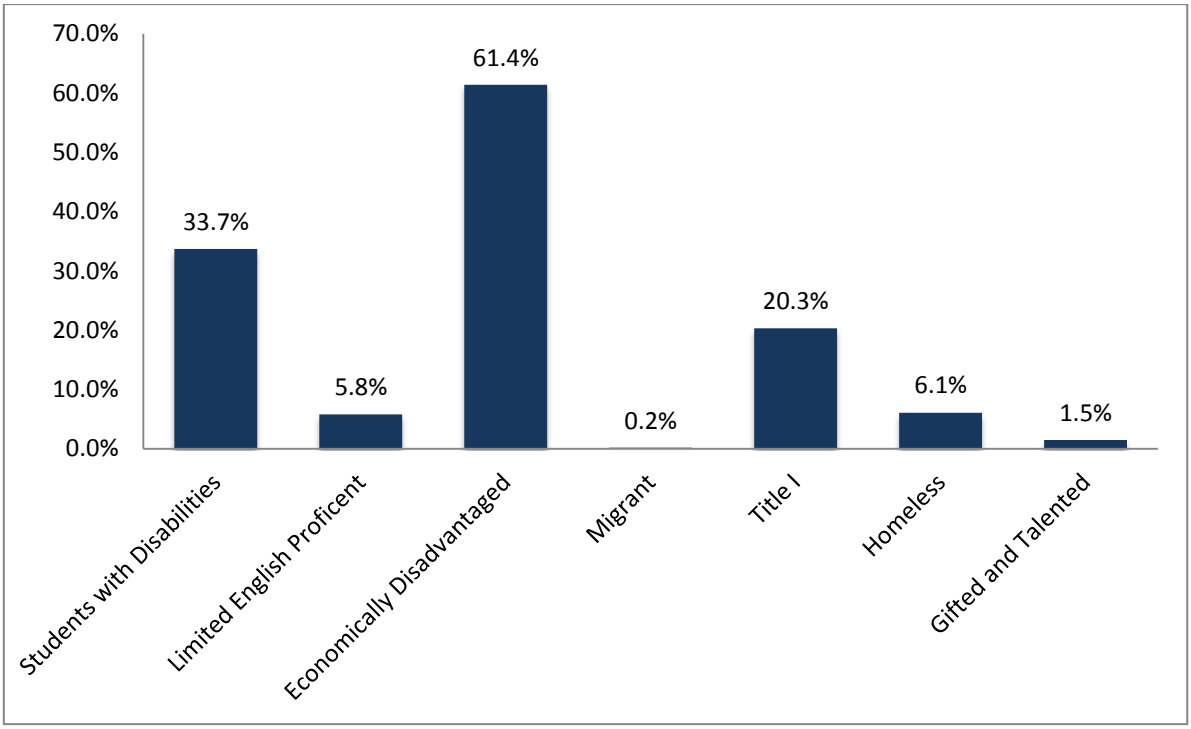
www.cde.state.co.us/cdereval/dropoutcurrentdefinitions

State Graduation and Dropout Rates by IPST may be found online

www.cde.state.co.us/cdereval

- One in three students was identified as having a disability.
- Fewer than two in one hundred students were reported as being eligible for Gifted and Talented services.

Figure 2. The percentage of students in 2011–12 with a foster care placement by unique population, aggregated for grades 7–12.



At first glance it may be surprising that, for example, a youth could be in foster care and also be homeless. This can occur because the IPST captures designation of eligibility at any point in the academic year. In other words, during a given timeframe a youth could have experienced homelessness and then have been placed in foster care.

Less dramatically, students simply may be members of multiple Instructional Program Service Types in a given year. For example, a student may be categorized as economically disadvantaged and also gifted and talented. Similarly, a student may shift among categories from year to year.

Limited English Proficient

Of the students who were reported as being "Limited English Proficient," 39% were reported as Non-English Proficient. This means these students do not comprehend, speak, read, or write English. The home language of the majority (61%) of limited English proficient students was reported to be Spanish.

Economically Disadvantaged and Free School Lunch

Students in some types of out-of-home placements are categorically eligible for free lunch[3]. This eligibility designation is because the state is the guardian of the youth, and this guardianship makes the youth eligible for free lunch. Thus, some of these students are captured in the sub-group "economically disadvantaged" regardless of the financial status of the youth's biological family. For example, all students in a non-relative and certified kinship foster care home are eligible for free/reduced lunch. This eligibility may be accessed by marking 'foster care' on the free/reduced lunch application. Students in non-certified kinship care are eligible for free meals while the county department has custody and established free meal benefits continue for the remainder of the school year.

[3] Colorado Department of Education: Fact sheet about Colorado kinship, kinship family foster care, and non-relative foster care.

Graduation and Completion Trends: The Widening Achievement Gap

Graduation from high school is a milestone that few youth in foster care reach.

Colorado uses a four-year "on time" graduation rate. Students are assigned an "anticipated year of graduation" four years after they enter ninth grade. That anticipated year of graduation is the basis for determining if a youth graduates "on time." Five, six, and seven-year rates can also be calculated, which helps to determine if groups of students are more able to reach the important milestone of high school graduation with additional time.

As graduation rates in Colorado as a whole improve, the achievement gap for youth in foster care widens.

Fewer than one in three students who are in foster care during high school graduate in four years of entering 9th grade.

For this study, graduation rates for students in foster care were calculated as follows:

- A five-year trend of graduation rates was used for youth who experienced a foster care placement during their anticipated year of graduation (2007–2012).
- Cohort graduation rates were used to assess outcomes for youth who experienced a foster care placement at any point during grades 9 through 12 (2010–2012).

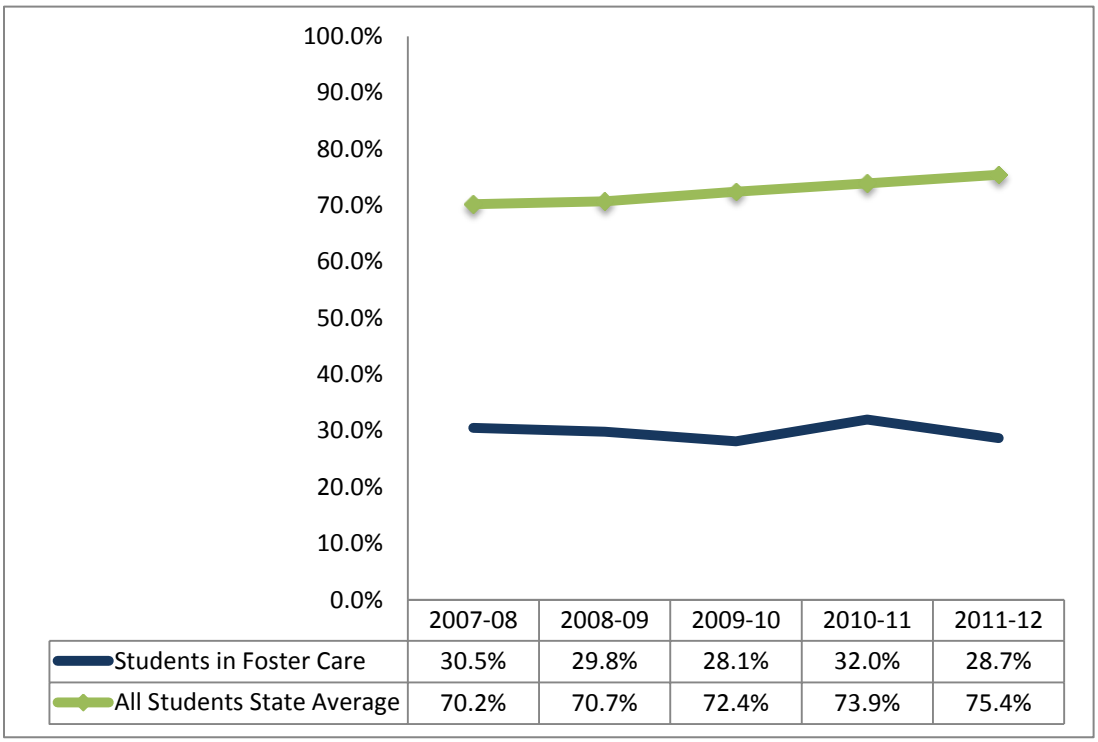
There was no significant difference in these two approaches to calculating graduation rates.[4] Fewer than one in three students who are in foster care during high school graduated within four years of entering 9th grade. The five, six, and seven-year graduation and completion rates show that students in foster care benefit from having more time to earn a high school diploma, a GED, or other certificate of completion.

[4]2011-12 ANOVA $f(1,977)=.09$, $p=.77$. Practically, the graduation rates for the 'cohort' approach were .07% lower than the 'AYG' approach.

"On Time" Graduation Rate Trends

As graduation rates in Colorado as a whole improve, the achievement gap for students in foster care widens. The overall trend in "on time," four-year graduation[5] for students in foster care during their anticipated year of graduation was stable,[6] ranging from 28.1% to 32.0%. Similar graduation rates were found in 2010–11 and 2011–12 when a "cohort" approach was taken (31.3% and 28.0%, respectively).

Figure 3. "On time" graduation rates.



