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Amy Michele Salazar
Portland State University

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Investigating the Predictors of Postsecondary Education Success and

Post-College Life Circumstances of Foster Care Alumni

by

Amy Michele Salazar

A dissertation submitted in partial fulfillment of the
requirements for the degree of

Doctor of Philosophy
in
Social Work and Social Research

Dissertation Committee:
Thomas Keller, Chair
Tina Anctil
Katharine Cahn
Sarah Geenen
Jason Newsom
Laurie Powers

Portland State University
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Abstract

As a group, youth who have spent time in foster care are far behind the general population in postsecondary educational attainment. Nevertheless, most do hold aspirations for higher education. For those who make it to college, foster care alumni face a variety of obstacles related to successful postsecondary completion. However, it is unclear whether the factors that affect postsecondary success in this population are similar to those identified for other college students or more unique to the distinctive experience of being in foster care. Furthermore, while there is general consensus that higher education is beneficial to foster care alumni in overcoming adversity, no study has examined how foster care alumni who graduate from college actually fare in their adult lives compared with the general population of college graduates, or with those in the general population who did not graduate college.

The study aims first to identify the predictors of postsecondary retention and success using survey data from a cross-sectional sample of foster care alumni who received Casey Family Scholarship Program or Orphan Foundation of America Foster Care to Success postsecondary scholarships. Second, the study compares adult outcomes of foster care alumni graduates with general population graduates and general population non-graduates to explore the role higher education plays in these youths' lives. Results are interpreted in relation to Bronfenbrenner's Ecological Systems Theory, theories of educational persistence and motivation, trauma theory, and theories related to other difficulties of being in foster care.

Analyses include bivariate examinations of postsecondary factors and their relation to college disengagement; discrete-time survival analysis of general college

retention factors and factors more unique to the foster care population in predicting college graduation; and multivariate comparisons (ANOVA's, ANCOVA's, and chi-squares) of foster youth graduates and non-foster youth graduates and non-graduates in relation to their post-college life circumstances.

In bivariate comparisons of general population factors related to retention, five of the nine factors (academic-related skills, institutional commitment, social support, social involvement, and institutional financial support) had at least one indicator with a significant or trend-level relationship with college disengagement. In bivariate comparisons of foster care-specific factors related to retention, four out of the seven factors (maltreatment/ trauma/PTSD, other mental health problems, independent living stability, tangible support) had at least one item with a significant or trend-level relationship with college disengagement. Comparing the two separate factor models, the general population factor group modeled the data slightly better in predicting college graduation than the foster care-specific factor model. No model improvement was found when foster care-specific factors were added into the general population factor model.

Both general population and foster care alumni graduates fared more positively than general population non-graduates for three post-college factors: individual income, financial satisfaction, and happiness. Only the general population graduates were found to be faring better than general population non-graduates on a variety of other factors. Foster youth graduates fared less positively than general population graduates on a variety of post-college outcomes. Results have implications for policy and practice regarding the most effective means of supporting postsecondary aspirations of youth with foster care experience.

Acknowledgements

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I am also grateful to all of the foster care alumni who took time out of their lives to take part in my study and share their experiences in hopes that this information will one day support other youth with foster care experience who are working to achieve their postsecondary goals. Your commitment to overcome is a powerful lesson to all of us who take our supports and privilege for granted.

I also thank my dissertation committee, and especially my chair Tom Keller, for the hours of consultation, reflection, and support, as well as enduring my lofty plans to undertake projects that are probably much too large for one dissertation.

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Graduating from college meant that I won. Most of all, it meant that I would gain the knowledge to use my experience to help other people. College meant freedom from my past and the ability to choose my future. -- Gina, 2007 college graduate from foster care

