

### RESEARCH BRIEF

## Impact of Plus education services for county-involved youth

### PURPOSE OF THE STUDY

*The purpose of this study was to provide a baseline for future evaluation efforts and inform ongoing Plus program improvement efforts.*

### BACKGROUND & PURPOSE

After years of investing in programs that failed to improve education outcomes for county-involved youth, Hennepin County reinvested money into implementing and testing different program models, resulting in the Plus program. Plus began in academic year (AY) 2011-12 at the North Educational Center Academy (NECA) and the South Educational Center Academy (SECA) schools in Intermediate District 287 primarily to improve graduation/GED rates and promote career and college readiness of county-involved youth. In 2014-15, the program expanded to four Minneapolis Public School sites and teen parents were added to eligibility criteria. The program has continued to develop, adding seven more sites, career readiness interventions, and access to post-secondary options during AY 2016-17 and AY 2017-18.



PLUS PROVIDES CASE COORDINATORS AND ACCESS TO MENTAL HEALTH AND/OR CHEMICAL HEALTH SUPPORTS IN SCHOOL SETTINGS TO YOUTH WHO HAVE HAD TROUBLE IN SCHOOL.

Plus provides case coordinators and access to mental health and/or chemical health supports in school settings to youth who have had trouble in school. Referrals come from Hennepin County program areas including Juvenile Probation, be@school (a truancy program), Human Services foster care and children's mental health case management and the MN Visiting Nurses Association. A study produced by the Hennepin County Center of Innovation and Excellence estimated graduation rates among similar youth to be about 31%.

This study aimed to estimate baseline graduation and attendance rates for youth involved in Plus, assess the early impact of the program, and evaluate the success of efforts to improve and expand the program for future cohorts (e.g., students attending Plus in 2016 and later). Specifically, this study addressed the following questions:

1. To what extent did attendance improve during and after Plus participation?
2. What was the educational trajectory of Plus students after they transitioned to another school? What changes were observed in attendance, enrollment, school stability, and discipline?
3. To what extent did Plus youth graduate from high school or receive a GED?

## METHODS

*This study compared attendance and graduation rates among Plus students to those of similar students with a Ramsey County resident address and who were enrolled in a St. Paul Public School extended day program or Northeast Metro Intermediate School District 916. Comparisons of attendance rates during Plus to those immediately before entering the program were also made.*

## FINDINGS

*Differences between attendance rates before and during Plus were not statistically significant, for the group overall or when divided by referral source. However, preliminary findings from students attending Plus in 2014 revealed graduation rates were twice as high as those experienced by students attending Plus in earlier years.*

Data consisted of Plus program and Minnesota Department of Education (MDE) records from AY 2011-2015, as well as historical child protection records and Minnesota Family Investment Program (MFIP) records from the Minnesota Department of Human Services (DHS). The cohort was limited to students with 31 or more calendar days of Plus enrollment and those enrolled in Plus September 1, 2012 or later. All data were matched and analyzed through Minn-LInK.

Attendance rates during Plus were calculated from the weighted average of days attended per membership day for all Plus enrollments (n=321). Attendance rates before Plus represent the average attendance rate for the last enrollment preceding Plus enrollment, excluding corrections enrollments and enrollments with fewer than 30 membership days. For before/during comparisons, the sample was limited to those with a prior enrollment record (n=291).

Graduation rates were calculated among those reaching age 19 by June 30, 2015 (n=147). Most of these students attended Plus in 2012 and 2013. Plus students were matched to students with enrollment in St. Paul Public Schools extended day programs or in the North East Metro Intermediate School District 916. All students included in this study had a Ramsey County resident address; the matched comparison group was created using nearest neighbor propensity score matching with replacement.

