Flattening the College Curve

Lessons Learned from Foster Care to Improve Postsecondary Participation for all Youth

REPORT HIGHLIGHTS:

- Only 13.4% of youth who were in foster care at age 13 or older entered postsecondary education by age 21.

- The COVID-19 pandemic may mean that more youth in the general population face barriers to a college education already experienced by youth in foster care, including disruptions to K 12 education, trauma, food insecurity, and housing instability.

- Insights from former foster youth and analysis of administrative data may inform how to improve postsecondary participation for all youth.

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Abstract

From academic readiness and financial assistance to adequate housing and consistent meals, many of the challenges vulnerable students face in accessing and completing college are likely to become more common in the general population of youth as a result of the COVID-19 pandemic. This study provides more representative information on postsecondary matriculation and persistence rates for students formerly in foster care as a means to improve policies and practices for the benefit of all youth. Only 13.4% of youth who were in foster care during high school begin postsecondary education by the age of 21, and even fewer persist beyond the first semester or year. The two studies reported on used 10 years of state child welfare, K-12, and higher education administrative data, as well as interviews with 23 youth with foster care experience. The findings underscore the importance of taking a systematic approach to ensuring youth have the support and stability to be academically prepared for a rigorous postsecondary education, the financial assistance needed to pay for tuition and fees, and the ability to meet their basic human needs.

Basic Needs

Streamline Access to Public Benefits through higher education institutions, CDHE, CDHS, and other agencies

Pass Legislation Allowing Re-Entry into Foster System as a way for students to meet basic needs

Expand Postsecondary Persistence Supports institution-based programs for "FAFSA independent" students boosts retention and completion

K-12 Education

Real-Time Information Exchange between child welfare & education agencies supports educational success

Expand Innovative Student Engagement Programs remove barriers and increase graduation rates

Invest in Tuition Waivers encourage students to complete high school and attend college

Postsecondary Education

Invest in Tuition Waivers encourage students to complete high school and attend college

Prioritize paid youth for apprenticeships support students in meeting basic needs while pursuing education and career goals

Workforce

Prioritize paid youth for apprenticeships support students in meeting basic needs while pursuing education and career goals

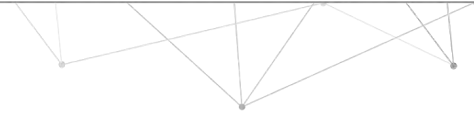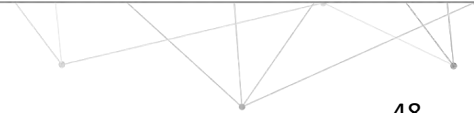WORKFORCE · POSTSECONDARY EDUCATION · K-12 EDUCATION · BASIC NEEDS

ERASING EQUITY GAPS

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Acknowledgements

Administrative Data Sources

Administrative data from the Colorado Department of Education, Colorado Department of Human Services, and the Colorado Department of Higher Education were utilized in this study. The data included student detail and demographic records for the 2008-09 through 2017-18 school years. Specifically, data from the Colorado Department of Higher Education included records through 2017-18 of postsecondary enrollment, including graduation years from 2009 through 2017. All other data included anticipated years of graduation from 2011 through 2017, implicitly including records back to 9th grade starting from the 2007-08 academic year.

Suggested Citation

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Note

Throughout this report, pseudonyms are used to refer to the qualitative study participants in order to protect confidentiality.

Introduction

Three out of four jobs now require education or training beyond high school, yet some students face formidable barriers to attending college.[1] Disruptions to K-12 education, trauma, loss, food insecurity, and housing instability are known impediments to the educational success of youth who have been in foster care. These types of challenges may well be felt by more youth in the general population as a result of the COVID-19 crisis.

Consider, for example, how quickly the pandemic exposed a staggering level of food and housing insecurity in our communities. College affordability is likely to be a barrier for more students given the spike in unemployment and the uncertain economic outlook.

Free Application for Federal Student Aid (FAFSA) renewal rates and returning Pell Grant applicants are early indicators of low-income students' uncertainty about continuing their postsecondary education. During the first month of the COVID pandemic, FAFSA renewal rates only dropped by 1% for returning applicants with income greater than $50,000. For returning applicants with families earning less than $25,000, the FAFSA renewal rates are down by 8% and Pell Grant reapplications were down by 24%.[2]

> *The COVID-19 pandemic may mean that more youth in the general population face barriers to a college education already experienced by youth in foster care and other vulnerable populations, including disruptions to K-12 education, food insecurity, and housing instability.*

The move to online learning also presents challenges. Youth in foster care and other vulnerable populations may be disproportionally affected by the lack of access to technology. Transitions into and out of remote learning during the pandemic may hinder academic progress and postsecondary participation. As well, online learning raises significant concerns about students who depend on college housing, meal plans, jobs, and other support to stay safe and secure.

At the same time, the pandemic is increasing the number of vulnerable students, it also has decimated the state and higher education budgets. This new reality calls for rapid innovations in redesigning the postsecondary experience. While the effects of the COVID pandemic on vulnerable students' postsecondary participation are not fully known yet, this study looks back at the data and experiences of a population of students for whom instability, trauma, and disruptions to learning are historically quite common—youth formerly in foster care.

Youth formerly in foster care can be a magnifier for the challenges higher education now faces even more broadly. If we can *flatten the college curve* for youth in foster care, we can apply similar strategies and policies to solve postsecondary access and persistence challenges for many of our most vulnerable students and intentionally broaden the focus on equitable access to postsecondary education to groups of students with unique and complex life circumstances.

Flattening the College Curve:
Barriers on the Path to Postsecondary Matriculation and Persistence
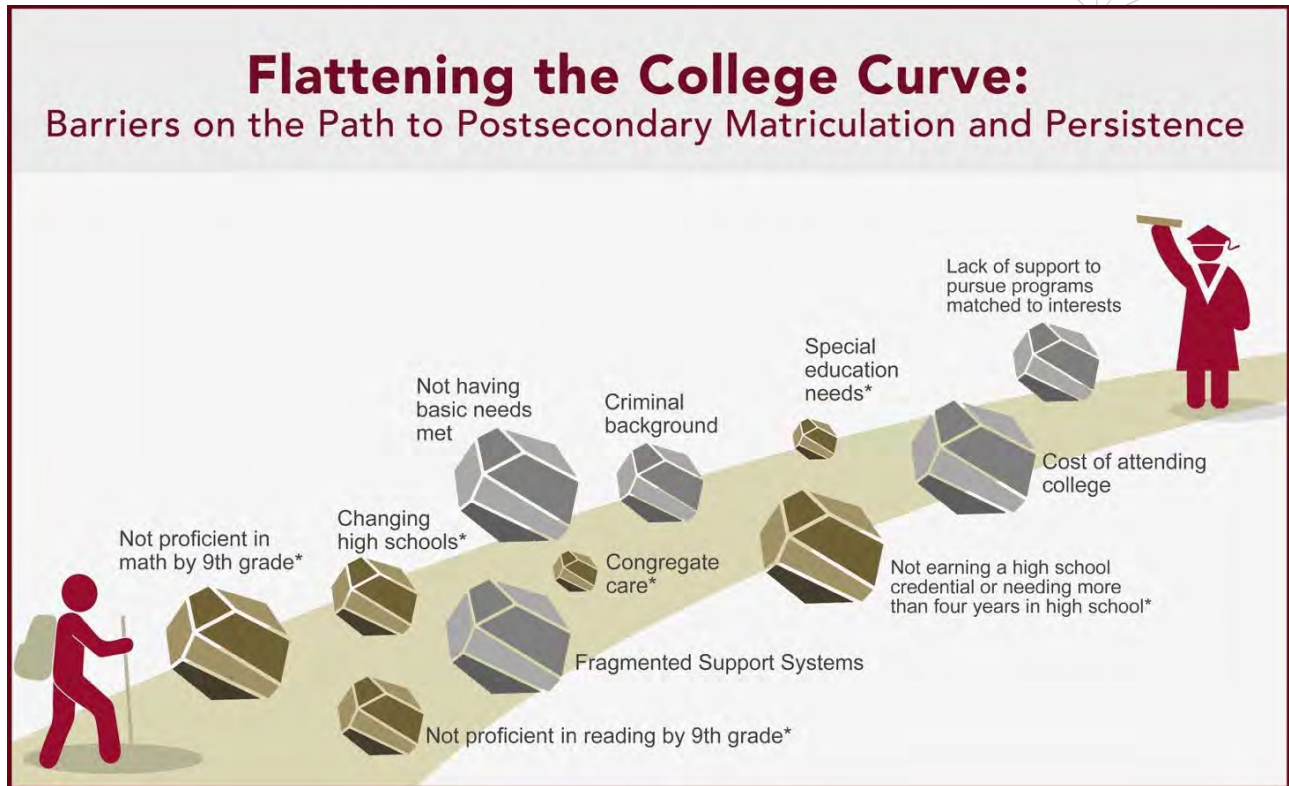
Note. Brown boulders with asterisks are constructs in the quantitative study and size of the boulder illustrates the effect size, or magnitude, of the relationship with postsecondary matriculation. Grey boulders without asterisks are barriers identified through the qualitative study; the size of the barrier aligns with prevalence of the theme but is not an effect size.

This report offers in-depth information on postsecondary matriculation and persistence rates for students formerly in foster care as a means to inform and improve policies and practices for the benefit of all youth.

More Comprehensive Information on Postsecondary Matriculation and Persistence Rates

The first of two studies reported here provides insight into WHY there is a need to focus resources by identifying levers that may increase postsecondary enrollment.

> **Statistics on postsecondary outcomes for students in foster care were based solely on self-reported status on FAFSA applications.**
>
> In Colorado, and nationally, statistics on college-going rates for former foster youth typically come from self-reported data via the FAFSA. Statistics based on this methodology alone are not complete. Not all youth who experienced foster care completed the FAFSA. Some youth who did complete the FAFSA did not disclose their experience of foster care.[i] Additionally, FAFSA data has been reported only for youth who graduated from high school, which leaves out two-thirds (66.4%) of former foster youth (class of 2017) who did not earn a high school credential.[3]

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[i] A separate question, with an age cutoff of 13, is used in the determination of dependency status for federal financial aid, but it includes experiences beyond foster care, " *At any time since you turned age 13, were both your parents deceased, were you in foster care or were you a dependent or ward of the court?"*

This study links information from the Colorado Department of Human Services (CDHS) with information from the Colorado Department of Education (CDE) and the Colorado Department of Higher Education (CDHE) to get more representative postsecondary matriculation rates for youth formerly in foster care.

Because youth who have experienced foster care may take longer to enroll in postsecondary education, this study followed them from ages 13-21. It also linked information across human services and education agencies, looking at demographic information, age at entry into foster care, school mobility, and placement changes. This approach provided a fuller, more nuanced understanding of the odds of Colorado foster youth enrolling in postsecondary education and persisting to degree completion.

Only 13.4% of youth with foster care experience enter college by the age of 21, and even fewer persist beyond the first semester or year.

This information is only available because state agencies have partnered with the research community to connect data across systems, securely and with careful attention to student privacy.

More Insight into How to Increase Postsecondary Matriculation and Persistence Rates

The second study provides insight into HOW to support youth formerly in foster care in their journey into and through postsecondary education.

State-level administrative child welfare and education data are used to examine the likelihood or odds of entering postsecondary education.

The data linkage process used builds on the prior literature indicating that disparity in postsecondary enrollment rates and completion rates begin well before students apply to college. Students in foster care often do not have the academic foundation to be successful in a rigorous postsecondary education.[4] These students also drop out of high school earlier than their peers and at higher rates.[5] There is research that attributes disengagement from school for youth in foster care to a variety of factors, including the neurobiological impacts of complex trauma, school mobility, lack of stable living environments, and unmet basic needs.[6,7]

"It was just chaotic, I think, 'cause I was always in a different school. I was in a school for less than a year. The most I was there was a year up until my sophomore year, and that was it. Around my sophomore year, I kinda just… gave up on everything."

- Kenyan, Youth Participant Who Has Experienced Foster Care in Colorado

Interviews with youth formerly in foster care provide insights, depth, and context on their lived experience.

The voices of youth in foster care are rarely directly considered for input,[8] even for public policies that have a direct impact on their lives. Similarly, little qualitative research exists featuring the voices of students who have experienced foster care on the path to postsecondary education.[9] Including their voices in this study provides a fuller understanding of meeting basic needs (e.g., food, shelter, clothing, hygiene) before they can focus on learning and goal setting. Youth also provided insight into the child welfare and education systems that either supported them or presented barriers to their education. Additionally, youth described how school mobility, academic proficiency and readiness, congregate care, and trauma influenced their educational experiences and pursuit of a postsecondary education.

> *"I had that car because I bought it for my mom. So, I had that, and I was sleeping in the car, and I was going to work and had my job… I do wanna go to college for school, but the biggest problem is finding a way to pay for it… I'd have to pay for it myself and being on my own I didn't have money to go to the store and buy food, let alone pay for my education."*
>
> **- Anna, Youth Participant Who Has Experienced Foster Care in Colorado**

A postsecondary education helps to ensure financial security throughout life and equips people with the skills and experiences necessary to enter career paths that match their interests and goals. It is also critical to ensuring the future of an essential workforce. As Colorado, the United States, and the world work to flatten the health curve wrought by COVID-19, so too can we use these findings to flatten the barriers to postsecondary participation for all students.

> *"Earning a postsecondary credential is increasingly important for individuals, the economy, and the future of Colorado."*
>
> **- Colorado Department of Higher Education**

Description of the Studies

Learning more about youth who have experienced foster care sheds light on policy changes that may better support resilience and persistence, widening the pathway to economic opportunity in Colorado. This report offers a synthesis of findings from two studies. Together, the research studies provide better information on postsecondary participation and offer insight into how to improve matriculation and persistence rates.

Study One: Analysis of Administrative Data from 2008 to 2018

- Rates and patterns of postsecondary participation within three years of exiting high school (i.e., descriptive statistics).

- Factors associated with increasing the odds of entering postsecondary education and length of time until entering postsecondary education (i.e., logistic regression and survival analysis).

Typically, postsecondary participation, or "college going", or matriculation rates are based on entry the academic year after exiting high school. The 18-1319 Former Foster Care Steering Committee Final Recommendations suggest that youth who have experienced foster care may take longer to enroll in postsecondary education than their non-foster care peers.[10] Thus, this study was designed to follow them as long as possible with the available data.

The sample included:

> **Colorado youth who were in foster care for at least one day on or after their 13th birthday. The longitudinal analyses followed these young people for three years after exiting high school (average age 21).**

Youth who are age 13 or older when they are in foster care are eligible for programs to support financial aid and housing costs (e.g., FAFSA, Education and Training Vouchers, Chafee Program, etc.). Thus, in the current study, the description of the characteristics of former foster youth are reported in ways that align to eligibility opportunities.

Through a quantitative lens, binary multiple logistic regression was used to determine how demographic information, age at entry into foster care, school mobility, and placement changes related to the odds of students enrolling in postsecondary education. Survival analysis was used to estimate how these same indicators related to how much time it takes students to enroll in postsecondary education after earning a high school credential.

Study Two: Analysis of Interviews with 23 Youth

The research team conducted in-depth interviews with 23 youth who have experienced foster care, about half of whom participated in postsecondary education and half of whom did not. These young people ranged in ages from 18-24. This analysis incorporates the voices of the youth and provides illustrative examples of the individual stories behind the data points.

> **Desiree has not given up on her dream to earn her bachelor's degree. She continues to struggle academically in college due to the academic gaps she experienced in her K-12 education, but she is driven to stay in college.**
>
> **"It's been a battle. College's been hard, but it's like definitely not something I want to give up on. I've come this far, like I can't give up. Like, I can't. And even though I really want to."**

Through a qualitative lens, youth formerly in foster care were invited to share their educational experiences and how they make meaning of these lived experiences (i.e., constructionism).[11] In this study, the research team captured the phenomenology of what it was like to experience foster care as it related to the journey through K-12 education and postsecondary planning. The interview data were coded into themes and are presented in the context of Maslow's Hierarchy of Needs ().

Key Findings

Better Data on Postsecondary Matriculation and Persistence Rates and Why There is a Need to Make Postsecondary Education More Accessible to Vulnerable Students.

Part of creating a comprehensive picture of college-going rates for youth formerly in foster care is recognizing that the timeline for entering college may be longer than their peers.

The most common postsecondary enrollment pattern for students who experienced foster care is to not go to college. Those that do, attend two-year institutions at a higher rate than four-year institutions.

