

Fostering Opportunities

Success Measures for a Pay for Success Pilot Program and Results of a Randomized Controlled Trial

REPORT HIGHLIGHTS:

- Colorado's first-ever state funded Pay for Success Project, Fostering Opportunities, achieved the highest level of success defined in the contract.
- The Fostering Opportunities program was developed by Jefferson County Public Schools and Jefferson County Human Services. This is the <u>only proven practice</u> for improving educational outcomes specifically for youth in foster care in Colorado.
- Educational outcomes for students in foster care improved:
 - 26.47% improvement in the percentage of students who were on track to graduate from high school.
 - Statistically significant gains in attendance rates within 1 year of providing access to the program.
 - Statistically significant decrease in number of suspension incidents within 1 year of providing access to the program.

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Data Sources

The study uses school-level student data from Jefferson County Public Schools District R-1 and Jefferson County Human Services.

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ⁱ Dr. Trent Lalonde contributed statistical consultation and code development prior to his employment with the State of Colorado and prior to the Colorado Evaluation and Action Lab receiving outcome data from this study.



Introduction

Fostering Opportunities is an innovative student engagement program for middle school and high school students who have experienced foster care. The program is:

- delivered by one or more education agencies working in close partnership with local child welfare agencies.
- designed to be responsive to changes in participating students' schools, living situations, caregivers, eligibility for services, and child welfare case status.
- designed to consider the network of people and systems (within and beyond education and child welfare) that are important to each student's attendance, behavior, course completion, and engagement in school.
- designed to provide continuity in supports and services for as long as students need a dedicated mentor and advocate to be successful in school.

Education agencies take the lead on service delivery because eligibility for the program continues beyond the closure of child welfare cases. Students with a history of foster care often need trauma-informed educational support and mentoring throughout their entire K-12 educational experience. The goal of the program is to help youth who have experienced foster care be successful in school and ultimately earn a high school credential.

Pay for Success

Pay for Success (PFS) is an innovative contracting model that ties funding for social programs to evidence-based programming and positive outcomes.

Fostering Opportunities was the first-ever State of Colorado PFS project.

Fostering Opportunities exceeded the highest level for "success" defined in the PFS contract and triggered full repayment plus a 2% return on the investment by Colorado's Office of State Planning and Budgeting (OSPB) to the philanthropic investor, Community First Foundation.

Fostering Opportunities program yielded a 26.47% improvement in the rate of students currently or formerly in foster care being on track to graduate compared to the control group.

There were also statistically significant improvements in attendance rates and number of suspension incidents among those students who were suspended at least once.

The PFS model is an innovative approach to financing evidence-based programs that shifts risk from traditional funders—typically a government entity—to private investors who provide the up-front capital. Key outcomes, or "success measures," are agreed upon prior to the start of a rigorous independent evaluation. Only if the evaluation shows that the program meets these outcomes does the government funder repay the initial investment.



In 2015, the Colorado General Assembly passed House Bill (HB) 15-1317, which authorized OSPB to enter into PFS agreements with lead contractors for the provision of program-eligible interventions (CRS 24-37-403). HB 18-1323, a Joint Budget Committee bill signed into law in April 2018, provides full funding to cover all direct payments and maximum possible success payments for these projects, through a series of annual transfers into OSPB's PFS Contracts Fund.

Fostering Opportunities was selected in 2018 through an open, competitive process by OSPB to receive implementation funds financed through a hybrid PFS approach. In this case, the implementation costs and initial risk were shared between the state of Colorado and the Community First Foundation. Through that PFS contracting process, the key outcomes ("success measures") were defined, and it was agreed upon that based on the level of success the project demonstrated, OSPB will pay back the investment the Community First Foundation made in the implementation of the program, plus a maximum of a 2% return on the initial investment.

A Model for Innovation and Evidence-building

Fostering Opportunities was developed because of the clear need to improve high school graduation rates for students in foster care. The percentage of youth in foster care who graduate with their class varies throughout the nation, but typically ranges from 23% to 63%.^{1, 2, 3, 4, 5}

The majority of interventions aimed at the goal of improving the graduation rates of students who have experienced foster care are spearheaded by child welfare agencies or the judicial system, and for this reason, services tend to end when students exit the foster care system.⁶ A student's risk for adverse educational outcomes does not end when they return home or are adopted. In fact, there is some evidence to suggest that the risk for educational outcomes may be elevated after a removal episode ends.⁷ Education agencies are uniquely positioned to serve these young people even after their foster care case closes.

Fostering Opportunities is an intervention developed at the local level based on the identified needs of local child welfare and education agencies.

With the goal of supporting the unique population of students in foster care, Fostering Opportunities was conceptualized, developed, and piloted in Jefferson County (Jeffco), Colorado, a geographically diverse 890-square-mile area that is home to a significant number of youths who experience foster care. This local education and human services partnership learned from promising practices in other states (e.g., Treehouse in Washington State, Students in School Rule! In Ohio^{8, 9, 10}) and evidence-based student engagement programs that are not foster-care specific such as *Check & Connect.*¹¹ Fostering Opportunities emphasizes social capital theory as the program's theoretical bedrock because of the unique, systems-level needs of students in foster care, above and beyond other marginalized student populations.



The Five Steps to Building Evidence: Moved Fostering Opportunities from a "Theoryinformed" to a "Proven Practice."

The <u>Colorado Steps to Building Evidence</u> model is a five-step process that has been adopted by OSPB for use when considering budget requests.

Step 1: Program Design (Manual Published July 2019). The Colorado Evaluation and Action Lab in partnership with Jeffco Public Schools and Jeffco Human Services developed the *Fostering Opportunities Program Manual: Middle and High School Version.*

Step 2: Identify Outputs (January 2019 through December 2020). Five key process benchmarks were monitored and reported to the PFS Governance Committee on a quarterly basis for the first 2 years of the project. By the end of Year 2, the program met or exceeded all five implementation benchmarks. Program implementation fidelity was also assessed in depth in March 2020 and March 2021, demonstrating strong adherence to the Fostering Opportunities model both prior to and during the COVID-19 pandemic.

Steps 3 and 4: Assess Outcomes and Attain Initial Evidence (Report Published May 2021). A <u>preliminary</u> <u>outcomes report</u> described performance of the Fostering Opportunities pilot after four semesters of program delivery. Descriptive comparisons between treatment and control groups indicated a greater than 10% improvement in the number of suspension incidents. Although the program was delivered with fidelity during the pandemic, changes in how attendance was recorded and grading practices likely influenced the initial findings related to those outcomes. At this point in the project, outcomes were assessed for all study participants regardless of how long they had been enrolled in the study. Some study participants had been enrolled for one semester; others had been enrolled for up to four semesters

Step 5: Attain Causal Evidence (Report Published September 2022). Success Payment Two: This report details the key findings and resulting from the randomized controlled trial (RCT). Results describe the impact of the Fostering Opportunities intervention at 1 year after randomization into the study. It is an intent-to-treat evaluation, meaning that the students in the treatment group were offered the option of enrolling in the Fostering Opportunities intervention. The findings associated with Success Payment Two are the ultimate measures of "success" of this PFS pilot program. Descriptive analysis indicated there was a 26.47% improvement in on track to graduation. Statistical analysis demonstrated causal improvements in (1) attendance and the (2) number of times students were suspended among those students who were suspended at least once. There were no differences in course pass rate.