Chapter 1: Introduction

Having a postsecondary degree has become increasingly important in the United States over the last several decades in order to secure stable and comfortable life circumstances (Baum & Ma, 2007; Institute for Higher Education Policy, 1998; Perna, 2005; Porter, 2002). Consequently, identifying strong predictors of college retention and graduation has become an important area of research. Strategies for going about this exploration have differed; some studies have focused on factors from various fields of study, such as psychological, academic, or environmental factors. Other studies have focused on factors that are salient for specific groups that have been found to struggle more frequently in postsecondary settings, such as minority students (Rendon, Jalomo, & Nora, 2000), African American students (Cabrera, Nora, Terenzini, Pascarella & Hagedorn, 1999), Latino students (Attinasi, 1989; Harrell & Forney, 2003; Hernandez, 2000; Hurtado, Carter & Spuler, 1996; Torres, 2006), Native American students (Lundberg, 2007), students coming from impoverished backgrounds (Engle & Tinto, 2008; Terenzini, Cabrera & Bernal, 2001; Thayer, 2000; Walpole, 2003), first-generation students (Engle & Tinto, 2008; Terenzini, Springer, Yaeger, Pascarella & Nora, 1996; Thayer, 2000), or older/adult students (Schlossberg, Lynch, & Chickering, 1989). The factors found to relate to more successful college outcomes are often targeted in college preparation and retention support interventions.

Part One: Factors Affecting College Success in Foster Care Alumni

        Youth who have spent time in foster care are, in the aggregate, far behind the general population when it comes to educational attainment, especially postsecondary education (Pecora, Kessler, Williams, O'Brien, Downs, English, et al, 2005; National Working Group on Foster Care and Education, 2007; Zetlin & Weinberg, 2004; Merdinger, Hines, Osterling, & Wyatt, 2005). While youth aging out of care often struggle academically, most do hold aspirations for higher education (Martin, 2003; McMillen, Auslander, Elze, White, & Thompson, 2003). However, these youth face a variety of obstacles that interfere with actually being able to enroll in or complete a postsecondary program, including limited financial resources, mental health challenges remaining from childhood trauma, prior educational setbacks, and a lack of steady family, adult, and peer social support (Casey Family Programs, 2006; Casey Family Programs, 2008).

        The fact that youth with foster care experience achieve higher education at a much lower rate than the general population is clear; however, it is unclear whether the factors that have an impact on college retention and graduation for this population are similar to or different than those found to be salient for those without foster care experience. Aside from being in foster care, many of these youth also have membership in underserved groups that traditionally are underrepresented in higher education. Youth in foster care are disproportionately of minority race and from lower SES and first generation backgrounds. Thus, factors that have been found to impact the college outcomes of these groups may at least partially explain why they experience more hardship regarding college graduation. However, youth in foster care also have

experiences that are more specific to spending time in care, such as high rates of maltreatment and posttraumatic symptomatology, mental health struggles, stigma related to being in care, challenges related to independent living, lack of tangible social support, and eligibility for unique college-related supports. These more distinctive factors may or may not provide explanations regarding this population's college outcomes.

A variety of policies and programs address the importance of supporting college success for at-risk groups. For example, TRIO programs serve students who experience a variety of disadvantaged backgrounds, including low-income students, first-generation students, and students with disabilities (U.S. Department of Education, 2010). Some support programs are more focused in terms of the populations they serve. One popular model specifically designed for youth with foster care experience, the Guardian Scholars model, has been developed at a handful of campuses across the country, in addition to other foster youth-specific programs and models. However, there is not a strong research base to justify the programmatic components commonly offered in programs targeting youth with foster care experience or to indicate what factors, if targeted through intervention, might be most likely to result in postsecondary success.

The current study will explore factors related to postsecondary success in a large sample of youth with foster care experience to determine whether factors that have been found to be related to postsecondary retention in non-foster care populations hold up for these youth, or if factors unique to this population are more powerful in predicting college completion. This information will be helpful in identifying the preferred targets for intervention in independent living programs, college-based support programs, and any other sources of support for these youth.

Part Two: What is the Value of a College Degree for Foster Care Alumni?

Despite countless challenges, many youth with foster care experience do successfully complete postsecondary programs. However, while there is general consensus that higher education is beneficial to virtually everyone, including at-risk groups such as youth in foster care as they attempt to overcome adversity, no study has actually examined how foster care alumni who graduate from college fare in their adult lives compared with the general population of college graduates. While college has been found to be associated with a variety of positive adult life factors, such as higher income, better health (Porter, 2002), and increased empowerment (Kates, 1996; Wolf, Coba, & Cirella, 2001), it is unclear whether the same associations are present for foster care alumni following successful postsecondary completion.

Part Two of the study will compare post-graduation life circumstances of foster care alumni college graduates with general population graduates, as well as general population young adults who did not graduate from college, to explore how beneficial higher education actually is for this population. The current study will explore whether post-college outcomes are the same for foster care alumni as they are for the general population. The goal of Part Two of the study will be to better understand how graduating foster care alumni compare with the general population on factors such as employment status, income, housing, receipt of public assistance, family life, mental health, happiness, and other variables that are often found to be related to educational attainment. This information will be useful in helping to determine whether foster care alumni continue to need supports, or if higher education functioned as expected to equalize the playing field for these youth.