	2007-08	2008-09	2009-10	2010-11	2011-12
Students in Foster Care	30.5%	29.8%	28.1%	32.0%	28.7%
All Students State Average	70.2%	70.7%	72.4%	73.9%	75.4%

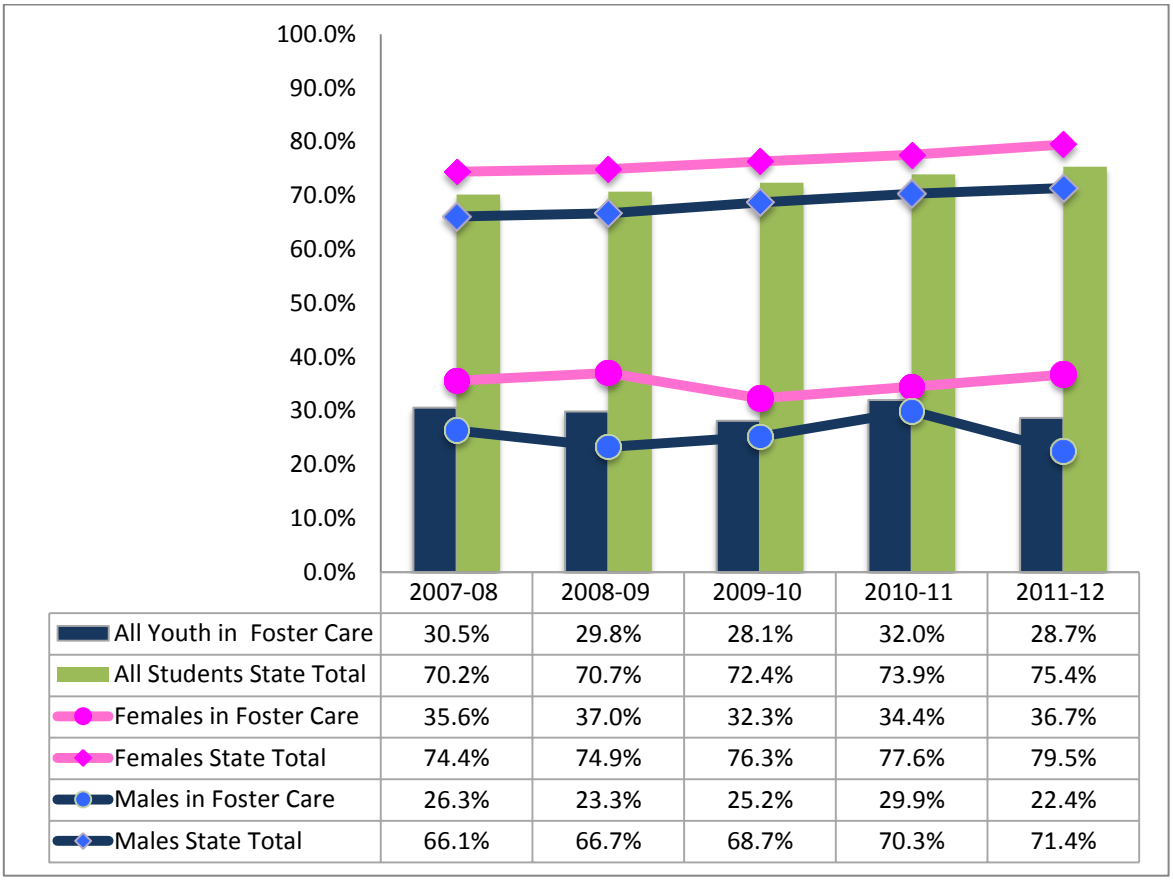
[5] The graduation rates for youth in foster care were calculated based on a four-year, "on time" graduation rate definition. Youth who transferred out of the state educational system were removed from graduation rate calculation.

[6] Logistic regression was used to assess stability of all trends reported in this study (alpha level of .05). R^2 indicates amount of variance explained. Students in foster care graduation rate $R^2 = .025$

Demographic Characteristics and Graduation Trends

The achievement gap for students in foster care is widening for both genders. While the graduation rates for the state as a whole steadily improved for both genders, the graduation trend for both female and male youth in foster care was statistically stable[7]. This means that even though there are some fluctuations within the years, when looking at the five years of data as a whole, there is not significant increase or decrease in overall graduation rates for males or females. There is however, a gap in graduation rates between genders. Females in foster care graduate at a higher rate than males (the difference ranged from 4.5 to 14.3 percentage points).

Figure 4. High school graduation trends for males and females in foster care.



	2007-08	2008-09	2009-10	2010-11	2011-12
All Youth in Foster Care	30.5%	29.8%	28.1%	32.0%	28.7%
All Students State Total	70.2%	70.7%	72.4%	73.9%	75.4%
Females in Foster Care	35.6%	37.0%	32.3%	34.4%	36.7%
Females State Total	74.4%	74.9%	76.3%	77.6%	79.5%
Males in Foster Care	26.3%	23.3%	25.2%	29.9%	22.4%
Males State Total	66.1%	66.7%	68.7%	70.3%	71.4%

[7] Trend in female graduation rates: R^2 <.001; male graduation rates: R^2 = .004

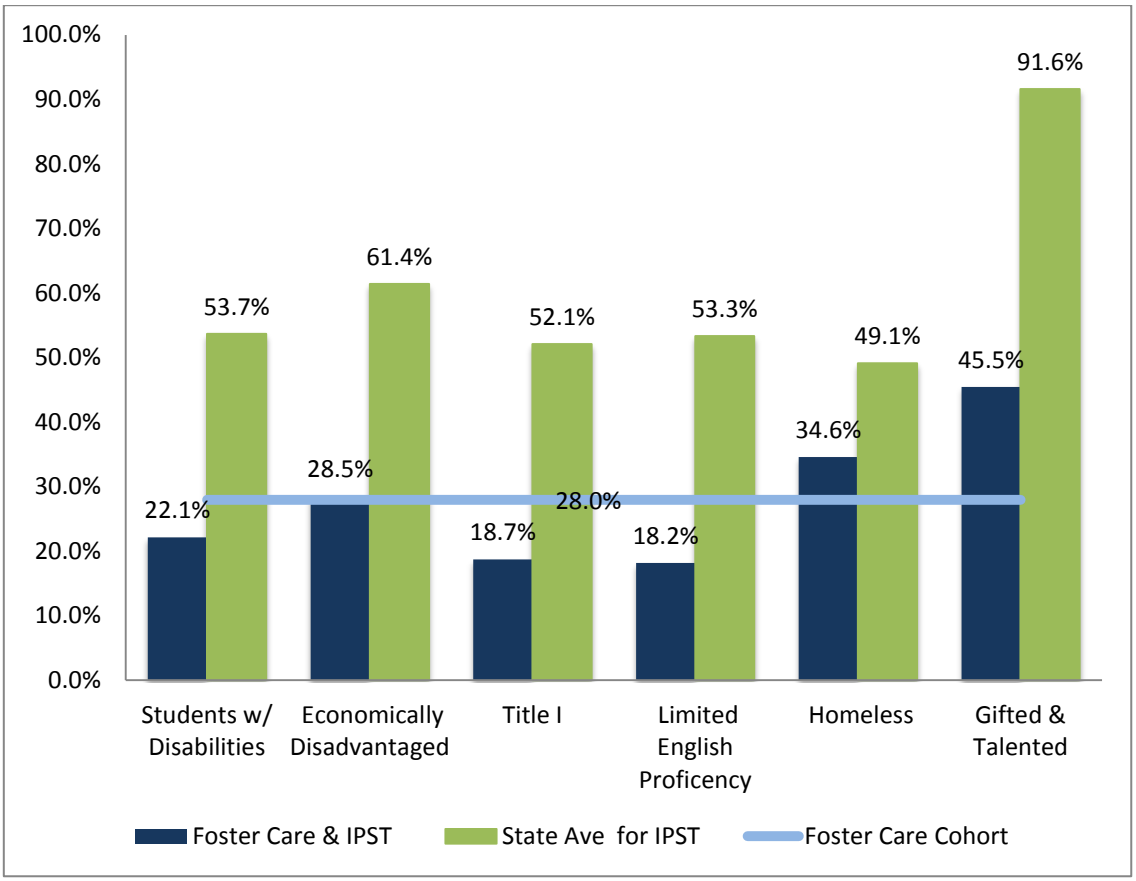
Disaggregation of the data based on race and ethnicity revealed that the steady gains seen at the state level are not evident in the population of students in foster care. Within the unique population of youth in foster care, meaningful analysis could be conducted for only White, Black or African American, and Hispanic or Latino students in foster care due to sample sizes. Of these three groups, White students in foster care graduated at the highest rates. Detailed reports of “on time” graduation and completion rates disaggregated by race and ethnicity may be found in Appendix B.

IPST Graduation Rates (2011–12 Foster Care Cohort)

Students in the 2011–12 foster care "cohort" graduate at lower rates than their IPST peers.

- Fewer than one in four students in foster care with a disability graduated within four years of entering 9th grade.
- Fewer than one in five students in foster care who were Limited English Proficient graduated within four years of entering 9th grade.
- Less than half of the Gifted and Talented students in foster care graduated within four years of entering 9th grade.

