

**The Benefits and Costs of
Extending Foster Care to
Age 21**

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Executive Summary

Under the new Fostering Connections to Success and Increasing Adoptions Act of 2008, the federal government will reimburse states for providing care beyond age 18 for Title IV-E eligible foster youth. This report analyzes the potential benefits and costs of allowing foster youth to remain in care until age 21. Our estimates of the potential costs are based on survey data from a longitudinal study of young people aging out of care in three Midwestern states as well as information about placement costs provided by the Illinois Department of Children and Family Services. Our estimates of the potential benefits focus on the increase in postsecondary educational attainment associated with extending care and the resulting increase in lifetime earnings associated with postsecondary education.

The key points are as follows:

- We estimate that the average per-youth cost of extending foster care to age 21, net cost offsets associated with public assistance receipt when youth cannot remain in care, is approximately \$38,000.
- The costs of extending care will be distributed across federal, state, and possibly county agencies. Costs to particular units of government will depend on each state's Federal Medical Assistance Percentage rate, which can range from 50 percent to 83 percent, as well as state and local practice.
- We estimate that the benefits of extending care range from approximately \$43,000 to \$113,000. The wide range reflects different assumptions about the rates of college graduation among former foster youth and the persistence over time of the educational advantages

associated with allowing youth to remain in care until age 21. Our best estimate is that the postsecondary educational attainment predicted to result from extending care to age 21 would increase the per-person present-discounted value of earnings by approximately \$72,000. This represents almost \$2 for every \$1 spent on keeping youth in care.

- Extending foster care to age 21 may lead to other social benefits that merit public attention, although we have not placed a dollar value on those benefits in this report.
- Our estimates suggest that the costs associated with extending foster care to age 21—an option that will soon be much less costly to states as a result of the Fostering Connections Act—are more than offset by the potential benefits to foster youth and society.

Introduction

Although they make up a relatively small proportion of all children in foster care, youth approaching the transition to adulthood have attracted considerable attention from policymakers. Title IV-E of the Social Security Act has been amended three times in the past 25 years to better support young people making this transition. This shift in federal policy reflects an evolving understanding of normative transitions to adulthood, growing knowledge of the particular challenges transitioning foster youth face, and changing views of the state's role and responsibilities as corporate parent. In practice, few states allow young people to remain in care much beyond their 18th birthday, largely because, until now, federal reimbursement for foster care maintenance and administration costs has been limited to youth under age 18, or under age 19 in the case of those who are likely to graduate from high school or an equivalent program before their 19th birthday (Bussey et al., 2000).

The Fostering Connections to Success and Increasing Adoptions Act (Public Law 110-351, hereafter referred to as the "Fostering Connections Act") was passed unanimously by both houses of Congress and signed into law by President Bush in October 2008. Beginning in federal fiscal year 2011, states will be able to claim federal reimbursement for the costs of caring for and supervising Title IV-E eligible foster youth until age 21. Eligible youth may be placed in a foster home, group care, or supervised independent-living setting. However, they must be either (1) completing high school or an equivalency program; (2) enrolled in postsecondary or vocational school; (3) participating in a program or activity designed to promote, or remove barriers to, employment; (4) employed for at least 80 hours per month; or (5) incapable of doing any of these activities due to a medical condition. The procedures afforded to state wards under age 18 (e.g., judicial or administrative case review every 6 months) would continue to apply.

The Fostering Connections Act also requires child welfare agencies to help young people age 18 and older to develop a personal transition plan during the 90 days immediately before they exit care. The plan must be at the youth's direction; as detailed as the youth desires; and include specific options for housing, health insurance, education, mentoring opportunities, continuing support services, workforce supports, and employment services.

As states consider whether to extend care beyond age 18, they will take into account how the benefits to foster youth and society compare with the costs to government. In this report, we provide some preliminary estimates of those benefits and costs using data from a variety of sources, including the Midwest Evaluation of the Adult Functioning of Former Foster Youth (the "Midwest Study"), the Illinois Department of Children and Family Services, the 1988 National Education Longitudinal Study (NELS), and the U.S. Census Bureau. We conclude that the benefits to both foster youth and society of extending care outweigh the costs to government by a factor of almost 2 to 1.

The Midwest Study

The Midwest Study is a collaborative effort among the public child welfare agencies in Illinois, Iowa, and Wisconsin; Chapin Hall at the University of Chicago; the University of Wisconsin Survey Center; and Partners for Our Children at the University of Washington. It is examining the transition to adulthood among foster youth from the three participating states. All of these youth had entered care prior to their 16th birthday; their primary reason for placement was not delinquency; and they were still in care at age 17.¹

Between May 2002 and March 2003, baseline interviews were conducted with 732 of the 758 young people eligible for the study (63 from Iowa, 474 from Illinois, and 195 from Wisconsin). That translates into a response rate of almost 97 percent. At that time, they were either 17 or 18 years old. Eighty-two percent ($n = 603$) of this baseline sample (386 from Illinois, 54 from Iowa, and 163 from Wisconsin) were re-interviewed between March and December 2004, when nearly all ($n = 575$) were age 19. A third wave of survey data was collected between March 2006 and January 2007 from 81 percent ($n = 591$) of the baseline sample (364 from Illinois, 50 from Iowa, and 176 from Wisconsin), when almost all of the study participants were 21 years old. The interviews covered a variety of domains, including living arrangements, relationships with family of origin, social support, receipt of independent living services, education, employment, economic well-being, receipt of government benefits, physical and mental well-being, health and mental health service utilization, sexual behaviors, pregnancy, marriage and cohabitation, parenting, and criminal justice system involvement.