Importance to the Field of Social Work

Parts One and Two of the current study will provide vital information for the provision of services to transition-aged youth in foster care. First, planning and preparing for postsecondary education often starts while youth are still in foster care. Thus social work case workers and independent living providers are often the individuals charged with the responsibility of providing the services outlined by policies and who work with these youth one-on-one to help them prepare for transition. It is clearly of utmost importance that social workers are aware of salient factors related to college retention so that they can target these factors in their work with youth. Second, the findings from this study can further inform social work policy and encourage revisions that allow for explicit evidence-based supports designed around key factors to be required components of state-supported interventions available to these youth.

Part Two of the current study is also important to social work practice in that it will explore whether college is in fact a panacea for harsh life circumstances such as those experienced by youth in foster care as it is often assumed to be, or if the social welfare system should be better prepared to continue support for these individuals. If the former is true, this further bolsters policy shifts toward supporting the postsecondary aspirations of youth with foster care experience and lends more evidence about how, in addition to helping bolster the personal successes of these youth, supporting college aspirations is actually a good societal investment. However, if the latter is true, more attention will need to be given to the needs that these individuals continue to have and how social workers can continue to build on their adult accomplishments to offer appropriate and effective support.

Research Questions and Hypotheses

Based on the literature and theoretical framework discussed next, the following research questions and hypotheses were developed:

Part one. Research Question: What factors predict college retention for youth with foster care experience? Are they the same as those experienced by the general population and other at-risk groups, or are different factors unique to foster care experience more powerful?

- o H1: Factors found to predict college retention in the general population will be significantly associated with college retention for foster care alumni.

- o H2: Foster care-specific factors will be significantly associated with college retention for foster care alumni.

- o H3: Tested together, foster care-specific factors as a group will predict college retention over and above the group of factors associated with retention in the general population.

Part two. Research Question: How do foster care alumni who graduate from college fare in their adult lives compared to the general population of college graduates? Does participation in the foster care macrosystem moderate/reduce the level of benefit achieved from higher education?

- o H1: Both the general population and foster care alumni graduates will fare more positively than general population non-graduates on income, job security, job satisfaction, public assistance, physical health, mental health, and general happiness.

- o H2: Foster care alumni graduates will fare less positively than their general population counterparts due to moderating effects of foster care macrosystem involvement.

Chapter 2: Literature Review

Part One: Higher Education Completion and Foster Care Experience

Higher education in the United States. There is ample evidence that higher education is related to a wide range of quality of life measures in the general population including increased earning power, higher personal and professional mobility, and better health for individuals and their children (Porter, 2002) as well as more abstract concepts such as empowerment (Kates, 1996; Wolf, Coba, & Cirella, 2001). Obtaining a postsecondary degree has become more common over time due to these benefits; it is also increasingly common for youth to enroll in college immediately after high school. The rate of college enrollment immediately following high school has increased from approximately half of students in the early 1970's to almost 70% of students in the 2000's (National Center for Education Statistics, 2008). In 2002, approximately 65% of 18-24 year-olds were enrolled in higher education (Baum & Payea, 2004).

College completion rates are considerably lower than enrollment rates for the general population. The 2000 U.S. Census (Bauman & Graf, 2000) found that overall, 24.4% of American adults over 25 years old had a bachelor's degree or higher. The National Center for Education Statistics (NCES; 2009) reports that slightly over half (58%) of first-time students attending a four-year college to pursue a bachelor's degree completed the degree at that school within six years. While most American young adults enroll in college, only about 39% of 25-34 year olds report completing a higher education program (Baum & Payea, 2004).

The fact that college enrollment and completion rates are generally increasing over time is encouraging; however, the rate of increase is lower than some other countries

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such as Canada and France (Baum & Payea, 2004). Furthermore, U.S. college enrollment

rates fall substantially below other industrialized countries, including Iceland, Sweden,

Australia, the United Kingdom, and others (Baum & Payea, 2004). Iceland and Sweden,

for example, had enrollment rates above 80% in 2002, whereas the United States had

only a 65% enrollment rate.