Figure 5. 2011–12 Foster care cohort graduation rates by IPST.

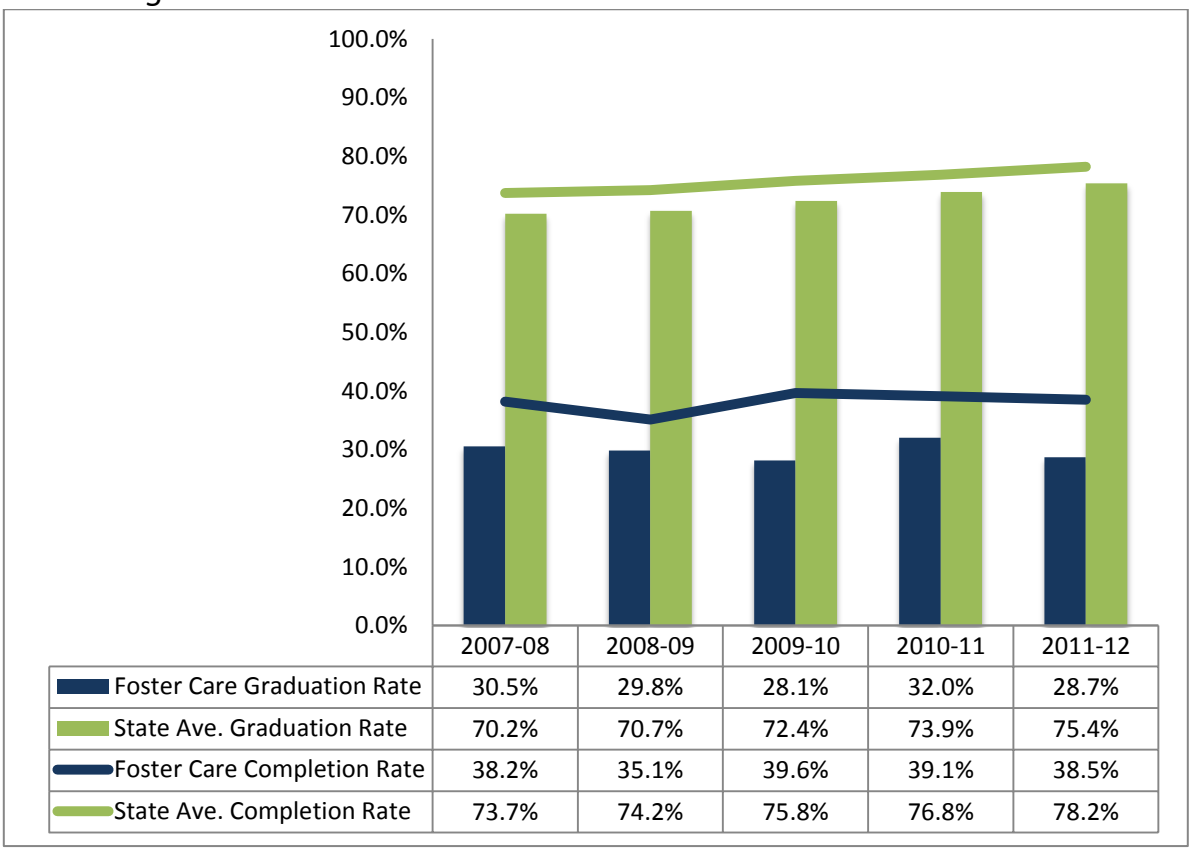


Note. n = 321 for Students with Disabilities, n = 787 for Economically Disadvantaged, n = 326 for Title I, n = 77 for Limited English Proficient, and n = 185 for Homeless, and n = 33 for Gifted and Talented.

High School Completion Trends

High school completion rates categorize youth who graduate from high school or earn a GED, certificate of completion, or other completion designation. On average, 37% of youth who have experienced a foster care placement during their anticipated year of graduation earned a high school diploma, GED, or other certificate of completion within four years of entering ninth grade.

Figure 6. Comparison of students in foster care 4 year completion rates to 4 year state average.



	2007-08	2008-09	2009-10	2010-11	2011-12
Foster Care Graduation Rate	30.5%	29.8%	28.1%	32.0%	28.7%
State Ave. Graduation Rate	70.2%	70.7%	72.4%	73.9%	75.4%
Foster Care Completion Rate	38.2%	35.1%	39.6%	39.1%	38.5%
State Ave. Completion Rate	73.7%	74.2%	75.8%	76.8%	78.2%

A higher proportion of students in foster care earned a GED or other certificate of completion within four years of entering ninth grade compared to the state as a whole[8]. For example, in 2011-12, there was a 9.8 percentage point difference between the graduation and completion rates for students in foster care;

[8] The percentage point difference between graduation and completion rates for students in foster care ranged from 5.3% to 11.5%; whereas, the range for the state average was 2.8% to 3.5%

whereas, there was only a 2.8 percentage point difference in the statewide rates. Students in foster care who are also categorized as Title I students are the most frequent "completers" followed by gifted and talented students. Limited English proficient students are the least frequent "completers."

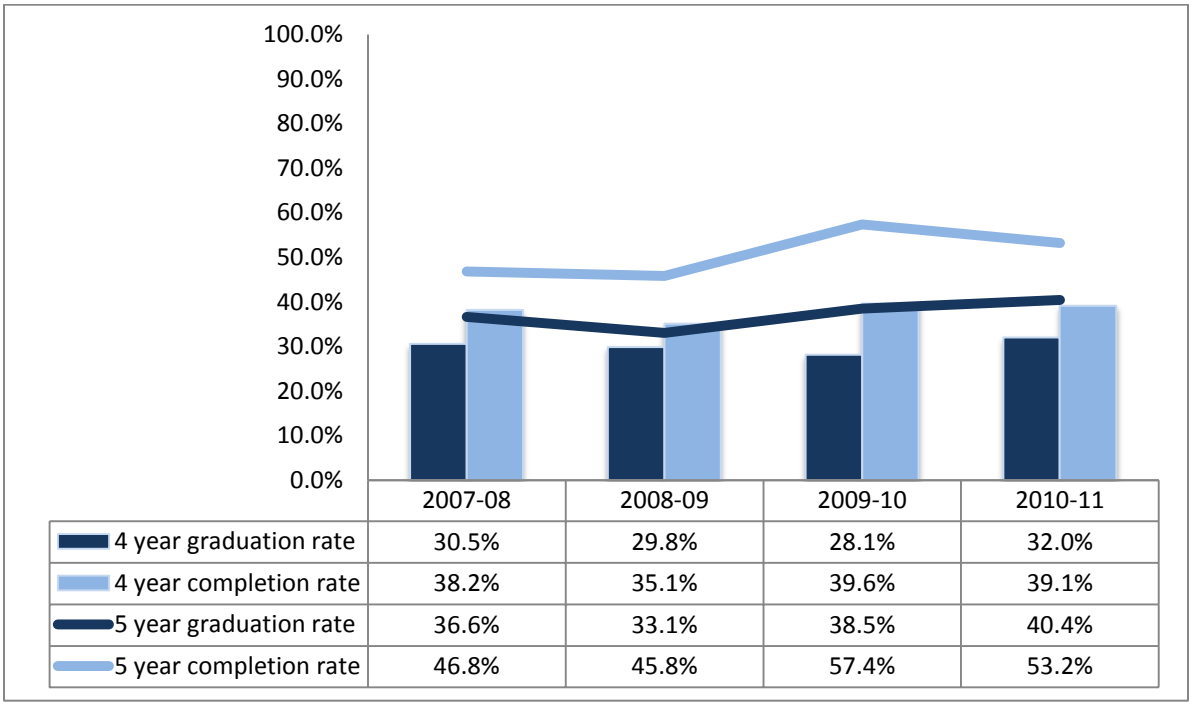
Although completion is a positive outcome or exit from the public school system, it is important to pay attention to the difference between graduation rates and completion rates. Findings from a recent study of youth who had been in an out-of-home placement for at least one year indicate that a high school diploma and GED are not equivalent in terms of employment rates and earnings[9]. The employment rate for these youth in their mid-twenties was 10% higher with a high school diploma than a GED. Whereas the difference in employment rates for youth with a GED versus no high school credential (i.e., dropped out or aged out) was approximately 5%. Annual earnings reported by youth with a high school diploma were nearly double that of youth with a GED or other certificate of completion.

[9] Okpych & Courtney (2014). Data analyzed were from the Midwest Study of former foster youth.

Five-Year Rates

Although the five-year graduation and completion statistics are still quite low, more time practically translates into approximately 60 students in foster care[10] per year earning a high school diploma or certificate of completion. The upward trend of completion rates is particularly encouraging. The 2010–11 and 2011–12 data indicate that over half of the youth in foster care during their anticipated year of graduation exited the system with a positive outcome of either a high school diploma or certificate of completion.

Figure 7. Comparison of 4- and 5-year graduation and completion rates.