Future Evidence-building Activities:

- In Jeffco: December 31, 2023 Final RCT Analyses. The RCT will continue for 1 year beyond the Pay for Success contract for the purposes of increasing the sample size, so that the study is fully powered and includes more semesters of data when schools were in person.
- New Sites Launch: 2023-2024 Academic Year. The steps to building evidence are intended to be an iterative process. As new sites are launched, resourced by the <u>Foster Care Success Act</u> (HB22-1374), evidence building will initially focus on Steps 2 and 3, identifying outputs to ensure sites are delivering the program with fidelity and comparing outcomes for students served to baseline data.



Description of the Study

This report represents the contractual analysis required for the second success payment, as outlined in the PFS contract. The purpose was to estimate the impacts of the Fostering Opportunities intervention on school attendance rates, course pass rates, and suspensions at 1 year after randomization. The PFS contract details the triggers for success.

The study was an RCT where sixth to 11th grade students who were in foster care (at entry into the study) were randomly assigned to either the Fostering Opportunities intervention ("treatment") or business as usual ("control") condition. The study followed an intent-to-treat model, meaning outcomes were evaluated based on the offered service. Therefore, all students who were enrolled in the study were included in the analysis, regardless of their level of engagement in the intervention. We used outcome data from one calendar year after enrollment in the study.

Research Questions for Success Payment Two:

1. What is the impact of Fostering Opportunities on students'

- a. attendance rate,
- b. course pass rate,
- c. odds of being suspended, and
- d. number of times being suspended among those students who were suspended at least once
- at 1 year after randomization?

2. What is the impact of Fostering Opportunities on students being on track for high school graduation at the end of the project period, regardless of length of time since randomization?

The evaluation also included process benchmarks that were assessed throughout the study period and indepth assessment of adherence to the Fostering Opportunities model.

Process Benchmarks

• Five process benchmarks were included in the PFS contract and set the minimum thresholds for number of youth served, consistent engagement of youth, and adherence to evaluation requirements.

Program Implementation Fidelity

• Thirteen indicators were used to describe adherence to the Fostering Opportunities model and crossed the domains of systems alignment, program characteristics, and the role of the specialist.



The study took place in Jeffco, Colorado. The intervention was implemented by "specialists" hired by the school district who check in weekly with students, ensure caregivers and child welfare case workers have timely and accurate information about students' educational progress, and consult with teachers on trauma-informed approaches to help the students be successful in school. These specialists follow students through planned and unplanned school changes within Jeffco schools and to adjacent school districts. The intervention and the study design assume that some students will transfer out of the school district, and procedures are in place to continue some aspects of service delivery and to track student outcomes.

PFS Success Payment Two Key Findings

Overview of PFS Success Payment Triggers

Table 1 lists the outcomes that were used as payment triggers for Success Payment Two. The numerators and denominators for the outcomes consider all semesters for which students were enrolled in the study. These outcomes were assessed descriptively and causally (i.e., statistical significance improvement associated with treatment effect).

Su	ccess Measure	Descriptive Measure for Success Payment One
1.	Attendance Rate	The unweighted mean of students' attendance rates within each cohort during the first year after randomization. First an attendance rate was calculated for each student by dividing the total number of days actually attended by the total number of days the student was expected to attend during the first year after randomization. Then the sum of each student's attendance rate was divided by the number of students in the group. ⁱⁱ
2.	Suspensions: Percentage of students suspended	The total number of students suspended during the first year after randomization was divided by the total number of students in each group.
3.	Suspensions: Average Number of suspensions among those students who were suspended at least once	The total number of suspension incidents during the first year after randomization was divided by the total number of students suspended.
4.	Course Passing Rate	The unweighted mean of students' course pass rates within each group during the first year after randomization. First, a course pass rate was calculated for each student by dividing the total number of courses passed by the total number of courses it was possible to pass during the first year after randomization. Then, the student rate was averaged within each group by dividing the sum of each student's course pass rate by the number of students in the group.

Table 1. PFS Success Measures

ⁱⁱ The PFS contract indicated that attendance rate would be calculated using class periods attended. Those data were not available, so days attended was substituted.



Success Measure	Descriptive Measure for Success Payment One		
5. On Track to Graduate	Defined as whether a student accumulated enough credits to be on track to graduate within 4 years of initially entering ninth grade, and operationalized based on Jeffco graduation requirements unless differing requirements were noted based on students' enrollment patterns ⁱⁱⁱ . This outcome was measured only for students enrolled in high school (ninth grade or above). A student enrolled prior to ninth grade was included in this outcome for the purposes of the calculation once he or she reaches ninth grade. This portion of the evaluation relies on two alternate calculations, including:		
	 i) Whether there is a difference between the groups with respect to the percentage of students on track to graduate based on <u>credit</u> <u>accumulation</u> regardless of length of time since randomization; and ii) Whether there is a difference between the groups with respect to <u>course pass rate</u> regardless of length of time since randomization. 		

Based on outcomes listed above, "success" will be measured for Success Payment Two as follows. "Improvement" is defined as differences between the treatment and control groups.

- **Success Level One**: The project demonstrates either a 5% or greater improvement in any one success measure <u>or</u> statistically significant improvement in any one success measure.
- **Success Level Two**: The project demonstrates 5% or greater improvement in any one success measure <u>and</u> statistically significant improvement in any one success measure.
- Success Level Three: The project demonstrates statistically significant improvement in any one success measure <u>and</u> a 5% or greater improvement in "On Track to Graduate," as measured by <u>either</u>:
 - Whether there is a difference between the cohorts with respect to the percentage of students on track to graduate regardless of length of time since randomization; <u>or</u>
 - Whether there is a difference between the cohorts with respect to course pass rate regardless of length of time since randomization, specifically for high school students.
- Success Level Four: The project demonstrates a 10% or greater improvement in "On Track to Graduate" high school, as defined <u>solely</u> by whether there is a difference in the number of youth on track to graduate.

The <u>methods</u> for assessing statistical significance are detailed later in this report.

ⁱⁱⁱ The PFS contract indicated that graduation requirements should be based on the district where student last attended. Those information were not consistently available as this is a highly mobile population. As such, the default was that Jeffco requirements of 23 credit hours was applied.