Successful enrollment into college and completion of a postsecondary degree

continues to differ substantially in the United States by race and SES. For example, while

almost half (45%) of white 18-24 year-old high school graduates (and approximately

40% of white 18-24 year-olds overall) were enrolled in higher education in 2001, only

35% of Hispanic and 40% of African American high school graduates in this age range

(and 20% of Hispanics and 30% of African American 18-24 year-olds overall) were

enrolled (National Center for Education Statistics, 2002; Baum & Payea, 2004). The

enrollment gap between higher- and lower-income students has declined over time;

however, lower income students continue to enroll in higher education immediately

following high school at a much lower rate than youth coming from higher-income

families (National Center for Education Statistics, 2008). For example, in 1992 only

about half of recent high school graduates in the lowest SES quintile enrolled in college

compared to over 80% of high school graduates in the highest SES quintile (Baum & Ma,

2007).

While gaps between enrollment of more and less privileged groups are

concerning, differences among postsecondary completion rates are more dramatic. For

example, the 2000 U.S. Census (Bauman & Graf, 2003) found that 44.1% of Americans

over 25 years old identifying as Asian only and 26.1% of those identifying as White only

had obtained a bachelor's degree or higher, while only 14.3% of those identifying as Black only and 11.5% of those identifying as American Indian/Alaskan Native only had obtained a bachelor's degree or higher. Furthermore, those identifying as Hispanic/Latino had a 10.4% completion rate of a bachelor's degree or higher, while 26% of those identifying as non-Hispanic/Latino had obtained a bachelor's degree or higher.

In 2001, bachelors degree completion rates six years after entering were found by one study to be 67% for white students and 70% for Asian American/Pacific Islander students, but only 46% for African American students and 47% for Hispanic students (Baum & Payea, 2004). However, approximately one-fifth of Hispanic and African American students were still enrolled after six years. While many African American students were still working toward their degree six years after entrance, their dropout rates were still much larger than Caucasian and Asian American students: 24% of Hispanic students and 27% of African American students left postsecondary programs prior to earning a degree, compared to 15% of Asian American and 17% of Caucasian students (Baum & Payea, 2004). Similar patterns of completion were found for higher versus lower-income students: in 2001, bachelors degree completion rates 6 years after entering were 54% of those with family incomes lower than $25,000 and 77% of those with family incomes higher than $70,000 (Baum & Payea, 2004). Again, lower-income students were more likely to still be enrolled in college six years after entering college than higher-income students. Students who were both low-income and first generation college students were found to have an even harder time: of these students, 43% had exited college without earning a degree, and only 34-43% of those attending a four-year

college had obtained a bachelor's degree after 6 years compared to 66-80% of their peers not experiencing these identities (Engle & Tinto, 2008).

Higher education and foster care. Youth with foster care experience are often members of these groups that are more educationally at-risk, being disproportionally of minority race, and being at-risk economically due to impoverished backgrounds and lacking family economic connections when preparing to exit care. A 2004 report by the Center for the Study of Social Policy (2004) found that in 2000, 37% of youth in foster care were African American, while they only constituted 15% of the national child population. Forty-six states were found to have disproportionate rates of African American children in foster care that exceeded two times the proportion that they constituted in the general state population, with some states having disproportionality rates exceeding 4 or 5 times their general population rates. Only four states were found to have Caucasian foster care population ratios of 1.0 or higher; the overall U.S. disproportionality ratio for Caucasian foster children was 0.76 (Center for the Study of Social Policy, 2004).

Youth aging out of care often also have experiences that are associated with lower socioeconomic status (National Working Group on Foster Care and Education, 2008), another group who is educationally at-risk. Both the Northwest Alumni Study and the Midwest Study found approximately one-fifth of foster care alumni to have experienced homelessness since leaving care (Pecora et al, 2005; Courtney et al, 2007). Furthermore, the Midwest study (Courtney et al, 2007) found 50% of transition-aged youth with foster care experience at age 21 to be experiencing at least one type of material hardship, such as not having enough money to pay bills or having utilities disconnected. The Midwest

Study also found transition-aged youth to have much higher pregnancy rates (Courtney et al, 2007) and criminal offenses and arrests (Cusick & Courtney, 2007) than comparison samples.