	2007-08	2008-09	2009-10	2010-11
4 year graduation rate	30.5%	29.8%	28.1%	32.0%
4 year completion rate	38.2%	35.1%	39.6%	39.1%
5 year graduation rate	36.6%	33.1%	38.5%	40.4%
5 year completion rate	46.8%	45.8%	57.4%	53.2%

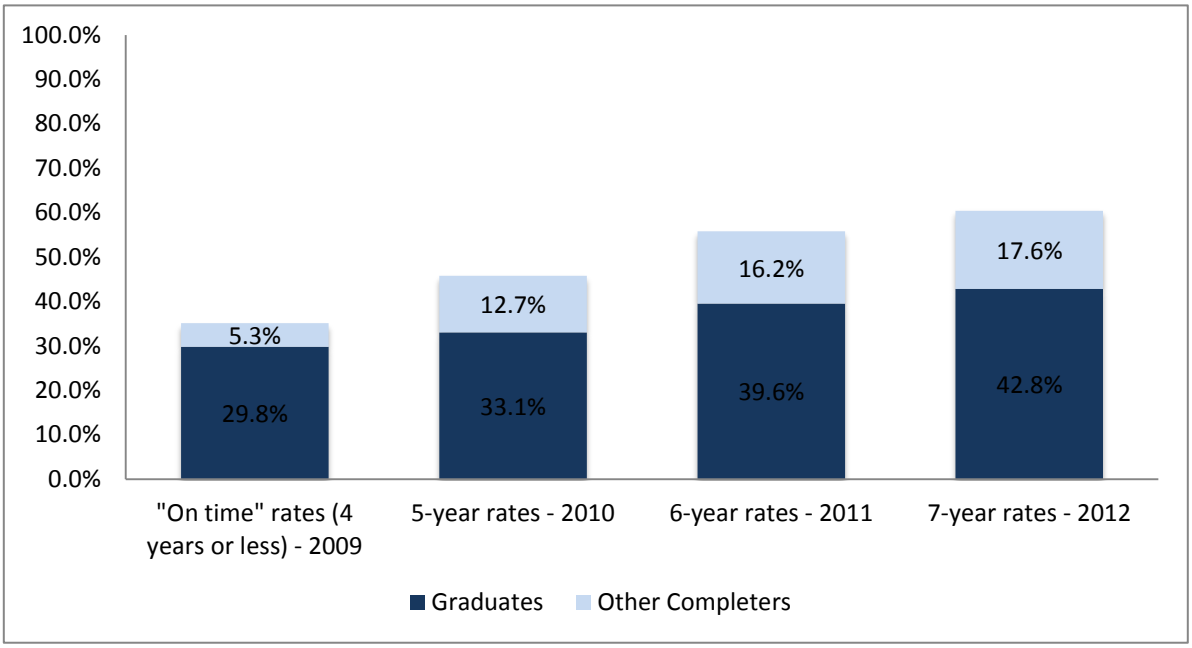
Five, Six, and Seven-Year Rates from the Class of 2009

Students in foster care often continue their enrollment beyond their anticipated year of graduation if they have not met the milestone of high school graduation or earning a certificate of completion. A closer look at the Class of 2009 data indicate that students in foster care benefited substantially if they had up to six years to graduate from high school, or earn a GED or other certificate of

[10] The impact on number of students will likely be higher when data are available to take a 'cohort' approach.

completion. Modest improvements in graduation and completion rates continue into the seventh year.

Figure 8. Class of 2009 5-, 6-, and 7-year graduation and completion rates



As additional years of data becomes available, it will be important to consider if these same substantial gains in graduation and completion rates continue into the sixth year for students who were in foster care placements earlier than their anticipated year of graduation. These findings reflect students who were in foster care during their anticipated year of graduation; perhaps, the pattern differs for students who have a permanent placement earlier in their high school careers (e.g., a student who was in foster care during their ninth grade year and permanency was achieved three years prior to their anticipated year of graduation).

Dropout Trends: More Progress Is Needed

The prevalence of students dropping out of school in the same year they had an active foster care placement, paired with the grade level patterns, suggest that dropout prevention and reengagement of dropouts in foster care should be a priority. Students in foster care are dropping out at rates higher than most other unique populations.[11] These students are also dropping out at earlier grade levels as compared to other student populations in the state of Colorado.

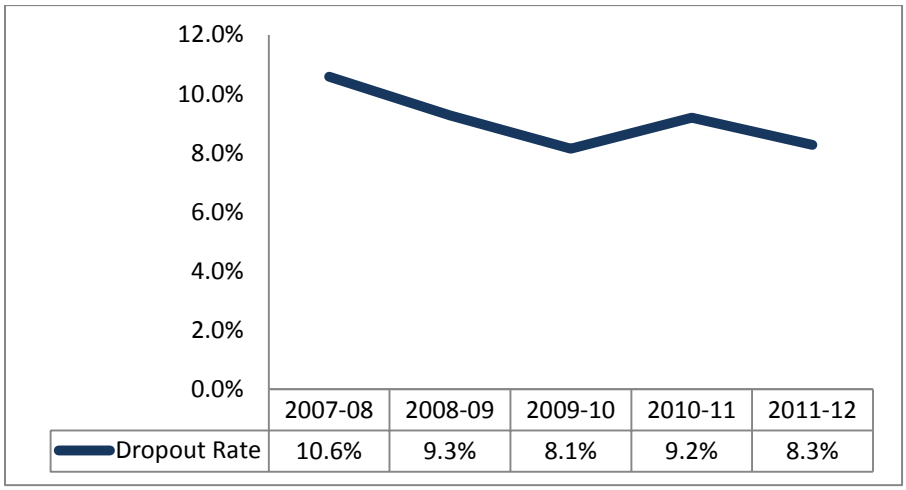
Five-Year Trend in Dropout Rates

The overall dropout rate for students in foster care declined significantly during the five-year period examined in this study[12]. Despite this improvement, more progress is needed.

- Approximately 1 in 11 students who experienced an active foster care placement between 2007 and 2012 were reported as having dropped out one or more times.

Research studies provide opportunities to present dropout trends in ways that are guided by the characteristics of a unique population. Students in foster care are highly mobile. Thus, an unduplicated approach to calculating dropout rates was applied.

Figure 9. Dropout rates trends for students in foster care.



	2007-08	2008-09	2009-10	2010-11	2011-12
Dropout Rate	10.6%	9.3%	8.1%	9.2%	8.3%

[11] See Appendix A.

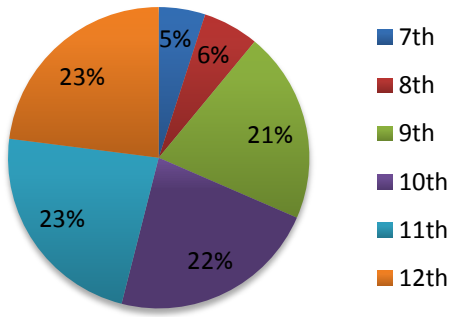
[12] Dropout rate is an annual rate and reflects the proportion of students who leave school (grades 7-12) without enrolling into another educational program. Students in detention centers are not counted in the dropout rate. *$p < .05$; $R^2 = .58$*

The "foster care" dropout rate reflects youth with an active foster care placement who, during a given fiscal year, dropped out of school during the same year. However, it is not known from this analysis whether or not the date of dropout corresponds to the time in foster care (i.e., if the student dropped out during a foster care placement versus before or after the placement). Further study is needed to determine the link between dropout rate and time in foster care.

The current study takes an unduplicated approach to dropout rate calculations. The goal of this decision was to depict the realities of students in foster care as they relate to dropping out of school. This approach has limitations in that the findings in this section are not comparable to Colorado Department of Education Dropout rates and, as such, limited connections can be made to statewide data. Appendix A details the process this study used for arriving at rates and how that process compares to CDE formula for calculating dropout rates.

Dropout Events by Grade

Figure 10.



For students in foster care, more dropout events occurred during grades 9–12 than during grades 7 and 8.[13] Although the "high school" versus "middle school" dropout pattern is not surprising, the consistency in the number of dropout events across all grades in high school for youth in foster care is a departure from state data as a whole. Statewide data indicates that 1 in 2 dropouts occur in 12th grade (CDE, 2013).