Only 13.4% of youth who have experienced foster care in Colorado enroll in postsecondary education by age 21.

13.4%

Students enter two-year institutions at 2.4 times higher rate than four-year institutions.

2.4x
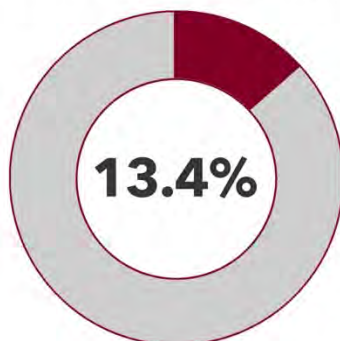
Two-Year Institutions > Four-Year Institutions

Note. This information is the average over the nine classes of Colorado students who were in foster care on or after age 13.

Most students formerly in foster care dropped out of college after their first semester or first year. Those few that make it to their second year tend to persist.

Figure 1. Trends in retention rates for youth formerly in foster care who entered a postsecondary program in Colorado within three years of exiting high school.
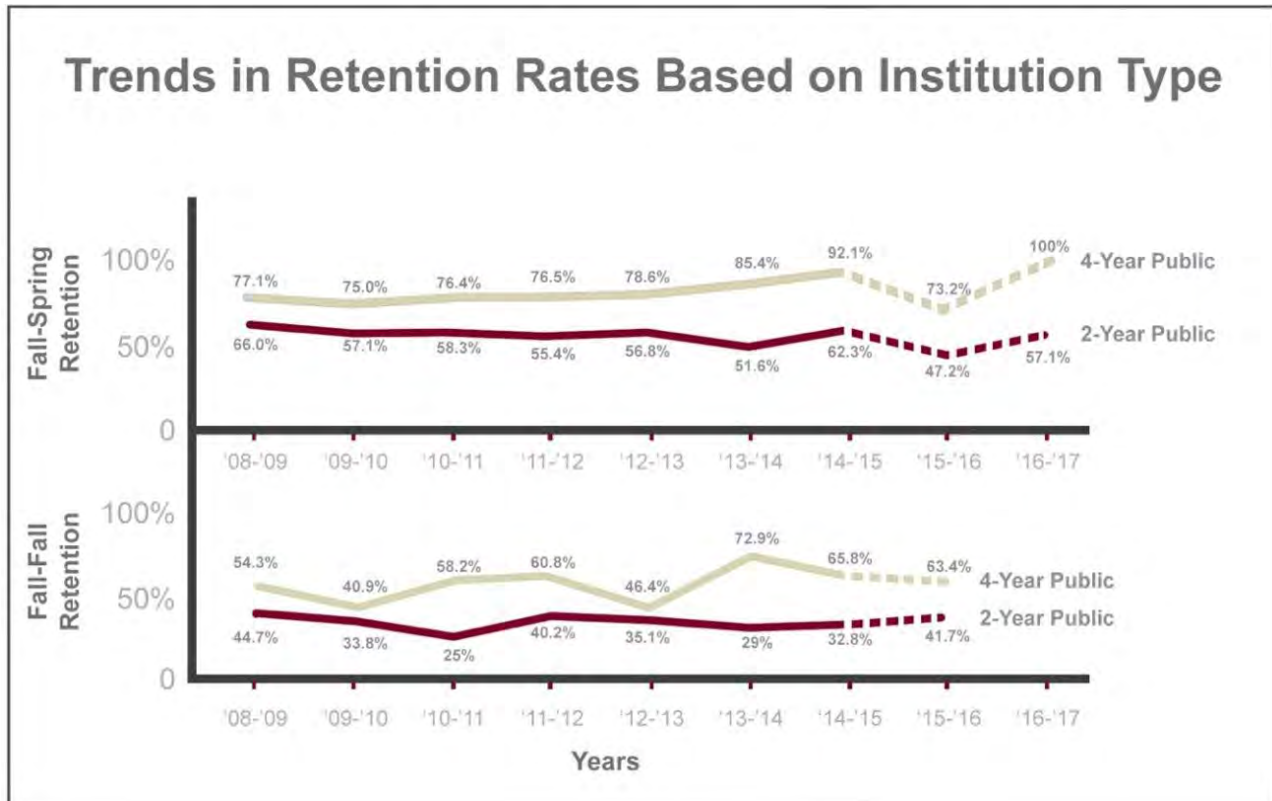
Trends in Retention Rates Based on Institution Type

Note. Solid lines indicate retention rates for all youth formerly in foster care who entered a Colorado postsecondary institution within three years of exiting high school. Dashed lines indicate incomplete data because retention rates only include youth who exited from high school one or two years prior.

Key Findings

Insights into How to Increase Postsecondary Matriculation and Persistence Rates

Increasing postsecondary matriculation and persistence rates requires that educationally vulnerable students have targeted supports in middle school—and perhaps even earlier—so that they enter high school prepared.

Academic preparedness and readiness for postsecondary coursework is important.

> When students enter high school behind in academic progress and do not catch up to grade level standards by the end of 9th grade, their odds of going to college drop.

> **The odds of enrolling in postsecondary education within three years of exiting high school is expected to increase by about 91% for those proficient in 9th grade math, compared to a similar population of youth who are not proficient.**
>
> **Similarly, the odds of ever enrolling in postsecondary education is expected to increase by 48% for those proficient in 9th grade reading, compared to a similar population of youth who are not proficient.**

It is clear from this study that creating a strong academic foundation early is critical for youth in foster care. This is consistent with the early warning of dropping out of school and educational attainment literature for all students[12]—the magnitude of the relationship is just greater for youth in foster care. This illustrates that the youth in foster care population serves as a magnifier for the needs of many vulnerable student populations. Gaps in learning must be addressed in a timely manner, which may also include identifying special education needs and providing appropriate accommodations. Investing in the 9th Grade Success Program (SB19-246) is among the strategies that could help flatten the college curve for many Colorado youth who need additional support and skills to meet their educational goals[13].

School mobility and placement in congregate care is associated with low rates of postsecondary matriculation.

> **For each additional school change during high school, the odds of ever enrolling in postsecondary education is expected to decrease by 12%.**
>
> **Ever living in congregate care is expected to decrease the odds of ever enrolling in postsecondary education by 53%.**

The number of times youth changed schools, and their placement in congregate care, should not be interpreted as "causing" low postsecondary enrollment. Instead, these findings can inform:

- Identifying young people who may benefit from additional supports in order to reach their educational goals.

- The long-term benefits of prevention efforts that address the underlying reasons for educational instability and the need for youth to be placed in congregate care settings.

Given the strong, negative association between school moves and postsecondary education, transitions into and out of remote learning during the COVID pandemic may be relevant to youths' academic progress and ultimately postsecondary participation.

- Youth in foster care and other vulnerable populations may be disproportionally affected by lack of access to technology.

- Remote learning may place additional or new demands on students' executive functioning skills. Trauma can compromise students' abilities to plan, organize, and focus their time on schoolwork.

Maslow's hierarchy of needs is a framework for understanding how to support youth in foster care toward the goal of postsecondary education.

> **In interviews, youth described how their ability to learn and retain academic information was compromised when survival needs were more pressing.**
>
> **Youth expressed that when love and belonging needs were met, they were able to focus on developing strengths-based academic and career interests.**

For youth who have experienced foster care, it is critical that stable, loving caregivers and mentors are in place before youth can develop postsecondary and career goals based on their interests and strengths. Retaining vulnerable students, once they have entered postsecondary education, requires ensuring that their basic needs are met (e.g., food, shelter, clothing). Postsecondary retention approaches need to identify where students are on Maslow's hierarchy, work with them to shore up lower-level supports, and then encourage them to engage in goal-setting activities related to connecting more broadly to the campus community and engaging fully in coursework.

Maslow's Hierarchy of Goals for Youth Who Have Experienced Foster Care

Strength-Based Goals
- Formed by connecting interests to academic and personal strengths
- Made and executed based on available resources to complete goal (scholarships, support programs, etc.)
- Realistic and attainable

Self-Actualization

Interest-Based Goals
- Formed by multiple opportunities to explore interests
- Formed by exposure to multiple postsecondary/career pathways
- Opportunity to gain input from social connections, school and child welfare systems/programs

Esteem

Acceptance/Value-Based Goals
- Allows individual to maintain familial/peer/meaningful connections
- Development based on exposure to options and opportunities provided by immediate social connections (family, peer, trusted connections)

Acceptance/Value-Based Goals

Safety-Based Goals
- Practical goals to leave unsafe situations or stay in safe situations
- Not based on interests
- Make enough money to live in a safe household that is not physically or emotionally abusive

Safety

Survival-Based Goals
- Make enough money for shelter/warmth, food/water, clothing, medical needs
- Not based on interests
- Goals are means to an end

Physiological Human Needs

Implications

In order to set youth who have experienced foster care on a path for success in education, and ultimately in life, Colorado must continue to address systemic barriers to earning a high school credential and open the door to postsecondary education, which includes:

- **Continuing to support educational stability (K-12)**

- **Real-time child information exchanges to support educational success (K-12)**

- **Building the evidence for programs aimed in increasing high school completion**

- **Investing in tuition waivers and strategies to make college affordable**

- **Addressing basic needs; developmentally appropriate reentry into foster care may help**

- **Prioritizing foster youth for apprenticeships**

- **Supporting postsecondary persistence**

- **Erasing equity gaps for students with unique and complex life circumstances**

Colorado is a leader in **educational stability policies** for students in foster care. HB 18-1306 filled in gaps in the federal legislation, the Every Student Succeeds Act. HB 18-1306 included provisions for students to stay in their schools of origin with transportation provided at least until the end of the academic term. The legislation also offered school districts flexibility to waive prerequisites and graduation requirements that could make it possible for youth who do change schools late in high school to still graduate without dropping the rigor of a high school diploma. Ongoing investments in transportation and state-level staff to support implementation of this law is an essential part of ensuring students have the stability they need to learn. So are the educational stability grants administered by CDE to address reducing educational barriers for students who experience high mobility by providing academic and social-emotional services and supports.

Many students who enter foster care are behind academically.[14] A decade of data on the academic achievement levels of youth while they are in foster care suggest that, typically, they are not catching up to grade-level expectations.[15] Increasing real-time **information exchanges between child welfare and education agencies** is a critical step toward aligning these systems and supporting individual students' educational success. Despite serving the same people, historically these systems have operated with minimal information sharing, leading to isolation of both service delivery and performance management. Often, the

> Colorado is a leader in educational stability policies for students in foster care.

> *As agencies innovate to better support students in foster care and other vulnerable youth, it is imperative to incorporate data collection and evaluation. Evidence-building not only provides important information about efficacy and scalability, but also helps inform how Colorado can allocate scare funds to promote the best possible child outcomes.*

firewalls between systems have prevented schools from being able to even identify students in foster care, much less provide the appropriate support to promote educational achievement.

When educators have information on child welfare case status, they are able to ensure students have access to free lunch, fee waivers, and opportunities to fully participate in school and extracurricular activities. When educators are aware of key events, like court hearing dates and placement changes, they are better able to proactively support the student and make appropriate accommodations for completion of work. When caseworkers know how students are doing in school, they can integrate education into services and supports provided to the family. Pursuing additional information exchanges between these two systems will not only allow for more coordinated case management and delivery of services, but also increase agencies' abilities to track outcomes and assess program efficacy. Access to a more holistic set of data on each child will allow both schools to more effectively promote positive child welfare outcomes and caseworkers to support educational outcomes.

Once students enter college, co-requisite remediation is an effective strategy for continuing to shore up academic foundations in math and reading. These college-level courses can serve as a skill-building booster or refresher for key concepts.

Learn more about resources related to developmental education that resulted from HB19-1206, here.

An example of Colorado's investment in **building the evidence** is the Pay for Success project, *Fostering Opportunities*. This innovative student engagement program was designed by Jeffco Public Schools and Jefferson County Human Services to help youth who have experienced foster care be successful in school and ultimately earn a high school credential. The program is committed to ensuring every student receives equitable opportunities to be successful in a learning environment that meets their needs. This program aims to remove all educational barriers with an emphasis on improving school attendance, reducing behavioral and discipline incidents, increasing grade level promotion, reducing the dropout rate, and increasing graduation and completion rates. Preliminary data on the efficacy of this program will be available in spring 2021. **Expanding programs that work to serve more students will be a next step.** Expansion might include broadening the eligibility and program design to serve a variety of highly mobile or educationally vulnerable K-12 students. The goal is to ensure every student has the opportunity to graduate from high school and that unique life circumstances do not prevent them from reaching this important milestone.

For those youth who have the academic foundation and desire to enter postsecondary education, **tuition waivers** may be a game changer. Knowing that postsecondary education is financially within reach may also encourage youth who are considering dropping out of high school to persevere. The Former Foster Youth Steering Committee has developed thoughtful recommendations related to tuition:

- How to structure waivers to leverage federal and private funds before new state investments.
- How to prevent young people from maxing out their Pell grants when they are young adults struggling with basic needs but are still trying to make progress in their postsecondary education.

However, tuition waivers alone are not enough. Beginning on of this report, youth describe the importance of a comprehensive strategy to make college affordable. The Colorado Department of Higher Education's **Roadmap to Containing College Costs and Making College Affordable** can be found here.

Addressing basic needs is imperative for students transitioning to independence while attending a postsecondary education program. Without stable and adequate housing, access to consistent meals, and basic hygiene and clothing needs, it is difficult to focus and prioritize postsecondary education programs. Legislation that would allow young adults to **reenter foster care is among the ways that basic needs can be met in a developmentally appropriate way for young adults**. Youth who participated in the qualitative aspect of this study indicated that even with tuition scholarships, they often had to work multiple jobs to meet their basic needs, leaving them little time to focus on learning. Several participants experienced homelessness despite having some financial support through their postsecondary programs. A mechanism for youth who are committed to furthering their education and need independent living or other supports to ensure their safety and stability could support postsecondary persistence. The Colorado Opportunity Scholarship Initiative (COSI) is another way that tuition support is paired with wraparound support services. COSI serves a variety of vulnerable youth populations, not just those who were in foster care. **For all students, streamlining access to public benefits** is work that is well underway through leadership of CDHE, CDHS, and individual institutions of higher education.[16]

Prioritizing youth for apprenticeships and other "earn and learn" opportunities is a recommendation from the Former Foster Care Steering Committee (HB18-1319). Paid apprenticeships in state organizations, such as through CareerWise, raising awareness of the Workforce Innovation & Opportunity Act, and apprenticeship programs that may be available to youth, were recommendations from the steering committee.[17] State partners who have hosted youth in apprentice roles emphasized the value of these experiences for learning foundational work-skills (e.g., engaging with colleagues, crafting emails, professional work behaviors). Apprenticeships may be particularly helpful to students who need support to meet survival- and safety-based goals while they pursue goals and activities aligned to their career interests.

Supporting postsecondary persistence is more possible when young people have their basic needs met, as well as academic, financial, personal, and career support through their postsecondary institutions. *Fostering Success,* a program offered at Colorado State University, is available to all students who qualify as "independent" on the FAFSA. This program offers mentorship and enhanced academic and social-emotional support. *EPIC Scholars* at The Metropolitan State University of Denver provides academic and supportive services to students formerly in foster care. This program offers coaching, academic and career advising, scholarship/stipend opportunities, referrals to meet basic needs, and builds a community of independent students. *Single Stop*

My Colorado Journey connects students to the educational planning, support services, public benefits, and other resources that help them achieve their goals. Learn more here

Journeys can be shared by students with the professionals, mentors, and other supportive adults in their lives.

Content specifically tailored to youth formerly in foster care is coming soon!

is a national program that provides a one-stop location on campus for students to get screened for public benefits, assistance applying for those benefits for which they are eligible, and referrals to other community and college resources. *Single Stop* also provides tax assistance to ensure students receive tax credits they are eligible like the Earned Income Tax Credit and Child Tax Credit. Youth who participated in the qualitative aspect of this study indicated this extra support, and even something as simple as receiving a care package, encouraged them to persist despite the challenges they experienced in school. Retention strategies must be matched to where the student is in Maslow's hierarchy in order for the approach to work (see).

These solutions to systemic barriers for youth who have experienced foster care in Colorado can clear the path for them to succeed in high school and college, and ultimately in the workforce. Currently, the higher education funding model incentivizes enrolling and graduating students from underrepresented minority groups, who are first generation college students, and from low-income families. **Erasing equity gaps** requires broadening the focus to explicitly include students who experience unique and complex life experiences – such as foster care.