Youth from foster care experience a variety of additional at-risk group memberships that have also been correlated with lower educational attainment. For example, maltreatment is experienced by over 90% of youth who have foster care experience (Pecora et al, 2003), and it has been found to be linked to lower educational attainment (Stone, 2007; Trickett & McBride-Chang, 1995), and more specifically to higher rates of college dropout (Duncan 2000). Furthermore, youth with foster care experience suffer from mental health problems at a much higher rate than the general population (Keller, Salazar, & Courtney, 2010; McCann, James, Wilson, & Dunn, 1996; McMillen et al, 2005; Pecora et al, 2003), which has also been linked to reduced educational attainment (Wolanin, 2005). The combination of frequently-occurring underserved group memberships in addition to the difficult life circumstances related to being placed into and living in foster care presents clear and daunting challenges to successfully completing postsecondary education.

It is well established that the educational attainment for youth who have spent time in foster care is problematic and far behind that of the general population at all levels of education (Pecora et al, 2005; National Working Group on Foster Care and Education, 2007). Youth in care experience higher enrollment in special education, more frequent school moves and grade repetition, lower high school graduation rates, and less postsecondary preparation than the general population (National Working Group on Foster Care and Education, 2007; Pecora et al, 2006). Despite these circumstances, 70-

80% of youth in foster care report wanting to go to college (Courtney, Terao, & Bost, 2004; Martin, 2003; McMillen, Auslander, Elze, White & Thompson, 2003). Studies have found that 7 to 48% of youth who have spent time in care enroll in higher education; however, only one to eight percent of foster care alumni successfully complete a bachelor's degree as compared with 24% of adults in the general population (Casey Family Programs, 2008; Courtney, Terao, & Bost, 2004; Pecora et al, 2006; Reilly, 2003). This rate is substantially lower than that found for minority racial and ethnic groups as well.

College dropout also seems to be particularly problematic for this population, and more frequent than what occurs in the general population (Davis, 2006; Pecora et al, 2006; Wolanin, 2005). A report by the National Association of Student Financial Aid Administrators (Davis, 2006) examined data from the NCES 2001 Beginning Postsecondary Students Longitudinal Survey (National Center for Education Statistics, 2005) and found that despite having similar rates of enrollment, six years after college enrollment only 26% of youth with foster care experience versus 56% of youth without this experience had completed a degree or certificate. Furthermore, while some students were still enrolled in school, 53% of youth with foster care experience had exited school without obtaining a degree compared to 31% of non-foster youth. Again, these rates of early exiting are much higher than those found for other at-risk populations. Retention is clearly an issue of concern for youth with foster care experience, and this issue is the primary social problem to be addressed in the proposed research study.

Federal higher education legislation and programming. The Higher Education Opportunity Act (2008) is an important piece of legislation addressing the importance of

increasing access to college and support of college students, especially those who are members of underserved or vulnerable populations. The Act requires states to maintain higher education funding, increases maximum Pell grant and Perkins loan amounts, provides incentives for schools to limit tuition increases, requires that institutions provide student loan counseling to borrowers, and improves the ease of use of the FAFSA application, among other supports (Pinhel, 2008). In addition, the Act expands funding for and functioning of federal student support (TRIO) programs (Ohio Association of Educational Opportunity Program Personnel, 2008).

There are a variety of federal programs that support at-risk youth in accessing and persisting through higher education. Many of these programs are part of TRIO. TRIO consists of eight federally-funded programs that serve close to one million low-income, first generation students and students with disabilities at over 1,000 colleges and agencies across the country (Council for Opportunity in Education, 2008). TRIO programs offer a variety of services, including tutoring, financial counseling, mentoring, one-on-one support, early intervention to orient youth to the idea of going to college, help with college application and financial aid processes, and a variety of other supports, and serve youth ranging from middle school to college in an effort to support both college readiness and college retention. Ideally students move through the various levels of programming to have ongoing, stage-appropriate support. Evaluations of TRIO program effectiveness have revealed positive results; programs have been found to increase enrollment, retention, grades, and graduation, among other positive outcomes (The Pell Institute, 2009). TRIO programs are a primary source of postsecondary support for at-risk students in the United States.

Attention to bolstering postsecondary supports for underserved populations has also gained recent attention from private organizations. The Bill and Melinda Gates Foundation has made postsecondary educational attainment of low-income students, a population that almost all foster and foster care alumni fall into, one of its top funding priorities. The Foundation has partnered with a handful of states to encourage improved policy and practice related to supporting college graduation in low-income students. Postsecondary education attainment for vulnerable and underserved populations is clearly at the forefront of the educational agenda in the United States today, and youth who have spent time in the foster care system are one of the most vulnerable subsets of this population.