A similar number of dropout events across the high school grades can be contextualized by considering enrollment trends. Simply, there were more youth in foster care in grades 9 and 10 than in grades 11 and 12. Despite these enrollment data, the

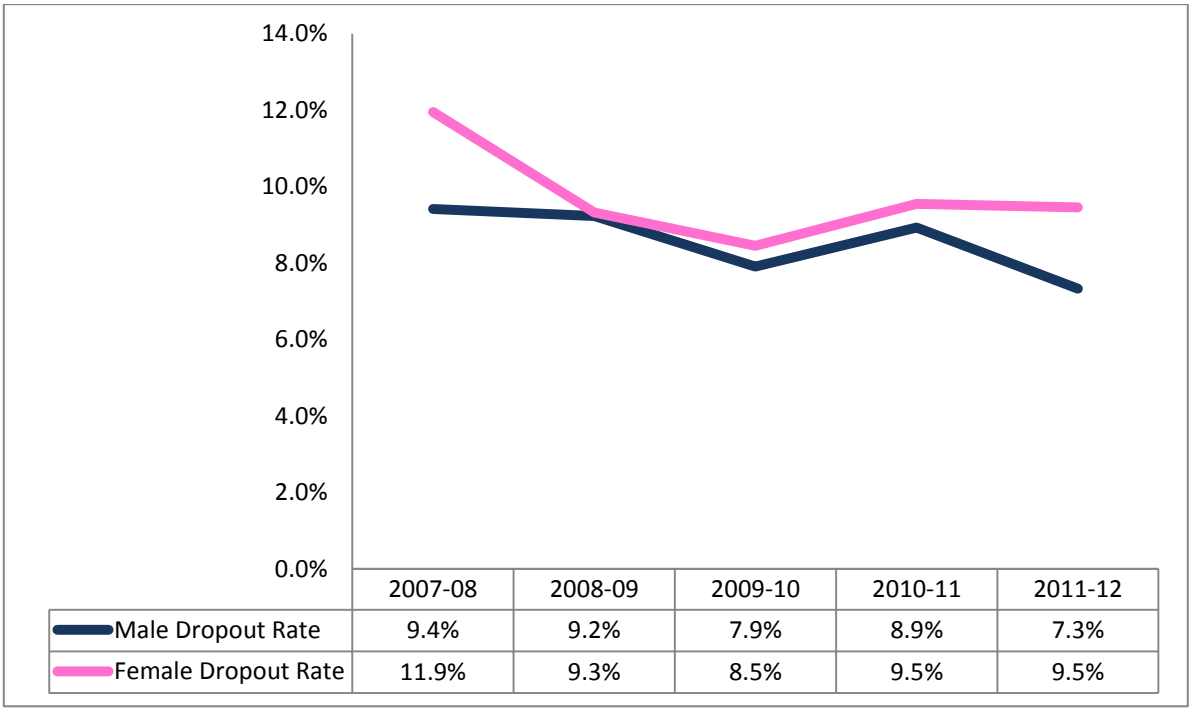
[13] Figure 10. *Dropout events by grade* is aggregated data across the 2007-08 to 2011-12 academic years.

pattern is a marked departure from statewide data and speaks to the unique nature of this population in relation to dropout events.

Dropout Events by Demographic Characteristics

Females in foster care dropped out at higher rates than males. The gap between the genders is inconsistent year to year, ranging from a substantial gap (2.5%) in 2007–08 to a small gap the subsequent year (.1% in 2008–09). This finding departs from the statewide data that show the dropout rates of males to be higher than that of females, and the size of the gap to be more consistent.

Figure 11. Dropout event trends by gender.

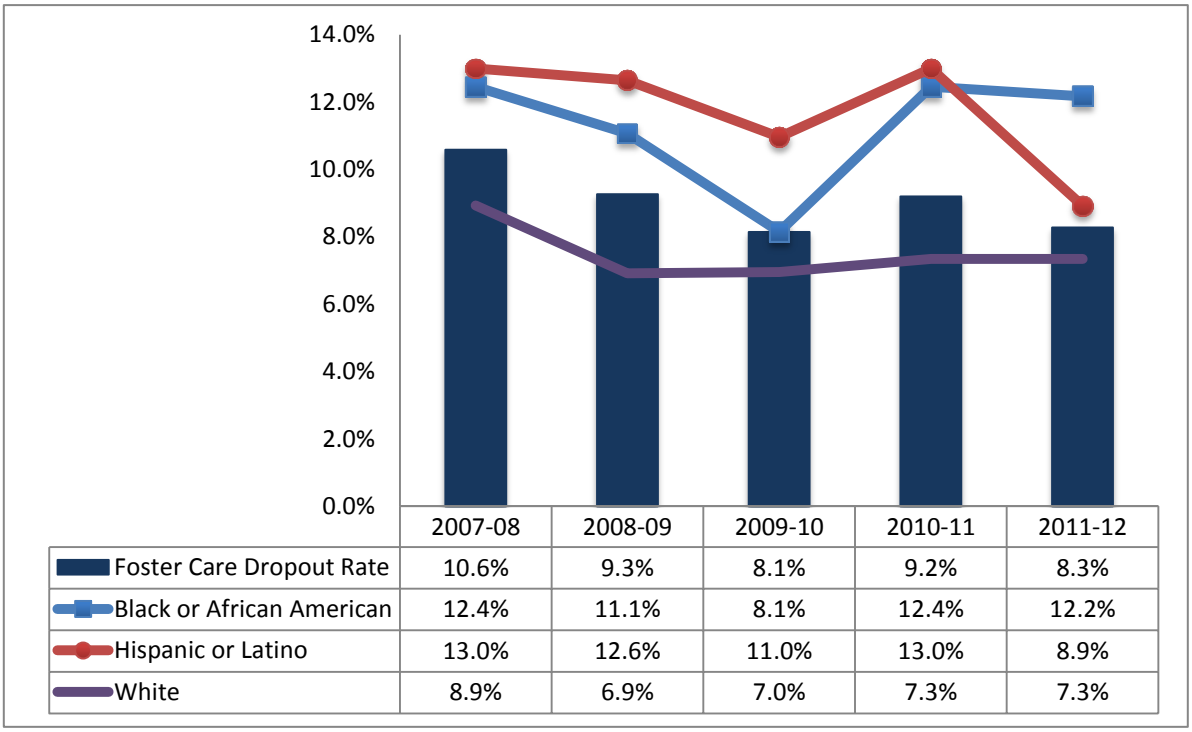


	2007-08	2008-09	2009-10	2010-11	2011-12
Male Dropout Rate	9.4%	9.2%	7.9%	8.9%	7.3%
Female Dropout Rate	11.9%	9.3%	8.5%	9.5%	9.5%

Race and Ethnicity

White students in foster care drop out at lower rates than Hispanic or Latino and Black or African American students in foster care. This pattern is consistent with the White/Non-White dropout rate gap found in statewide data. The most stability in the trend is found in the White student foster care population. This result partially may be a reflection of sample size. There are more White students than students in other racial and ethnic groups in these data.

Figure 12. Dropout rate trends by race and ethnicity.



	2007-08	2008-09	2009-10	2010-11	2011-12
Foster Care Dropout Rate	10.6%	9.3%	8.1%	9.2%	8.3%
Black or African American	12.4%	11.1%	8.1%	12.4%	12.2%
Hispanic or Latino	13.0%	12.6%	11.0%	13.0%	8.9%
White	8.9%	6.9%	7.0%	7.3%	7.3%

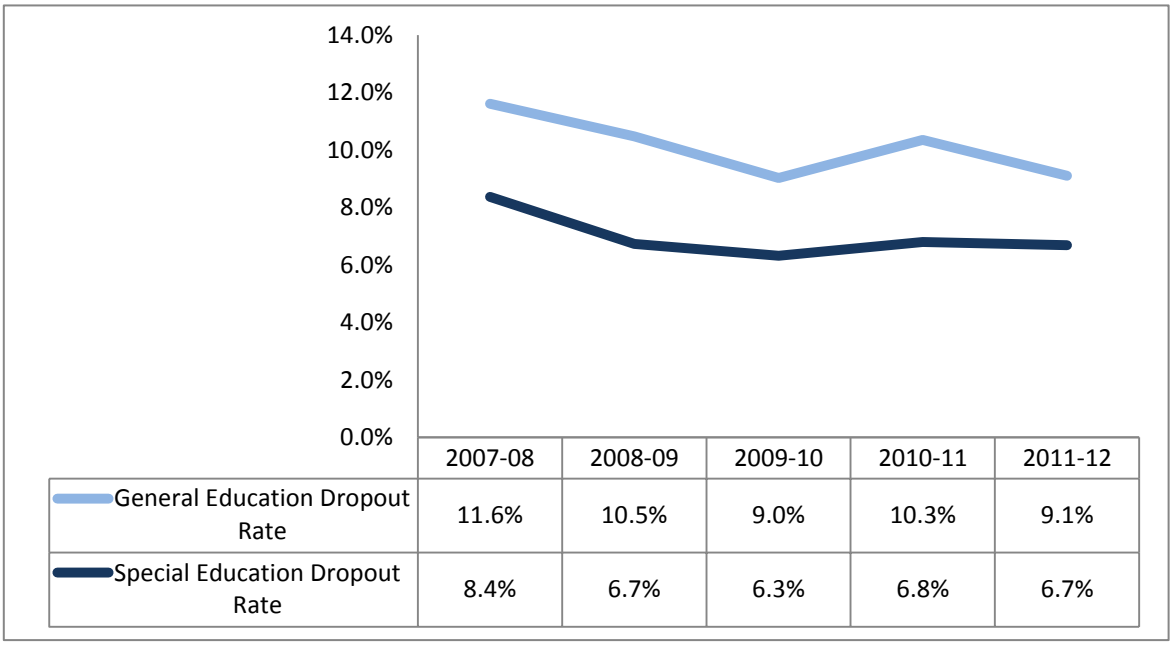
The notable decrease in the Black or African American dropout rate during the 2009-10 academic year reflects a marked decrease in the number of 10th grade dropout events in that year compared to all other years. Similarly, there were substantially fewer Hispanic or Latino dropouts from grades eleven and twelve in 2011-12 than in previous years.

