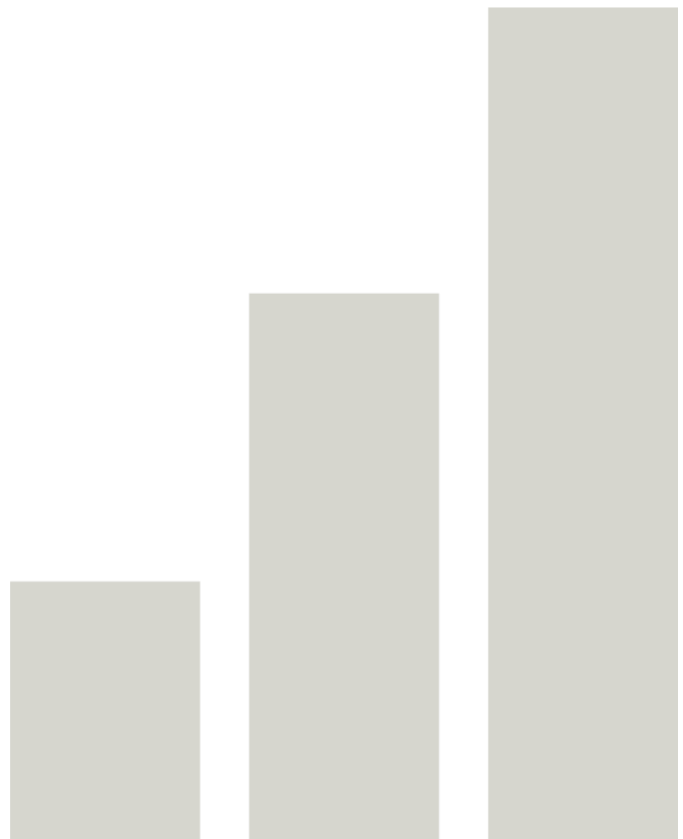


# Memo from CalYOUTH: Early Findings on the Impact of Extended Foster Care on Foster Youths' Postsecondary Education Enrollment and Persistence

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## Related Publications

Courtney, M. E., Okpych, N. J., & Park, S. (2018). *Report from CalYOUTH: Findings on the relationship between extended foster care and youth's outcomes at age 21*. Chicago, IL: Chapin Hall at the University of Chicago.

Okpych, N. J., Courtney, M., & Dennis, K. (2017). *Memo from CalYOUTH: Predictors of high school completion and college entry at ages 19/20*. Chicago, IL: Chapin Hall at the University of Chicago.

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Studies have found that foster care youth enroll in college at lower rates than their same-aged peers (for review, see Geiger & Beltran, 2017). For example, in one study of a representative sample of foster youth in three Midwestern states, just 24% of foster youth had enrolled in college at age 19 compared to 55% of 19-year-olds in a nationally representative sample (Courtney et al., 2007). Studies have also found that, among those who make it into college, foster youth are less likely to persist through their first year than their peers (California College Pathways, 2015; Day, Dworsky, Fogarty, & Damashek, 2011; Frerer, Sosenko, & Henke, 2013). In the same Midwestern study, just 47% of foster youth who had entered college by their mid-20s persisted through their first two semesters in college compared to 77% of a nationally representative sample of low-income, first-generation college students (Okpych & Courtney, under review).

Since the late 1990s, the federal government has increased supports that promote college success for foster youth (Okpych, 2012), such as the \$5,000 education and training voucher that foster youth can use each year toward college expenses. A key piece of federal legislation supporting foster youth is the 2008 Fostering Connections to Success and Increasing Adoptions Act, which gives states the option to extend the age limit of foster care up to youths' 21st birthday (Courtney, Dworsky, & Napolitano, 2013). Youth participating in extended foster care receive services past their 18th birthday that could impact their likelihood of going to college, such as subsidized housing, access to child welfare professionals, and other resources.