Success Level Four (Highest Level) Was Met

Students Who Had Access to Fostering Opportunities Program on Track to Graduate at a Higher Rate at the End of the Study Than in the Control Group

Success Level Four is defined as the **project demonstrates a 10% or greater** improvement in "On Track to Graduate" high school, as defined <u>solely</u> by whether there is a difference in the number of youth on track to graduate.

• Fostering Opportunities met this threshold with a <u>26.47% improvement</u> in "on track to graduate" high school.

The analysis of "on track" to graduate was based on students who were in high school at any point during the study, and the <u>number of credits</u> they had accumulated relative to their grade level was measured at the end of the project period.

The observed percent improvement was substantially higher than the threshold set for Success Level Four, meaning that practically, this program is making a difference in setting young people currently or formerly in foster care on a track for educational success. The results were not statistically significant, and that is likely because the sample size was small (n = 94) and the analysis was "underpowered." There were not enough students who were in high school during the study period for significance tests to indicate the observed difference was attributable to the intervention. Underpowered analyses were expected for this outcome when the pilot was launched, which is why observed improvement is considered "success."

Other Key Findings: Outcomes 1 Year After Randomization into the Study

The sample size for 1-year outcomes was larger than the sample size for on track to graduation (n = 157). That is because attendance, suspension, and course pass rate was measured for students in Grades 6-11; whereas, on track to graduate was only measured for high school students. The larger sample size is why statistically significant outcomes were found, even when the observed percent improvement was smaller than for on track to graduate.

Positive Outcomes

- 1. Attendance Rates Improved. Students who had access to the Fostering Opportunities program attended school at a higher rate. This finding was statistically significant, meaning that this result can be directly attributed to the impact of providing students access to the Fostering Opportunities program.
- 2. The Number of Suspension Incidents Decreased. Students who were suspended at least once, on average had fewer suspensions if they had access to the Fostering Opportunities program. This finding was statistically significant, meaning this result can be directly attributed to the impact of providing students access to the Fostering Opportunities program. This finding suggests that the program focus on facilitating meaningful and purposeful reentry to school post-suspension is beneficial for addressing significant behavior problems.



Neutral Outcomes

- 1. There Was No Observed or Statistically Significant Difference in Course Pass Rate. Students who had access to the Fostering Opportunities program passed their courses at a similar rate to those students in the control group. Most of the variance in course pass rate was explained by students' prior academic performance, which suggests that more time or changes to the intervention may be needed to improve this outcome. As noted in the preliminary Pay for Success Report, it is also possible that grading practices associated with the COVID-19 pandemic may have affected this outcome.
- 2. There Was No Statistically Significant Difference in the Percent of Students Who Had Zero Suspensions, Descriptive Analysis Suggest Potential Improvements. Students in both the treatment and the control group typically had zero suspension incidents. Jeffco Public Schools engages in restorative justice practices which provides schools with an alternative to suspending students. While descriptive analysis showed potential improvement in this area, the findings were not statistically significant. Follow-up research with a larger sample size is needed to determine confirm if this is a neutral finding or perhaps there was progress made and the study is simply underpowered (i.e., not enough observations to be confident that the observed difference was a result of the intervention).

Detailed information on the outcomes can be found in the <u>Results 1 Year After Randomization</u> section of this report.

State-owed Payments

Success Level Four was met. The state owed a payment of \$372,821.

The Success Payment was calculated by first subtracting Community First Foundations principal interest from the amount that was paid back under Success Payment One, then applying 2% interest— compounded quarterly—to that amount. Details can be found in the financial model linked <u>here</u>, that was prepared by Social Impact Solutions.

Program Implementation Fidelity

A detailed fidelity checklist was developed for use by Fostering Opportunities leadership and program staff to assess their adherence to the model, identify strengths, and engage in continuous improvement. The checklist allows for self-assessment along 13 key indicators, listed in Table 2.



Table 2. Key Program Implementation Fidelity Indicators

Key Fidelity Indicators	Description
I. SYSTEMS ALIGNMENT	
1. Leadership Framework	Evidence of a site's leadership-driven culture of commitment to the Fostering Opportunities program and its principles.
2. Legal Framework	Evidence of a site establishing a strong legal framework for Fostering Opportunities so that the program can function as smoothly as possible.
3. Practice Framework	Evidence that day-to-day practices and procedures affecting students in the school environment are implemented with fidelity at this site.
II. PROGRAM CHARACTERISTICS	
4. Staffing	Evidence that the Fostering Opportunities program is adequately staffed at this site.
5. Database	Evidence that a quality Fostering Opportunities database has been created and can be used to facilitate network closure at the site.
6. Monthly Progress Monitoring Report	Evidence that monthly progress monitoring reports are generated every month and shared with both the student and all members of the student's network.
7. Network Closure	Evidence that the program is fulfilling its goal of facilitating network closure for participating students.
8. Equitable Access to the Program	Evidence that students are selected to participate in the program in an equitable and unbiased manner at this site.
9. Supervision	Specialists are receiving adequate supervision from the program coordinator, which enables them to better serve students.
III. THE ROLE OF THE SPECIALIST	
10. Advocacy	Evidence that specialists are effective advocates for students at this site.
11. Mentoring	Evidence that specialists are effective mentors for students at this site.
12. Social-Emotional Support	Evidence that specialists are effective providers of social- emotional support at this site.
13. Academic Support	Evidence that specialists are effective providers of academic support at this site.

Program implementation fidelity was assessed in depth at multiple times, demonstrating high levels of adherence to the Fostering Opportunities model both before and during the COVID-19 pandemic. The PFS Operating Committee meetings were used as a forum for engaging in continuous quality improvement throughout the project period.



Recommendations

Implement Fostering Opportunities in More Geographic Areas

Fostering Opportunities is now a **proven practice** for improving educational outcomes for youth who experience foster care. The <u>Foster Care Success Act</u> (HB22-1374) resourced implementing this program in two more geographic areas and sustaining the program in Jeffco in perpetuity. Now that there is more evidence to support the efficacy of the Fostering Opportunities program, advocating for resources to scale the program more broadly is appropriate.

Provide Implementation Science Support for New Sites

Fostering Opportunities was developed in a jurisdiction with strong local education and child welfare partnerships and the PFS contract formalized a structure for routine communication and continuous quality improvement work. New sites are likely to benefit from implementation science support that uses data, skilled facilitation, and structured support uptake of this proven practice in new communities.

Engage in Evaluation Activities that will Strengthen Program Design and Track Program Outcomes

The <u>Colorado Steps to Building Evidence</u> are an iterative process. This study aligns with Step 5: Attain Causal Evidence. When the program is implemented in new sites, it will be important to track program outcomes – step 3 - to see if Fostering Opportunities is performing as expected (e.g., improving attendance rates, reducing suspensions, and getting more students on track for graduation). Evaluation activities that capture learnings from new sites can also strengthen the program design – step 1. Scaling the program to multiple counties also allows for specialists to transition cases to other school districts and that warm hand-off is an example of what could be incorporated into future versions of the Fostering Opportunities <u>Program Manual</u>.