¹ For a more detailed description of the baseline sample and procedures, see Courtney and Dworsky (2006).

Our analysis of the benefits and costs of extending foster care takes advantage of a key difference in child welfare policy across the three participating states. Like most states, Iowa and Wisconsin typically discharge foster youth to independent living near their 18th birthday and almost never after age 19. By contrast, Illinois is one of the few jurisdictions where young people can and routinely do remain in foster care until their 21st birthday. Despite claims that many foster youth would choose not to remain under the care and supervision of the public child welfare agency and juvenile court beyond age 18—even if given the opportunity, most of the Midwest Study participants from Illinois were still in foster care on their 20th birthday, and many remained until age 21.

Costs of Extending Foster Care to Age 21

Estimating the Costs of Extending Care

Our estimate of the expected cost to government of extending foster care until age 21 is based on (1) the average per-day cost of caring for young people age 18 and older; (2) the average amount of time young people are likely to remain in care beyond their 18th birthday; and (3) the costs of public assistance that could be avoided if young people are in care. Using a weighted average of the 2007 per-day costs associated with different types of living arrangements (e.g., foster homes, supervised independent living settings, and subsidies for youth in college) provided by the Illinois Department of Children and Family Services, we estimate that keeping one Illinois youth in care beyond his or her 18th birthday would cost, on average, approximately \$20,800 per year.

We know from the Midwest Study that the average age at exit from care is 20 years old in Illinois, compared with only 18 years old in Iowa and Wisconsin. This reflects the fact that all of the young people in the Wisconsin sample and all but two of the young people in the Iowa sample exited care before their 19th birthday, whereas more than half of the young people in the Illinois sample were still in care when they were 20 years old. Assuming that what happens in Illinois is similar to what would happen in other states if young people were allowed to remain in care until age 21, and that what happens in Iowa and Wisconsin is a good example of what happens in states that routinely discharge youth at age 18, extending care to age 21 would increase the

average length of stay by about 2 years. Thus, we estimate that the additional cost of providing care to these young people would be 2 x \$20,800, or an average of \$41,600 per youth.

Avoiding expenditures on public assistance would offset at least some of this cost. To estimate what those cost offsets might be, we drew upon survey data collected from Midwest Study participants when they were 21 years old ($N = 555$). Table 1 shows both the percentage of study participants who reported that they were currently receiving public assistance at age 21 as well as the mean monthly benefits they were receiving.²

Table 1. Public Assistance Receipt by Midwest Study Respondents at Age 21 ($N = 555$)

	% Receiving Assistance			Mean Monthly Benefit		
	Total	Male	Female	Total	Male	Female
SSI	11.9	12.8	11.2	\$555.90	\$550.59	\$560.00
Food stamps	32.5	9.9	50.2	\$217.24	\$187.33	\$225.31
TANF	2.9	0.4	4.8	\$440.13	\$200.00	\$456.13
Other cash assistance	0.9	0.4	1.3	\$296.58	\$116.67	\$322.29

To calculate the expected per-person public assistance costs over the course of a year, we annualized the mean reported monthly benefits and assumed that the percentage of study participants who were current recipients represents the probability of benefit receipt. Figure 1 shows the results.

² “Other cash assistance” would include general assistance, emergency assistance, and Cuban/Haitian or Indian assistance payments.

EXPECTED PER-PERSON ANNUAL BENEFIT FROM PUBLIC ASSISTANCE

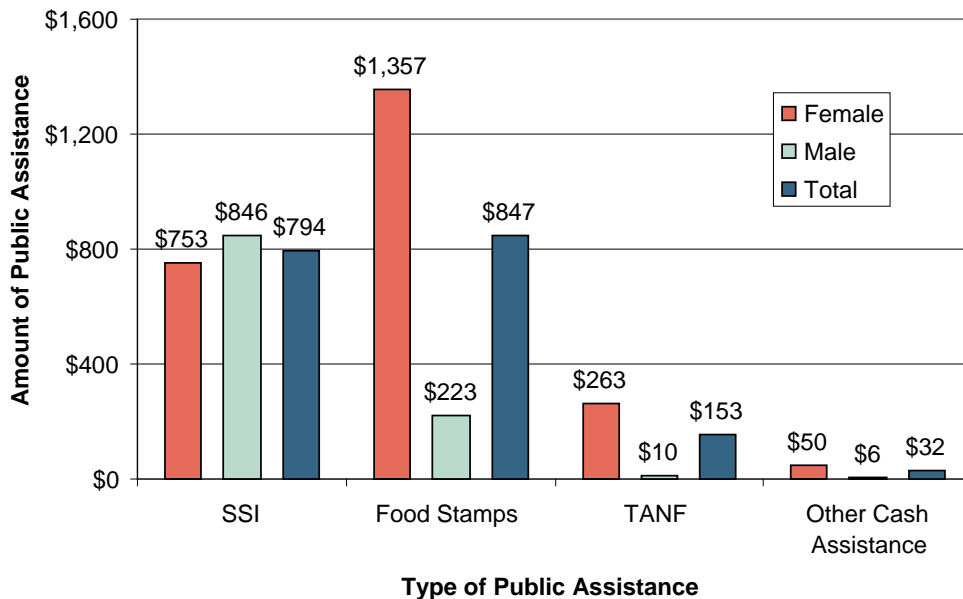
$$\text{EPPB} = \text{PRB} \times \text{MMB} \times 12$$