In fact, enrolling in college and making satisfactory academic progress is one of the five eligibility criteria for participating in extended care.

To date, little research has evaluated the impact of extended foster care on early college outcomes. In one study, Courtney and Hook (2017) found that spending more time in foster care past age 18 increased the likelihood that foster youth completed higher levels of education (e.g., having a high school diploma or less to completing at least a year of college). Preliminary analyses of data collected from the CalYOUTH longitudinal study found that spending a greater number of months in extended care was associated with an increased odds of enrolling in college by about age 20 (Courtney & Okpych, 2017). These findings provide early support for California's extended foster care law (Assembly Bill 12, or AB12), but the findings must be interpreted cautiously due to methodological limitations. Most notably, the California study included only youth who were in foster care after the extended care law was passed, so it did not provide a before-and-after evaluation of the policy. The current study overcomes the limitations of the previous analysis by drawing on a large sample of youth from administrative California child welfare records, including youth who were in care before and after AB12 was enacted. This memo estimates the impact that California's extended foster care law had on postsecondary education enrollment and persistence.

## Study Methods

The target population of the current analysis was approximately 76,000 California youths in care beyond their 17th birthday who turned 18 between January 1, 2006 and December 31, 2013. We drew a sample of 21,964 youths from this population,<sup>1</sup> including 17,222 youths in child-welfare-supervised placements<sup>2</sup> and 4,842 youths with only probation-supervised placements. The analyses presented below were conducted separately for child-welfare-supervised youths and probation-only youths. The sample contained both youth who were eligible for extended care under AB12 (post-AB12 youth) and youth who were not eligible for extended care under AB12 (pre-AB12 youth). Post-AB12 youth were young people who were 18 years old on the AB12 implementation date (January 1, 2012) and young people whose 18th

birthday came after the implementation date.<sup>3</sup> Pre-AB12 youth were young people who did not qualify for extended care under AB12 because their 19th birthday had occurred before the law's implementation date.

Table 1 displays a breakdown of the analytic samples used in our analyses for three outcomes: postsecondary education enrollment (college and vocational schools) by age 21, persistence by age 21, and the number of semesters completed by age 21. The enrollment sample included all 21,964 youths. The analyses of persistence and completed semesters included just youth who had first enrolled in college by age 21 ( $n = 8,580$ ), including 7,297 child-welfare-supervised youths and 1,283 probation-only youths.

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<sup>1</sup> We used a stratified random sampling procedure to ensure that all counties in the state were adequately represented. Youth in the 20 counties with the fewest number of foster youth were sampled at 100%. We then randomly selected about 25% of youths from the largest county (Los Angeles County) and 45% from the 37 remaining counties.

<sup>2</sup> Of the 17,122 youths, 14,956 had only child-welfare-supervised placements while 2,166 had a probation-supervised placement at some point.

<sup>3</sup> It is important to note that the pre-AB12 group includes "gap" youth ( $n = 2,927$  youth from the entire sample of 21,964), who are young people whose foster care eligibility was disrupted by the staggered rollout of extended foster care funding in the initial year AB12 was enacted. Including "gap" youth in the pre-AB12 youth may have diluted the estimated impact of extended foster care on the college outcomes assessed in this memo. See the Study Limitations section for more information.

**Table 1. Analytic Samples for Each of the Outcomes**

	Postsecondary education enrollment by age 21 ( <i>N</i> = 21,964)			Persistence and completed semesters <sup>a</sup> by age 21 ( <i>n</i> = 8,341)		
	Total	Pre-AB12	Post-AB12	Total	Pre-AB12	Post-AB12
Child-welfare-supervised	17,122	13,111	4,011	7,297	5,472	1,825
Probation-supervised	4,842	3,649	1,193	1,283	946	337

<sup>a</sup> For the analyses of number of completed semesters, 239 youths had missing data because they attended institutions that used nontraditional calendar systems. Thus, 8,341 youths were included in the analyses of completed semesters, including 7,089 child-welfare-supervised youths and 1,252 probation-only youths.