Provide Fostering Opportunities to Students for as Long as They Need It

The ultimate goal of the Fostering Opportunities program is to increase the high school graduation rate for students who have experienced foster care and set these young people on a path for success in life. The Fostering Opportunities evaluation focused on outcomes within the first year after providing students with access to the program. Attendance rates increased and severe behavioral problems (i.e., multiple suspensions) decreased. This is an excellent foundation for improving graduation rates. It is likely that some students will need support for more than one academic year, and the program should continue to be implemented as it is currently designed to providing support until young people reach the milestone of earning a high school credential.

Focus Complimentary Resources on Course Pass Rate

The success in getting students "on track to graduate" was tied to credit accumulation, not course pass rate. Practically, this means that the Fostering Opportunities program likely unlocked opportunities for these students to recover lost credits and the program also focuses on appropriately negotiating credit for students who demonstrate the competency in the subject matter. The focus on credit accumulation is an important strategy for getting students on track to graduate, and investing in additional complimentary resources (e.g., subject-specific tutoring) to improve students' success in their academic courses might be needed for some students.



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Methods





Methods

Intent to Treat, Randomized Controlled Trial

Students in Grades 6-11 who were in foster care at entry into the study <u>and</u> enrolled in Jeffco Public Schools were randomly assigned to having access to the Fostering Opportunities intervention ("treatment") or business as usual ("control") condition. Randomization occurred at the start of each semester using a computer-generated random number. Sibling pairs were randomized by alternating the random assignment based on the lowest grade and the highest grade of the sibling group. Randomization weights, set on a per cohort (semester) basis, ranged from 0.3 to 0.8 probability of assignment to treatment.



Random assignment procedures were followed with fidelity. There was no indication of crossover.

The randomization procedures were piloted during the building period, fall of 2018. By the time the study launched in the spring of 2019, the process and clear paths of communication and timelines with the providers and data contributors were established. There has been no indication of crossover since the study launched.

The cut-off dates for being part of a cohort were as follows:

- Students randomized between August 1 and October 1 were included in the fall cohort.
- Students randomized by February 15 were included in the spring cohort.

Treatment (invitation to participate in the Fostering Opportunities program) was assumed to have begun immediately after randomization.

• Students randomized after February 15 were included in the next school year's fall cohort.

Treatment (invitation to participate in the Fostering Opportunities program) was assumed to have begun in August, although some initial outreach to families occurred for some students prior to August.

Outcome Measures

Attendance

Attendance was defined as yes/no (present or absent) for the day, regardless of reason or excused/unexcused status. The attendance measure mirrors Jeffco Public Schools business rules for average daily attendance rates.

Course Passing

Course passing was defined as a student receiving a letter grade of "D" or higher on a traditional A-F grading scale or a number grade of 2 or higher on a 1-4 grading scale. A student was considered as failing a course with a number grade of 1 or a letter grade of "F" (failing), "U" (unmet), "NM" (not met), "N" (not passing), "ND" (student does not demonstrate attribute), "NC" (no credit), "RL" (remote learning, assigned in place of an "F" during remote learning), "WP" / "WF" (withdraw), or "IN" / "I" (incomplete). A course pass rate was calculated for each student for each semester post-randomization. These course pass/fail



distinctions were developed in consultation with Jeffco Public Schools and reviewed by the PFS Operating Committee.

Suspension Incidents

The percentage of students suspended at least once was defined categorically as whether or not a student had one or more suspensions and is inclusive of in-school and out-of-school suspensions. The decision to focus on suspension incidents and not differentiate between type of suspension (in-school vs. out-of-school) or number of days is because school-based practices and the use of restorative justice approaches can influence the type of suspension and length of time students are suspended.

Analytic Approach

Descriptive Analyses for All Outcomes

Percent Improvement (Success Measure)

The percent increase formula was used to determine the descriptive magnitude of improvement for each of the outcome measures. Data were used from all four semesters. For attendance and course passing outcomes, an increase is considered an "improvement;" whereas for suspension measures, a decrease is considered an "improvement."

Treatment Value- Control Value

Control Value

Percent Increase =

X 100

Pre-post Test Comparisons (Informational Purposes)

For some study outcomes differences between the intervention and control groups relative to their baseline measure over the period from baseline to 1 year after starting the study were assessed. This prepost test descriptive approach illustrates the change over time for the treatment group relative to the control group. This pre-post comparison was made when the treatment and control groups were not equivalent at baseline on the outcome of interest.

Statistical Significance Testing (Success Measure)

For all research questions, the threshold for statistical significance was set at alpha = .10,^{iv} meaning there was a 90% chance that any differences detected were attributable to the Fostering Opportunities intervention and not random chance.

Consistent with the PFS contract, the covariates used in statistical models were finalized prior to the researchers accessing outcome data for the students enrolled in the study. Data from the project building period were used to determine which covariates should be included. The predetermined threshold for inclusion of an individual covariate was set at explaining 10% of the variance in the outcome of interest or

^{iv} As indicated in the PFS contract.



to address baseline equivalence. Thus, the covariates included in each of the models were reviewed by the PFS Governance Committee prior to study outcome data being shared with the evaluators.

Attendance

An attendance rate was calculated for each student both at baseline and 1-year post-randomization.^v We used a linear ANCOVA model, with baseline attendance rate as the primary covariate. The primary regressor of interest was an indicator of participation in the intervention ("group"). Other covariates included the baseline attendance rate, race and ethnicity, grade level at randomization, and an indicator of the semester of study start ("cohort").

Course Passing

We used a linear ANCOVA model. The primary regressor of interest was an indicator of participation in the intervention ("group"). Other covariates included race and ethnicity, grade level at randomization, and an indicator of the semester of study start ("cohort").

Suspension Incidents

We used a mixed hurdle Poisson regression model,^{vi} including a normal random effect to account for similarities among known siblings in the study. The primary regressor of interest was an indicator of participation in the intervention ("group"). Other covariates included race and ethnicity, grade level at randomization, an indicator of the semester of study start ("cohort").

^v The definition for attendance, course pass, and suspension rates mirror the PFS contract, page C-1.

^{vi} As noted in the original evaluation plan, a mixed hurdle Poisson regression model is best suited for a count outcome with a high number of zero values, as was the case with suspensions.





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Sample and Baseline Equivalence





Description of the Sample

One-Year Outcomes

The sample of youth for whom outcomes were measured at 1-year after randomization consisted of 157 students who were enrolled in Grades 6-11. These students were all enrolled in Jeffco Public Schools at entry into the study and had experienced an out-of-home foster care placement. At the time of enrollment in the study, most of these young people were in the custody of Jeffco Human Services. Adjacent county human services department also referred young people into the program if they attended school if Jefferson County. There were more BIPOC youth in the study than non-Hispanic white.