EPPB = Expected per-person annual benefit

PRB = Probability of receiving benefit

MMB = Mean monthly benefit

Figure 1. Expected Per-Person Public Assistance Benefits



On average, Midwest Study participants received \$794 in Supplemental Security Income (SSI), \$847 in food stamp benefits, \$153 in Temporary Assistance to Needy Families (TANF) benefits,

and \$32 in other welfare benefits, or a total of \$1,826 in benefits over the course of a year. Because the young women were far more likely than the young men to be custodial parents, and thus eligible for TANF, that value was considerably higher for females (\$2,423) and lower for males (\$1,083).³

We only took into account expenditures on cash and “cashlike” in-kind benefits, such as food stamps, that are readily monetized and did not include administrative or other associated costs. However, the Midwest Study data indicate that some of these young people were receiving housing assistance (e.g., public housing, Housing Choice Vouchers) or benefits from the Special Supplemental Nutrition Program for Women, Infants and Children (WIC). If we had taken this other public assistance into account and factored in administrative costs, the estimates shown in Figure 1 would have been higher.

Assuming that each former foster youth between the ages of 18 and 21 receives an average of \$1,826 in public assistance per year and that these costs are defrayed for 2 years—on average, when young people remain in care, the expected net cost of extending care would be reduced by \$3,652, or from \$41,600 to \$37,948.

This predicted offset, which is based on Illinois data, will vary somewhat across states. Between 2000 and 2002, the average percentage of low-income children receiving TANF benefits in the Midwest Study states ranged from a low of 6 percent in Wisconsin to a high of 11 percent in Illinois. Other states exhibit rates as low as 4 percent (Wyoming) and as high as 25 percent (Rhode Island). By contrast, food stamp receipt among low-income children varies relatively little (National Center for Children in Poverty, 2004). Given that TANF benefits accounted for less than one-tenth of our estimated cost offset of \$3,652 per youth, the difference is unlikely to exceed a few hundred dollars per youth. Thus, this variation will have a negligible effect on the cost reduction.

³ At age 21, 51 percent of the young women and 11 percent of the young men were custodial parents.

Sharing the Costs of Extending Care among Levels of Government

States are currently reimbursed for foster care maintenance payments made on behalf of Title IV-E eligible youth age 18 and younger at a rate of 50 percent to 83 percent, depending on the state. A child is Title IV-E eligible if his or her family would have been income-eligible for the state's Aid to Families with Dependent Children (AFDC) program under the criteria that existed before it was eliminated in 1997. Although the percentage of children entering foster care who are Title IV-E eligible (commonly called the IV-E penetration rate) has always varied across states due to between-state differences in AFDC eligibility criteria and has generally fallen since 1997, long-term national data suggest that at least half of foster care entrants are IV-E eligible (Child Welfare League of America, 2007). The federal portion, or Federal Financial Participation, is the same as the state's Federal Medical Assistance Percentage (FMAP) and is based primarily on the state's per capita income. States with a higher per capita income have a lower FMAP. States are responsible for covering the entire cost of care for children who are not Title IV-E eligible. Under the Fostering Connections Act, these same rules would apply to foster youth age 18 and older.

Thus, in deciding whether to extend care under the Fostering Connections Act, policymakers need to consider how federal, state, and—in some cases—county governments will share the costs. This distribution is a function of three factors: (1) the state's Title IV-E reimbursement rate; (2) the percentage of foster youth who would be Title IV-E eligible; and (3) the way costs are (or are not) shared within the state.

Figure 2 illustrates this distribution for a state that does not share costs with its counties. Assuming that three-quarters of the state's foster youth are eligible for Title IV-E reimbursements, the federal government would pay half of what it costs the state to keep 75 percent of the state's foster youth in care beyond age 18. For the 25 percent of young people who would not be eligible for Title IV-E reimbursement, foster care costs would be borne entirely by the state. Overall, the federal government would pay 37.5 percent and the state would pay 62.5 percent. Figure 2 illustrates the breakdown. Assuming that the total cost per youth of extending

care is \$37,948, we would expect the federal government to pay \$14,231 and the state to pay \$23,717 per youth.