Data from National Student Clearinghouse (NSC) records were used to create the three outcome variables. The NSC is a 501(c)(6) nonprofit and nongovernmental organization that provides enrollment and graduation records for more than 3,600 participating colleges and universities in the U.S (NSC, 2019a). NSC records account for about 97% of all currently enrolled students and nearly 99% of all postsecondary education institutions (NSC, 2019b). NSC includes all types of postsecondary education institutions, including in-state and out-of-state schools, two-year and four-year schools, and public and private schools. The NSC also includes trade and vocational schools. *College enrollment* is a measure of whether a youth enrolled in a certification-granting postsecondary education institution by age 21. *Persistence* is a measure of whether a youth persisted

through their first two consecutive semesters by their 21st birthday.<sup>4,5</sup> *Completed semesters* is a count of the number of full-time or part-time semesters completed by age 21.<sup>6</sup>

The two main predictor variables came from California’s child welfare administrative data system. *AB12 eligibility* is a binary variable indicating whether a youth was potentially eligible for extended foster care under the AB12 law, distinguishing between pre-AB12 youth and post-AB12 youth. *Time in care after age 18* is the total number of months the youth stayed in foster care after their 18th birthday and up to their 21st birthday.

The main purpose of this memo is to evaluate the impact of extended foster care on three early postsecondary education outcomes (enrollment, persistence, and

<sup>4</sup> For youth who attended institutions that operated on academic calendar systems other than the semester system (i.e., trimesters, quarters, 4-1-4, continuous enrollment, etc.), we created a measure of persistence that was the same length of time as two consecutive semesters. For instance, three trimesters are equivalent to two semesters (both equal about 30 weeks of study). The overwhelming majority of students attended colleges that operated on a semester calendar system.

<sup>5</sup> It is possible that a youth did not persist during her very first two semesters in college, but she persisted in two subsequent consecutive semesters before her 21st birthday. To test this, we created a second persistence measure, which indicated whether a youth ever completed two consecutive nonsummer semesters by age 21. The correlation between the two persistence measures (persisted through the first two semesters and persisted through any two consecutive semesters by age 21) was 0.99 ( $p < 0.001$ ), and regression analysis results were almost identical.

<sup>6</sup> NSC data do not contain information on the courses, course grades, or credits earned. The measure of number of completed semesters include full-time or part-time semesters for which a student did not prematurely depart (e.g., withdrawal, medical leave of absence, etc.)

number of completed semesters) by age 21. More specifically, we were interested in three research questions for each of the outcomes:

- Were foster youth who were eligible for AB12 more likely than foster youth who were in care before AB12 was implemented to (1) enroll in postsecondary education, (2) persist in college, and (3) complete more semesters?
- Does spending more time in foster care after age 18 increase the likelihood that foster youth (1) enroll in college, (2) persist, and (3) complete more semesters?
- Is any relationship we observe between the passage of AB12 and postsecondary education outcomes explained by the amount of time AB12-eligible foster youth remain in care past their 18th birthday?

To investigate the questions above, we ran linear probability regression models to estimate the expected impact of extended care on each of the outcomes. These

models estimate how much extended foster care can be expected to impact the probability of each of the three outcomes, after adjusting for other factors that could influence the relationship between extended care and the outcomes. Conceivably, many factors other than the implementation of extended foster care could have influenced enrollment rates and persistence rates over time. Failing to account for these potentially confounding factors could lead to biased estimates of the impact of extended foster care on education outcomes. To account for potential confounding factors, we statistically controlled for individual-, county-, and college-level characteristics in our analyses. Additionally, we ran more rigorous analyses to assess whether unmeasurable factors biased our estimates of the impacts of extended care.<sup>7</sup> In the next section, we only report findings about the impact of extended care that held up in both our linear probability models and our more rigorous analyses.