## ATTENDANCE RATES

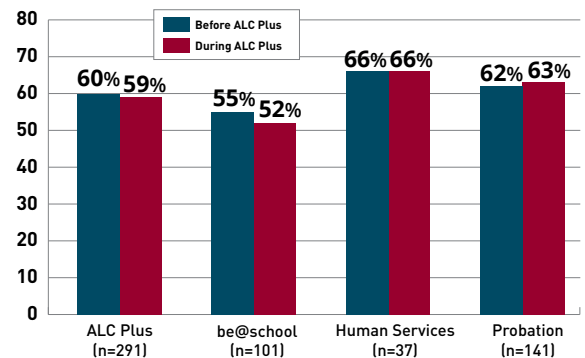
Attendance rates prior to Plus were not statistically different than attendance rates during Plus enrollment. Pre/post changes were not significant for any referral subgroup (see Figure 1). As shown in Figure 2, Plus youth had significantly lower attendance rates as compared to their peers ( $t=10.587$ ,  $p<.001$ ; see Figure 2). While the attendance match was imperfect, the comparison only differed from Plus youth in that the comparison group had higher rates of special education, emotional behavioral disorder and child protection involvement. It is possible that the pre/post comparison was confounded by natural drops in attendance unrelated to Plus (e.g. changing schools, age). However, it was clear that attendance rates compared unfavorably to students with similar characteristics.

## GRADUATION RATES

Plus students graduated at a lower rate than their peers in the matched comparison group ( $\chi^2=3.224$ ,  $p=.083$ ), but had higher rates of GED completion ( $\chi^2=4.088$ ,  $p=.043$ ; see Figure 3). Overall, there was not a statistically significant difference in high school completion between Plus students and the matched comparison group. Few students who left Plus for another school graduated, and those who graduated typically did so at a correctional facility.

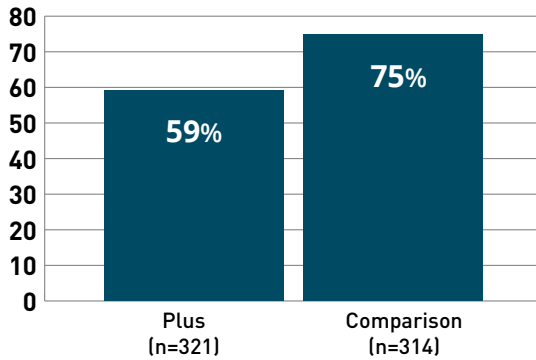
While GED rates were much higher for Plus youth than youth in the comparison group, this difference occurred largely among students attending Plus in 2011 and 2012. Early indications suggest that Plus 2013 and 2014 students were more likely to earn a high school diploma and less likely to earn a GED (see Figure 4). As more Plus students reach graduation age, ongoing

**Figure 1.**  
**Attendance rates before and during Plus, by referral source, among those with a prior enrollment**



analysis will verify whether elevated GED rates were indeed relegated to 2011-2012.

**Figure 2.**  
**Attendance rates, Plus v. matched comparison group**



## RECONCILIATION WITH OTHER PLUS FINDINGS

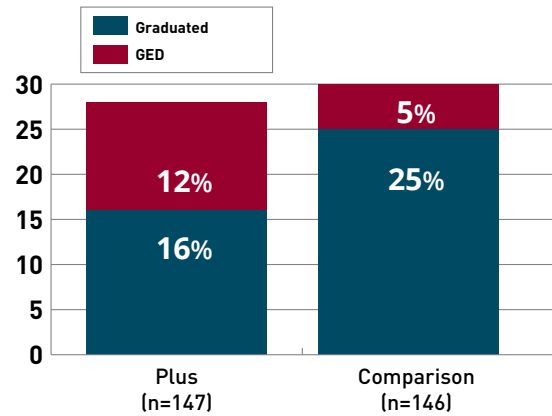
This study found different conclusions than other analyses of Plus to date, which found that 81% were successfully discharged from the program (Atella, 2015). Of those, 26% graduated or pursued their GED, 10% dropped out, and 64% transferred to another school or program. Findings of this study revealed that about 1 in 4 Plus students graduated or received their GED, yet fewer students that transferred out of Plus graduated.

Despite opposite implications, this study showed no change in average attendance, which may be consistent with previous findings of an improvement in attendance. A study of Plus students in AY 2012-13 found that just 4% of students had attendance rates of 80% or more before entering Plus and 39% of students had attendance rates of 80% or more during Plus, suggesting a marked increase (Atella, 2013). At the same time, the percentage of students who attended less than 50% of the time increased from 17% to 35%, effectively canceling out attendance among other students. The distribution of attendance rates changed, but the average did not.