Ninety-five (61.1%) students were randomized into the treatment group and were invited to participate in the Fostering Opportunities program. Sixty-one students (38.9%) were randomized into the control group. Table 3 presents key demographic characteristics of the sample. The full sample, n = 157, was used for research questions 1a, 1b, and 1c, which focus attendance, behavior, and course passing rates within 1 year of randomization, with slight variations in sample size per research question due to missing outcome data.

On Track to Graduate

An overlapping sample (n = 112) was used to assess aspects of on track to graduate. The criteria for inclusion in this sample was enrolled in high school during the study period and at least one academic semester of data. Most of the students in the sample were also included in the 1-year outcomes; however, there were some additional students for whom only one semester of data was available.

Table 3	Kev	Demographics	Characteristics	of	Same	ble
Table 5.	ксу	Demographics	Characteristics	υı	Samp	лс

Sample Size	1 Year Outcomes Sample (n = 157)	On Track to Graduate (<i>n = 112</i>)	
Gender	45.2% Female 54.8% Male	49.1% Female 50.9% Male	
Average age at first removal	10.9 years old (with a range of 0- 18)*	11.7 years old (with a range of 0-18)	
Average age at enrollment	13.4 years old (with a range of 10- 18)	14.5 years old (with a range of 11- 18)	
County of custody	72.6% Jeffco 27.4% Other counties**	75.9% Jefferson County 24.1% Other counties	
Primary ethnicity	42.0% Non-Hispanic White 58.0% BIPOC	42.0% Non-Hispanic White 58.0% BIPOC	



Sample Size	1 Year Outcomes Sample (n = 157)	On Track to Graduate (<i>n = 112</i>)
Grade at Enrollment	30.6% in Grade 6 15.9% in Grade 7 9.6% in Grade 8 21.0% in Grade 9 13.4% in Grade 10 9.6% in Grade 11	5.4% in Grade 6 8.9% in Grade 7 13.4% in Grade 8 35.7% in Grade 9 21.4% in Grade 10 15.2% in Grade 11
Students with Special Education designation	28.7%	25.0%

Note. *Previous report indicated an enrollment age rate of up to 19. The local child welfare agency reviewed date of birth for accuracy and made some corrections. ** Other counties include Adams, Arapahoe, Denver, and Park.

Missing Data

For each research question, listwise deletion was used to reduce the sample size to the number of students who had complete outcome data. If baseline data were missing but outcome data were present, then the youth were included in the analysis. Thus, there are variations in sample size by research question.

Baseline Equivalence of Demographic Measure

We used administrative data from child welfare to assess baseline equivalence of students between treatment and control groups on demographic variables and foster care placement in the year prior to randomization. Education data from local education agencies were used to examine baseline equivalence on the outcome areas of interest: attendance, course pass rate, and suspensions. Baseline equivalence was assessed by research questions, to ensure that appropriate adjustments were made based on the sample of students included in each statistical analysis. For each research question, the outcome of interest was also assessed for baseline equivalency.

Baseline data were compared using the Hedge's g for continuous variables and the Cox index for dichotomous variables. Absolute values of effect sizes of less than 0.25 were determined to be "equivalent." Testing showed that for all research questions, the groups were equivalent on gender, whether or not the youth was in a foster care placement during the prior school year, and special education status. The groups, however, differed in the percentage of students who were non-Hispanic White versus BIPOC for most research questions. There were also differences at baseline in attendance rates for the sample in research question 1a. Groups were equivalent in terms of baseline suspension rates and course pass rates. Tables detailing the baseline equivalence by research question can be found in <u>Appendix A</u>.



Final Covariates for Models

The analysis plan indicates that the covariates used in statistical models should be finalized prior to the researchers accessing outcome data for the students enrolled in the study. The first outcomes data occurred in January 2021, thus covariates were examined using data from the project building period (i.e., fall 2018) and further informed by analysis of baseline equivalence and PFS Governance Committee decisions.

The predetermined threshold for inclusion of an individual covariate was set at explaining 10% of the variance in the outcome of interest. The building data indicated that grade level explained more than 10% variance in the outcomes of attendance (12%), course pass rate (25%), and suspension (15%). Age at first entry into foster care and foster care placement type explained less than 10% of the variance in all outcome areas of interest.^{vii} As noted above, for research question 1a, attendance rates at baseline are also included to control for the lack of equivalence at baseline. The PFS Governance committee in consultation with the research team decided to include the cohort or the semester that students were enrolled in the study as a covariate to account for COVID-19 related effects on the outcomes.

Grade level was included as a covariate in all statistical models.

Cohort or semester the students enrolled in the study in all statistical models.

Attendance rates in the semester prior to enrollment in the study was included as a covariate in research question 1a (attendance).

Race/ethnicity was included as a covariate for all research questions, except the course passing rate for high school courses only.

^{vii} Foster care placement in prior school year was included as a covariate in Success Payment One, which included data from multiple school years, not limited to 1 year after randomization. Baseline equivalence on this measure suggests there is no value in incorporating it as a covariate in the current study because "prior year" is the same as at "baseline" in this study.



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Results 1 Year After Randomization





Results 1 Year After Randomization

For each outcome area, descriptive information associated with success measures is presented first. Then, trends that are reported for informational purposes only are described. Finally, the results of the statistical models are reported.

UNDERSTANDING THE STATISTICAL MODELS

"Statistical significance" is the determination that access to the Fostering Opportunities Program impacted the outcome.

For the purposes of this pilot study, statistical significance was defined in the PFS contract as a 90% or greater chance that the difference in outcomes between the treatment and control groups is attributable to the Fostering Opportunities intervention, and not random chance.

- "P-values" of less than 0.10 were predetermined to be statistically significant.
- "Effects" with a positive sign indicate that the outcome of interest went up, whereas negative signs indicate that the outcome of interest went down. This is important because for some outcomes, a positive change is an increase (e.g., attendance), whereas for others, a decrease is an improvement (e.g., number of times students were suspended).

Group is the primary variable of interest for determining the impact of Fostering Opportunities. The treatment group is those students who were randomly assigned to have access to the program.

Cohort refers to the academic term students were enrolled in the study. Cohort was included in the model to provide insight into potential pandemic related effects. Students who enrolled in the study in spring of 2019 would have a full year of data that was not affected by the pandemic—spring 2019 and fall 2019—this is why that cohort is set as the reference term and comparisons are made against that cohort.

Grade refers to the grade level of the students when they were enrolled in the study and for most students in the study indicates that they were in foster care at the start of that academic term.^x Grade level was included in the model to provide insight into whether the outcomes of interest, on average, differ by grade levels. This is intended to inform future implementation of educational interventions for youth in foster care.

vⁱⁱⁱ Eligibility for the study was based on being in foster care at the time of enrollment. This means that in most cases, a student who was enrolled in a given term was either in foster care at the start of that academic term or in close proximity to the start of that term (e.g., a student entered the study in early August while in foster care and school started late August).