Special Education Students

A focus on students who experience foster care and are eligible for special education services was prompted by the findings that 1 in 3 youth in foster care are eligible for special education services. It is worth noting that this subset of students in foster care have a particularly low "on time" graduation rate.[14]

Comparisons on dropout rates, however, revealed that students in foster care who were also reported as being eligible for special education dropped out at substantially lower rates (i.e., proportionally fewer dropout events) as compared to their general education peers for all years in the trend study[15]. The gap in dropout rates ranged from 2.4% to 3.8%. Thus, there is evidence that students in foster care who are eligible for special education persist in their enrollment, but perhaps may need more time to reach milestones such as graduation, a GED, or a certificate of completion.

Figure 13. Comparison of general education students and special education students' dropout rate trends.



	2007-08	2008-09	2009-10	2010-11	2011-12
General Education Dropout Rate	11.6%	10.5%	9.0%	10.3%	9.1%
Special Education Dropout Rate	8.4%	6.7%	6.3%	6.8%	6.7%

[14] Based on 2011-12 data only. See figure 5 on page 15.

[15] Based on 2011-12 data only, smallest percentage gap: ANOVA $f\ (1,1052) = 10.975,\ p < .01$

Dropping Out of Detention Centers

Students who experience a foster care placement and who also go into detention centers are an important population to consider. There is an empirically established relationship between child abuse or maltreatment and juvenile delinquency (Farrington, 2010; Widom & Maxfield, 2001). Students who have experienced foster care are disproportionally represented in the Colorado detention center population.

- In Colorado, nearly 30% of the detention center placements during 2007-08 to 2011-12 were students who had also experienced a foster care placement.[16]

Although positive educational outcomes for students in detention centers are captured in Colorado's graduation and completion rates, these students are not included when reporting negative educational outcomes —that is, dropout rates. Thus, this can be an invisible population of dropouts.

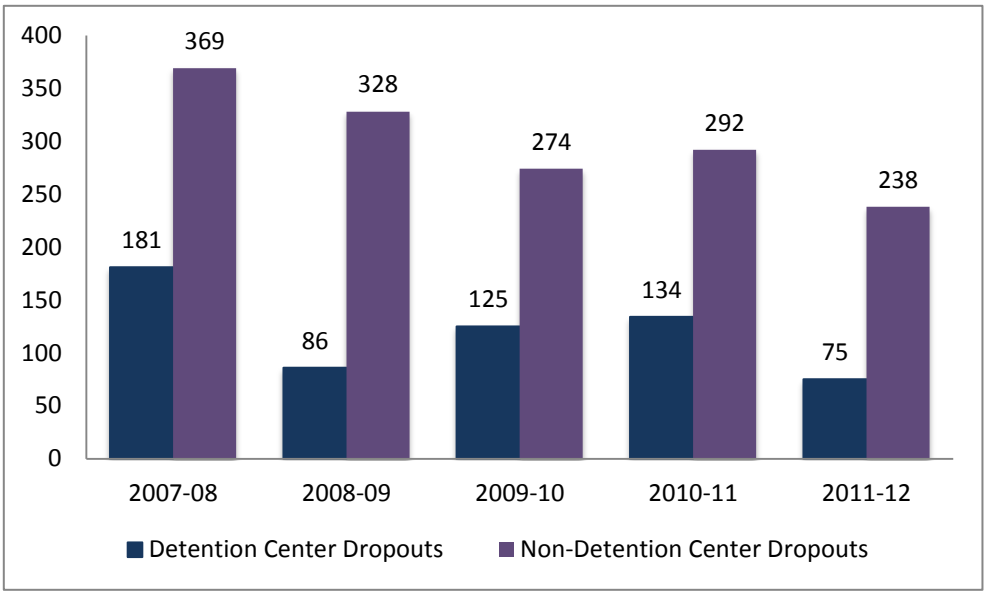
For the purposes of raising awareness of the need for dropout prevention and reengagement of students who experience both a foster care placement and a detention center placement, a comparison of the number of dropout events reported from detention centers versus non-detention center dropout events is presented

- Over the five-year period 601 dropout events were reported from detention centers for students who had also experienced foster care in the same year.

- The total number of non-detention center dropout events reported for students in foster care was 1,411.

[16] The total number of placements in detention centers for the state as a whole (2007-08 to 2011-12) was compared to the number of those placements that represented students who also experienced foster care in that year.

Figure 14. Comparison of detention and non-detention center dropout events.



Creating a clear picture of dropout patterns for students who experience both foster care and detention center placement is complex and outside the scope of this report. The detention center dropout numbers (figure 14) reflect students who experienced both a foster care placement and detention center placement in the same year – two significant and different out-of-home placements in a relatively short time period. Further research is recommended to expand the focus to students who were in foster care at any point prior to their first placement in a detention center. This approach would provide more insight into dropout events of students who experienced substantiated child abuse or neglect prior to a detention center placement.

Summary

The widening high school graduation achievement gap captures the essential realities of youth in foster care. As a whole, during the 2007–2012 time period in the state of Colorado, graduation rates made considerable gains. However, youth in foster care during their anticipated year of graduation maintained a stable trend of graduating at rates that were well below any other student population. The 2011–12 cohort graduation rates for youth in foster care further illustrate this disheartening reality. In 2011–12, students who experienced a foster care placement in high school graduated at a rate 24.1 percentage points lower than the state average for the group of students classified as "failing or the most at risk for failing" (i.e., Title I).

The dropout patterns reveal both the considerable progress made and the need for more work to be done. The findings from this study reveal where these students are experiencing the most difficulties and where dropout prevention initiatives may be needed. For example, students in foster care dropped out earlier in their educational careers than what is typical for other students in the state. Additionally, the population of students who experience both foster care placements and juvenile delinquency problems may be particularly at risk. These findings can drive the momentum within the state to support these students while they are in school and to reengage students who do dropout.

Students in foster care were introduced as a "unique" population in the 2012–13 State Policy Report: Dropout Prevention and Student Engagement (CDE, 2014). The findings from this study provide support for that introduction and make a compelling case for maintaining the visibility of and accountability for these youth. Results from this study revealed that youth in foster care graduate and dropout in rates that differ significantly from other unique populations. Thus, these results suggest that this population of youth is distinct from the existing unique (IPST) populations for whom data is regularly disaggregated and whose graduation and dropout rates are monitored.

Although these data make visible the realities of a vulnerable population, they do not speak to why the graduation rates for youth in foster care are markedly lower than all other groups, or why youth in foster care drop out at a much higher rate than other unique populations. These data make the foundational

case for much-needed support for youth in foster care so that they can succeed at rates comparable with their peers. Data-based guidance on how to improve educational supports for Colorado's youth in foster care is still needed. Following is a brief summary of current policy and practice and recommendations for how to use and continue this research.

Current Policy and Practice: Commitment to Improving Outcomes

The National Working Group on Foster Care and Education (2014) emphasized the importance of cross-system collaboration to "build on what is being learned, bring about change, and promote success for all children and youth in foster care." Colorado by virtue of its commitment to learning about the educational outcomes for youth in foster care and the existence of policies and practices is well positioned to bring about change.

Colorado Department of Education (CDE) and Colorado Department of Human Services (CDHS) entered into an agreement during the 2012–2013 fiscal year that has made it possible in Colorado to study the education of youth in foster care. Six years of basic foster care placement data (2007–2013) for children and youth ages 5 to 21 was provided by CDHS to CDE. These data when matched to State Assigned Student Identifiers (SASIDs) are a rich resource for learning about the education of youth in foster care and can be leveraged to affect change for students in foster care.

Policy

The Fostering Connections to Success and Increasing Adoptions Act of 2008 is federal legislation that included educational stability as a consideration for foster care placement. If remaining in the same school is not in the best interest of the student in foster care, then this Act requires the student to be immediately and appropriately enrolled in a new school, and that all of his or her educational records be transferred. More recently, President Obama signed the Uninterrupted Scholars Act in January of 2013. This act adds child welfare professionals to the list of approved people who can access a foster youth's education records.

Colorado House Bill 08-1019 reduces barriers to school success for youth in foster care. This bill allows for a youth to stay at his or her school of origin if it is in that student's best educational interest to do so. Students who experience out-of-home placements, or who return home after the conclusion of an out-of-home placement, are the beneficiaries of this legislation. Additionally, Colorado House Bill 08-1019 requires that each school district and state charter school district designate an employee to act as a child welfare education liaison to facilitate the immediate placement, transfer, and enrollment in school for children in an out-of-home placements. *Immediate* is defined as five days for enrollment and the transfer of records.

Colorado House Bill 10-1274 expanded on the duties and visibility of Child Welfare Education Liaison (CWEL). It requires that the list of liaisons be posted on the CDE website and that CWEL participate in transition planning meetings and interagency collaboration teams.

Practice

There is evidence of cross-system interest and commitment to improving the educational outcomes of youth in foster care. At a national level, there is increased focus by the courts on *well-being,* which includes education. This focus is made in addition to the traditional focused outcomes of *safety* and *permanency.* For example, the National Child Welfare Resource Center on Legal and Judicial Issues (2012) recently published Proposed Well-Being Outcome Measures for courts. In this publication, education was denoted as being a key component of well being, along with health and mental health. Similarly, the National Council of Juvenile and Family Court Judges and the Casey Foundation published an educational judicial checklist aimed at meeting the educational needs of youth in foster care (Gatowski et al., 2008). In, May of 2014 the Department of Education and Administration of Child and Family Services issued a joint letter to Chief State School Officers and Child Welfare Directors emphasizing the "crucial role…in supporting the well being of students in foster care [and]…obligat[ion] to coordinate efforts to ensure the educational stability of students in foster care under the *Fostering Connections to Success and Increasing Adoptions Act of 2008* (Fostering Connections Act)."