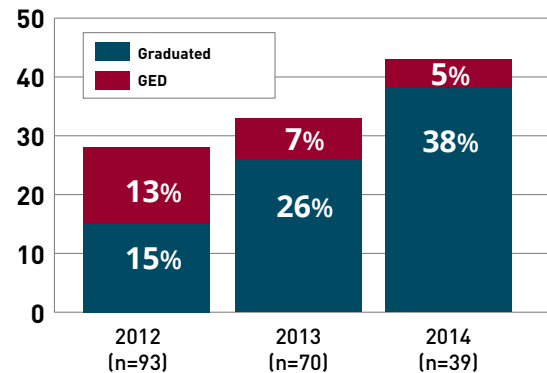
## PLUS PROGRAM CHANGES

In 2014 and 2015, Plus instituted a number of policies and program changes designed to keep students enrolled in Plus, increase attendance, and improve the likelihood of successful transitions to other schools. In 2016, the program was awarded a Learn to Earn and Achieve Potential grant from the Annie E. Casey Foundation, which resulted in significant program improvements. Early data suggest an impact on student outcomes from these policy and programmatic changes. Students attending Plus in 2014 who reached age 19 by June 30, 2015 (n=39) had a 38% graduation rate, far exceeding the 15% graduation rate by those who attended Plus in 2012 (n=84; see Figure 4). While promising, these

**Figure 3.**  
**Graduation and GED completion rates**



**Figure 4.**  
**Graduation and GED completion rates by year of Plus attendance\***



\*Among those aged 19 and older on 6/30/2015

findings were incomplete. Among all students attending Plus in 2014 (n=76), 28% were still in school at the end of AY 2014-2015. Ongoing yearly analysis will be required to verify whether graduation rates indeed increased for students who attended Plus after 2014.

Taken together, findings of this study showed not only how difficult it is to improve school outcomes for county-involved youth, but also how difficult it is to evaluate outcomes with fidelity. Different, technically valid views of the data can lead to opposite conclusions, making multiple analytic strategies essential.

Further, these findings underscore the importance of a developmental approach to continuous improvement for targeted educational interventions. Results confirmed and are informing program improvements. Ongoing evaluation may verify that these improvements had the desired impact and ensure that the constant evolution of Plus to meet the educational needs of county-involved youth.

## Conclusion

While research and existing programs provided a basic framework for the Plus program, most of these school based programs focused on youth from a single system such as juvenile corrections or child welfare (Dobbie, Fryer & Fryer, 2011; Hass & Graydon, 2009; Lehr, Sinclair & Christenson, 2004; Lovitt & Emerson, 2008; Merdinger, Hines, Osterling & Wyatt 2005; Sinclair, et al., 2003; Sinclair, Christenson & Thurlow, 2005; Texas Education Agency, 2012; Thorne, 2016). Plus is a hybrid model that provides school-based efforts for all Hennepin County system involved youth (Houghtaling & Halpern, 2016; Bodurtha et al., 2014).

Without assistance and investment, many county-involved youth experience poor education outcomes. The complex, multi-dimensional educational barriers they face make program development particularly difficult. A strength of Plus is that it is designed specifically for disengaged students who are failing in school. Results of this study have helped Plus modify the program to better serve struggling students as a part of a continuous improvement effort.

This study aimed to set a baseline for graduation and attendance rates for Plus students and assess program impact during the program's first few years. While Plus students improved attendance or graduation rates during the first years of the program, there are signs that outcomes may improve as the result of ongoing program improvement efforts. Plus should continue to monitor attendance and graduation rates to confirm early indications of improved graduation rates for students attending Plus in 2014 and later.

### LIMITATIONS

*Outcomes represent the first few years of the Plus program only (largely 2012 and 2013). Program changes beginning in 2014 may result in different outcomes going forward.*

*It was unknown whether the Ramsey County comparison group would have been eligible for Plus. Comparators may have been predisposed toward better educational outcomes despite similar characteristics. Also, attendance, graduation, and human services policies may have differed among schools, districts, and counties and affected the results.*

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