Research Questions

Figures are annotated with percent improvement when it is greater than 5% because that aligns with the PFS success measures and practically meaningful improvements.

Research Question 1A: Attendance

Descriptive Analysis

Percent Improvement is Misleading Because the Treatment and Control Group Differed at Baseline

The mean attendance rate for the treatment group 1 year after randomization was 82.63%, while the mean attendance rate for the control group was 82.94%. These figures suggest that there was no improvement in attendance rates.^{ix} Analysis of baseline data; however, indicated that the treatment and control group were not equivalent at baseline on attendance rates—the control group had a higher attendance rate than the treatment group in the semester prior to entering the study. Thus, Figure 1 is misleading.



Figure 1. Mean Attendance Rate by Group, 1 Year Post-Randomization

Pre-post Test Comparison Better Illustrates Progress on Attendance Rates

^{ix} The observed difference in attendance rate between treatment and control group is the metric that was specified in the PFS contract. The pre-post descriptive statistics are reported because the evaluators determined after reviewing baseline data that it provides important context for understanding the program effects.

Taking each group's baseline attendance rates into account, it is clear that attendance rates for students in the treatment group improved (see Figure 2). At baseline, the mean attendance rate for students in the control group was 11.13 percentage points higher than the treatment group. One year after randomization, the mean attendance rate for students in the control group had fallen by 3.06 percentage points, while the mean attendance rate for students in the treatment group rose by 7.76 percentage points to a nearly identical rate to that of the control group.

Pre-post test comparisons are presented for attendance only because the treatment and control group were not equivalent at baseline. This figure is not annotated with "percent improvement" to ensure that term is used in this report only as it was defined in the PFS contract.





Statistical Model of Attendance Rate

The Fostering Opportunities Program Led to Improved Attendance Rates Within 1 Year

For the ANCOVA regression model with attendance rate 1 year after randomization into the study, results are shown in Table 4. The Fostering Opportunities program led to improved attendance rates (p = .08). The positive sign on the effect means that the attendance rates in the treatment group were higher than the control group. Consistent with the literature, the students' attendance in the semester prior to the study (i.e., baseline rate), explained the most variance in this attendance. Relative to students who enrolled in the study pre-COVID 19 pandemic, students in the fall 2020 cohort had lower attendance rates on average. Attendance outcomes for the fall 2020 cohort were measured during the 2020-21 academic



year and that fall term was the beginning of return to in-person learning and when attendance data were tracked more consistently that in spring 2020 during the fully remote school year.

Variable	Effect	Standard Error	p-Value
Group			
Treatment	0.05	0.03	0.08*
Control (Ref)			
Baseline			
Baseline Attendance Rate	0.23	0.07	0.00***
Race & Ethnicity			
Non-Hispanic White	-0.00	0.03	0.89
BIPOC (Ref)			
Cohort			
Spring 2019 (Ref)			
Fall 2019	-0.04	0.04	0.29
Spring 2020	-0.03	0.04	0.46
Fall 2020	-0.09	0.05	0.07*
Spring 2021	-0.04	0.04	0.37
Fall 2021	-0.05	0.06	0.36
Grade			
Grade 6 (Ref)			
Grade 7	-0.00	0.04	0.92
Grade 8	0.01	0.05	0.87
Grade 9	0.02	0.04	0.63
Grade 10	0.01	0.04	0.89
Grade 11	-0.07	0.05	0.20

Table 4. Results of Attendance Rate ANCOVA Regression Model

Note: * = p < 0.1, ** = p < 0.05, *** = p < 0.01

Research Question 1B: Course Passing

Descriptive Analysis

Percent Improvement Analysis Suggest No Difference in Course Pass Rates

One year after randomization, the mean course passing rate for students in the control group was 77.27%, compared to a mean course passing rate of 75.86% for students in the treatment group. This represents a decrease in the course pass rate of 1.82%. Practically, this is not a meaningful difference and may also be explained by variation in course pass rates at baseline. At baseline, the control group had a 3.89 percentage point higher course pass rate than the treatment group (*control = 77.05%, treatment = 73.16%*), this was not a statistically significant difference at baseline (Appendix A).





Figure 3. Mean Course Passing Rate by Group, 1 Year Post-Randomization

Statistical Model of Course Pass Rate

The Fostering Opportunities Program Did Not Impact Course Pass Rates Within 1 Year

For the ANCOVA regression model with course pass rate 1 year after randomization into the study, results are shown in Table 5. There was no statistically significant difference between the treatment and control group, meaning that the program did not impact course pass rate within 1 year of the study. It also means there was no evidence of harm due to the implementation of this program. Future research will provide insight into whether more than 1 years' time is needed to improve students' course pass rate. The grade level findings indicate that 11th graders on average pass fewer of their classes than sixth graders. This demonstrates the need to prioritize intensive educational interventions for 11th grade students in foster care.

Variable	Effect	Standard Error	p-Value
Group			
Treatment	-0.02	0.05	0.70
Control (Ref)			
Race & Ethnicity			
Non-Hispanic White	-0.01	0.04	0.80
BIPOC (Ref)			
Cohort			
Spring 2019 (Ref)			

Table 5. Results of Course Pass Rate ANCOVA Regression Model



Variable	Effect	Standard Error	p-Value
Fall 2019	-0.05	0.07	0.50
Spring 2020	-0.03	0.07	0.67
Fall 2020	-0.07	0.07	0.36
Spring 2021	-0.09	0.06	0.15
Fall 2021	0.02	0.10	0.87
Grade			
Grade 6 (Ref)			
Grade 7	-0.08	0.07	0.26
Grade 8	0.02	0.08	0.86
Grade 9	-0.09	0.06	0.13
Grade 10	-0.06	0.07	0.40
Grade 11	-0.19	0.08	0.02**

Research Questions 1C and 1D: Suspension Incidents

Descriptive Analysis

For the purposes of this report, suspension incidents are measured in two ways: (a) whether a student had any suspensions during the year; and (b) for those students who were suspended at least once, the number of times a student is suspended. The majority of students were not suspended at all, as illustrated in Figure 4 which is the distribution of the number of suspension incidents for all students in the study (i.e., not separated by treatment and control groups).







Percent Improvement Analysis Suggest that Providing Access to the Fostering Opportunities Program Decreases Suspensions

Percent of Students Suspended. One year after randomization, the percentage of students that were suspended in the control group was 33.33%, compared to 25.81% for students in the treatment group. This represents a percent improvement for the treatment group of 22.56%. This was based on a yes/no categorization describing if the student was suspended at all during the time period of interest.

Number of Suspensions Among Those Students Suspended At Least Once. One year after randomization, students in the control group were suspended an average of 2.55 times, compared to 1.71 suspensions on average for the treatment group. This is a percent improvement of 33.01% for students in the treatment group—fewer suspension incidents on average.