Basic Needs

Streamline Access to Public Benefits through higher education institutions, CDHE, CDHS, and other agencies

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Expand Postsecondary Persistence Supports institution-based programs for "FAFSA independent" students boosts retention and completion

K-12 Education

Real-Time Information Exchange between child welfare & education agencies supports educational success

Expand Innovative Student Engagement Programs remove barriers and increase graduation rates

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WORKFORCE

POSTSECONDARY EDUCATION

K-12 EDUCATION

BASIC NEEDS

ERASING EQUITY GAPS

Study One: Analysis of Administrative Data from 2008 to 2018

Quantitative Methods and Key Findings

Purposes of the Quantitative Research

More Representative Information on Postsecondary Matriculation and Persistence

In Colorado, and nationally, there is a need for more representative information on postsecondary matriculation and persistence rates for students formerly in foster care. Statistics on college-going rates for former foster youth typically come from the FAFSA, which asks applicants to self-report their history of being in foster care. Statistics based on this methodology are not comprehensive because not all youth who experienced foster care on or after their 13th birthday completed the FAFSA. Also, some youth who did complete the FAFSA and were in foster care did not disclose that information.

To gain a better understanding of how many Colorado students who have experienced foster care participated and persisted in postsecondary education, data needed to be linked across Colorado administrative data systems. This process also allowed for longitudinal analyses of factors associated with postsecondary matriculation and gain insight into where to focus resources.

Insight into Where to Focus Resources

Examining the likelihood or odds of entering postsecondary education offers insight into where to focus resources. The quantitative data reported in this section are further informed by the lived experiences of young people. Together this information guides the implications and recommendations presented on .

Methods

Ten years of child welfare, education, and higher education administrative data were used to:

> **Generate rates and patterns of postsecondary participation within three years of exiting high school. (Descriptive Statistics, n = 12,199).**
>
> **Identify factors associated with the likelihood of reaching postsecondary education and also on the amount of time it takes until students in foster care reach postsecondary education. (Logistic Regression and Survival Analysis, n = 1,365).**

Colorado state-level administrative datasets were connected across the child welfare, K-12, and higher education systems. Ten years of data were used for both descriptive and predictive purposes; however, the analytic samples differed based on the goals and needs of the research questions. The full dataset was used to describe trends in postsecondary enrollment and persistence. A subset of the sample was used in logistic regression to assess the likelihood of enrolling in postsecondary education. Survival analyses was also used on the sub-sample to predict time until postsecondary enrollment after existing high school.

Datasets and Connecting of Records

The information needed to answer the research questions resides in three state agencies: CDHS, CDE, and CDHE. Matching was a three-step process:

1. CDHS's Trails data were connected to CDE's data for research projects through the "Colorado Study of Students in Foster Care".

2. The K-12 data were connected to the Student Unit Record Data System (SURDS), which is Colorado's higher education data system that contains in-state enrollment. K-12 and higher education in Colorado share a common unique identifier, the State Assigned Student Identifier (SASID).

3. The K-12 data were also matched against the National Student Clearinghouse (NSC), using names and date of birth. The NSC contains enrollment data for students who attended postsecondary institutions outside of Colorado.

All data sources were merged and redundancies and inconsistencies corrected (See Appendix A). The resulting dataset used CDHS's Trails data for all child welfare related information (e.g., foster care placement information), CDE's End of Year and Assessment data collections for educational records, and CDHE's SURDS and NSC data for postsecondary enrollment information.

Sample

For analytic purposes, the full sample was used to investigate patterns of enrollment, types of institutions attended, retention rates, and high school credentials for all system-involved youth available to CDHE. The demographic characteristics of the full sample can be found in Appendix B.

Full Sample

> **12,199 Colorado youth who were in foster care for at least one day on or after their 13th birthday and exited (i.e., graduated or dropped out) from a Colorado public high school between the 2008-09 and 2016-17 academic years.**
>
> **This study describes these young people's postsecondary enrollment and persistence for up to three years after exiting high school (average age 21) using data through the 2017-18 academic year.**

A subset of the full sample was used to model the likelihood of reaching postsecondary education for students in foster care, and also on the amount of time it took until students in foster care reached postsecondary education. The smaller sample included all youth for whom academic proficiency measures in ninth grade were available. The demographic description of the full sample is presented in Table 1.

Table 1. Full Sample Demographic Description

Variable	Full-Sample (n = 12,199) (%)
Female	5294 (43.4%)
Non-White	6119 (50.2%)
English Language Learner	969 (7.9%)
Special Education	5323 (43.6%)
Free and Reduced Lunch	9820 (80.5%)
Homeless	2840 (23.3%)

Note. Unique student statuses of ELL, SPED, FRL, and Homeless are reported if students were ever identified as part of this instructional service types during the study.

The demographic characteristics of this sub-sample can be found in Appendix B.

Subset of the Full Sample

> **1,365 youth who were in foster care at the age of 13 or older, attended 9th grade for the first time between the 2007-08 and 2013-14 school years, were anticipated to graduate from high school between the 2010-11 and 2016-17 school years, and were measured for math and reading proficiency during their first year of 9th grade.**

Results

- **Enrollment and Persistence Rates and Patterns**

- **Likelihood of Reaching Postsecondary Education**

- **Amount of Time it Takes to Reach Postsecondary Education**

Enrollment and Persistence Rates and Patterns

Postsecondary enrollment and persistence data patterns were based on Colorado administrative data for each individual for up to three years after exiting high school. This information is better than FAFSA's self-reported data because it does not rely on individuals to self-report their history of foster care.

Three years of data post-high school were available for youth who exited high school between the 2007-08 and 2015-16 academic years. Youth who exited high school during the 2016-17 academic year were followed for only one year; youth who exited during the 2015-16 academic year had two years of postsecondary data. Thus, the enrollment data for the most recent two years of the study were incomplete and that is illustrated in the charts and graphs.

Up to Three Years after Exiting High School means since their last semester of enrollment, regardless of why they "exited" high school.

This study captured the postsecondary enrollment and persistence within three years of earning a high school credential or dropping out and staying out of school.

The most common postsecondary enrollment pattern for students who experienced foster care is to not go to college.

K-12 education, colleges/universities, state agencies, legislators, and non-profits/community partners all have a role in increasing the college-going rate for youth in foster care. The findings from this report demonstrate a clear need to erase the equity gap in college-going rates.

Only 13.4% of youth who have experienced foster care in Colorado enroll in postsecondary education by age 21.

13.4%

Students enter two-year institutions at 2.4 times higher rate than four-year institutions.

2.4x
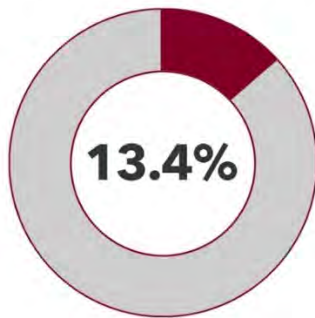
Two-Year Institutions > Four-Year Institutions

A recent report from CDHE indicated that associate degrees in applied sciences and two-year certificate programs yield higher early career wages than bachelor's degrees or other associate degrees.[18] Information is not yet available on the type of credential youth formerly in foster care earn and that is important context for strategies aimed at reducing equity gaps.

Most students formerly in foster care dropped out of college after their first semester or first year. Those few that make it to Year 2 tend to persist.

For both two-year and four-year public institutions, the retention rates for students in foster care is well below the rates of first-year students as a whole. During the same time period, institution-wide retention rates ranged from 53% to 57.7% for two-year private institutions and 74.6% to 78% for four-year public institutions[19], whereas the average retention rates of youth formerly in foster care were 56.9% at two-year public institutions and 81.6% at four-year public institutions. The variability in retention rates at the four-year public institution is a reflection of the relatively low number of youths formerly in foster care who enrolled (i.e., retaining or losing a few students can move the rates substantially).

Students who attended 4-year schools persisted beyond the first semester or first year at a higher rate than students who entered two-year institutions.

Higher Persistence Rate

Two-Year Institutions < Four-Year Institutions
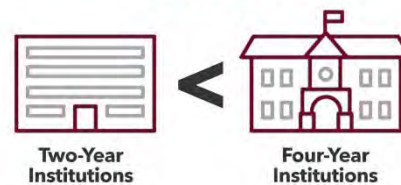
Figure 2: The retention rates of youth formerly in foster care were higher at four-year institutions than at two-year institutions.
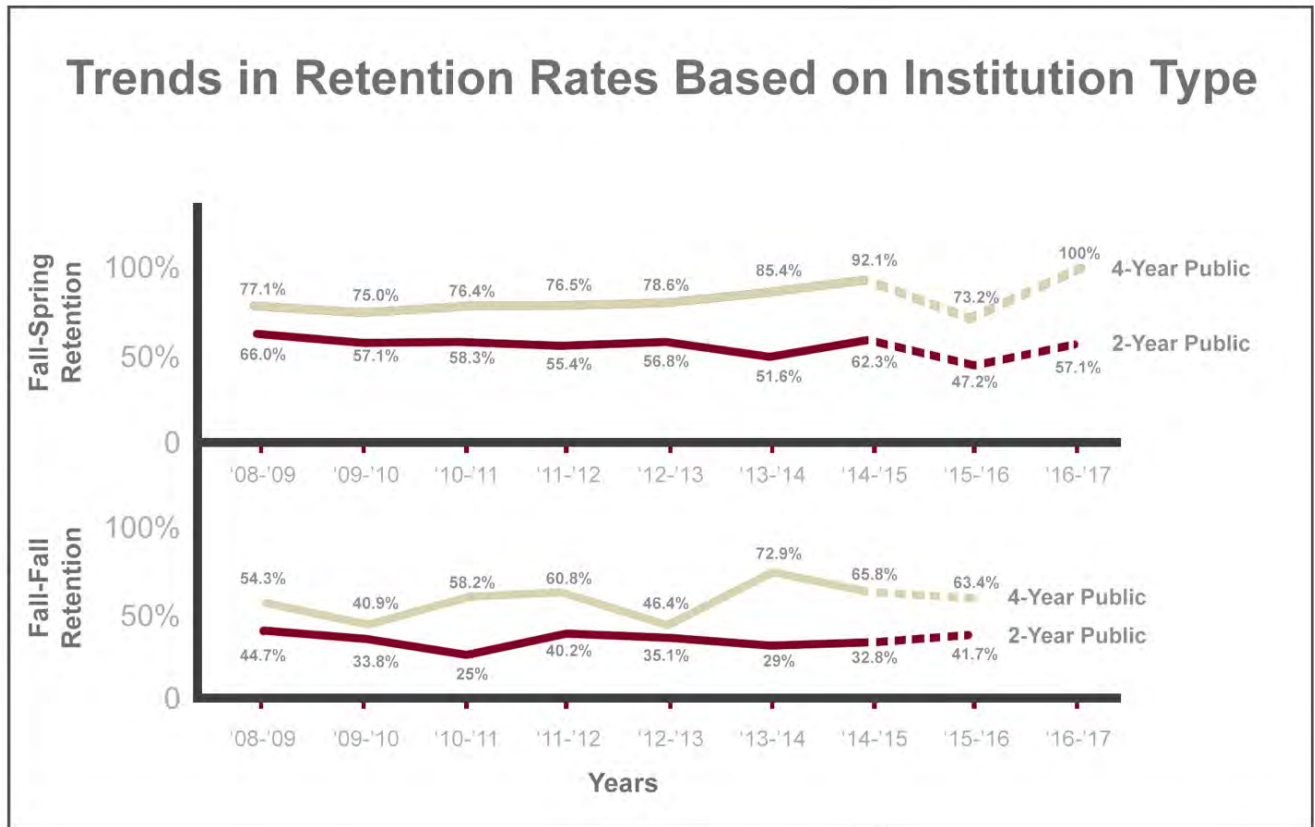
Note. Solid lines indicate retention rates for all youth formerly in foster care who entered a Colorado postsecondary institution within three years of exiting high school. Dashed lines indicate incomplete data because retention rates only include youth who exited from high school one or two years prior.

The number of students formerly in foster care who enrolled in postsecondary education ranged from 167 to 247 per year.

Averaged across all years, the 13.4% of youth in foster care entered postsecondary education within three years of exiting high school. This is inclusive of all students, not just those that earned a high school credential. The enrollment data up through the 2014-15 academic year suggest that postsecondary matriculations may improve slightly for the most recent years. There are youth in the "denominator" for the 2015-16 and 2016-17 academic years that exited high school less than three years before the postsecondary enrollment records were accessed for this study.

The college-going rates for youth formerly in foster care are much lower than for Colorado students as a whole, which is 57% of high school graduates.[20] These rates may be used as a baseline for estimating the costs or return on investment for new policies or programs aimed at increasing postsecondary participation.

Figure 3: Trends in Colorado postsecondary enrollment of youth formerly in foster care.
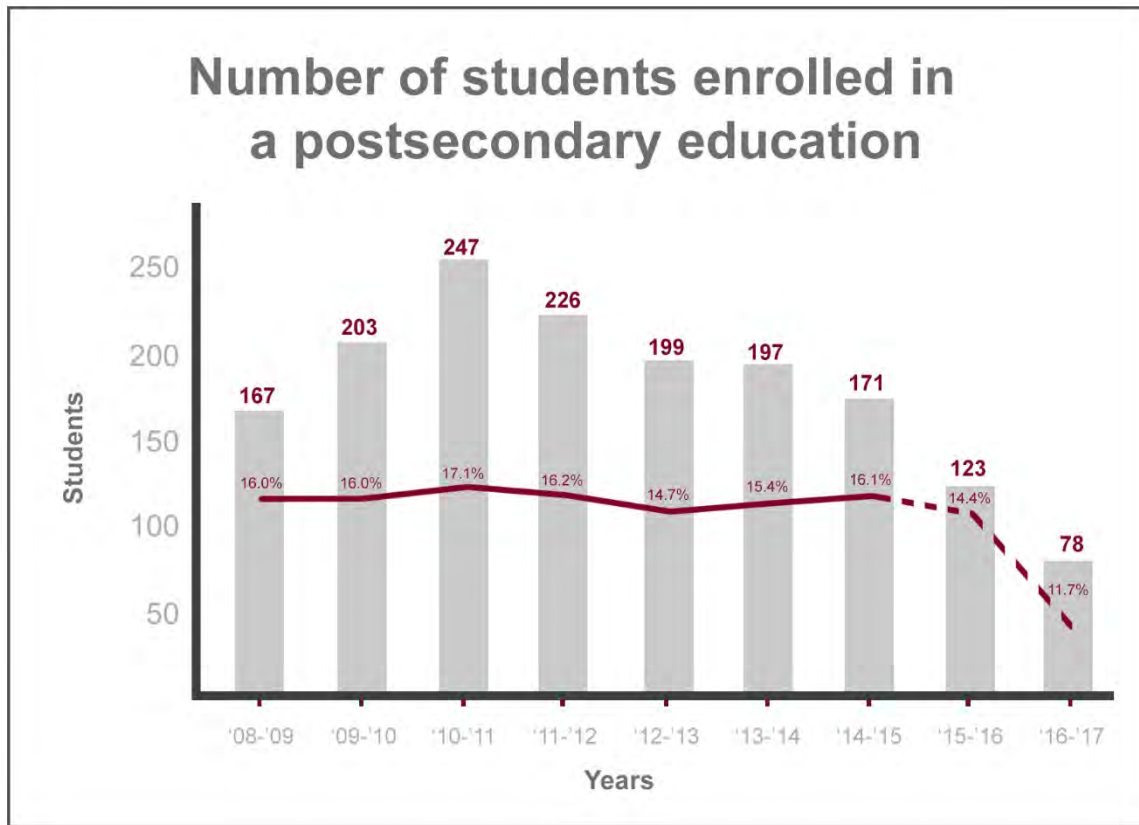
For those who did enroll, Table 2 shows the specific semesters (from high school exit) of first enrollment. Of the students who did enroll, about 61.7% of them enrolled during their first fall semester following high school exit. Most students who enrolled did so prior to or during the fall semester of the second year following high school; after that point in time, very few students ever enroll in postsecondary education.

Table 2. Summary of Enrollment Semesters for all Students Who Ever Enroll in Postsecondary Education (Summers Excluded)

	Fall, Year 1	Spring, Year 1	Fall, Year 2	Spring, Year 2	Fall, Year 3	Spring, Year 3
Number of Students Who Ever Enroll in Postsecondary Education (%)	1006 (61.7%)	179 (11.0%)	183 (11.2%)	80 (4.9%)	79 (4.8%)	53 (3.3%)

Note. A total of 1,630 students (out of 12,199) ever enrolled in postsecondary education. Youth who enrolled in the summer semesters (n = 50) are omitted from the table.