As stated above, information on youths' postsecondary education enrollment, persistence, and completed semesters were obtained from NSC records. Information on youths' demographic characteristics,

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<sup>7</sup> True relationships between months in care past age 18 and the postsecondary education outcomes may be affected by other confounding factors that were not measured (and thus not included as controls in our regression analyses). As sensitivity analyses, we ran more rigorous instrumental variable models to test whether the presence of unmeasured confounding variables biased our estimates of the impact of extended care. The instrument in these analyses was the interaction between youth's placement county and whether a youth is eligible for extended care under AB12 or not (i.e., whether a youth's 18<sup>th</sup> birthday was born before or after January 1, 2012). In this analysis, a good instrument is one that (a) is strongly related to extended foster care, but that (b) only impacts the outcomes (i.e., enrollment, persistence, and semesters completed) through the impact it has on extended care. In terms of (a), there was strong between-county variation in the uptake of extended foster care ( $p < .001$ ). In terms of (b), differential uptake of extended care is arguably unrelated to youths' characteristics that may be associated with selection into extended care. That is, there is little reason to suspect that between-county differences in extended care uptake are related to the outcomes, other than through the effect this county-level variation has on the time that youth remain in extended foster care.

psychological functioning, and foster care history were drawn from the Child Welfare Services/Case Management System (CWS/CMS) of the California Department of Social Services (CDSS). County-level housing affordability<sup>8</sup> and young adult unemployment rates (ages 16–24) came from the U.S. Census Bureau’s Public Use Microdata Sample (PUMS) data. Most college-level information was drawn from the Integrated Postsecondary Education Data System (IPEDS). CalYOUTH team members contacted staff at individual colleges in California to gather information on the existence of college support programs for foster care youth.

## Findings<sup>9</sup>

Figures 1 and 2 display findings on the three outcomes separately for youth who turned 18 before AB12 was implemented (pre-AB12) and youth who turned 18 after AB12 was implemented (post-AB12). The figures present findings for child-welfare-supervised youth. Rates of enrollment by the 21st birthday significantly increased in the post-AB12 period, by about four percentage points ( $p < .001$ ).<sup>10</sup> However, among youth who entered postsecondary education by age 21, there were no significant differences in the proportion of youth who persisted through their first year or in the average number of semesters they completed.

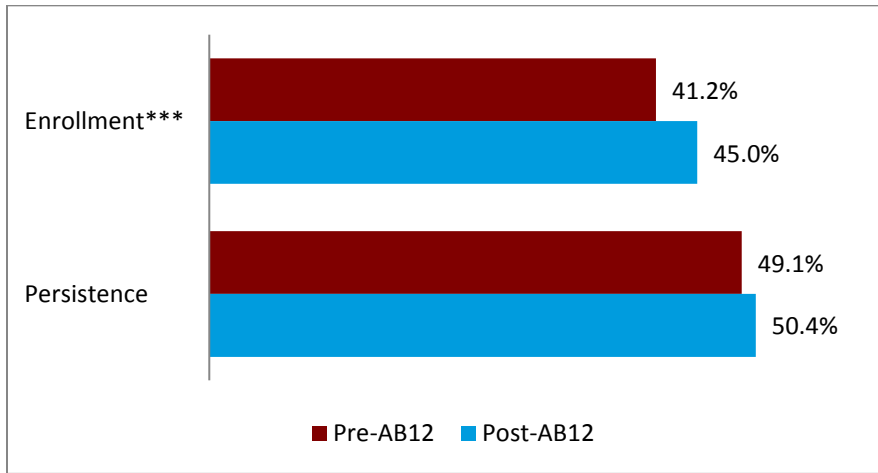
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<sup>8</sup> This was a measure of the proportion of residents spending more than 30% of income on housing (rent or mortgage).