Programs that serve disadvantaged students through their postsecondary endeavors are developed to impact many of the factors that have been found to predict college success. Factors impacting college success have been delineated on a variety of levels, and various studies have found an array of factors that are related to postsecondary success. Which ones are most beneficial to target in interventions is still not completely clear. However, a meta-analysis by Robbins, Lauver, Le, Davis, Langley, and Carlstrom (2004) combined the findings from 109 studies of factors related to college retention based on key educational persistence and motivational theories. College retention was defined as the length of time a student maintains enrollment in college. This study found 11 factors that were moderately ($r \geq .10$) or strongly ($r \geq .30$) related to college retention, including academic-related skills, academic self-efficacy, academic goals, institutional commitment, social support, high school GPA, institutional selectivity, social involvement, institutional financial support, standardized test score, and SES. These

factors reflect likely outcomes of the variety of services that many programs, including TRIO programs, offer, which in turn are predictive of improved college retention.

Higher education for youth with foster care experience as a national priority. The higher education struggles faced specifically by students who have experienced foster care and the importance of better supporting these youth have gained attention from policymakers at the federal level. The most recent version of the Higher Education Opportunity Act (2008) repeatedly lists youth in and aging out of foster care as a key target group for which a variety of postsecondary services and supports are required to be improved and made more accessible. Federal TRIO postsecondary support programs for at-risk youth did not previously mention youth with foster care experience as a target group; however, the revised 2008 Act lists them as a priority at-risk group to be served (Law Center for Foster Care & Education, 2008).

Furthermore, the College Cost Reduction and Access Act (2007) expands the definition of an independent student to include youth who have been wards of the court at anytime 13 years or older—a change that allows many more youth to classify as independent and thus have only their income considered for financial aid (Law Center for Foster Care & Education, 2008). Finally, the 2008 Fostering Connections to Success and Increasing Adoptions Act requires increased k-12 educational stability, encourages states to extend foster care to age 21, and provides more funding, as well as more stringent transition planning requirements, for postsecondary goals (Law Center for Foster Care & Education, 2008). The increased interest and policy support in this area provide a foundation for much-needed research that informs improving services to help youth with foster care experience meet their postsecondary goals.

Targeted programming for youth with foster care experience. There is a variety of postsecondary support programming that specifically targets youth with foster care experience. Many of these programs and interventions have services and supports in common with the TRIO programs discussed above; however, they also go beyond these programs to offer specialized supports that target the unique experiences that these youth face.

There are several federally- and state-funded financial resources for postsecondary education available exclusively to youth with foster care experience. The primary federal resources are the John H. Chafee Foster Care Independence Program (CFCIP) and the Chafee Education Training Vouchers Program (ETV). Services offered through the CFCIP program vary by state, but often include help with housing, education, employment, and emotional support, among others (U.S. Department of Health and Human Services). The ETV program provides vouchers of up to $5,000 per year specifically to help cover postsecondary costs. While supports such as these are quite beneficial to many youth aging out of care, many eligible youth are unaware of and/or not referred to these programs by their caseworkers. Furthermore, the programs have strict requirements and time limits that exclude a variety of foster care alumni from accessing them. For example, foster care alumni are only eligible to receive ETV funds up to age 23, and can only access them up to this point if they initially access them before they turn 21. Another complication arises when students attend college in a different state than the one in which they were in care. Only some states have the ability to verify out-of-state eligibility for ETV funds (Nixon et al, 2005).

Independent living programs are one of the primary modes of support for helping youth with foster care experience to prepare for independent living, including working toward postsecondary goals. Federal support for independent living programs was started in 1985 (United States General Accounting Office, 1999); now, all states provide ILP services to youth preparing to transition out of foster care, most of whom have little chance of returning to biological families or being adopted. Independent living programs offer a variety of services that help prepare for transition, including finding employment, developing and pursuing higher education goals, learning to handle finances, securing stable housing, and an array of other supports that work toward the ultimate goal of self-sufficiency. Related specifically to preparing for higher education, ILP programs often offer help applying for financial aid, developing educational plans, completing assessments, supporting students through the college application process, and taking youth on campus tours (United States General Accounting Office, 1999).