At the state level, Colorado Department of Education, Colorado Department of Human Services, Mile High United Way, and the Morgridge Family Foundation partnered in the 2012-13 fiscal year to establish a State Coordinator for Foster Care Education. The role of this state coordinator includes connecting the cross-system interest and investment in the educational attainment of youth in foster care, and supporting the implementation of federal and state law into practice. Colorado Department of Human Services is providing the basic placement data to CDE, which makes possible the understanding and monitoring of educational outcomes for youth in foster care.

Additionally, there is an increased systematic focus on education by attorneys and volunteers who handle neglect cases and serve as advocates for children with dependency. The Office of the Child's Representative and the Office of the State Court Administrator Court Improvement Program (2012) collaborated on the development of Colorado's guide and best practice standards for child welfare attorneys. *The Guided Reference in Dependency* (GRID) includes guidance on assessing educational needs of children and on advocating for educational stability. Colorado Court Appointed Special Advocates are transitioning to monitoring educational outcomes, such as attendance, in addition to monitoring safety and permanency (Clemens & Shipp, 2013).

Recommendations

The results from this study tell a compelling story: The majority of Colorado's youth in foster care are not graduating from high school, and there are far too many of these students dropping out. There's an extensive body of literature that illustrates the perils for this youth population, and there is little need for this study to focus on how these realities negatively affect students in foster care. Rather, this study can serve to help leaders and advocates recognize the actual nature of education for this unique population and focus on what can be done to improve outcomes for these students.

Following are a few specific recommendations. These recommendations are framed using the results from this study and the opportunities created through the CDE and CDHS data use agreement.

Current Study

- Support students in foster care on an individual and a systemic level. Much work is needed to close the widening high school graduation achievement gap so that youth in foster care can graduate at rates similar to their peers and so that fewer of these students drop out.

- Set benchmarks for progress. Knowing where students in foster care have been, and the rates at which their outcomes as a group change, provides a foundation for setting targets for improvement. Due to variations in samples and approaches to calculating rates, it is recommended to benchmark against Colorado data rather than using studies conducted in other states or national statistics at this point in time.

- Ask questions and pose hypotheses. This study is a starting point; the results here describe what has already occurred. Cross-system/multi-disciplinary perspectives are ideal guides for moving this research forward from what has occurred toward discovering how change can be brought about.

- Modernizing the child welfare database known as TRAILS to allow for greater management of the educational needs of all children in the custody of the State, and the ability to view the data by school district and judicial district, in addition to county, will support further analysis and allow multiple child-serving systems to track and help improve outcomes for these students.

Future Research Opportunities

- Many opportunities exist to make educational outcomes of students visible prior to their exit from the public school system. The CDE and CDHS data use agreement encompassed youth ages 5 to 21. For example, investigations could include proximal indicators of academic progress (e.g., end-of-year test scores), postsecondary and workforce readiness benchmarks, or discipline data. Longitudinal or cross-sectional (i.e., a focus on a particular school year) approaches could be used.

- Educational stability is a cornerstone of the policy work that guides the education of youth in foster care. There is a conventional wisdom to suggest that for highly mobile populations it takes four to six months for them to catch up academically (Black, 2006). In-depth analysis can be done to understand the school mobility of youth in foster care; to what extent, or if, the conventional wisdom holds; the impact of the federal and state policy; and most importantly, the degree to which school stability is the lever that needs to be pulled to increase student success.

- Dropout prevention and re-engagement of dropouts is a priority given the high number of dropout events that are occurring and the finding that students in foster care are dropping out in earlier grade levels than what is typical in Colorado. Longitudinal research can result in a comprehensive understanding of the relationship between foster care placement timing, length, and dropout patterns and re-engagement opportunities.

References

Barrat, V. X., & Berliner, B. (2013). *The invisible achievement gap, part 1: Education outcomes of students in foster care in California's public schools.* San Francisco: WestEd.

Black, S. (2006). Stabilizing schools with kids on the move. *Education Digest*, *72*(3), 46-51

Burley, M. (2010). *High school graduation and dropout trends for Washington State foster youth (2005-2009*). Olympia: Washington State Institute for Public Policy, Document No. 10-10-3901.

Clemens, E. V., & Shipp, A. E. (2013). *Moving from outputs to outcomes: Phase one.* Fort Collins, CO: Multiplicity Concepts. Retrieved from: http://www.coloradocasa.org/sites/default/files/CO%20CASA%20Outcomes%20Report.pdf

Colorado Department of Education (2013).*Dropout rate infographic.* Retrieved from *www.cde.state.co.us/cdereval/dropoutcurrent*

Colorado Department of Education (2014). *2012-13 state policy report: Dropout prevention and student engagement*. Retrieved from www.cde.state.co.us/dropoutprevention

Colorado Department of Education (2014). *Fact sheet about Colorado kinship, kinship family foster care, and non-relative foster care.* Retrieved from: http://www.cde.state.co.us/dropoutprevention/cwelfactsheet

Colorado Department of Education (2014). *2012-13 Foster care brief.*

Colorado Department of Human Services, Division of Child Welfare Services. (2012). *2012 Data Book.*

Colorado House Bill 08-1019. *Concerning the provision of educational services for children in out-of-home placements.*

Colorado House Bill 10-1274. *Concerning successful transitions back to the*

public school system for students in out-of-home placements who have demonstrated behavior that is detrimental to the safety or welfare of themselves or others during the previous twelve months.

Department of Education & Health and Human Services (May, 2014). *Letter to Chief of State School Officers and State Child Welfare Directors on the Fostering Connections Act.* Retrieved from: http://www2.ed.gov/about/inits/ed/foster-care/index.html

Fostering Connections to Success and Increasing Adoptions Act of 2008, Pub. L. 110-351.

Farrington, M. J. (2010). Risk factors for conduct disorder and delinquency: Key findings from longitudinal studies. *Canadian Journal of Psychiatry, 55* (10); 633-642. OMID: 20964942.

Gatowski, S. I., Medina, T., & Warren, M. (2008). *Asking the right questions II: Judicial checklists to meet the educational needs of children and youth in foster care.* National Council of Juvenile and Family Court Judges. Retrieved from http://www.ncjfcj.org/resource-library/publications/asking-right-questions-ii-judicial-checklists-meet-educational-needs

The National Child Welfare Resource Center on Legal and Judicial Issues. (2012). *Proposed well-being measures for courts: Physical and emotional well-being*.

The National Working Group on Foster Care and Education (2014). *Fostering success in education: National factsheet on the educational outcomes of children in foster care.* Retrieved from http://www.fostercareandeducation.org/DesktopModules/Bring2mind/DMX/Download.aspx?EntryId=1279&Command=Core_Download&method=inline&PortalId=0&TabId=124

Office of the Child's Representative & State Court Administrators Court Improvement Program (2012). *The guided reference in dependency (GRID).* Retrieved from http://www.coloradochildrep.org/grid/

Okpych, N. J., & Courtney, M. E. (2014). Does education pay for youth formerly in foster care? Comparison of employment outcomes with a national sample. *Children and Youth Services Review.*

Uninterrupted Scholars Act of 2013. Pub. L. 112-278.

Widom, C. S., & Maxfield, M. G. (2001). An Update on the "Cycle of Violence." Research in Brief, Washington, DC: U.S. Department of Justice, National Institute of Justice, February 2001, NCJ 184894.

Appendix A: Method

The purpose of this appendix is to describe the methods used in the study. This information may be used to understand the results and make determinations regarding its generalizability.

Student Data Security and Privacy

The procedures used in this study were reviewed and approved by the Institutional Review Board (#432712-1) at the University of Northern Colorado (UNC). A memorandum of understanding was executed between UNC and Colorado Department of Education to allow UNC access to the dataset and ensure that student data security and privacy were maintained. Findings are not disaggregated for sub-groups where the base is less than or equal to sixteen.

Sample

Names, dates of birth, and placement start and end dates were exported from Colorado Department of Human Services TRAILS System from July 1, 2007, to June 31, 2012, for all youth in foster care of ages 5 to 21. Youth who were born September 15, 1999, or later were included in this trend analysis because they were age five or older and were therefore likely eligible[17] to start kindergarten in the 2004–2005 academic year. This group of students would therefore be the appropriate age to enter grade seven or higher by the 2011–2012 academic year. Seventh grade or higher was selected as the "cut off" point for this trend analysis because grade levels seven through twelve contribute to the calculation of dropout rates.

The placement records of youth in foster care were matched on the basis of names and date of birth to Colorado Department of Education's Record Integration Tracking System (RITS). Data were de-identified prior to analysis. State Assigned Student Identifiers (SASIDs) were matched to 12,441 of the youth. That population parameter was further refined once data educational records were available. A total of 11,597 youth were found to be enrolled in a Colorado public school in grade seven or above during the period under study.

[17] Colorado is a local control state, which means that districts may apply their own age-related cut-off dates to kindergarten eligibility. More information may be found online: www.cde.state.co.us/cdecomm/cderelocate.