<sup>9</sup> This report focuses only on the impacts of extended care policy and time in care after reaching age 18 on postsecondary education outcomes. We plan to report on the relationships between youth and contextual factors and college outcomes in a later report.

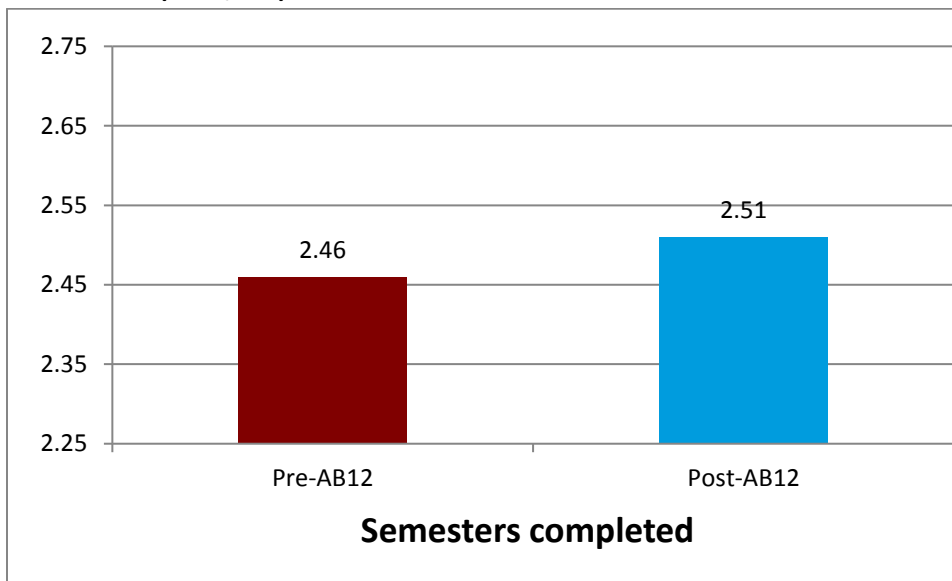
<sup>10</sup> Note that the percentage of foster youth who enrolled in college is underestimated due to youths whose records were blocked in the NSC data. We know that over 1,100 youth in the sample had enrolled in postsecondary education but either requested that their records be blocked or their institution blocked their records from being reported. NSC data do not identify which specific youth these are. If youth with blocked records were counted as college enrollees, then the proportion of the entire sample who enrolled in college would be 49.8%, instead of 43.6% if these youth are not counted.

**Figure 1. Differences in Rates of Enrollment ( $n = 17,122$ ) and Persistence ( $n = 7,297$ ) for Child-Welfare-Supervised Youth, by AB12 Status**



Note: \*\*\*  $p < .001$

**Figure 2. Number of Semesters Completed by 21st Birthday for Child-Welfare-Supervised Youth, by AB12 status ( $n = 7,297$ )**



In general, compared to child-welfare-supervised youth, probation-supervised youth had lower rates of postsecondary education enrollment and persistence, and completed fewer semesters. We did not find significant differences by AB12 status for the three college outcomes for youth whose care was supervised by the probation department ( $p < .05$ ). Pre-AB12 youth and

post-AB12 youth were similar in their rates of enrollment (24.3% vs. 26.9%), rates of persistence among college entrants (31.2% vs. 28.6%), and the average number of completed semesters among college entrants (1.68 vs. 1.65).

Findings from the regression analyses tell a similar story as the findings just reported.