Figure 2. Foster Care Cost Sharing, State Bears All Nonfederal Costs

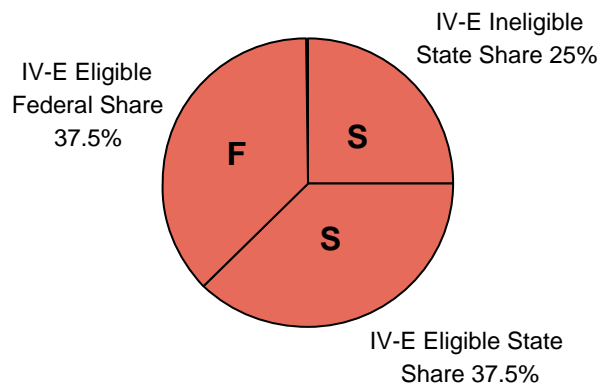
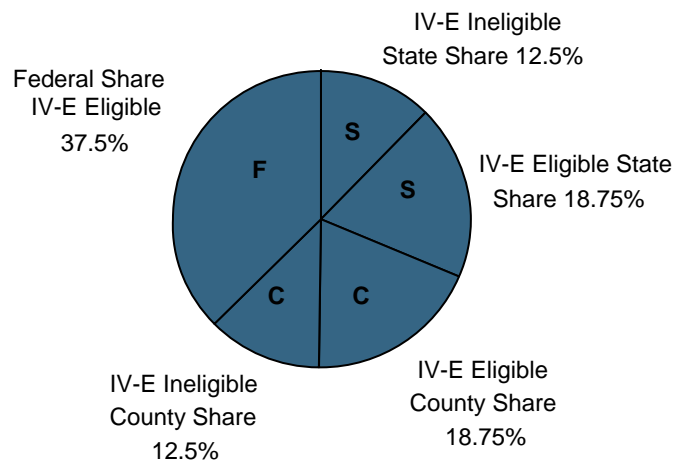


Figure 3 shows a similar distribution for a state with the same proportion of Title IV-E eligible youth that shares child welfare costs equally between state and county governments. The federal government would still pay half of what it costs to keep 75 percent of the state's foster youth in care, or 37.5 percent of the total cost. The other 62.5 percent would be split between the state and the counties, so each would pay 31.25 percent. Again, assuming that the total cost per youth of extending care is \$37,948, state and county governments would each pay \$11,859 per youth.

Figure 3. Foster Care Cost Sharing, State and Counties Share Nonfederal Costs Equally



Of course, the actual costs to each level of government would depend on the number of young people who choose to remain in care and how long they choose to remain.

Benefits of Extending Foster Care to Age 21

Findings from *When Should the State Cease Parenting?*

Our analysis of the potential benefits of extending foster care begins with the findings from the Midwest Study described in *When Should the State Cease Parenting? Evidence from the Midwest Study* (Courtney, Dworsky, & Pollack, 2007). As Courtney and colleagues reported, allowing young people to remain in care until age 21 is associated with increased postsecondary educational attainment, delayed pregnancy, higher earnings, and a greater likelihood of receiving independent living services. Because rigorous empirical studies have yet to demonstrate that receipt of independent-living services has long-term positive effects (Montgomery, Donkoh, & Underhill, 2006), we had initially planned to estimate the potential monetary benefits associated with increased postsecondary educational attainment, delayed pregnancy, and higher earnings. However, further consideration led us to focus exclusively on the potential monetary benefits associated with increased postsecondary educational attainment. Before discussing these benefits, we explain our decision not to include the potential monetary benefits associated with other factors, including increased earnings, delayed pregnancy, reduced homelessness, and reduced levels of criminal offending.

Courtney and colleagues found that each additional year young people remain in care beyond their 18th birthday is associated with an increase in earnings of between \$470 and \$924 (depending on the statistical model used) during the year before the wave three interview at age

21, relative to mean annual earnings of \$6,894 (Courtney et al., 2007). At first glance, it might make sense to try to estimate how this early earnings differential would translate into higher earnings over the course of a young person's work life. However, as we describe below, work-life earnings are strongly associated with educational attainment. Although our models predicting earnings during the year before the wave-three interview controlled for differences in human capital (e.g., grade retention and reading level) and college aspirations at ages 17 or 18, they did not control for changes in educational attainment that occurred after the baseline interview. Thus, some or all of the earnings differences we observed at age 21 may reflect the effects of being able to remain in care on educational attainment. For this reason, we chose not to include the earnings estimates reported in *When Should the State Cease Parenting?* in our estimate of potential monetary benefits.

Courtney and colleagues also reported a relationship between remaining in care and delayed pregnancy (Courtney et al., 2007). Specifically, they found that being in care was associated with a 38 percent reduction in the risk of becoming pregnant between the baseline interview and the wave-two interview at age 19. Given the wide range of challenges facing foster youth during the transition to adulthood and the likelihood that those who become parents during this period will do so under very unfavorable conditions (e.g., unstable or no employment, economic insecurity, no spouse or stable partner to assist with parenting), it seems reasonable to argue that this reduction in the risk of pregnancy associated with being in care would benefit the young women involved as well as society (Courtney et al., 2007). However, a recent review of the literature on teenage pregnancy revealed that almost all of the monetary benefits associated with pregnancy prevention come from delaying births that would have occurred before age 18, but not from delaying births until age 20 or 21 (Hoffman, 2006; Hoffman & Maynard, 2008). To young women aged 18 or 19, delaying births may have monetary benefits that have not been measured, but we cannot quantify them at this time. Consequently, we chose not to include the potential monetary benefits of delayed pregnancy in our estimate of the potential benefits associated with extending foster care.

Finally, the findings thus far from the Midwest Study provide equivocal evidence regarding the association between remaining in care and criminal offending, and, as yet, reveal no evidence of an association between remaining in care and other outcomes, such as homelessness. Data from additional waves of the Midwest Study will provide better insight into whether extended care is associated with decreased likelihood of these adverse outcomes.