While federal funding is provided to all states for the provision of ILP services, states decide for themselves what services to provide and how to provide them. Research evaluating independent living programs suggests that programs differ greatly across the country in their approaches to service delivery, with little evidence as to which approaches work best to accomplish various goals (Lemon, Hines, & Merdinger, 2005; United States General Accounting Office, 1999). Furthermore, the 1999 U.S. General Accounting Office report (1999) reviewing ILP programs from all 50 states and Washington D.C. found that only 28 states offered vocational program preparation services and only 33 states offered services to help prepare for postsecondary education. The GAO was unable to evaluate the effectiveness of these programs because of the lack

of data available to evaluate; it was not until 2010 that the federal government began requiring ILP programs to collect client outcome data, which is primarily why the effectiveness of these programs unknown (United States General Accounting Office, 1999). A few studies comparing youth enrolled and not enrolled in ILP programs have found higher college enrollment and completion rates for ILP youth (Georgiades, 2005; Lindsey & Ahmed, 1999); however, it is unclear whether this is due to the success of ILP programs or the characteristics of youth that tend to enter ILP programs. Courtney et al (2005) found that, in a large sample of transition-aged youth from foster care, less than one-fourth had received most types of independent living services, including independent living subsidies through Chafee funding. A study by Lemon, Hines, and Merdinger (2005) found several differences between youth in foster care who participated in ILP programs and those who did not, including racial differences (more African American and Latino youth in ILP than not) and placement history differences (ILP youth were more likely to experience more placements and non-relative foster care and group home placements while non-ILP youth were more likely to experience kinship placements). Furthermore, Geenen, Powers, Horgansen, & Pittman (2007) explained that youth with disabilities often do not get referred to ILPs because they have no advocates who believe that they are able to build the skills necessary for independence.

Another problem related to ILPs preparing youth for higher education involves the breadth of their responsibility. Because independent living programs are responsible for providing a variety of services, the focus on and quality of services related to higher education vary from program to program. The quality of the services available could have an impact on the ultimate college success of youth who enroll in these programs.

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Independent living programs are utilized not only for college preparation but can also continue to be accessed while youth attend college. However, most ILP postsecondary supports seem to be geared more toward successfully enrolling in college rather than maintaining a stable enrollment. Furthermore, youth are typically only eligible for participation in independent living programs up to age 21, which does not cover the typical time period needed for completing many college degrees, especially considering that youth with foster care experience often take longer to graduate from college (National Center for Education Statistics, 2005). Youth may only be one or two years into their college program when they lose their eligibility for ILP supports.

Some colleges have developed college support programs specifically designed to support youth with foster care experience. One popular model adopted by a variety of schools, including many California state colleges, is the Guardian Scholars program (Orangewood Children's Foundation, Honoring Emancipated Youth). While elements implemented from this model vary by location, components often include help with financial aid, housing, and mentoring, among others (Orangewood Children's Foundation). The San Francisco-based Honoring Emancipated Youth program outlined key elements of Guardian Scholars programs and identified two key classes of program elements: those which support students directly and those which support the programs themselves. Eight elements of student support are listed, including components such as identifying a single go-to person for students to contact about resources, supporting accessibility to year-round housing, providing comprehensive financial aid packages with minimal loan components, and providing access to multiple types of counseling. Six elements of program support are identified, including identifying program champions,

collecting data for the evaluation of program success, maintaining connections with social services and independent living programs, and developing program sustainability plans, among others. These program elements serve as the basis not only for Guardian Scholar programs but are also promoted by Casey Family Program in their publication, *Supporting Success* (2008), a guide to supporting the postsecondary goals of youth with foster care experience.

While these approaches offer a wide variety of services that can be beneficial to youth aging out of care, research examining the effectiveness of these programs is quite limited. A recent review of college support programs by Dworsky and Perez (2009) reported the severe lack of outcome data in evaluating the effectiveness of these programs and stated that most evidence comes from interviews with program staff, participants, and stakeholders regarding their perceptions of the effectiveness of the programs and services rather than statistical comparisons of outcomes in experimental or quasi-experimental conditions, which is also how the programs were developed. Furthermore, not all programs are able to offer comprehensive supports, so their ability to support youth varies by location. Finally, these types of programs are only available at a handful of schools around the country.