Most students enrolled in two-year postsecondary institutions

Percentage of students enrolled by institution type

2-Year Private	1.2%
2-Year Public	64.0%
4-Year Private	6.9%
4-Year Public	27.1%
Other	0.9%

Two-year public schools remain the most common type of postsecondary education for youth experienced foster care on or after their 13th birthday, followed by four-year public institutions. Private institution enrollment is rare.

Although many two-year institutions are designed to be accessible to students who did not earn a high school credential, the data indicate students formerly in foster care who dropout of high school or otherwise exit without a credential show around a 1.3% chance of enrolling in postsecondary education by age 21. Whereas students who earned a high school credential had about a 34.7% chance of enrolling in postsecondary education by age 21.

> Given that the return on students' investment varies based on the type of two-year degree earned, additional research that follows youth formerly in foster care to completion is needed. A recent report from CDHE highlighted the strong value an associate of applied science and certificate programs have relative to an associate of general studies or bachelor's degrees within five years of graduating.[21]

Likelihood of Reaching Postsecondary Education

Logistic regression was used to assess the associations among child welfare and high school data and the likelihood of enrolling in postsecondary education within three years of exiting high school. This approach is predictive, not causal, meaning that the results reflect the association between child welfare or educational data points and the likelihood of enrolling in postsecondary education. This analysis used a sub-sample of youth who were in foster care on or after their 13th birthday (n = 1,365 youth, see Appendix B).

Predictors included English-language learner status; special education status; the number of years spent in high school; the cumulative number of school moves during high school; the cumulative number of placement changes during high school; the cumulative number of combined school move and placement

> *Likelihood helps us know where to focus energy and resources.*
>
> *Getting youth who have experienced foster care **on grade level by the end of 9**[th] **grade** is likely to open the door for them to go to college.*

change events during high school; indicators of math and reading proficiency during the first 9th grade; and indicators of homelessness or living in congregate care[ii]. Tenth grade math and reading assessment data were not included in the model because they were highly correlated with 9th grade test scores. Although these data points do not capture the full child welfare or educational experiences of youth, they do offer insight on where to focus energy and resources.

Ensure Academic Proficiency by the End of 9th Grade

The literature emphasizes a laser focus on the transition into 9th grade and ensuring students have the academic and organizational skills necessary to progress successfully through high school.[22, 23] Previous research on academic achievement of Colorado students in foster care indicated that when students are proficient in math or reading in 9th grade, they tend to stay on grade level and are more likely to graduate.[24] A trauma-informed approach to closing gaps in their academic foundations and building the executive functioning skills necessary to be successful in high school, and ultimately postsecondary education, may be particularly beneficial for students in or with a history of foster care.

The odds of postsecondary enrollment is expected to increase by about 91% for those proficient in 9th grade math, compared to a similar population of youth who have experienced foster care who are not proficient.

Intuitively, if we have a population of 1,000 system-involved youth who are not proficient in 9th grade math, we may assume an average of 11.3% of them will ever enroll in postsecondary education, or about 113 students. We would expect a similar group of 1,000 students who are proficient in 9th grade math to have around 196 students ever enroll in postsecondary education.

The odds of enrolling is expected to increase by 48% with 9th grade reading proficiency and by 72% with each additional year of high school.

Supporting students so they **stay in school until they reach the milestone of a high school credential** is also important. Some students **need longer than four years** to earn a high school credential. Students with special education needs or complex child welfare cases, that require placement in congregate care settings, may need extra support.

Preventing unnecessary school changes and mitigating the ripple effects that necessary school moves can have on a youth's educational progress, connectedness, and aspirations is likely to change the odds of going to college.

[ii] Congregate care is an out-of-home placement in a group setting, such as a group home or residential treatment facility. Youth in these placements are "in foster care" but the setting is not family-like.

Figure 4: Illustration of how ensuring proficiencey, especially in math, is expected to increase postsecondary enrollment rates.

Predicted Postsecondary Enrollment Rates Based On 9th Grade Math & Reding Proficiency

- 35% — Proficient in 9th Grade Math (26%, 32%, 33%, 35%)
- 24% — Proficient in 9th Grade Reading (19%, 20%, 22%, 24%)
- 14% — NOT Proficient in 9th Grade Math (10%, 12%, 12%, 14%)
- 11% — NOT Proficient in 9th Grade Reading (7%, 10%, 10%, 11%)

Enrollment Rates

Within # of Semester from High School Exit
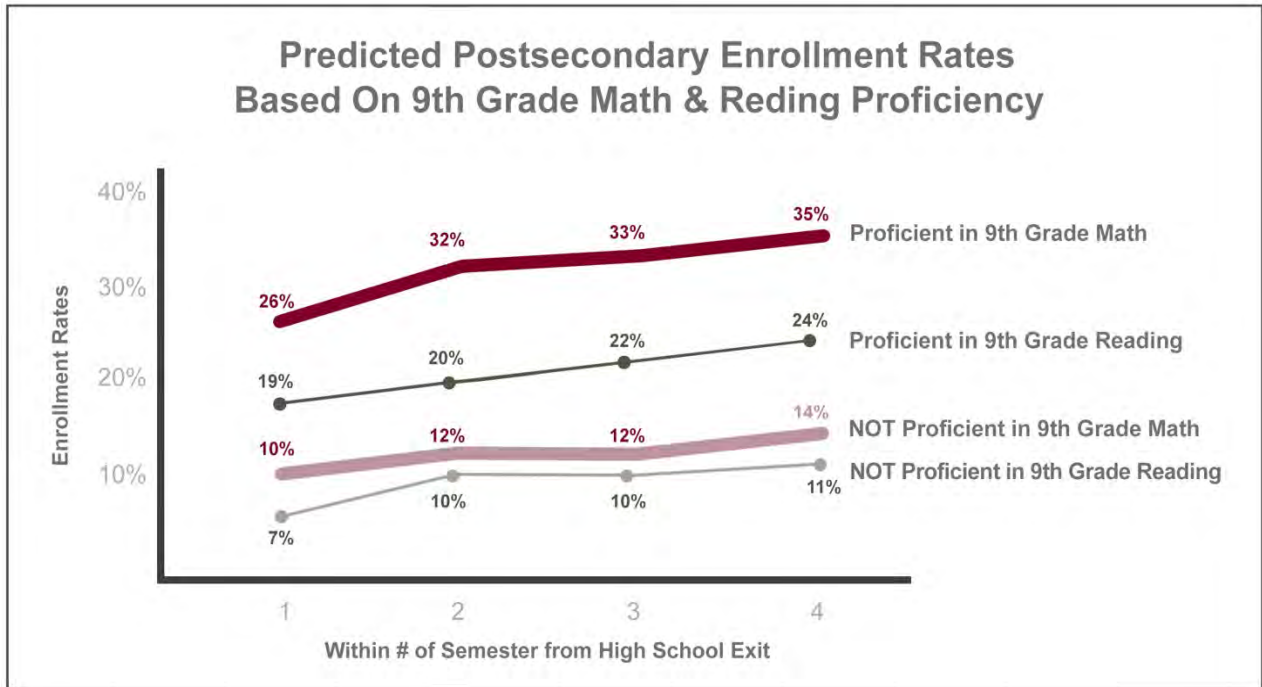
Support Students Who Could Benefit from More than Four Years in High School

The more years students are in high school, the more likely they are to enter postsecondary education.

> **Students who stay in high school for four years, have a 26% chance of entering postsecondary education within the next three years.**
>
> **Students who were enrolled in high school for five or six years were MORE likely to enter postsecondary education than youth who exited after four years.**

Figure 5: Illustration suggesting supporting some students in foster care to stay in high school, beyond four years, is expected to increase postsecondary enrollment rates.

Predicted Postsecondary Enrollment Rates Based On Number of Years in High School
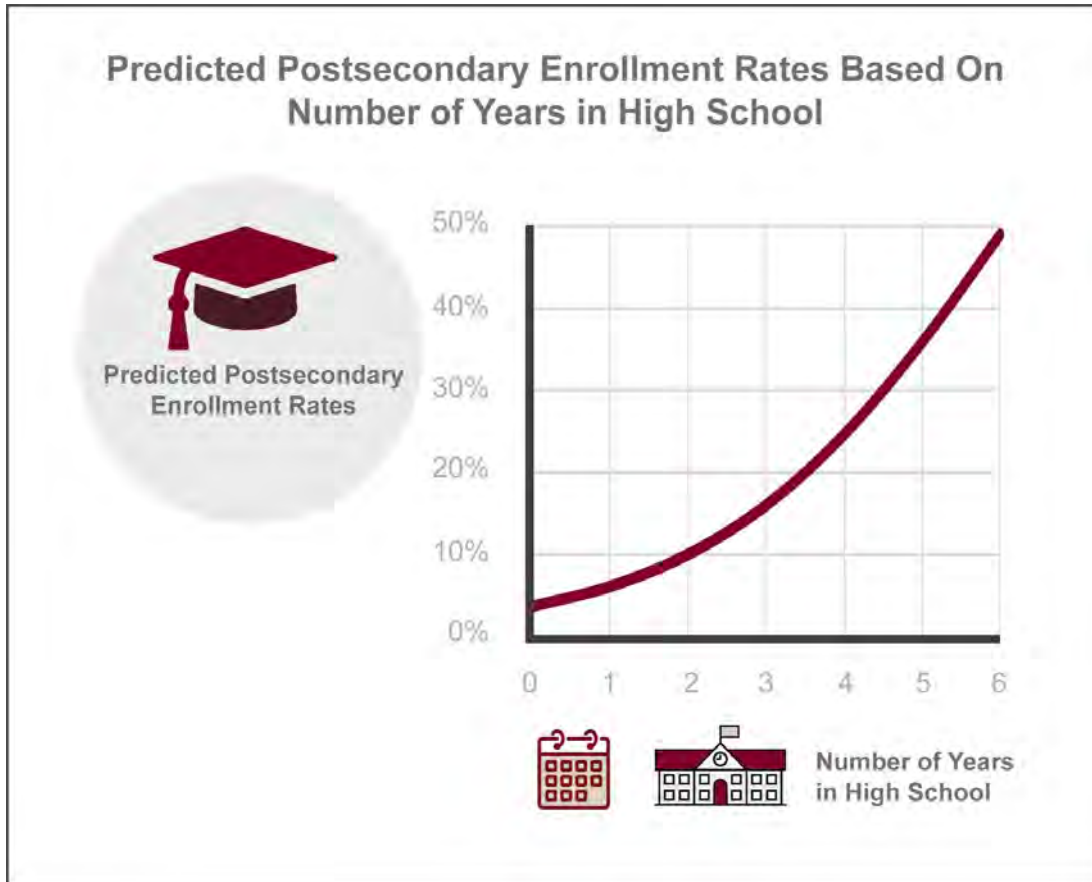
There can be many reasons why students who experience foster care may need more than four years to earn a high school credential and be prepared for postsecondary education, but here are a few of them:

- **Entering high school behind in academic progress**—less than 20% of students in foster care are on grade level in math at the end of 8th grade.[25]

- **Dropping out of school and re-entering after time away**—students in foster care drop out at four times the rate of their peers in Colorado.[26]

- **Changing schools frequently**—students who are in foster care during high school typically change schools at least three times.[27]

Placement changes did not show a significant association with the likelihood of enrolling in postsecondary education, possibly because this is controlled by school changes.

Continuing to Support Educational Stability (K-12)

There is a clear, negative relationship between the number of school changes and likelihood of enrollment. Every time a student changes schools in high school, they are less likely, on average, to enter postsecondary education.

> **With each additional school change during high school, the odds of ever enrolling is expected to decrease by 12%.**

There can be many reasons why changing schools is associated with decreased likelihood of postsecondary enrollment, but here are a few of them that are illustrated in the qualitative component of this report or in prior research:

- Changing schools multiple times is associated with falling behind academically (see Mobility, Academic Achievement, and Social-Emotional Development and Appendix C).

- Enrolling in a new school may mean different course offerings and graduating requirements. Colorado has 178 school districts, and each set their own graduation requirements (see Appendix C).

- Applying to college is complicated. When students change schools, it may disrupt relationships with adults who can help (read Coby's story).

Figure 6: As the average number of school changes increases, the postsecondary enrollment rate of students in foster care decreases.

Predicted Postsecondary Enrollment Rates Based On Number of School Changes During High School
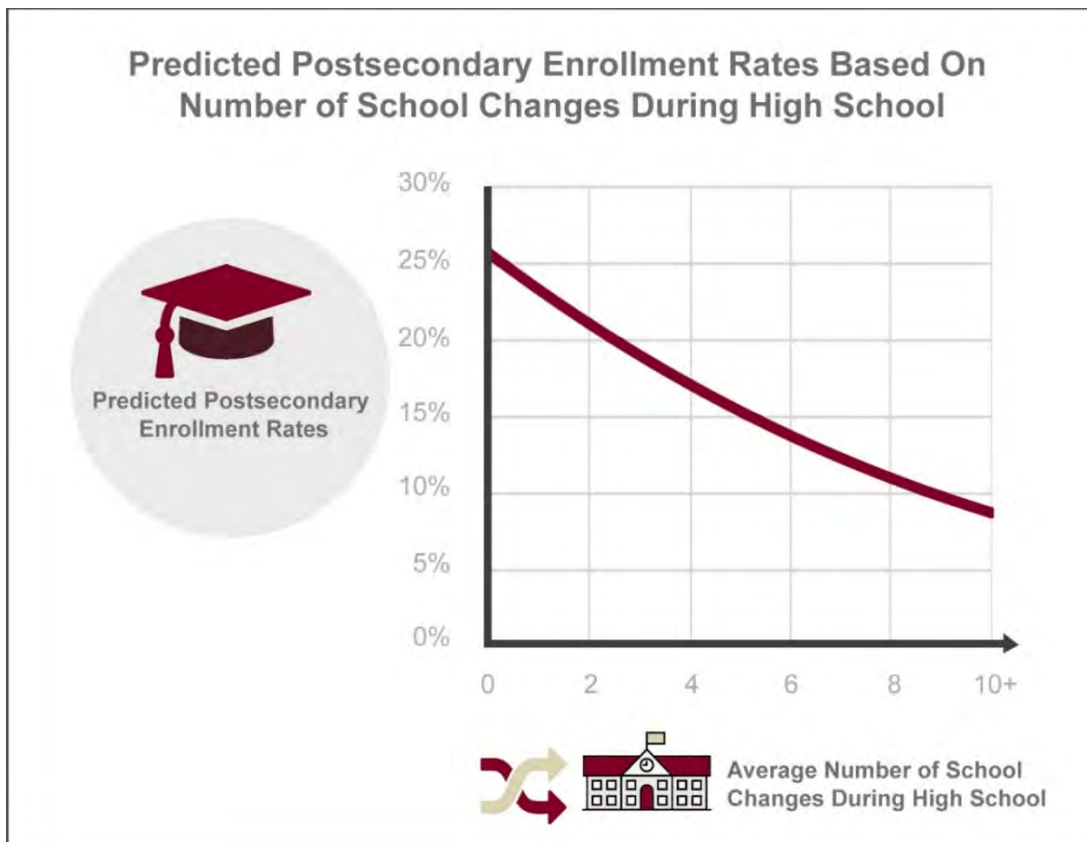
Improving educational stability means reducing the number of school changes to those in a child's best interest and creating more seamless transitions when a school change is necessary.

Colorado HB18-1306 addresses educational stability for youth in foster care by providing funding for transportation to keep youth in their school of origin and offering flexible graduation requirements and prerequisites without reducing the rigor of earning a high school diploma.

Some Unique Populations of Students Who Experience Foster Care May Be Even Less Likely to Go to College

The experiences of ever being eligible for special education services, homelessness, English-language learner, or placed in congregate care were included in the logistic regression model to determine if there were unique populations that were at greater risk for not going to college.

Special education status is associated with the odds of enrollment decreasing by 42%.

Placement in congregate care is associated with the odds of enrollment decreasing by 53% compared to those youth who are placed entirely in family-like settings.

There was no significant difference in the odds of postsecondary enrollment for youth who were in foster care after age 13 who also were identified as experiencing homelessness during their K-12 education or for those that were English-language learners.

Putting it All Together

For the sample of Colorado youth who experienced foster care on or after their 13th birthday, the logistic regression in Table 3 illustrates the odds of enrolling in postsecondary education within three years of exiting high school. The predictors are the select child welfare and education data points included in the model. The estimate (B) illustrates the direction of the relationship (positive or negative) with entering postsecondary education. The odds ratio illustrates the magnitude of the association. For positive relationships, a larger odds ratio is a greater magnitude or larger effect. For negative relationships, a smaller odds ratio means a greater magnitude or larger effect because it is farther from a ratio of 1.