Effects of Extending Care on Bachelor's Degree Attainment

The benefits of postsecondary education are well established. A bachelor's degree in particular is regarded as an investment that yields large returns over the course of an individual's work life. According to the National Center for Educational Statistics, young adults with at least a bachelor's degree earn significantly more than those with less education, and the gap in median income between college graduates and high school graduates has increased over time. In 2005, 25- to 34-year-olds who had at least a bachelor's degree earned, on average, 61 percent more than those with only a high school diploma or GED (Planty et al., 2007).

The percentage of former foster youth who graduate from college is far from clear. Most estimates are based on nonrepresentative samples of former foster youth, nearly all of whom left care before the Foster Care Independence Act was amended in 2001 to create the federally funded Education and Training Voucher (ETV) program, which provides current and former foster youth with up to \$5,000 per year for postsecondary education and training.⁴ Moreover, the studies on which these estimates are based often assessed educational progress too early in adulthood to provide valid measures of college degree attainment.

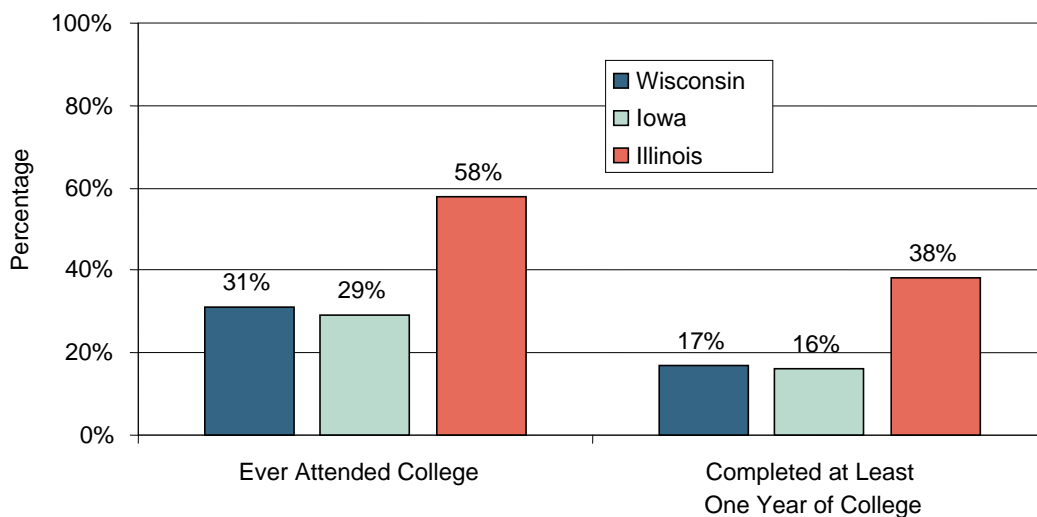
These limitations notwithstanding, there is little doubt that former foster youth lag considerably behind their peers with respect to postsecondary educational attainment. Researchers have reported rates of college graduation among former foster youth that range from as low as 1

⁴ Foster youth remain eligible until age 23 if they are participating in the program on their 21st birthday.

percent to as high as 11 percent (Emerson, 2006; Pecora et al., 2003; Wolanin, 2005). By comparison, approximately 30 percent of 25- to 29-year-olds in the general population have at least a bachelor's degree (Snyder, Dillow, & Hoffman, 2008).

However, as Courtney and colleagues (2007) reported, there is some evidence from the Midwest Study that allowing youth to remain in care until age 21 is associated with an increase in postsecondary educational attainment. Specifically, 21-year-old former foster youth from Illinois were about twice as likely to have ever attended college and more than twice as likely to have completed at least 1 year of college as their peers from Iowa and Wisconsin (See Figure 4).

Figure 4. Postsecondary Educational Attainment at Age 21 by State



Between-state differences in foster youth populations could account for some or all of the observed difference in postsecondary educational attainment. However, controlling for a wide

range of individual and placement history characteristics only increased the difference.^{5,6} The estimated odds of completing at least 1 year of college were three times higher for the former foster youth from Illinois than for their peers from Iowa and Wisconsin. This means that young people who were allowed to remain in care until age 21 were more likely to complete at least 1 year of college, despite the fact that their individual and placement history characteristics made this outcome *less* likely.

Estimating the Increase in Bachelor's Degree Attainment Associated with Extending Care

The benefits of any increase in bachelor's degree attainment associated with extending care will depend on (1) the expected rate of college graduation among former foster youth if young people *cannot* remain in foster care until age 21 (the current policy in most states); (2) the expected rate of college graduation among former foster youth if young people *can* remain in foster care until they are 21 years old; and (3) the additional work-life earnings associated with having a bachelor's degree relative to having no more than a high school diploma. We began by estimating the potential increase in bachelor's degree completion associated with extending foster care.

⁵ They estimated a logistic regression model that included the following covariates: gender, race/ethnicity, reading level, ever retained in school, aspirations to graduate from college, engagement in delinquent behaviors, any mental health disorder, any substance use disorder, prior detention or incarceration, prior work experience, any biological children, maltreatment history, very close to at least one adult family member, very close to current caregiver, ever placed in group care, ever placed with relatives, number of prior placements, age at most recent entry, ever ran away from care, and urbanicity of the county with jurisdiction.

⁶ We obtained our measure of urbanicity from MABLE/Geocorr, a web-based application that uses the Master Area Block Level Equivalency (MABLE) database to create a report file for user-defined geographies, including counties. It is available at <http://mcdc2.missouri.edu/websas/geocorr2k.html>.