The only statistically significant association between extended foster care and the postsecondary education outcomes that held up in both our linear probability models and our more rigorous instrumental variable models pertained to college enrollment for child-welfare-supervised youth. After controlling for a wide range of youth characteristics,<sup>11</sup> in the linear probability model it was estimated that the probability of enrolling in postsecondary education was 3.9 percentage points higher for post-AB12 youth than for pre-AB12 youth ( $p < .001$ ; research question 1). Moreover, this relationship was explained by the amount of time youth remained in foster care past their 18th birthday (research question 3). When estimating the impact that the number of months in care past age 18 had on the probability of enrolling in postsecondary education, our linear probability model and instrumental variable model both found a significant effect, but the estimates were different in magnitude. In the linear probability model, it was estimated that each additional month in care past the 18th birthday increases the likelihood of enrolling by 0.70 percentage

points ( $p < .001$ ). This works out to be about an 8.4 percentage point increase in the probability of enrolling for each year in care past age 18. The estimated impact of months in care was smaller in the instrumental variable model. Each additional month in care past the 18th birthday increases the likelihood of enrolling in postsecondary education by 0.33 percentage points ( $p < .001$ ). This equates to about a 4.0 percentage point increase in the probability of enrolling for each year in care past age 18.<sup>12</sup>

For probation-supervised youth, we did not find an impact of extended foster care on their likelihood of enrolling in college that held up in our linear probability models and instrumental variable models. Similarly, no impacts of extended foster care were found that held up across models when evaluating persistence or number of completed semesters.<sup>13</sup> This was the case for child-welfare-supervised youth and probation-supervised youth.

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<sup>11</sup> The linear probability models and instrumental variable models evaluating college enrollment statistically controlled for the following youth characteristics: demographic characteristics (race/ethnicity and gender), behavioral health problems (two indicator variables for the presence of a mental health disorder and a substance use disorder), ever incarcerated, foster care experience (age of first entry, primary placement type before age 18, placement change rate, total number of episodes before age 18, types of substantiated maltreatment).

<sup>12</sup> The estimate in the current memo is different from the estimate in a previous report (Courtney, Okpych, & Park, 2018) where we used different sampling criteria that included a smaller number of youth ( $n \approx 13,500$ ) and performed a bootstrap estimation procedure to estimate the standard errors. The previous report found that each year in care past age 18 was associated with an 8.5% increase in the probability of enrolling in college by age 21.

<sup>13</sup> The linear probability models and instrumental variable models evaluating persistence and number of semesters completed statistically controlled for the youth characteristics mentioned in footnote 11, as well as the following factors: county-level housing affordability and county-level young adult (age 16–24) unemployment rate; college-level selectivity and type; college-level, full-time student retention rate; and college-level existence of a campus support program for foster care youth during the time the student was enrolled.

## Study Limitations

There are several limitations to note when interpreting the findings. First, NSC data do not cover all postsecondary education institutions. Since coverage got slightly better over the years (National Student Clearinghouse, 2017), this could have affected estimates of enrollment when comparing pre-AB12 and post-AB12 youth. For example, in the pre-AB12 period (2006 to 2011), the coverage rate for public 2-year colleges in California was 97.0%, which was a little lower than the coverage rate of 99.9% in the post-AB12 period (2012 to 2016). This may have led to a slight overestimate of the impact that extended foster care has on enrollment rates. Second, over 1,100 youth in the sample had enrolled in postsecondary education, but their records were blocked, so data on their enrollment was missing. Moreover, NSC data do not identify who these youth are. Not counting foster youth with blocked records leads to underestimating the percentage of youth who had enrolled in college. Third, the information provided in NSC data has limitations. For example, information was available on which semesters students were enrolled, but we did not have information on the number of courses they were enrolled in, the breakdown of credit vs. noncredit courses, the number of credits they earned, and their grades in the courses. This information would provide a more detailed assessment of the impact of extended care. Fourth, we were limited in the range of individual-level variables that could be accounted for statistically when trying to isolate the impact of the extended care law on postsecondary education outcomes. Most notably, we did not have measures of youths' prior

academic history and performance. However, the fact that estimates from more rigorous analyses that account for possibly unmeasured confounding variables still found an impact of extended foster care on enrollment for child-welfare-supervised youths gives us more confidence in our estimates. Fifth, the small sample sizes, especially for youth in probation-supervised care, limited our ability to examine the role of AB12 on postsecondary education outcomes for these youth, especially in terms of persistence and semesters completed. Sixth, findings regarding the relationship between the number of months in care past age 18 and the outcomes should be interpreted cautiously, since enrolling in postsecondary education is one of the eligibility criteria for remaining in care past age 18.