Table 3: Results of Logistic Regression Model for Ever Enrolling in Postsecondary Education

Predictors	Estimate (B)	SE B	Odds Ratio	*p*-value
Proficient in 9th Grade Math (1 = yes, 0 = no)	0.65**	0.22	1.91	0.004
Proficient in 9th Grade Reading (1 = yes, 0 = no)	0.39*	0.17	1.48	0.021
Number of Placement Changes	0.0001	0.04	1.00	0.998
Number of School Changes	-0.13***	0.03	0.88	<0.001
Years in High School	0.54***	0.07	1.72	<0.001
English Language Learner Status (1 = yes, 0 = no)	0.04	0.26	1.04	0.872
Ever in Congregate Care (1 = yes, 0 = no)	-0.76***	0.16	0.47	<0.001
Special Education Status (1 = yes, 0 = no)	-0.54**	0.17	0.58	0.001
Ever Homeless (1 = yes, 0 = no)	-0.08	0.17	0.92	0.627

Note. Dependent Variable = Ever Enrolled in Postsecondary (1 = yes, 0 = no). A positive estimate (B) represents that the predictor is associated with an increase in the likelihood of foster care students enrolling in postsecondary education (p-values: * <0.05, ** < 0.01, *** < 0.001).
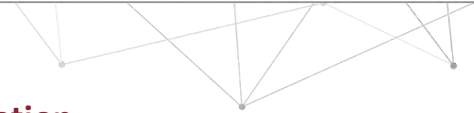
Amount of Time It Takes to Reach Postsecondary Education

Going to college right after exiting high school is not right for everyone. Knowing what to expect in terms of the amount of time between high school and first college enrollment for youth formerly in foster care can inform policies intended to support the transition into adulthood.

> **As progress is made** toward building academic proficiency, supporting youth so they stay in high school as long as they need to earn a credential, and ensuring educational stability, **Colorado can also expect less time between when students exit high school and when they enter postsecondary education.** More young people will be on a path to economic stability sooner in life.

For this aspect of the study, Cox proportional hazards regression was applied to assess associations with the time it takes for youth who have experienced foster care on or after their 13th birthday to enroll in postsecondary education. The same child welfare and education predictor variables in the likelihood of entering postsecondary education at all were used here as well. This analytic approach differs from the likelihood analyses previously presented because it provided insight into the amount of time, measured in semesters, that can be expected between when a student exits high school and enters postsecondary education. The focus of this study is on young adults, up to about age 21, as the transition out of foster care into young adulthood is a ripe area for policy advancements that support postsecondary enrollment and reduce barriers to persistence.

Shorter Time to Enrollment	No Significant Effect on Time to Enrollment	Longer Time to Enrollment
Proficient in 9th grade math or reading More time in high school (# of semesters enrolled)	Placement changes English Language Learners Homelessness during high school	Special education during high school Congregate care during high school School changes

Table 4. Results of Cox Proportional Hazards Regression for Time to Enroll in Postsecondary Education

Predictors	Hazard Ratio	95 % CI		p-value
Proficient in 9th Grade Math (1 = yes, 0 = no)	1.69**	1.20	2.38	0.003
Proficient in 9th Grade Reading (1 = yes, 0 = no)	1.44*	1.08	1.93	0.012
Number of Placement Changes	1.01	0.94	1.08	0.810
Number of School Changes	0.89***	0.85	0.94	<0.001
Years in High School	1.51***	1.36	1.68	<0.001
English Language Learner Status (1 = yes, 0 = no)	1.02	0.66	1.56	0.934
Ever in Congregate Care (1 = yes, 0 = no)	0.53***	0.40	0.69	<0.001
Special Education Status (1 = yes, 0 = no)	0.61***	0.46	0.81	0.001
Ever Homeless (1 = yes, 0 = no)	0.94	0.71	1.25	0.675

Note. Dependent Variable = Time to enroll in postsecondary education (semesters from high school exit). A hazard ratio greater than 1 represents that the predictor is associated with a shorter time to enrollment in postsecondary education (p-values: * <0.05, ** < 0.01, *** < 0.001).

Limitations

Analyses are predictive not causal; they include descriptive and inferential statistics. Associations among youth experiences, characteristics, academic achievement, and postsecondary participation do not suggest causality. Further, the data points included in the statistical model were limited to what researchers could measure or count using available state administrative data. For example, it is certainly possible that the indicators of congregate care functions in the model as a proxy for the complexity of a child welfare case. It is also important to note that the sample was limited to those youth whose administrative records had sufficient data across systems. More details on the limitations of the sample are presented in Appendix B.

Study Two: Analysis of Interviews with 23 Youth

Qualitative Methods and Key Findings

Purposes of the Qualitative Research

Context for Policy and Practice Recommendations

The lived experiences of youth provides critical context for policy and practice recommendations. The experiences of these young people provide first-hand knowledge of what it is like to be a young person in foster care while pursuing a high school credential, planning and applying for postsecondary programs, and the transition and experiences of postsecondary education programs. Although public policies have a direct impact on the lives of students, the voice of youth in foster care are rarely directly considered for input.[28] Little qualitative research exists to explore the lived experiences of students who have experienced foster care on the path to postsecondary education.[29] The *voice* of youth who have experienced foster care is needed in order to more fully understand their experiences, challenges, and barriers to education.

Obtaining qualitative data was needed to understand the lived experiences of youth in foster care in their pursuit of a postsecondary education. Adding youth voice provides stakeholders with the perspective of those most impacted by their decisions—the foster youth themselves. With this information, educational stakeholders and policy makers have the opportunity to gain more empathy and awareness for what it is like to be a foster care-involved youth as they interact with the systems involved with pursuing a postsecondary education program.

Insight into How to Support Postsecondary Access and Persistence

The first study provides insight into WHERE to focus resources by identifying levers that may increase postsecondary enrollment. This second study provides insight into HOW to support youth formerly in foster care in their journey into and through postsecondary education.

The journey towards postsecondary education begins with what youth set for themselves. Maslow's hierarchy of needs offers a theoretical framework for conceptualizing those goals. A young person must have their basic needs met (e.g. food, shelter, clothing) before they can focus on learning and goal setting. Youth also provided insight into systems (e.g. child welfare and schools) that either supported them or presented barriers to their education. Additionally, youth described how school mobility, academic proficiency and readiness, congregate care, and trauma influenced their educational experiences and pursuit of a postsecondary education.

Methods

Sample

A purposeful, criterion-based sampling strategy was used to recruit participants who have experienced foster care. Purposeful sampling is the process of selecting participants who can meaningfully contribute to a further understanding of the phenomenon being studied. Criterion sampling requires participants to meet certain selection criteria.[30]

Young adults aged 18-24 participated in this study. This age range was selected because youth over age 18 who completed a high school credential were often best able to look back on their K-12 educational experience and reflect on the most salient parts of their journey into postsecondary education.

Participants were recruited from non-profit organizations serving youth formerly in foster care and from scholarship programs at postsecondary institutions. Selection criteria:

- Attended high school in Colorado

- Aged 18-24

- Experienced foster care during K-12 education

- At least half of the participants earned a high school credential (e.g., high school diploma, GED). The remaining participants did not earn (or are in the process of earning) a high school credential.

- At least half of the participants were enrolled in a postsecondary education program. The remaining participants were not enrolled in postsecondary education.

- A diverse representation of gender, race, and ethnicity and age (e.g., nine males and 14 females, representation from seven different races/ethnicities, age ranges from 18-24).

"It was so important to us that the youth voice was accurately represented in this report. So, we sent participants the codes and the quotes we thought best captured their experiences. One youth responded, 'OMG this is so me!' and another changed their pseudonym and edited the quotes for clarity."

- Dr. Kristin Myers, Foster Care Education Coordinator, Office of Dropout Prevention and Student Re-engagement, Colorado Department of Education

Demographic Information

Participants filled out a demographic questionnaire to describe individual circumstances related to their foster care experience (Table 5).

Table 5: Demographic Information

Total Participants in Qualitative Portion: 23						
Age	18	19	20	21	22	23	24
	4	3	7	3	3	*	*
Gender	Male	Female					
	9	14					
Race/Ethnicity	White	Black/African American	Hispanic/ Latino	Mixed Race	Mexican	African	Asian-American
	6	6	3	4	*	*	*
Has One or More Trusted Adults in Life	Yes	No					
	23	*					
Currently Pregnant or Parenting	Yes	No					
	9	14					
Foster Care and Related Experiences							
Age Entered Foster Care	Infant-5	5-8	9-11	12-14	15-17		
	4	7	*	4	6		
Number of Foster Placements	1-5	5-10	10-15	More than 15			
	16	3	*	*			
Types of Placements	Foster Care	Kinship Care	Group Home	Residential Treatment	Youth Corrections		
	16	5	11	13	7		
Experienced (or risk of) homelessness	Yes	No					
	14	9					
Reason for entering Foster Care	Abuse	Neglect	Behavior	Drug addicted parent			
	13	13	*	*			
Exit Type from Foster Care	Reunified with Family	Adopted	Emancipated/ Aged Out	Other			
	*	3	18	*			
High School Information							
Number of High Schools Attended	1-5	5-10	10-15	15 or more			
	20	*	*	*			
High School Exit Type	Regular High School Diploma	GED	Currently Pursuing GED	Dropout			
	18	3	*	*			

Note. asterisks (*) are used to mask cell sizes less than three or adjacent cells.
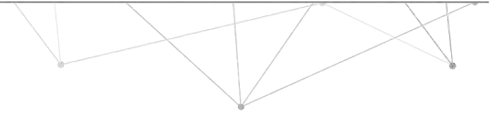
Semi-Structured Interview Protocol

In phenomenological qualitative research, data collection typically ends when saturation is reached, meaning that no new information surfaces in participant interviews.[31] In this study, when data saturation was reached using the first semi-structured interview protocol, the research team revised the protocol to further elucidate the students' experiences (Appendix D).

> **Through this qualitative approach, the research team was able to first take a wide-angle lens to understand the full educational experience of youth who have experienced foster care and then go more in depth to explore the postsecondary experience of those students who continued to college.**

The interviews lasted between 60-90 minutes. They were recorded and transcribed to allow the research team to code the data.

Coding Strategy

Phenomenological methodology involves taking a holistic view of the data to understand the phenomenon being studied. In this study, the research team captured the essence of what it was like to experience foster care as it relates to the journey through K-12 education and postsecondary planning. The coding process in phenomenological research involves the following methods: epoche, phenomenological reduction, horizonalization, imaginative variation, and synthesis of meanings and essence.[32] Each of the following steps occur in order, as the steps are intended to build upon one another, and one cannot happen before the previous step is achieved.[33]

Epoche

This first step means to refrain from holding dogmatic views of the phenomenon being studied. In order to accomplish this step, the research team met prior to coding to discuss and address any previously held biases, understandings, or judgements regarding young people in foster care.

Phenomenological Reduction

The phenomenological reduction process involves viewing all participant statements in an open way and aiming to recognize any bias that may hinder the researchers in fully understanding the participant experience. Methods used to address phenomenological reduction in this study were researcher journals, listening to recorded interviews multiple times, and carefully reviewing interview transcripts.

Horizonalization

This process involves giving each participant's statement equal importance by setting aside researcher bias or opinion. To accomplish this, the research team was provided with written transcripts of the interviews to independently note themes that emerged from the data. The research team collectively created a codebook of the themes, which is available upon request from the authors.

Imaginative Variation

Each researcher re-coded the interview transcripts using the codebook. Each member of the team carefully considered the possible underlying causes or influences that may have impacted young people in foster care's experiences during their K-12 education and journey toward postsecondary planning. The

team selected salient participant statements to represent the textural essence of the phenomenon being studied.[34]

Synthesis of Meanings and Essences

This final step in phenomenology is intended to synthesize the meaning and essence through a rich description of the phenomenon. This step is represented in the results section by integrating participant stories with visual representations.

Trustworthiness

A three-person research team was selected in order to reduce bias and subjectivity in the data analysis process.[35,36] The team used five criteria to address trustworthiness: credibility, transferability, dependability, confirmability, and authenticity.[37]

Credibility

Credibility refers to the importance of viewing each participant as an expert in his or her own life and experiences.[38] This process involved member checks, which was accomplished through participant review of the themes and codes assigned in their transcripts as well as a review of the results. Participants were provided the opportunity to make any changes to the interpretation of their interview and results in the study.

Transferability

Transferability is the extent to which the results of a study can be applied to other contexts.[39] The quality of transferability depends on the researcher's ability to describe the research process and findings.[40] In this study, findings were represented with direct quotes that support the findings.

Dependability

In qualitative research, the concept of dependability is related to whether the data collected is stable over time.[41] This was achieved through documenting decisions made by the researchers.

Confirmability

Confirmability refers to ensuring the data and interpretations are accurate. In this study, the findings and interpretations were directly linked to raw data.[42]

Authenticity

Authenticity is seen as the ability to represent multiple perspectives in data interpretation.[43] This was accomplished through using an external auditor to review the research team's interpretation of the data.
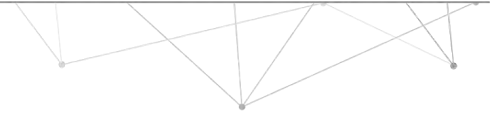
Detailed Findings

All 23 young people we interviewed described unique stories and experiences in both foster care and in school. The research team found that postsecondary goals, planning, access, matriculation to higher education, and retention were influenced by school and child welfare systems. Youths' experiences with having (or not having) their basic physiological human needs met and feeling safe, loved, and a sense of belongingness influenced the goal-setting process.

"I am willing to learn. Just be there. Don't give up on me, and that's all we need."

- Astride, Youth Participant Who Has Experienced Foster Care in Colorado

Additionally, circumstances such as type of foster placement and access to programs that support children and youth in foster care either helped or hindered the youth's journey through the K-12 system and transition to independence.

THEMES
Maslow's Hierarchy of Goals for Youth Who Have Experienced Foster Care
Systemic Supports and Barriers
Mobility, Academic Achievement, and Social-Emotional Development
Academic Readiness for Postsecondary Education
Congregate Care and Educational Outcomes
Trauma, Violent Behavior, and Resulting Disciplinary Actions

Maslow's Hierarchy of Goals for Youth Who Have Experienced Foster Care

The results of the interviews showed that Maslow's hierarchy of needs is a valuable lens through which the postsecondary and career goals of youth who have experienced foster care can be viewed. Maslow's hierarchy is based on the premise that lower, survival-based needs must be met before higher psychological and emotional needs can be met.[44] For youth who have experienced foster care, it appears to be important that stable, loving caregivers and/or mentors are in place before youth can develop postsecondary and career goals based on their interests and strengths.

Maslow's Hierarchy of Goals for Youth Who Have Experienced Foster Care

Strength-Based Goals
- Formed by connecting interests to academic and personal strengths
- Made and executed based on available resources to complete goal (scholarships, support programs, etc.)
- Realistic and attainable

Self-Actualization

Interest-Based Goals
- Formed by multiple opportunities to explore interests
- Formed by exposure to multiple postsecondary/career pathways
- Opportunity to gain input from social connections, school and child welfare systems/programs

Esteem

Acceptance/Value-Based Goals
- Allows individual to maintain familial/peer/meaningful connections
- Development based on exposure to options and opportunities provided by immediate social connections (family, peer, trusted connections)

Acceptance/Value-Based Goals

Safety-Based Goals
- Practical goals to leave unsafe situations or stay in safe situations
- Not based on interests
- Make enough money to live in a safe household that is not physically or emotionally abusive

Safety

Survival-Based Goals
- Make enough money for shelter/warmth, food/water, clothing, medical needs
- Not based on interests
- Goals are means to an end

Physiological Human Needs

Survival-Based Goals

Many of the youth interviewed described the times when they were homeless, at risk of homelessness, or struggled to have their basic needs met. During these times, youth reported that they were not in the position to explore or develop academic or career goals beyond trying to survive.

Anna's Story

Before Anna entered foster care, she was taking care of her younger siblings and not attending school. As she put it, "I was parenting for my parents." Like many other participants, Anna experienced multiple foster homes and school moves and struggled academically as a result. Anna reported "barely graduating from high school" and leaving the foster care system without making enough money to live on her own.

> "I had that car because I bought it for my mom. So, I had that and I was sleeping in the car, and I was going to work and had my job…I do wanna go to college for school but the biggest problem is finding a way to pay for it…I'd have to pay for it myself and being on my own pretty much, I didn't have money to go to the store and buy food, let alone pay for my education."