Given the lack of consensus regarding the percentage of foster youth who will graduate from college as well as the limitations of prior estimates, we drew upon data from the 1988 National Education Longitudinal Study (NELS) to estimate the expected rate of college graduation if young people are *not* allowed to remain in care until age 21.⁷ Based on the NELS data, 29.6 percent of 26-year-olds in the United States have a bachelor's degree. However, that percentage is positively related to family socioeconomic status (SES) and negatively related to the number of "risk factors" present in 8th grade.⁸

Because a majority of foster youth are eligible for Title IV-E funding, which means that they come from poor families, and because they have typically been removed from home after a determination that their safety and well-being are at risk, we averaged the NELS college graduation rate for young people in the bottom SES quartile (7.3 percent) with the rate for those with three or more risk factors (4.5 percent) to estimate a lower bound of 5.9 percent. Likewise, we estimated an upper bound of 14.5 percent by averaging the college graduation rate for young people in the bottom three SES quartiles (18.6 percent) with the rate for those with two risk factors (10.4 percent). Taking the midpoint between these two bounds, we estimate that approximately 10.2 percent of foster youth will complete a bachelor's degree.⁹

⁷ NELS involved a national probability sample of students from 1,057 public and private schools across all 50 states and the District of Columbia who were 8th graders in the spring of 1988 (U.S. Department of Education, 2000). Because the NELS estimates are based on educational attainment at age 26, and some individuals obtain college degrees after age 26, our figures most likely underestimate the percentage of adults who ultimately earn a bachelor's degree.

⁸ The NELS measure of SES is based on five equally weighted and standardized components: father's education, mother's education, family income, father's occupation, and mother's occupation.

⁹ Additional support for our midpoint estimate comes from the Casey National Alumni Study (Pecora et al., 2003), which collected survey data from 1,087 young adults who had been in the care of Casey Family Programs in one of 13 states for at least 1 year between 1966 and 1998. Not all of these young adults had exited care by aging out, but most had spent time in care as adolescents, and their average age at exit was 19 years old. Of the young adults who were age 25 or older, 10.8 percent had a BA degree.

Because we found that former foster youth from Illinois were more than twice as likely as their Wisconsin and Iowa counterparts to have completed at least 1 year of college by age 21, our best estimate is that allowing young people to remain in foster care until they are 21 years old will be associated with a doubling of bachelor's degree attainment, which would mean a graduation rate of 20.4 percent. This percentage is still considerably lower than the overall NELS general population estimate of 29.6 percent. Because these estimates are necessarily speculative, we perform a variety of sensitivity analyses to examine how alternate assumptions would alter our results.

Our best estimate that the rate of bachelor's degree attainment would double if young people were allowed to remain in foster care until they are 21 years old assumes that the difference in postsecondary educational attainment we observed at age 21 will persist. However, if the benefits of extending care begin to diminish once the state "ceases parenting," then our best estimate may be too high. Alternatively, our best estimate may be too low, given that extending care was associated with a tripling of the odds of completing at least 1 year of college according to our multivariate analysis. We took both of these possibilities into account and estimated the benefits of extending care under two different assumptions: namely, that allowing youth to remain in care would increase bachelor's degree attainment by factors of 1.5 and 2.5, respectively.

Effects of Bachelor's Degree Attainment on Earnings

Using U.S. Census Bureau data compiled by Day and Newburger (2002) and applying a discount rate of 3 percent beginning at age 21, we calculated the present-discounted value of lifetime earnings for former foster youth with different levels of education.^{10,11} According to our

¹⁰ Day and Newburger (2002) estimated work-life earnings by summing age-specific average annual earnings for working people ages 25 to 64 years old. The total represents what similarly educated individuals could expect to earn, on average, during a hypothetical 40-year working life.

calculations, former foster youth who have a bachelor's degree can expect to earn \$481,000 more than former foster youth who have no more than a high school diploma.

Thus, to estimate how much higher work-life earnings would be if extending foster care to age 21 increased the rate of college graduation, we multiplied the added value of a bachelor's degree (\$481,000) by the difference between the expected rate of college graduation under a policy that gives youth the option to remain in care (20.4 percent) and the expected rate of college graduation under the policy that currently exists in most states (10.2 percent). This yields an estimate of \$49,620.¹²

**EXPECTED INCREASE IN PER-PERSON WORK-LIFE EARNINGS
ASSOCIATED WITH BACHELOR'S DEGREE ATTAINMENT**

$$\mathbf{EIE1 = AVBA \times (GDRT1 - GDRT2)}$$

EIE1 = Expected increase in per-person work-life earnings

AVBA = Present-discounted added value of a bachelor's degree

GDRT1 = Expected college graduation rate if foster care is extended to age 21

GDRT2 = Expected college graduation rate if remaining in care is not an option

¹¹ The investments required to extend care must be made immediately, whereas the increase in lifetime earnings accumulates over several decades. Therefore, we adjusted the estimates reported by Day and Newburger to reflect a discount rate of 3 percent and 2007 dollar values.

¹² This is based on our "best estimates." Below we explore what happens if we alter our assumptions.