Figure 5. Percentage of Students Suspended by Group, 1 Year Post-Randomization



Figure 6. Mean Number of Suspension Incidents by Group, 1 Year Post-Randomization (includes only those suspended at least once)



Statistical Model of Suspensions

For the mixed hurdle Poisson regression model, suspensions as the longitudinal outcome simultaneously models the likelihood of a suspension occurring at all and, for the subset of students who were suspended at least once, the frequency of suspension incidents is also modeled. Results are shown in Table 6.

The Fostering Opportunities Program Did Not Have a Statistically Significant Impact on the Percentage of Students Who Were Suspended

Likelihood of a Suspension. There was no impact on the likelihood of a student being suspended during the first year after receiving access to the Fostering Opportunities program. As noted above, relatively few students were suspended at all. The low number of students suspended is likely a reflection of the restorative justice practices in place in Jeffco Public Schools and remote learning during part of the study period. The *p*-value approaches the threshold for statistical significance and considering that in context with the descriptive results presented above suggests that with a larger sample size there may be a significant effect.

The Fostering Opportunities Program Reduced the Average Number of Suspension Incidents Among Those Students Who Were Suspended at Least Once

Number of Suspension Incidents. For students who were suspended at least once, access to the Fostering Opportunities program decreased the average number of times they were suspended. This suggests that the intervention holds particularly strong promise for supporting students with significant behavior





problems. The results also indicated that BIPOC students were suspended more frequently than Non-Hispanic White students. The grade level effects indicate that in this study, students who enrolled in the study in Grades 7 and 8 had on average more suspension incidents than sixth graders.

Variable	Effect	Standard Error	p-Value
	Model fo	or Likelihood of a Suspen	sion
Group			
Treatment	0.61	0.41	0.14
Control (Ref)			
Race & Ethnicity			
Non-Hispanic White	-0.08	0.39	0.85
BIPOC (Ref)			
Cohort			
Spring 2019 (Ref)			
Fall 2019	0.01	0.59	0.98
Spring 2020	-0.64	0.58	0.27
Fall 2020	0.48	0.75	0.52
Spring 2021	0.01	0.57	0.99
Fall 2021	-1.47	0.82	0.07*
Grade			
Grade 6 (Ref)			
Grade 7	0.42	0.58	0.47
Grade 8	0.49	0.69	0.48
Grade 9	0.59	0.53	0.26
Grade 10	1.57	0.73	0.03**
Grade 11	0.80	0.77	0.29
N	lodel for Frequer	ncy or Number of Suspen	sion Incidents
Group			
Treatment	-1.40	0.43	0.00***
Control (Ref)			
Race & Ethnicity			
Non-Hispanic White	-1.51	0.42	0.00***
BIPOC (Ref)			
Cohort			
Spring 2019 (Ref)			
Fall 2019	-0.05	0.42	0.91
Spring 2020	-0.69	0.59	0.24
Fall 2020	-21.19	21040.00	1.00
Spring 2021	-1.31	0.47	0.01***
Fall 2021	0.12	0.67	0.86
Grade			
Grade 6 (Ref)			
Grade 7	1.53	0.35	0.00***
Grade 8	1.40	0.48	0.05**

Table 6. Results of Suspensions Mixed Hurdle Poisson Regression Model



Variable	Effect	Standard Error	p-Value
Grade 9	-0.80	0.47	0.53
Grade 10	-1.41	0.99	0.32
Grade 11	-18.40	11851.23	1.00



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Results for High School Students, Regardless of Length of Time Since Randomization





Results for High School Students, Regardless of Length of Time Since Randomization

For each outcome area, descriptive information associated with success measures is presented first. Then, the results of the statistical models are reported.

The results reported in this section are for high school students only and include all available data, regardless of length of time since randomization. Practically, this means that some students had multiple school years of data; whereas others may have had only a semester worth of data included in these analyses depending on the term they enrolled in the study.

• The sample for this aspect of the study consisted of 112 students; however, only 94 of the students had data on credit accumulation available. Information on passing courses was available for 112 students.

It was expected at the onset of this pilot that the statistical analysis would be underpowered. As such the percent improvement is the sole basis for measuring "success" per the PFS Contract.

Research Question 2A: On Track to Graduation for High School Students Only

This research question examines on track to graduate through the lens of credit accumulation. Students were deemed "on track" if they had accumulated the expected number of credits relative to their grade level.

Descriptive Analysis

Descriptive Analysis of Percent Improvement is the Basis for Achieving the Highest Level of "Success" as Defined in the PFS Contract

Of the subset of students who entered high school at any point during the study, 41.86% of the control group were on track to graduate compared to 52.94% of the treatment group. This represents a percent improvement for students in the treatment group of 26.47%, meaning that more of the students in the treatment group were on track to graduate at the end of the study.





Figure 7. Percentage of Students on Track to Graduation by Group, 1 Year Post-Randomization

Statistical Model of On Track to Graduation Rate

The Lack of Statistical Significance in the Model Assessing Impact on On Track to Graduate May be a Reflection of the Small Sample Size

For the ANCOVA regression model, with the on track to graduation rate based on credit accumulation, results are shown in Table 7. Access to the Fostering Opportunities program did not demonstrate a statistically significant effect on the likelihood of being on track to graduate. Given the descriptive results presented above, these results may simply reflect the small sample size and not enough observations to determine with confidence that the observed differences were a direct result of providing access to the Fostering Opportunities intervention.

Variable	Effect	Standard Error	p-Value
Group			
Treatment	0.13	0.11	0.26
Control (Ref)			
Race & Ethnicity			
Non-Hispanic White	-0.13	0.11	0.25
BIPOC (Ref)			

Table 7. Results of On Track to Graduation Rate ANCOVA Regression Model



Variable	Effect	Standard Error	p-Value
Cohort			
Spring 2019 (Ref)			
Fall 2019	-0.63	0.21	0.00***
Spring 2020	-0.15	0.16	0.35
Fall 2020	-0.08	0.20	0.70
Spring 2021	-0.19	0.15	0.20
Fall 2021	-0.16	0.27	0.55
Spring 2022	0.00	0.31	0.99
Grade			
Grade 6 (Ref)			
Grade 7	0.04	0.30	0.89
Grade 8	0.69	0.29	0.02***
Grade 9	0.46	0.25	0.07*
Grade 10	0.50	0.26	0.06*
Grade 11	0.40	0.26	0.13

Research Question 2B: Course Passing for High School Students Only

Descriptive Analysis

Percent Improvement Analysis Suggest No Difference in Course Pass Rates

For the subset of students who entered high school at any point during the study, a separate course passing rate for all high school courses was compiled, which includes all classes taken at the high school level. For students who had just entered high school at the end of the study period, this rate was the result of only one or two semesters' worth of data. For other students, this rate represents all 4 years' worth of high school-level courses. For students in the control group, the average high school course passing rate was 66.97%, compared to 69.10% for students in the treatment group. This represents a percent improvement for students in the treatment group of 3.18 percent.