Anna is currently living with her boyfriend and expecting her first child in a few months. She would like to explore college someday but is unsure how she will be able to meet the basic needs for her family while attending college.

> "Well now, a lot of like jobs, they want some kind of college education and all I have is high school. So, if I wanna work somewhere it has to be like McDonald's or something like that, and to be a parent, I can't live off a McDonald's salary. So, I have to get some kind of education, but to get an education, you have to be able to pay for it and I don't have a way to pay for it, especially since I don't have a job."

Her story is not in isolation as the majority of youth in this study who are currently enrolled in postsecondary education reported putting their dreams on hold in order to survive at some point during their journey.

Safety-Based Goals

Even when basic physiological needs were met (shelter, food, water, etc.), youth reported not always living in a safe environment. Five of the 23 youth in this study reported feeling unsafe in their placements, and some youth reported currently experiencing safety concerns in their homes.

Celeste's Story

Celeste is currently thriving at a two-year institution. With a tuition waiver and a Pell Grant, her educational costs are covered. She receives tutoring, accesses academic support services for a learning disability, and has earned an above average GPA. She is also working three jobs and living in her van.

> "[A foster care support program] got me Section 8 housing so I'm on every wait list in [an urban setting] and hopefully something opens up soon, so I can use that. 'Cause right now I'm living in my van."

Celeste's journey to postsecondary education has not been easy. She experienced abuse in her foster homes, multiple placements, and youth services facilities. After she exited foster care, Celeste was forced into human trafficking.

> "I'll share this with you, but I don't wanna talk much about it. After foster care I was trafficked. Right after I got off parole. I was able to run away, went under a different name for a while. Everything in foster care didn't even compare to that."

Before entering her postsecondary program, Celeste was focused on finding a safe place to live after escaping her traffickers. Although she is living in her van, she sees it as a safer place than many of her previous placements and living situations.

Acceptance/Value-Based Goals

When youth interviewed in this study experienced stable, caring, and loving homes, they reported also feeling stable at school and growing academically. Having physiological and safety needs met, in addition to feeling cared for and valued, appeared to provide youth with an opportunity to connect with mentors and establish meaningful connections. Fifteen youth in this study indicated they began to develop their postsecondary goals based on exposure to ideas and programs by adults they felt connected to at home or in school (e.g. mentors, foster parents, programs that support foster youth access postsecondary options).

Kenyan's Story

Kenyan experienced homelessness, poverty, and multiple school moves before he entered foster care as a teenager. Prior to entering foster care, he never had the opportunity to attend school regularly and focus on learning. His journey was not easy. He enrolled in an alternative school because he was significantly behind in credits.

> "[It] really changed my life coming to foster care, 'cause I think the biggest problem was with me. I wasn't even going to school [before foster care]. I went to an alternative school. Kids go there if they didn't do well in regular school, they didn't have enough credits to graduate on time at regular school. It's like a credit recovery school, so I went there because I missed my sophomore year and I went to recover those credits fast as I can, 'cause it's self-paced, and it would be like pretty hard to do if you were going to regular school to catch up fast."

Kenyan feels surrounded by support in foster care. He maintains a relationship with his mother, is in a stable and loving foster placement, and participates in a mentoring program that helps him with postsecondary planning and life skills.

> "My foster mom is definitely my best friend. I talk to her about anything, and she's really smart, a really smart woman, so she knows most of what I talk about, she understands it, and my mom is a really good friend of mine too. My foster mom, she's more like a parent than my mom is. My mom's more like a friend than a parent. We just talk about our days, and she lets me know that she loves me. That's all I really need from her, you know? But [my foster mom] is really actively there for me, and I have friends that are really actively there for me that live around me, stuff like that, and people like [my mentor], you know, that help a lot. Like I'm making a new family."

Kenyan's goal is to become a neuroscientist. This goal is driven by his mother's medical condition and reflects the love and care he has for her.

> "I've been interested in neurology for the majority of my life. My mom has [a medical disorder]. I've been really interested in that kind of field, I'm looking forward to going into the medical field. I'm trying to find an internship through the workforce center where you can – they help pay for CNA classes, like that, so that's my goal short-term. Long-term I'm probably gonna end up being a neurologist or something like that, some type of doctor, I think."

Kenyan was able to begin exploring this goal once his environment became stable and his need for love and belonging had been met from his mother, the foster care system, his school environment, and supportive foster care programs.

> "I definitely did not like the idea [of foster care]. I didn't wanna do it. For the first year I was in foster care, I didn't wanna be there, but when I got older and I saw – like after being there for a while, I'm like 'This is really a crazy lucky opportunity for me' 'cause a lot of kids don't get an opportunity to change their lives, you know? They're stuck with what they got. I felt like I was lucky for them to have found me and to have put me in the system, you know?...If it wasn't for people like [my mentor] and my foster mom, I would have gave up a long time ago, you know?"

Kenyan is starting a two-year postsecondary program in the fall and will continue to live in his foster care placement as he transitions to school. He plans to move out on his own when he is ready to transition out of the system. He has received support with applying, enrolling, and acquiring scholarships and other financial support needed to thrive in his postsecondary education.

Interest-Based Goals

Supportive relationships and systems appeared to create the foundation for youth interviewed in this study to be able to more fully explore personal interests and passions. Once a young person feels valued and supported, they appear to be more capable of identifying personal interests that can lead to a meaningful postsecondary and career plan.

Zaire's Story

Zaire struggled with trauma-related behaviors early in his childhood as a result of severe abuse and neglect. He was placed in an adoptive home that was more abusive than his family of origin. Zaire's trauma responses were based in anger, which resulted in him being placed in a variety of residential treatment facilities, where he described experiencing more abuse from staff. Eventually, Zaire was placed in a group home and, later, a foster home. He attended middle school in a self-contained classroom and was able to progress to a general education setting in high school. Zaire described his foster mom as supportive and caring.

> "I actually went to a group home after that, and I thought it was heaven. I thought I was in the best place until I got into the foster home that I'm currently in now, and I thought that was even better. And actually, it was so good that – I still have my tantrums and whatnot here and there, but it was so good at the foster home that within, I would say, five, six months, my tantrums almost completely went away because I wasn't physically hurt or barely even yelled at. She actually – my foster mom actually gave me a chance to better myself."

Zaire was exposed to a multitude of postsecondary and career options in high school. He participated in JROTC and attended a leadership program at a military academy in the summer. Although he enjoyed the military option, his foster mom wanted him to try college first and supported him through the application, enrollment, and financial aid process.

> "I went to college for a year and a half. And at that point I was so mad at myself, I thought I was just another statistic because in college or whatever, they're teaching us – a lot of kids dropped out in their sophomore year – kind of like what I did. And I dropped out sophomore year, but I just couldn't do book work. I'm a hands-on person. I was doing book work all through middle school and high school. I couldn't do it anymore. Some people could do it, and right on for those people."

"My foster mom was giving me a hard time – college was the only way. And I was explaining that to her—whether I go into a white-collar job or a blue-collar job—that should be my choice. And me going into a blue-collar job, it's still…there's still many ways to be successful… So, and if it wasn't for laborers, none of this would be here. And if it wasn't for people coming up with that stuff in college, then they wouldn't have plans to build it or the money to buy it."

Zaire still lives with his foster mother—and they still disagree about college—but she is supporting him as he transitions to adulthood. He is proud of earning a high school diploma with a 3.5 GPA, trying out college, and for the first time, making a decision that is based on his interests and strengths. He remained involved in the child welfare system to take advantage of stable housing and a supportive transition to independent living.

"I'm emancipating – actually, no, I'm not emancipating. I'm moving out. I'm going into these apartments, but I'm still gonna have the ILA, so I'm still gonna be in the system. And the apartments that I'm going into – Chaffey and Foster Help are kind of like teaming up for this situation. And they're gonna try to have the ILA pay for already – the already subsidized rent of the apartments. So, in a way, they're paying for me to live there."

Strengths-Based Goals

Supportive systems and a meaningful connection between interests and strengths appear to lead to more opportunities for youth who have experienced foster care to achieve postsecondary and career success.

Astride's Story

A note about Astride's story: Some of the details in this story are potentially identifying. Astride explicitly asked to have her story written as it is in order to fully understand her unique and powerful journey to postsecondary education.

Astride entered foster care at the beginning of high school. Her path to foster care is unique to say the least. Astride was born in Africa and became self-sufficient and independent at a young age. Her experience in school was different from the American school system that the majority of young people in foster care experienced.

"Basically, your life experience is horrifying, which is hard. So, you have to like really find a way to kind of advocate for yourself and support yourself. I grew up without parents, so no one could take care of me. My family members couldn't love me as much as your parents, so I knew I had to love myself, and so I used to go to school and then after school, I would go and sell things on like – it was kinda farmer market, sell things on the street, so that people can buy my stuff, and so I can get the money to pay for my school fees; because I knew my background, my family, I wanted to make a difference somehow in the future, and to do that, education is a pretty tool that I can use to actually help those in need."

"I used to like get kicked out of school because I didn't pay, but that didn't make me give up, obviously not. So, I kept striving, striving, living in Congo, just the whole history was horrifying and I'm glad, but we overcome."

"My family, my entire family, my uncle and half his family got killed, and then the government knew that it wasn't safe for my family, the rest of my family to stay in Congo. So, the government helped us relocate to another country, which was Uganda. We fled from Congo to Uganda, never knew that I will come to America. We stayed there [in Uganda]. I had to learn different languages. Obviously, I traveled all over East Africa. So, I had to learn different languages."

Astride was eventually moved to the United States through a refugee program. She was reluctant to enter foster care as someone who, up until this point, had taken care of herself, learned multiple languages, and started a small business in Uganda to afford school tuition.

"I was around 15 when I moved, started living on my own and providing for my aunt; paying for my own and I'm paying for her rent, paying for my food, paying for food, when I was 15. I didn't go to school for four years."

"I got scared [about foster care], but I said 'let's do it'; took a risk, came here, find amazing people. My parents, my foster parents, they are very, very nice people, very Christian. They are Christian, which have been praying a lot."

"When I was in Uganda I was like 'God, please, I've never experienced love from my parents. I never had to like hear my mom or my aunt saying, 'I love you.' I need to hear that.' I didn't know how but eventually when I came here, the first time I heard somebody saying 'I love you,' it was when I was living with my foster family and that was – I was like come on, 'You love me?' 'Yeah, I love you.' Then, that's when I started learning what love means. When you love somebody, that's when I started learning, when you love somebody, this is what it means. But I didn't know if I loved them. I didn't know because I never said that, because they never told me how to say that."

"When I came to America, didn't know how to speak English, didn't know how to say 'Hello, how are you?' I was placed in English as a second learner. A year after, I was able to learn English, plus I was able to actually excel from not only English, all my classes and got my high school diploma. Four years after, I'm here [at a four-year university]. Next month, I graduate. It was a challenge, but we overcome."

Astride had a multidisciplinary team helping her explore postsecondary and career options while she was in high school. School professionals, caseworkers, foster parents, foster care advocacy groups, and points of contact at her two-year postsecondary institution all assisted Astride in her transition to a four-year college. She completed her two-year degree and transferred to a four-year university, where she graduated and is now working towards a master's degree in business administration.

"Obviously, I'd like to start a not-for-profit. I have different ideas in my mind, but I'm just trying to find a way where I can link my vision, and my mission in life, which is helping people with my business idea, or philosophy or whatever."

"Let me say I am who I am because of people. Like I said, every little thing you can add to my success…All the people so far that I've came across, a few of them have just been so amazing to my life, a blessing I can say…what I'm saying, – I'm afraid sometimes, I get scared sometimes but the thing is never give up…Like I say, people die here as well as in Africa but the thing is use those opportunity you have. Don't say, 'Oh, because I had a bad experience in foster care, that's why my

life is like this.' Don't give bad luck too because the life you had before because that does not define who you are today, or who you're gonna be tomorrow. Obviously, learn to put more time in your process, decision-making process and really – because foster care, when you have foster care, you say, 'Oh, those kids really struggle.' Yes, we did, but you overcome."

Astride's story shows that whether a youth has the opportunity to pursue strengths-based goals is dependent on how well the child welfare and school systems work on behalf of the youth. When young people have support that lasts into postsecondary programs and independence, Astride shows how they can have the ability to put aside trauma, focus on academics, and strive toward their goals.

Systemic Supports and Barriers

Youth who were interviewed indicated three key areas to describe effective and ineffective child welfare and school systems: access, affordability, and transition planning/independent living supports.

Access to Postsecondary Education

Youth interviewed in this study reported participating in a variety of programs that addressed access to postsecondary education. In general, systems were reported as being fragmented and not designed to work together on behalf of the young person in care. The majority of participants reported experiencing multiple systems designed to help them access college; however, the youth had to access different parts of the systems at different times. For example, caseworkers or guardians ad litem (GALs) assisted in obtaining court documentation needed for the FAFSA, but they had to work through different systems to obtain vital records needed for college registration. On the other hand, some youth reported experiencing targeted programs, such as those through non-profit organizations, that streamlined college access, including college visits, obtaining information for necessary documents, assisting with application fees, and scholarship applications. Young people benefited when systems worked together.

What Works

Programs and systems that are designed to support youth in accessing postsecondary options appear to be essential for young people in foster care. Youth interviewed in this study often attributed their ability to explore and apply for school to aligned systems-level supports. The participants' experiences made it clear that they benefitted most when utilizing multiple systems or entities responsible for helping young people in foster care on their journeys to postsecondary education. Some of the common systems-level supports youth described as particularly helpful were:

- Informed caseworkers;
- Scholarship programs, in addition to federal financial aid;
- Second chances or alternative means of financial support for youth with criminal backgrounds;
- Advocates and mentors in navigating systems; and
- Communication across child welfare and school systems.

Coby's Story

Coby is 20 years old and a senior at a large university in Colorado. Coby received a full-ride private scholarship to attend college. He experienced multiple foster and school placements during his time in foster care, including a residential treatment facility and a youth services facility. While he experienced

similar barriers as his peers in foster care, a few critical factors assisted Coby in his postsecondary journey. Caseworkers, advocates, coaches, teachers, peers, and foster parents made a positive impact on his life at critical times.

> "I still believe that [my foster parents], they're family, but they're more friends—really good friends—that support me and financially help me when I need it, which is what a parent should do in college, check up on you and help you where it's needed. It's nice, 'cause when they say you can't pick your family, you sort of can in my situation."

Coby was connected to the TRiO program early in his high school years. The TRiO program provides opportunities for academic development, assists students with basic college requirements, and aims to motivate students to complete a postsecondary education.[45] Through this program, he was able to attend college visits and had a coach that helped him find a private scholarship.

> "I came up here [to the college where he currently attends] on a visit through TRiO and I just caught a good time on the plaza where it was passing period and I was like, 'Wow. This is nice.' So, I decided to really focus on college and I brought it up to my foster parents jokingly like, 'Oh, are you guys gonna help me?' and they were like, 'Well, we're got bills of our own. That's what scholarships are for.' And then one of the talent search people told me of the program – [scholarship program], and they said, 'You should really look into it. You could be a good applicant.'"

Coby's TRiO coach helped him through every aspect of the scholarship application process. The coach connected with school personnel and child welfare programs to ensure Coby had all of the documentation he would need to apply for college and for the scholarship. Coby's dream of going to school became a reality once he received the scholarship.

> "It really started to turn for me once I got the [the scholarship], 'cause I wasn't sure how exactly I was gonna financially provide for myself. And just getting that scholarship, it was a lot of stress off me. I still…everything I do, my phone bill, gas, insurance, everything's on me, but I don't really have to worry about food or housing up here, and I work, so it helps."

Not having to worry about basic human needs or tuition in college helped Coby focus on his academic studies and planning for his future career. Coby's story is an example of the possibilities for youth formerly in foster care when all systems come together to work on behalf of the student. Coby was able to explore a postsecondary institution through a program he participated in, and through a coordinated effort, he was able to successfully transition to college.

What Does Not Work

In addition to academic barriers, youth reported experiencing fragmented systems that made it difficult for them to navigate K-12 and postsecondary education. Some of the common systems-level barriers that emerged from the interviews included:

- Child welfare system personnel turnover;
- Frequent school changes and changes in types of settings (e.g., facility schools, residential treatment facilities, Department of Youth Services placements);

- Fragmented systems (court documentation needed for the FAFSA, obtaining records such as a driver's license or birth certificate, etc.); and
- Lack of financial support for youth with criminal backgrounds.

Alyssa's Story

Alyssa entered the foster care system already behind in her academic progress. She did not attend school regularly, in part because she did not enjoy school and because she was required to care for family members during the day.