Graduation Rate

Base numbers for calculation of graduation rates were determined by subtracting the number of students who exited the state educational system from the total membership of the population of interest.

Two approaches were used to calculate graduation rates: Students in foster care during their anticipated year of graduation; and a "cohort" approach that reflects an active foster care placement at any point during grades nine through twelve. There is evidence that while different processes, the two approaches yield similar findings. Thus, the 'anticipated year of graduation' can be interpreted as a close approximation of graduation rates during this time period.

Completion Rate

The completion rate is calculated similarly to graduation rates (e.g., the base is the same). The numerator; however, includes high school graduates as well as those students who earned a GED or other certificate of completion. Thus, the completion rate reflects the positive outcomes of both a high school diploma and certificate of completion (e.g., a GED).

Dropout Rate

The dropout rates presented in this study were based on a formula that was guided by the unique characteristics of the population. Because students in foster care are highly mobile (CDE, 2014), the base (denominator) is an unduplicated count of youth with an active foster care placement during the given year. The number of dropouts (numerator) is an unduplicated count of students with an active foster care placement during that year and who were reported as dropouts. This method means that a student is only counted once in the denominator, and a student who dropped out multiple times in a given year would only count once in the numerator. Students in detention were removed from both the denominator and the numerator. The unduplicated approach is the reason that the rates presented in the current study are not directly comparable to CDE rates.

CDE calculates dropout rates using a method that is different than the aforementioned method. For CDE, students who attend schools in multiple districts are counted multiple times. The duplicated approach, while valid, may result in a conservative description of dropout rates for a highly mobile population. Applied to students in foster care for this study, using a duplicated count approach to calculating foster care rates results in an approximate 2.7% decrease in the "dropout rate."[18]

Comparison Data

Comparison data for state averages were based on public access data from Colorado Department of Education's website. www.cde.state.co.us

Caution should be used when making comparisons between rates presented in this report and studies conducted in other states or national statistics. A review of the literature revealed substantial variations in approaches to calculating graduation and dropout rates. For example, on the surface it may appear that Colorado students in foster care are not fairing as well as California or Washington's students (c.f., Barrat & Berliner, 2013); however, the rates reported in these studies are annual graduation rates, meaning only students who progressed to 12th grade are included in the denominator (base). Thus, direct comparisons to a 4-year 'on time' graduation rate are not valid. Additionally, national statistics are often based on compellations of findings (e.g., it is important to determine if the samples and the methods for calculating rates in those studies are comparable to what is being used in Colorado before making any comparisons).

Significance Tests

Logistic regression was used to assess direction and significance of trends. Binomial test of proportions were used to determine if there were significant differences between state average and students in foster care findings. One-way ANOVAs were used to assess significance of differences within the foster care findings.

[18] An approximation of a duplicated annual dropout rate for youth in foster care is as follows: 2007-08 = 7.4%; 2008-09 = 6.6%; 2009-10 = 5.7%; 2010-11 = 6.6%; 2011-12 = 5.8%.

Generalizability of Findings

The findings in the study are representative of students in foster care during 2007-08 to 2011-12 in the state of Colorado. It is important to be aware; however, of the sample sizes when data is disaggregated. Smaller sample sizes are more impacted by modest variations in numbers of graduates, completers, or dropouts than larger sample sizes. For example, a modest decrease in African American or Black students who dropped out during the 2009-10 academic year appears to be a dramatic decline (improvement) in dropout rate. Rates with small sample sizes should be used with caution.

Appendix B: "On Time" Graduation and Completion Rates Disaggregated by Gender, Race, and Ethnicity

Disaggregated graduation and completion rates are based on students who were in foster care during their anticipated year of graduation. This departs from the 'cohort' approach that CDE takes to calculating graduation rates for unique populations. Findings from this study indicate that the overall graduation rates are similar regardless of the approach. Notable differences; however, are evident in the graduation base. For example, the 2011-12 overall graduation base with a 'cohort' approach is 1230[19] because it reflects all students who were in foster care during high school. The base when using the 'anticipated year of graduation' approach reflects only students who were in foster care in that year and therefore, is much smaller (i.e., 429 in 2011-12).

	2007-08 Foster Care	2008-09 Foster Care	2009-10 Foster Care	2010-11 Foster Care	2011-12 Foster Care
All Students Grad Base	393	493	462	453	429
All Students Graduates	120	147	130	145	123
All Students Graduation Rate	**30.5%**	**29.8%**	**28.1%**	**32.0%**	**28.7%**
All Students Completers Total	150	175	183	177	165
All Students Completion Rate	38.17%	35.50%	39.61%	39.07%	38.46%

[19] 2012-13 Foster Care Brief.

Female Grad Base	180	235	192	209	188
Female Graduates	64	87	62	72	69
Female Graduation Rate	**35.6%**	**37.0%**	**32.3%**	**34.4%**	**36.7%**
Female Completers Total	77	101	85	86	88
Female Completion Rate	42.8%	43.0%	44.3%	41.1%	46.8%
Male Grad Base	213	258	270	244	241
Male Graduates	56	60	68	73	54
Male Graduation Rate	**26.3%**	**23.3%**	**25.2%**	**29.9%**	**22.4%**
Male Completers Total	73	74	98	91	77
Male Completion Rate	34.3%	28.7%	36.3%	37.3%	32.0%

Black or African American Grad Base	82	103	87	76	55
Black or African American Graduates	20	32	26	14	14
Black or African American Graduation Rate	**24.4%**	**31.1%**	**29.9%**	**18.4%**	**25.5%**
Black or African American Completers Total	26	35	35	18	20
Black or African American Completion Rate	31.7%	34.0%	40.2%	23.7%	36.4%
Hispanic or Latino Grad Base	87	118	111	105	93
Hispanic or Latino Graduates	22	24	33	30	22
Hispanic or Latino Graduation Rate	**25.3%**	**20.3%**	**29.7%**	**28.6%**	**23.7%**
Hispanic or Latino Completers Total	26	36	41	43	31
Hispanic or Latino Completion Rate	29.9%	30.5%	36.9%	41.0%	33.3%

White Grad Base	209	258	250	243	245
White Graduates	71	88	69	93	69
White Graduation Rate	**34.0%**	**34.1%**	**27.6%**	**38.3%**	**28.2%**
White Completers Total	91	100	104	106	96
White Completion Rate	43.5%	38.8%	41.6%	43.6%	39.2%
Two or More Races Grad Base	Not a Federal Reporting Category for These Years			Not Reportable N <= 16	20
Two or More Races Graduates					10
Two or More Races Graduation Rate					**50.0%**
Two or More Races Completers Total				5	10
Two or More Races Completion Rate				45.5%	50.0%

Data are not presented for American Indian or Alaska Native, Asian, and Native Hawaiian or Other Pacific Islander groups due to small (*n* <=16) sample sizes

Appendix C: Dropout Rates Disaggregated by Gender, Race, and Ethnicity

	2007-08 Foster Care	2008-09 Foster Care	2009-10 Foster Care	2010-11 Foster Care	2011-12 Foster Care
All Students Dropout Base	3487	3539	3363	3175	2877
All Students Dropouts	369	328	274	292	238
All Students Dropout Rate	**10.6%**	**9.3%**	**8.1%**	**9.2%**	**8.3%**
Female Dropout Base	1607	1610	1479	1393	1280
Female Dropouts	192	150	125	133	121
Female Dropout Rate	**11.9%**	**9.3%**	**8.5%**	**9.5%**	**9.5%**
Male Dropout Base	1880	1929	1884	1782	1597
Male Dropouts	177	178	149	159	117
Male Dropout Rate	**9.4%**	**9.2%**	**7.9%**	**8.9%**	**7.3%**

American Indian or Alaskan Native Dropout Base	60	58	30	26	23
American Indian or Alaskan Native Dropouts	11	11	2	1	3
American Indian or Alaskan Native Dropout Rate	**18.3%**	**19.0%**	**6.7%**	**3.8%**	**13.0%**
Asian Dropout Base	28	34	47	47	51
Asian Dropouts	1	1	4	2	3
Asian Dropout Rate	**3.6%**	**2.9%**	**8.5%**	**4.3%**	**5.9%**
Black or African American Dropout Base	498	515	454	406	370
Black or African American Dropouts	62	57	37	54	45
Black or African American Dropout Rate	**12.4%**	**11.1%**	**8.1%**	**12.4%**	**12.2%**
Hispanic or Latino Dropout Base	962	997	885	839	729
Hispanic or Latino Dropouts	125	126	97	104	65

Hispanic or Latino Dropout Rate	**13.0%**	**12.6%**	**11.0%**	**13.0%**	**8.9%**
White Dropout Base	1882	1852	1827	1716	1567
White Dropouts	168	128	127	126	115
White Dropout Rate	**8.9%**	**6.9%**	**7.0%**	**7.3%**	**7.3%**
Two or More Races Dropout Base	**Not a Federal Reporting Category for These Years**			128	126
Two or More Races Dropouts				5	6
Two or More Races Dropout Rate				**3.9%**	**4.8%**

Data are not presented for Native Hawaiian or Other Pacific Islander group due to small (*n* <=16) sample sizes