Figure 8. High School Course Passing Rate by Group, 1 Year Post-Randomization

Statistical Model of Course Pass Rate

The Fostering Opportunities Program Did Not Impact Course Pass Rates for High School Students

For the ANCOVA regression model with course pass rate as the longitudinal outcome, results indicate there was no statistically significant difference in the rate at which high school students passed their courses as a result of the Fostering Opportunities program.

Variable	Effect	Standard Error	p-Value
Group			
Treatment	0.04	0.07	0.54
Control (Ref)			
Cohort			
Spring 2019 (Ref)			
Fall 2019	-0.16	0.11	0.16
Spring 2020	0.03	0.09	0.76
Fall 2020	-0.08	0.10	0.43
Spring 2021	0.03	0.09	0.72
Fall 2021	0.08	0.16	0.64
Spring 2022	-0.13	0.17	0.42

Table 8. Results of Course Pass Rate ANCOVA Regression Model



Variable	Effect	Standard Error	p-Value	
Grade				
Grade 6 (Ref)				
Grade 7	0.01	0.16	0.98	
Grade 8	0.18	0.16	0.27	
Grade 9	0.12	0.14	0.42	
Grade 10	0.18	0.15	0.23	
Grade 11	0.11	0.15	0.47	

Limitations

- 1. **The COVID-19 pandemic** necessitated remote and hybrid learning during the study timeframe. During PFS Operating Committee meetings, Jeffco Public Schools shared examples of how the pandemic affected the outcomes of interest. For example:
 - Attendance: During spring 2020, when schools quickly transitioned to remote learning, the way attendance was measured varied among schools. Some schools stopped taking attendance. By fall 2020, there was more consistency in collecting attendance data but transitions in and out of remote learning and hybrid delivery continued to affect measurement of this outcome.
 - **Course Pass Rate:** During spring 2020, the district implemented a policy that grades could only improve after the transition to remote learning, but no student's grade would be lowered after that point in time. This likely contributed to extremely high course pass rates for both groups during the spring 2020 time period.
 - **Suspension Incidents:** Throughout the pandemic, there were very few suspension incidents district wide. Students were primarily not physically in school buildings. Zero students in the study were suspended during the fall 2020 semester.

Thus, a control was added to the statistical models for the term that students entered the study. Throughout the report, this context provided when findings were statistically significant.

- 2. The sample size was smaller than anticipated at the start of the project. There were simply fewer youth who met the study criteria of being in foster care and enrolled in Jeffco Public Schools than expected. This is a limitation because it means that the statistical analyses were underpowered, and it is possible that the intervention was effective in some areas that were deemed "insignificant." In statistics, this is called a Type II error or a false negative result. Thus, the project team will conduct a follow-up study in December of 2023 that includes an additional year of data and larger sample size to better understand the potential effects of the program.
- 3. **One geographic area** was the site for the pilot study. Child welfare and education practices and collaboration likely affected outcomes. The strong partnerships and communication among child welfare and education leaders helped ensure the program was delivered with fidelity. Restorative justice practices in schools is an example of an education policy that likely systematically reduced the number of suspensions for students in both the treatment and control groups. Thus, when this program is implemented in other geographic areas, it is important to monitor fidelity and track program outcomes to ensure the program is working as it is intended and actively support continuous quality improvement.





Appendix A: Baseline Equivalency Results

Table A-1: Baseline Equivalence Results for Research Question 1a: Attendance Rate (*n* = 156)

	Treatment	Control	Missing	Pooled Std Deviation	Hedges g	Cox's d
Child Welfare Data						
Gender (% Female)	43.16%	47.54%	0%			0.11
Race/Ethnicity (% Non-Hispanic White)	37.89%	49.18%	0%			0.28
Foster Care Placement Prior Year (Yes)	64.21%	59.02%	0%			0.13
Education Data						
Special Education Ever (Yes)	30.53%	26.23%	0%			0.13
Attendance	74.64%	86.00%	12.82%	0.22	0.51	

Table A-2: Baseline Equivalence Results for Research Question 1b: Course Passing Rate (*n* = 153)

	Treatment	Control	Missing	Pooled Std Deviation	Hedges g	Cox's d
Child Welfare Data						
Gender (% Female)	43.62%	47.46%	0%			0.09
Race/Ethnicity (% Non-Hispanic White)	37.23%	47.46%	0%			0.26
Foster Care Placement Prior Year (Yes)	63.83%	61.02%	0%			0.07
Education Data						
Special Education Ever (Yes)	30.85%	25.42%	0%			0.16
Course Pass Rate	73.16%	77.05%	30.07%	0.32	0.12	

Table A-3: Baseline Equivalence Results for Research Question 1c & 1d: Suspension Incidents (*n* = 153)

	Treatment	Control	Missing	Pooled Std Deviation	Hedges g	Cox's d
Child Welfare Data						
Gender (% Female)	44.09%	46.67%	0%			0.06
Race/Ethnicity (% Non-Hispanic White)	37.63%	48.33%	0%			0.27
Foster Care Placement Prior Year (Yes)	64.52%	60.00%	0%			0.12
Education Data						
Special Education Ever (Yes)	31.18%	26.67%	0%			0.13
Suspended At All (Yes)	14.86%	12.50%	30.72%			0.12
Number of Suspension Incidents	0.19	0.26	30.72%	0.63	0.15	



	Treatment	Control	Missing	Pooled Std Deviation	Hedges g	Cox's d
Child Welfare Data						
Gender (% Female)	52.31%	44.68%	0%			0.19
Race/Ethnicity (% Non-Hispanic White)	38.46%	46.81%	0%			0.21
Foster Care Placement Prior Year (Yes)	56.92%	59.57%	0%			0.07
Education Data						
Special Education Ever (Yes)	26.15%	23.40%	0%			0.09
Course Pass Rate	67.82%	73.34%	43.75%	0.34	0.16	

Table A-4: Baseline Equivalence Results – High School Students Only (*n* = 112)

Note: Full high school sample and sample for Research Question 2b: Course Passing Rate for High School Students are identical. All high school students with On Track to Graduation data have Course Passing Rate data, but not all students with Course Passing Rate data have On Track to Graduation data.

Table A-5: Baseline Equivalence Results for Research Question 2a: On Track to Graduation (n = 94)

	Treatment	Control	Missing	Pooled Std Deviation	Hedges g	Cox's d
Child Welfare Data						
Gender (% Female)	52.94%	46.51%	0%			0.16
Race/Ethnicity (% Non-Hispanic White)	33.33%	46.51%	0%			0.34
Foster Care Placement Prior Year (Yes)	56.86%	60.47%	0%			0.09
Education Data						
Special Education Ever (Yes)	25.49%	23.26%	0%			0.07
Course Pass Rate	70.65%	70.01%	46.81%	0.34	0.02	



Endnotes

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