Effects of Completing Any College on Earnings

Postsecondary education can have benefits even if it does not result in a bachelor's degree. Researchers have found "substantial and statistically significant" (Grubb, 1997, p. 241) benefits associated with sub-baccalaureate credentials, such as vocational certificates and associate degrees. For example, individuals who have an associate's degree can expect to earn 12 to 27 percent more than individuals who have only a high school diploma (Surrette, 1997; Kane & Rouse, 1995), or an average of an additional \$367,000 in work-life earnings (Day & Newburger, 2002). This suggests that by limiting our estimates to the effects of earning a bachelor's degree, we risk underestimating the benefits of extending foster care to age 21.

It is also important because our earlier calculations were based on the assumption that the difference in postsecondary educational attainment we observed at age 21 will persist, and hence, that allowing young people to remain in foster care until they are 21 years old would double the percentage who earn a bachelor's degree. However, more follow-up data are needed to know whether the Midwest Study participants from Illinois continue their favorable educational trajectory.¹³ What we do know from the first three waves of the Midwest Study is that allowing young people to remain in foster care until age 21 is associated with significantly higher rates not only of attending college but also of completing at least one year (Courtney et al., 2007).

Thus, we also estimated what foster youth could expect to earn if extending care did not lead to further gains in educational attainment beyond those we observed at age 21. To do this, we drew once again upon the Census data compiled by Day and Newburger (2002), who estimated that completing any college increases work-life earnings by an average of \$129,000. We then multiplied this average by the difference between the percentage of former foster youth who could be expected to complete "some college" under a policy that gives young people the option to remain in care (58 percent) and the percentage of former foster youth who could be expected to

¹³ Data collected at age 23 will be available in fall 2009, and data collected at age 25 will be available in fall 2011.

complete “some college” under the policy that currently exists in most states. This yields an estimate of \$36,200.

**EXPECTED INCREASE IN PER-PERSON WORK-LIFE EARNINGS
ASSOCIATED WITH COMPLETING ANY COLLEGE**

$$\text{EIE2} = \text{AVAC} \times (\text{ATRT1} - \text{ATRT2})$$

EIE2 = Expected increase in per-person work-life earnings

AVAC = Present-discounted added value of completing any college

ATRT1 = Expected college attendance rate if care is extended to age 21

ATRT2 = Expected college attendance rate if remaining in care is not an option

Total Effects of Increased Educational Attainment on Earnings

To calculate the total effects of increased educational attainment on earnings, we summed the expected increase in work-life earnings associated with bachelor’s degree attainment and the expected increase in work-life earnings associated with completing some college but not attaining a bachelor’s degree.¹⁴ This yields an estimate of \$72,200.

¹⁴ We made the conservative assumption that respondents who had not attended college by age 21 would not attend.

TOTAL EXPECTED INCREASE IN PER-PERSON WORK-LIFE EARNINGS

$$\mathbf{EIE3 = EIE1 + EIE2 - AVAC \times (ATRT1 - GDRT1)}$$

EIE3 = Total expected increase in per-person work-life earnings

EIE1 = Expected increase in per-person work-life earnings from bachelor's degree attainment

EIE2 = Expected increase in per-person work-life earnings from completing any college

AVAC = Present-discounted added value of completing any college

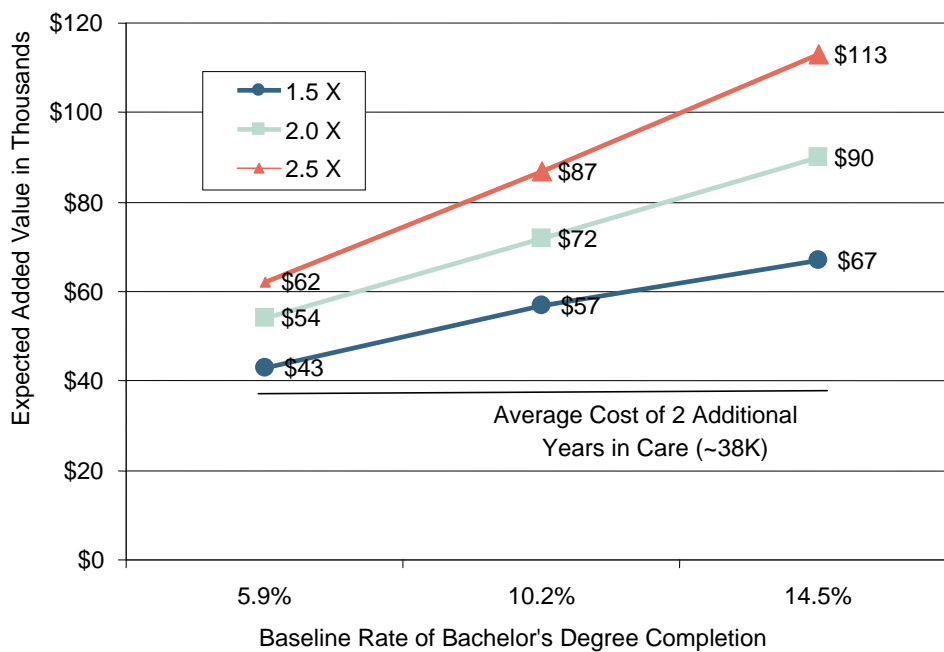
ATRT1 = Expected college attendance rate if care is extended to age 21

GDRT1 = Expected college graduation rate if care is extended to age 21

Sensitivity Analysis

Although \$72,200 is our best estimate of what the expected increase in per-person work-life earnings would be if foster care were extended to age 21, we examined what the consequences would be if we alter our assumptions regarding the expected college graduation rates for foster youth who can and cannot remain in care until age 21. Figure 5 illustrates the results.