Perhaps most importantly, our findings regarding the impact of extended care on postsecondary education outcomes should be read with caution since they are based on data from the early days of implementation of extended care in California. Our Post-AB 12 group consisted of youth who reached their 18th birthday while in care during the first two years of the new law, when many of the policies and supports that now characterize extended foster care were not yet in effect or were just being implemented. Moreover, the pre-AB12 group includes "gap youth," foster youth whose 19th birthday fell in the first year of the AB12 implementation (Courtney et al., 2013). The way the policy was initially written created a funding gap for these youth, so that state funding for foster care was discontinued on their 19th birthday and reinstated on January 1 of the following year. This gap was eventually addressed by subsequent legislative amendments, but the

amount of time these youth spent in extended foster care was considerably lower than later post-AB12-eligible cohorts (Courtney, Park, & Okpych, 2017). Including these “gap” youth in the analyses may have diluted our estimates of the effect that extended care has on postsecondary education outcomes. Further examination of the relationship between extended care and these outcomes should account for the experiences of youth who transitioned to adulthood from foster care after California had more experience providing extended care.

## Conclusion

Our findings provide evidence that extended foster care increases the likelihood that youth whose care is supervised by public child welfare agencies will enroll in postsecondary education by their 21st birthday, the age at which extended care ends. This is consistent with the findings of past analyses of the impact of extended foster care on educational attainment (Courtney & Hook, 2017). However, we did not find evidence that extended care increases rates of persistence or the number of semesters completed by age 21.

These findings should be interpreted in light of the California policy and practice context and the restriction of our study period to the early days of extended care. While policymakers, program administrators, and youth advocates have long had an interest in supporting transitions to postsecondary education and success for youth aging out of foster care, this is particularly true in California (Dworsky, 2017; Dworsky & Perez, 2009). Largely supported by philanthropy in their early years—but, in recent years, by

public funding too—programs to support foster youth in postsecondary education were in place at many 2- and 4-year colleges and universities in California long before the AB12 legislation enabled extended foster care in the state. These campus support programs also encouraged the development of connections between the child welfare system and postsecondary educational institutions that support the efforts of foster youth to apply to college. If these efforts resulted in improvements in postsecondary education access and persistence for foster youth in California prior to the implementation of extended care, that could contribute to the modest impact we find of extended foster care on enrollment and the absence of an impact on persistence. It is also possible that we will see larger impacts of extended care on enrollment and persistence when we are able to include data on postsecondary educational outcomes for youth who came of age later in the implementation of extended care. Our study only includes information on these outcomes for youth who reached their 18th birthday in care in the first two years of California’s extended care policy.

It may also be the case that extended foster care, as implemented during the period of this study, has yet to include the kinds of supports needed to significantly improve postsecondary education outcomes for youth transitioning to adulthood from foster care. Extended care may help youth enroll in college by reducing the pressure to meet one’s basic living needs (e.g., housing), reducing the need to work, and by helping with parenting responsibilities. However, once in college, foster youth may find themselves academically unprepared to complete their degree or certificate, or may

run into other obstacles. This calls for redoubled efforts to support foster youth after they make it to postsecondary education and to rigorously evaluate the college support programs that have been created in recent years, including the many programs in California (Dworsky, Smithgall, & Courtney, 2014). The need for additional support may be particularly important for the majority of college-bound foster youth who enroll in 2-year colleges, which tend to have less robust campus cultures and guided pathways to earn a credential, and where dropout rates are higher than in 4-year colleges (Bailey, Jaggars, & Jenkins, 2015).

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