> "Like I [*expletive*] hated school, because I just felt stupid and everything, like I just didn't wanna learn, like I wanted to just chill and then I kind of like stopped going to school when I was in eighth grade because I had to babysit. I had to take care of my little cousin. So, I stopped going to school and I tried to go to school online but then I just never did it because I was just too busy like taking care of this kid…It was hard taking care of a kid when I was a kid."

Alyssa struggled with feeling adequate in the classroom. When she was in school, she experienced bullying and described not feeling welcome in her school environment. After several fights that took place at school with subsequent criminal charges, Alyssa was expelled. She also experienced multiple placements in youth services facilities.

> "It was [*expletive*] because then nobody learned anything [at youth services facilities]. Sometimes we did our work, but I feel like the teachers they had were just like too like not – I don't even know how to say, like they were just like us. They had attitudes with us, just like we had attitudes with each other, like they were no better than us. They [youth services facilities] weren't really teaching us. They'd just give us a book and just be like here, read that. I can't learn like that because I'm like I don't understand."

Alyssa is currently pursuing her GED but is struggling in math. She aspires to have a job that pays more than minimum wage but does not feel as if she has many possibilities. Her academic struggles and inability to obtain federal financial aid due to having a felony on her record are significant barriers to pursuing a postsecondary degree.

Affordability of Postsecondary Education

Eight out of the 22 participants had full tuition waivers to their postsecondary institutions, yet only two participants indicated they did not struggle financially. The two youth who did not struggle reported receiving scholarships that covered living expenses in addition to tuition and fee waivers. Youth also described benefitting from on-campus programs designed to assist in independent living skills (e.g., budgeting, basic cooking skills). Having access to multiple connections with mentors, coaches, and peers appeared to provide substantial support in the transition from foster care to adulthood.

What Works

The young people interviewed in this study reported a variety of financial circumstances. All youth in this study who are currently enrolled in postsecondary programs have received some type of financial assistance; however, nine out of the 22 participants are still currently struggling to meet their basic needs.

As noted in the quantitative findings in this study, many youth enroll in two-year colleges with a plan to transfer to a four-year college. Federal assistance programs such as Pell Grants and Education Training Vouchers go farther at a two-year college where credit hours are less expensive.

Youth mentioned the following topics most frequently in regard to affordability of postsecondary education:

- Educational Training Vouchers

- Chafee Program

- Scholarships available through non-profit organizations

- Tuition matching programs for any cost not covered by the Pell Grant or other financial assistance programs

- Scholarships that cover tuition, school costs, and independent living costs (e.g., food, housing, living stipends)

- Scholarship programs specifically designed for young people exiting foster care

Zach's Story

Zach is a senior at a large university in Colorado. He attributed his success in school to a balance of internal motivation and supportive school personnel, positive interactions with child welfare personnel and the child welfare system, and supportive family members.

> "Me and my case workers, we always had a pretty cool, tight relationship. They always checked in on me to see how I was doing in school. I was doing perfectly fine and everything. It's kinda the message they sell to you when you go to school. 'Hey, stay in school 'cause you basically need it to get anywhere.' That was sort of my incentive, my mindset. If the school says I can do it, then I guess it's gotta be true."

Zach received support in high school that allowed him to focus on taking the right courses and earning a GPA that would get him into college. The programs that supported him by making college more affordable allowed him to pursue his postsecondary education without financial barriers.

> "I mean I wasn't worried. I knew I was gonna get a scholarship regardless of what anyone tells me. I'm a super competitive person, so I'm always fighting for the best grades and that sort of thing. So, I knew my GPA was up there, and if anything was lowering my GPA, it was all the honors classes or AP classes I was taking, and they would understand that. I was like, 'I'm not even concerned about this.'"

Zach received a full-ride scholarship and will graduate with a degree in applied mathematics that he hopes to use in the Federal Bureau of Investigations in the future. Zach also attends a program at his university that helps with budgeting, planning for the future, and other independent living skills. Zach's finances are not a concern for him at school, which has allowed him to focus on his academics and the college experience.

> "I got this awesome scholarship from these bunch of awesome people here. I made a promise and guaranteed myself that I was gonna give back and be able to help whoever. I know a lot of foster

kids are in such bad situations, and I even go back to my elementary school and give talks, 'cause they still have a few of them there who are in rough spots. I wanna inspire them and try to just help them out in any way I can…Everything just kinda worked out and how I kinda got to this spot where I am. It's been a little bit of a long drive, but now I'm in the middle now where I'm not quite an adult yet, but I'm gonna get there. From there on, it's kind of like I have the rest of my life ahead of me. To see back what I've been through already, I feel like I'm able to face anything."

What Does Not Work

The participants described a number of financial assistance programs that helped in their pursuit of a postsecondary education; however, these programs often left youth struggling to stay in school. Celeste's story highlights how sometimes tuition waivers cannot prevent a student from struggling financially in postsecondary education. While her tuition waiver and scholarship programs are helpful, Celeste works multiple jobs and lives in her van due to the lack of affordable housing in Colorado. Other participants described varying degrees of financial difficulty and the impact it has on their ability to stay enrolled in postsecondary education.

Precious's Story

Precious is 22 years old and currently enrolled in, but taking a brief hiatus from, a postsecondary certificate program. Precious intends to finish the program once her life becomes stable again—she became pregnant during her first year of the postsecondary certificate program. Soon after she found out about her pregnancy, she lost her housing voucher due to an issue with her landlord and became homeless. Precious continued school during the period of homelessness but then decided to take a break from school in order to prioritize caring for herself and her daughter. Despite her trauma and circumstances, Precious is driven to return to school and finish her degree.

In addition to these challenging circumstances, Precious did not have a stable support system after she exited the foster care system. She was adopted in her early teen years and then placed back in the system.

> "And then on top of that, my actual adoptive parents – I think they caused me a lot more trauma when they put me back into foster care because it felt like again they didn't really know how to handle the situation, and it sucks being told you're gonna be in a forever family and then going back."

Precious described feeling as if she could not count on anyone but herself after her experience in the foster care system. She experienced multiple barriers such as school mobility and subpar educational environments.

> "Really, you kinda have to [depend on yourself]. It's not that you can't depend on somebody. It's that you can't sometimes depend on people, you know? Again, every situation's different, but for the simple fact that mine was so unstable I couldn't depend on a lot of people."

> "I ended up in treatment facilities. I ended up in a home for a little bit, but you know, I ran from there, and nobody wants to keep getting put back in the system, so I kept running from all my placements, and then they put me in [a juvenile detention center], and I finished – I did majority of 10th, 9th grade in there, and then finished high school actually in [another city], and I finished high school with people I didn't even know."

Despite all of the educational and emotional barriers Precious faced during her K-12 years, she still graduated from high school and pursued a postsecondary certificate program. The type of vocational program and school she attended did not qualify for federal financial aid, so she received financial aid directly from the school. Precious also received a few private grants and scholarships, but when she became pregnant and homeless, she had to put school on hold.

Transition Planning/Independent Living Supports

Participants in this study were recruited from foster care scholarship programs, non-profit organizations dedicated to easing the transition from foster care to adulthood, and other programs that support young people in foster care to access a postsecondary education.

This report is being published after the release of the recommendations from the Former Foster Care Youth Steering Committee that convened as a requirement of Colorado House Bill 18-1319.[46] The recommendations made by this committee aligned with many of the experiences of and recommendations from youth in this study.

The themes that emerged in this study that are also in line with the committee's recommendations include:

- Striving for permanent and consistent connections in the transition to adulthood;

- Access to safe, stable, and affordable housing;

- A high school credential (i.e., diploma or GED);

- Access to postsecondary education, including tuition and fee assistance;

- Supportive connections and mentors at postsecondary institutions; and

- The ability to choose to stay in foster care until they achieve a successful transition to adulthood.

Tristan's Story

Tristan entered foster care in high school after an investigation for habitual truancy led human services to find disruption in his home environment. Tristan missed most of his 9th grade year and was significantly behind in credits. Once Tristan was in foster care and attending school, he was able to gradually raise his GPA.

> "I went from having a .001 in my freshman year—GPA cumulative—and then my sophomore year I ended up pulling up to 2.5, which is a huge jump. And then my junior year, overall, it was probably a – I think it was a 2.9 to 3.0 average. And then my senior year of high school I graduated with a 4.0."

Tristan's support network came from multiple systems and fully supported him in and out of school. His GAL assisted in paying for his driver's education course. His Court Appointed Special Advocate worker connected him with courses outside of school. His teachers, caregivers, caseworkers, mentor, coaches, and peers all helped him to graduate in four years.

> "They meet with you weekly. And so, throughout my time in foster care – I was involved in [a non-profit program] for about a year throughout my senior year, and it helped a lot because every week we would have something to do with academics, or we would have something to do with progressing in school. We would always have something to do, which is really nice. But now that

I'm graduated and I have a lot of those skills. So, after that year [in the program], you're not cut off, but the programs done. [My mentor at the non-profit] helped me get into college and explained to me what everything meant, like a translator kind of, with all the descriptive language that I may not have understood."

Tristan is still in foster care and meets regularly with his mentor and other professionals he connected with in the child welfare system. He is currently attending a two-year college with plans to transfer to a four-year university and ultimately pursue a doctorate. Tristan's story is an example of systems working together to support the transition to adulthood.

Mobility, Academic Achievement, and Social-Emotional Development

This study's quantitative and qualitative results were consistent with previous findings regarding the negative effects of placement and school mobility on academic achievement.[47] This study's quantitative analyses showed that while placement changes do not appear to be associated with the likelihood of enrolling in postsecondary education or the time to enrollment, school changes have a clear and negative impact on both. Youth who were interviewed also reported that school mobility often resulted in disengagement or a sense of feeling "lost" in every new school setting, which appeared to impact both academic and social-emotional development.

"Switching schools so often kinda made it to where you don't know what's going on anymore."
-Kelsey

"It was just chaotic, I think, 'cause I was always in a different school. I was in a school for less than a year. The most I was there was a year up until my sophomore year, and that was it. Around my sophomore year, I kinda just – it was a time where I kinda just gave up on everything."
-Kenyan

"I remember becoming really detached having to move around schools a lot. I don't remember all the schools that I went to. I remember that it was hard making friends and the social barriers that were created. Yeah, I remember not having a lot of friends, but being really good at school. That's kind of what sums up my school experience, and I'm still kinda dealing with that right now. There's something that happens to your social skills when you move around every couple of years, and the only place that I've ever lived in long enough was four years at a time."
-Nik

"I started out at [a school]. I did 11 months of my freshman year there. Or, I guess a school year is nine months, so eight months. Almost. I left literally two weeks before graduation. I was there [at the next school] for like a month and a half. Not even long enough to really earn credit. I think I got a half a credit from that school."
-Celeste

"I think that when I first entered foster care for the first couple of years. My goal was to be in a school more than a couple of months because we moved a lot…that was really just my main focus. I didn't really think that I would ever actually graduate because I moved so much that getting an actual education. Honestly, it was just finding a school that I could actually stay in… When we moved, and we [siblings] separated obviously. So, we moved schools, cities, everything."
-Anna

Academic Readiness for Postsecondary Education

Although almost all youth interviewed in this study had earned a high school credential, participants repeatedly indicated that involvement in the foster care system had created substantial barriers to academic achievement. Of the participants who continued to postsecondary education, some reported continuing to experience learning difficulties that they attributed to involvement in the foster care system. The school personnel, peers, and type of school settings they encountered throughout their K-12 education had an impact on their learning experiences.

Desiree's Story

Desiree is a freshman at a large four-year university. She described always struggling with learning due to an undiagnosed learning disability that was not identified until college.

> "I honestly feel like the school system failed me in many ways because I was suffering with ADHD and I felt like in high school especially I was just referred to as a bottle blonde or a ditz or just like a dumb cheerleader kind of things by my teachers. I struggled throughout school, and it's not like I haven't cared in high school or in like middle school. It's just like I had extenuating circumstances that were holding me back."

Desiree had the support of her adoptive mother during high school despite the school system not recognizing her disability. Once she started college and lost her support system, it became difficult for her to manage academic expectations.

> "I asked for help and then there was – like I wasn't redirected. And there was programs for people that had ADHD but I was just never looked at as ADHD. It was just that I didn't care or like I wasn't paying enough attention. So – and that's when I got scared to start asking for help. And so now, I – I actually legitimately am fearful to go to my professors and reach out to them. I don't want them to know that I'm struggling, even though my test results say otherwise... I'm failing my classes." My GPA was really, really low. Like it's a 1.3 right now, and it's like that doesn't reflect me in any way."

Desiree has not given up on her dream to earn her bachelor's degree. She continues to struggle academically in college due to the academic gaps she experienced in her K-12 education, but she is driven to stay in school.

> "It's been a battle. School's been hard, but it's like definitely not something I don't want to give up on. I've come this far, like I can't give up. Like I can't. And even though I really want to."

The Challenge of Math

Math was a particularly important theme related to academic achievement that emerged from the 23 interviews with youth. There were only three youth who did not mention math in their interview. Of the youth who discussed math, 13 indicated that math was a significant barrier to obtaining a high school credential and some expressed continuing to struggle in math in their postsecondary programs. Highly mobile youth reported finding it especially difficult to grasp math concepts because of the disruption in academic continuity due to school moves.

"It [mobility] hindered it [understanding math]. It really did. I have a lotta catching up to do with math now that I'm at this point [in a 2-year college]."
-Celeste

"And I went in and took every test, one after the other, and passed every single one except for math."
-Eduardo

"I did have a good English teacher but math was my worst subject. I did terrible and I was supposed to do tutoring… I was a C average but it was math that really did it for me."
-Anna

"Then we do stuff from that last lesson in class, and then move onto the next lesson. It was all very fast-paced. I was kind of like oh my gosh, like what are we working with, especially in the math because they were on a whole new level than like – I don't even really know trigonometry that much. I barely know geometry, terrible at fractions."
-Ben

"It was the math. It's not just basic adding and subtracting. It was really hard for me, and I just didn't understand. I went to class, paid attention, and just – I couldn't do it by myself. I just couldn't figure it out. I was bad at test-taking. It took me awhile to – I would have to take a test maybe two times, maybe three times even, to just repass the test. So, it was just kind of hard. I just really didn't understand it. I was just – it was a struggle for me."
-Shaqualla

Interestingly, six participants expressed that they enjoyed math, and several experienced strong connections to their math teachers.

These findings were consistent with this study's quantitative results in that academic preparedness, and math proficiency in particular, is associated with postsecondary enrollment and subsequent success.

Congregate Care and Educational Outcomes

Half of the youth interviewed indicated the education they received in congregate care settings did not prepare them for a general education setting. Youth reported that congregate care, especially through the Division of Youth Services, impacted whether or not they received a GED. This study's quantitative analyses showed that living in congregate care significantly lowered the likelihood of enrolling in postsecondary education and significantly increased the expected amount of time until postsecondary enrollment. Youth who were independent learners appeared to be able to navigate gaps in academic programs and mobility between traditional K-12 school settings and residential treatment settings.

Vanessa's Story

Vanessa was placed in foster care as an infant and adopted at an early age. She was placed back into foster care as a result of severe psychological and physical abuse from her adoptive parents. Vanessa only attended a little over one school year in a traditional school setting. During her K-12 years, she was placed at various residential treatment and youth services facilities due to behavioral needs.

> "Treatment facilities, I've been to five or six of them, and they don't really focus on the education aspect. Legally they have to send you to some kinda school, whether it's there or they have their own school that they provide. But it's more focused on treatment. I feel like I didn't really learn anything that I need to learn, starting high school 9th grade to – I got my GED 12th, so I never really did 12th grade. So those three years at my school, I don't think I learned what I needed to learn for education level. It was just about getting me therapy. I was doing, sixth-grade work or eighth-grade work that I knew."

Vanessa entered a traditional high school at the beginning of what should have been her sophomore year. Her credits did not transfer due to high mobility. Vanessa became discouraged and gave up on trying to make friends or attending a traditional high school.

> "How do you expect me to trust in my environment, if the second I take a deep breath, I'm just moved? It's kinda hard to reintroduce yourself. It's hard to re-make friends. You don't even try to make friends or you don't even try to socialize with the teachers or participate. You're just getting by…So that's why I just got my GED, 'cause I was like-they told me I wasn't gonna graduate until I was like 20 because I was so behind, and when they started trying to send me to a normal school, I had no idea what the hell they were teaching. So, I was like, 'you know what, I'll just get my GED and go onto postsecondary.'"