Figure 5. Estimated Increase in Work-Life Earnings under Different Assumptions about the Effects of Extending Care on Postsecondary Education



The upper line represents what the expected increase in work-life earnings would be if extending care increases the rate of college graduation by a factor of 2.5; the middle line represents the expected increase in work-life earnings if extending care doubles the rate of college graduation; and the lower line represents the expected increase in work-life earnings if extending care increases the rate of college graduation by a factor of 1.5. The point estimates on the far left side assume a baseline college graduation rate of 5.9 percent; the point estimates in the middle assume a baseline college graduation rate of 10.2 percent; and the point estimates on the far right side assume a baseline college graduation rate of 14.5 percent. Under these different assumptions, the expected per-person increase in work-life earnings would range from as low as \$43,000 to as high as \$113,000.

Most important, regardless of the assumptions that we make, the expected increase in earnings exceeds the average cost of an additional 2 years in care (\$37,948)—2 years being the average length of time that Illinois foster youth remain in care beyond their 18th birthday. Moreover, our best (and most realistic) estimate (\$72,000) translates into a benefit-to-cost ratio of almost \$2. In other words, for each \$1 the government spends on keeping foster youth in care beyond their 18th birthday, we can expect those young people to earn close to an additional \$2 over the course of their work lives.

To the extent that young people who age out of foster care remain in their home state, these benefits are likely to be concentrated in that state, even though the federal government will assume a significant proportion of the costs. Moreover, even though work-life earnings will primarily benefit individuals, a nontrivial proportion will be returned to the government directly through tax revenues.

Nonmarket Benefits of Postsecondary Education

Postsecondary education has a number of nonmarket benefits that are not easily monetized, at least not directly (Wolfe & Haveman, 2002; Baum & Ma, 2007). These benefits include improved personal and familial health choices as well as better educational outcomes for subsequent generations. According to one estimate, if the “social gains from all of the categories of private nonmarket and external/public goods ... are taken into account, their sum could equal estimates of the annual earnings impacts of an additional year of schooling” (Wolfe & Haveman, 2002, p. 118). Thus, if we were able to account for these nonmarket benefits, our estimates of the benefits associated with extending foster care until age 21 could be significantly higher for young people in transition and for society.

Limitations

Our estimates of the benefits of extending care are largely based on observed differences between what happens in one state, which allows young people to remain in care until age 21, and what happens in two other states, which do not give foster youth that option. Not only might the experiences of foster youth in other jurisdictions be different, but the between-state differences in postsecondary educational attainment that we observed at age 21 may reflect more than this one difference in state policy. Moreover, because we did not have measures of educational attainment beyond age 21, we had to make some assumptions about the continuation of the educational trajectories that we did observe. Although the collection of data from these young people at ages 23 and 25 should reduce the need for speculation in the future, the results of our analysis should be interpreted with caution.

Another reason our results are somewhat speculative is that we relied on estimates of returns to postsecondary education among the general population (e.g., Day & Newburger, 2002). Those returns may be different for young people transitioning out of foster care. Moreover, despite evidence that attaining an associate's degree yields considerably increased earnings above the benefits of completing some college (Day & Newburger, 2002), we did not distinguish between the benefits of completing some college and the benefits of attaining an associate's degree. In this respect, we underestimate the value of a college education short of attaining a bachelor's degree.

We also did not account for all of the potential costs and cost offsets associated with extending foster care to age 21. For example, our calculations do not include the cost of court supervision for as many as 3 additional years. Although research suggests that the supervision of these cases

absorbs minimal judicial resources in Illinois (Merry, Peters, Bilaver, Goerge, & Lee, 1999; Peters & Merry, 1997), those costs may be higher in other jurisdictions.

Conclusions

These limitations notwithstanding, the Midwest Study data suggest that the benefits of extending foster care to age 21 more than offset the additional costs to government. This option will soon be much less costly to states as a result of the Fostering Connections Act. Our analysis focused on the expected increase in work-life earnings that is likely to result if extending care increases post-secondary educational attainment. Our best estimate is that expected work-life earnings would increase an average of \$72,000 and that the average per-youth cost of extending foster care for 2 years, net cost offsets associated with public assistance receipt, would be approximately \$37,948. This represents a return of almost \$2 for every \$1 spent.

Our estimates are limited primarily by the fact that Midwest Study data are only available on the educational attainment of foster youth at age 21. However, given the higher rate of college attendance among the Illinois study participants, who were allowed to remain in care until they were 21 years old, it is reasonable to believe that the favorable educational trajectory we observed at age 21 and attributed to Illinois's policy of extending foster care will persist. If that is the case, then the average increase in work-life earnings that would result from extending foster care will be substantially higher than our estimates suggest, although how much higher is not clear.

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About Chapin Hall

Established in 1985, Chapin Hall is an independent policy research center whose mission is to build knowledge that improves policies and programs for children and youth, families, and their communities.

Chapin Hall's areas of research include child maltreatment prevention, child welfare systems and foster care, youth justice, schools and their connections with social services and community organizations, early childhood initiatives, community change initiatives, workforce development, out-of-school time initiatives, economic supports for families, and child well-being indicators.