The youth in this study who experienced congregate care reported experiencing an uphill battle academically and socially. All of these youth indicated the academic curriculum did not prepare them to be successful in a traditional K-12 educational setting.

Trauma, Violent Behavior, and Resulting Disciplinary Actions

Children and youth in foster care experience a minimum of two traumatic experiences: the event(s) that led to the removal and the removal from the home itself.[48] Responses to trauma can take many forms, one of which is violent behavior.[49]

Eduardo's Story

Eduardo was an infant when he was placed into foster care after experiencing abuse at the hands of his parents. He experienced multiple foster placements and school placements before being expelled from elementary school. Eduardo was in and out of residential treatment facilities and youth services facilities and became involved with a gang at the age of 10.

> "How do you go from being a lovable baby from wanting to someone who loves to fight? To someone who used to love to gang banging. How do you go from that to that? I think if the state could raise a kid right – a lot of us wouldn't be sitting like this. There of a lot of us on the same path, eventually you will get charged with something and will just end up in jail. I started going to jails and becoming assaultive. I've always wanted to be wanted. I searched for forms and family and friends. When I went to jails, that's when I found gangbanging. Once I started getting connected with that, they treated me like family. Growing up in the system, you don't have parents; you try to look for replacements."

Eduardo struggled with being placed into "special" schools due to his trauma-related violent behaviors. He described caseworkers, GALs, and teachers who told him he would never be able to graduate because he was behind in credits and they did not think he could pass the GED.

> "People who come from where I come from, growing up with the past that I had, we all want to accomplish something. We wanna prove to people who done us wrong in the past that we *are* good people; we're not criminals; we're not just little kids that grew up by the state. We *can* be something and we're *gonna* be something."

Eduardo's story is not isolated. Eduardo and many other young people who experience anger and violent outbursts as a result of trauma, face disciplinary consequences in school and are often placed in congregate care settings and/or youth services facilities as a result of these behaviors.[50] Even if a youth obtains a high school credential, criminal charges and placements in youth services facilities often prevent students from obtaining financial aid for college and have limited employment opportunities.[51]

Limitations

Though rigorous methodological and analytical procedures were utilized throughout the conception and completion of this study, it had several limitations. Application of these findings to policy and practice must consider the transferability, credibility, and dependability of the findings.

Transferability: This study took place in Colorado and the participants all experienced K-12 and postsecondary education and were involved in the child welfare system in Colorado. The transferability of this data does not take into account policies or practices in other states. While there was an attempt to recruit a diverse base of participants in terms of race and ethnicity, the participants were predominantly White and African American or Black. This is not consistent with the overall demographics of children and youth in Colorado in foster care as 44% are White, 37% are Hispanic/Latinx, and 12% are African American or Black.[52] Other races and ethnicities were represented in this study, but not to the same extent as White or African American or Black.

Credibility and Dependability: In phenomenological research, it is ideal to have multiple interviews in order for participants to have time to reflect and review what was said in a previous interview and provide any additional information.[53] The population of youth formerly in foster care who are enrolled in postsecondary institutions is limited due to the low high school credential completion rate and low matriculation rates. Youth formerly in foster care often have to balance work and school, transportation issues, and busy schedules, which can result in limited free time. Multiple interviews would have been ideal but was not practical for this study.

Conclusion

Flattening the college curve by reducing barriers that make it difficult for youth formerly in foster care to begin or complete a postsecondary education has value for many students. This report identifies opportunities that begin as early as middle school and continue through credential attainment that can guide public systems work to strengthen their support for students who are typically underrepresented in higher education.

Erasing equity gaps is not only essential for youth formerly in foster care but also for the future of Colorado.

> "We *are* good people; we're not criminals; we're not just little kids that grew up by the state. We *can* be something and we're *gonna* be something."
> -Eduardo

> "I got this awesome scholarship from these bunch of awesome people here. I made a promise and guaranteed myself that I was gonna give back and be able to help whoever."
> -Zach

Appendix A: Quantitative Variable Definitions and Data Cleaning

Data Preparation

Before analysis of the full sample, duplicate State Assigned Student Identifiers were removed. Students without high school exit codes or institutions of postsecondary education were excluded from associated descriptives.

Before analysis of the sub-sample, all inclusion criteria were confirmed: experienced foster care after 13th birthday, identification of a first 9th grade enrollment, and assessment scores for math and reading during the first 9th grade, within the years available. For students with multiple 9th grade assessments, the first 9th grade assessment observed was used for analysis. For students with multiple case closure dates, the latest case closure date was used.

Operational Definitions

Enrolled within three years of high school exit: Using indicators of enrollment for three years following high school exit from the Colorado Department of Human Services (CDHE) data, an indicator was created such that a value of '1' represented enrollment during any semester (fall, spring, summer), during the three years following high school exit.

Semesters to First Enrollment: Using indicators of enrollment for three years following high school exit from the CDHE data, the semester of first enrollment was recorded: '1' for fall of Year 1, '2' for spring of Year One, etc. For students who never enrolled, a value of '9' was used to indicate that nine possible semesters of enrollment were observed without identifying any enrollment in postsecondary education. CDHE recorded the "first fall" as the fall semester following the academic year of high school exit.

First 9th Grade: Based on the anticipated year of graduation, it was determined whether the first 9th grade records were available within the years of the data. If multiple 9th grade years appeared in the data, the earliest was identified and confirmed with the anticipated year of graduation.

Years in High School: Years in high school was calculated as the difference between high school exit date and first 9th grade, rounded up to the nearest year.

Math and Reading Proficiency: According to the first 9th grade, assessment records were pulled for both math and reading. Indicators were defined for the model such that math proficiency represented either proficient or advanced (proficiency code of 3 or 4), while non-proficiency represented partial proficiency or below (proficiency code of 1 or 2). Missing or unknown proficiency records were removed from analysis (proficiency code of 5 or NA).

Mobility: School and Placement Changes were defined from child welfare data records. Records prior to the start of each student's first 9th grade were removed (using August 15 of the beginning of the first 9th grade year as the cutoff). For each record of mobility, values were summed for school changes and placement changes separately. Some previous research using this dataset separated school changes that were associated with a placement change from those that occurred temporally independent of a change in child welfare placement.

<u>Unique Experiences or Student Statuses:</u> English-Language Learner Status, Special Education Status, ever being homeless, and ever living in congregate care were all defined by aggregating annual indicators from demographic data.

Appendix B: Detailed Sample Description

Sub-sample

Table B1: Demographic Characteristics of Sub-Sample

Variable	Sub-Sample (*n* = 1,365) (%)
Female	650 (47.6%)
Non-White	605 (44.3%)
English-Language Learner	126 (9.2%)
Special Education	565 (41.4%)
Free and Reduced Lunch	1,224 (89.7%)
Foster Care in High School	1,362 (99.8%)
Ever Homeless	376 (27.6%)
Ever in Congregate Care	1,009 (73.9%)
Placement Changes in High School (Without Associated School Changes)	2.0 (2.2%)
School Changes in High School	6.6 (3.2%)
Years in High School	2.5 (1.2%)
High School Exit Type*	
Diploma	441 (32.3%)
Completed/GED	87 (6.4%)
Transfer	272 (19.9%)
To a Public School	116 (8.5%)
To a Private School	51 (3.7%)
To a Facility/Program	105 (7.7%)
Dropout	410 (30.0%)
Other	155 (11.4%)
9th Grade Math Proficiency	
Unsatisfactory	903 (66.2%)
Partially Proficient	318 (23.3%)
Proficient	121 (8.9%)
Advanced	23 (1.7%)
9th Grade Reading Proficiency	
Unsatisfactory	320 (23.4 %)
Partially Proficient	546 (40.0%)
Proficient	493 (36.1 %)
Advanced	6 (0.4 %)
Number of Students Who Ever Enroll in Postsecondary Education	247 (18.1%)

Note. *School exit type: Diploma (exit code = 90); Completed / GED (exit codes = 92 – 95); Transfer (exit codes = 14, 15, 19); Dropout (exit codes = 1, 40); Other (exit codes = all the other exit codes).

Table B2 shows that the percentage of those with a high school credential who ever enroll in postsecondary education is higher in the sub-sample than in the full sample.

Table B2: Postsecondary Enrollment by High School Exit, Sub-Sample

	High School Credential	Dropout	Other	Total
Number of Students Who Ever Enroll in Postsecondary Education (%)	227 (43.0%)	11 (2.7%)	9 (2.1%)	247 (18.1%)
2-Year Private	2	0	0	2
2-Year Public	137	10	7	154
4-Year Private	15	1	0	16
4-Year Public	71	0	2	73
Other	2	0	0	2

For those from the sub-sample who did enroll in postsecondary education, Table B3 shows the number (and percent of enrollees) who followed each of the top five enrollment patterns. Proportions are quite similar to those of the full sample; the only difference is that enrolling throughout the three-year observation period is more common for the sub-sample versus enrolling only during the first year.

Limitations of the Sample

The limitations of the quantitative sample were tied to only utilizing complete cases available from the Colorado Department of Education (CDE), Colorado Department of Higher Education (CDHE), and Colorado Department of Human Services (CDHS) data. Inevitably, there were some limitations that could not be accounted for in the present study:

- Descriptive statistics conducted with the full sample were limited to the foster care youth who had CDE and CDHS records in the datasets to suggest that they were in foster care during high school and were anticipated to graduate from high school between the 2008-09 and 2016-17 school years. A total of 86 cases were excluded from the analysis due to missing information on either or both of the inclusion criteria for the full sample.

- Descriptive statistics conducted with the sub-sample were limited to foster care youth who had records to suggest that they were in foster care at the age of 13 or older, attended 9th grade for the first time between the 2007-08 and 2013-14 school years, were anticipated to graduate from high school between the 2010-11 and 2016-17 school years, and were measured for math and reading proficiency in their first year of 9th grade. A total of 16,015 cases were excluded from the analysis due to missing information on one or more of the inclusion criteria for the sub-sample.

- Indicators of successful enrollment for the sub-sample were limited to the foster care youth who had CDHE records in the dataset to suggest that they attended (or are attending) a postsecondary education program in the state of Colorado, with a few exceptions. Youth in foster care who attended (or are attending) postsecondary education outside of Colorado state may not have been reflected as successfully enrolled in the results.

- The postsecondary outcomes were limited to foster care youth who were enrolled between the 2011-12 and 2017-18 school years. Foster care youth who attended a postsecondary education program outside of this period were not reflected in the results. In particular, any system-involved youth who enrolled in postsecondary education *more than* three years following high school exit.

- Were not shown as successfully enrolled in these analyses.

Table view and additional details for Figure 1, located on p. 11.

	Year								
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16*	2016-17*
Number of Students Enroll in Postsecondary Education (%) [a, b]	167	203	247	226	199	197	171	123	78
	16.0%	16.0%	17.1%	16.2%	14.7%	15.4%	16.1%	14.4%	11.7%
Institution Type [c]									
2-Year Private	0	< 5	< 5	5	6	< 5	< 5	0	0
2-Year Public	103	140	162	146	140	121	98	65	53
4-Year Private	11	9	13	17	15	15	19	9	< 5
4-Year Public	52	52	66	58	37	57	51	47	20
Fall-Spring Retention [d]									
Overall	69.8%	64.3%	65.3%	65.0%	60.4%	66.9%	73.9%	63.4%	71.9%
2-Year Public	66.0%	57.1%	58.3%	55.4%	56.8%	51.6%	62.3%	47.2%	57.1%
4-Year Public	77.1%	75.0%	76.4%	76.5%	78.6%	85.4%	92.1%	73.2%	100.0%
Fall-Fall Retention [e]									
Overall	47.7%	35.7%	38.2%	49.0%	37.8%	48.3%	45.0%	54.9%	--
2-Year Public	44.7%	33.8%	25.0%	40.2%	35.1%	29.0%	32.8%	41.7%	--
4-Year Public	54.3%	40.9%	58.2%	60.8%	46.4%	72.9%	65.8%	63.4%	--

Note.
[a] A total of 1,630 students (out of 12,199) ever enrolled in postsecondary education. Data from 2006-07, 2007-08, and 2017-18 are omitted from the table due to incomplete information (n = 19).
[b] The number of youth who exited each year ranged from 587 to 1,200.
[c] A small number of students (n < 3) each year are omitted from the table due to having an unidentified institution type.
[d] Fall to spring retention rate among youth who enrolled in postsecondary education each year, overall and by institution type.
[d] Fall to fall retention rate among youth who enrolled in postsecondary education each year, overall and by institution type.
* The enrollment data for the most recent two years of the study are incomplete. Youth who exited high school during the 2016-17 academic year were followed for only one year; youth who exited during the 2015-16 academic year had two years of postsecondary data.
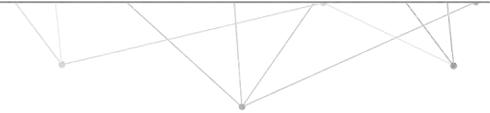
Appendix C: Youth Perspectives

YOUTH PERSPECTIVES

Colorado youths gave voice to the statistics when they shared their personal experiences as students in foster care[11]:

Youths participating in focus groups spoke to both gaps in learning and repetitive learning that results from differences in curriculum across the schools attended.

> You might go to one school where they're learning something this semester, transfer schools and they're learning something different, maybe something you already learned. But what they learned the first semester is something that you missed.
>
> You can't just take somebody in the middle of chemistry and throw them in the middle of another chemistry class – they're learning two completely different things and two completely different levels. It might be the same class, but it's different.

Variations in curriculum, course offerings, and graduation requirements were described as barriers to on-time high school graduation.

> My sister moved three schools in one semester and two were in the same school district. And at the end of the semester, all she had was English and math. Those were the only two that translated through all three schools. She was in German and the second school didn't have German so that didn't transfer, and it's like if the school you transfer to doesn't have that exact class that you were in... Then they can't count it.

As a consequence of challenges in maintaining educational continuity between schools, some youths in foster care reported feeling disengaged from academics.

> I'm not even going to have the chance to learn. I'm going to be going to a different school, so who cares.

Many shared about experiences when transitions between schools were not seamless.

> Then you're kind of lost in the dust. You're just another particle that is just there.

The examples shared by Colorado youths mirror the national literature. Researchers who study school mobility in a variety of student populations cite similar practical challenges.[12] Theorists describe the "social capital" that is lost when residential moves result in school changes.[13] There is value in relationships with peers and adults in the school community, especially because these relationships often support academic achievement.

As Colorado continues to implement state-level educational stability solutions and local pilot programs, research on school changes can be used to refine and prioritize that work.

School changes are an indicator of educational instability that can be counted. Certainly some school changes are in students' best interests, and for some students, the transitions that occur are seamless. When patterns emerge, such as minority students or ninth to eleventh graders changing schools at disproportionally high rates, it becomes clearer where to target educational stability efforts.

This report opens with establishing the empirical connection between the number of times foster care students change schools and high school graduation rates that are well-below the state average. The lens widens to look at the prevalence of school changes within the foster care student population from kindergarten through twelfth grade. The report concludes with a brief summary of previously released research regarding where school transfers typically occur in Colorado.

3 | Every Transition Counts

Appendix D: Qualitative Semi-Structured Interview Protocol

Study participants were asked the following questions:

1. Think about your K-12 educational experiences and take some time to reflect. When you are ready, tell me about what K-12 was like for you and what your goals were for after high school, example prompts:

   - What experiences stand out to you in your K-12 education? What about these experiences makes them stand out to you?

   - What experience shaped your goals?

   - What do you wish people better understood about your experience?

2A. If postsecondary is part of their goals (or are currently enrolled in postsecondary), then…

   - When did you first begin thinking about going [two-year, four-year, career and technical education, other program based on goal of participant]?

   - Thinking back to high school, what was interesting to you about the thought of going to […]?

   - How have your beliefs or interest in postsecondary education changed since high school?

2B. If postsecondary is NOT part of their goal, then…

   - What are some of your goals after earning a high school credential (diploma, GED, etc.)?

   - Thinking back at high school, what was interesting about [the participant's goal]?

   - How have your beliefs or interest in postsecondary education changed since high school?

3. What supports or barriers did you (or are you currently) experiencing related to your [post-high school goals]? Remind me, what are you doing now and have you ever applied or started a postsecondary program?

   - What were your experiences applying, enrolling, starting, or staying in postsecondary education?

   - Unpack any gaps between goals and where they are now.

     o What supports or barriers did you experience with applying, an acceptance to actually starting, and/or staying in school after you started?

     o People, circumstances, resources, etc.

4. Based on your experience, what are your recommendations to help former foster youth achieve their goals post-high school?

Code book is available upon request from the authors.

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