Factors that may impact the college success of youth with foster care experience. Currently it is unclear whether the factors associated with college retention for the general population translate to success for those with foster care experience, or if factors more unique or specific to the foster care experience offer better explanations regarding college outcomes. A report by Dworsky and Perez (2009) exploring how to support youth from foster care in graduating from college listed a variety of factors that

may interfere with attaining higher education. These included a lack of academic preparation for college, no family to depend on to help pay for college and a lack of awareness of financial aid for which they are eligible, emotional or behavioral problems, and a lack of appropriate supports offered by colleges. A study of foster care alumni aged 19 to 25 asked youth who had started a bachelor's degree program and had not yet completed it why they had not been able to yet complete their degree (White, Holmes, O'Brien, & Pecora, 2005). Some response themes included having an emotional, behavioral, or family problem; getting pregnant; needing to work; losing interest in school; and getting kicked out. Finally, an exploration of the effects of mentoring for youth in foster care by Ahrens, DuBois, Richardson, Fan, and Lozano (2008) found mentoring to have a trend-level effect on participation (though not necessarily retention) in higher education. While some of these factors overlap with those found by Robbins et al (2004) to be significant predictors of college retention in the general population, including institutional financial support academic-related skills, and social support, several seem like they may be more unique to this population, such as a lack of appropriate supports (possibly tangible supports or guidance in accessing foster youth-specific postsecondary funding) or an emotional or behavioral problem. Other factors that, based on the literature, could interfere with this population's college completion include factors such as maltreatment/trauma histories or subsequent posttraumatic symptomatology, independent living stability, or navigating stigma related to being in foster care. A brief review of these unique factors follows.

   Mental health problems. Mental health is a factor related to youths' changing biology and experience that could have an impact on college success. A variety of studies

have explored mental health diagnosis rates around the time of transition for youth in care and have found rates much higher than those experienced in the general population. A study with a large sample of (on average) 17-year old youth in foster care in Missouri found that 37% had symptoms and corresponding difficulties that met the criteria for a psychiatric diagnosis within the past year (McMillen et al, 2005). Females (40%) were more likely than males (33%) to indicate diagnosable conditions. Another study with a large sample 19-year olds from three state child welfare systems found that a quarter of youth had experienced a recent diagnosis (Courtney et al, 2005). A study of this same sample two years later, at age 21, found that about 14% of females and 5% of males met criteria for a diagnosis in the past year (Courtney et al, 2007). Finally, a study of youth with foster care experience aged 19-25 found that 21.4% of the youth were likely to meet criteria for a mental health condition (Havalchak et al, 2008).

As was previously discussed, a survey of young adult foster care alumni asked those who exited early from college why they did so (White, Holmes, O'Brien, & Pecora, 2005). One of the most common responses was emotional, behavioral, or family problems. Youth who have spent time in foster care experience a variety of mental health diagnoses, including depression, PTSD, alcohol and substance use disorders, at higher rates than the general population (Keller, Salazar, & Courtney, 2010; McCann, James, Wilson, & Dunn, 1996; McMillen et al, 2005; Pecora et al, 2003). A qualitative study exploring common themes among high-achieving foster care alumni who graduated from four-year universities found that mental health counseling was an essential element that was either available or seriously needed during students' time in college (Lovitt & Emerson, 2008).

Maltreatment, trauma, and posttraumatic symptomatology. One specific way that mental health may impact educational attainment for many youth with foster care experience is through the experience of posttraumatic symptomatology. Posttraumatic stress disorder, or PTSD, is one of the most common mental health diagnoses found in youth transitioning out of foster care. Studies have found that around 15% of youth with foster care experience aged 17-25 had experienced PTSD at sometime in their lives and that 6-8% were still struggling with PTSD as they approached or went through their transition to independence (Courtney et al, 2004; Courtney et al, 2005; Havalchak et al, 2008; McMillen et al, 2005). One likely cause of posttraumatic symptomatology in youth with foster care experience is complex and extensive maltreatment. According to the Casey National Alumni Study, over 90% of adults formerly in foster care reported experiencing at least one form of maltreatment (Pecora et al, 2003). Furthermore, 21% of alumni reported experiencing maltreatment within their foster family.

Youth in care also report high levels of trauma exposure on trauma categories outlined by the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders,* fourth edition text revision (American Psychiatric Association, 2000). A large study of youth approaching transition out of foster care (Keller, Salazar, Gowen & Courtney, in preparation) found that 80.3% of youth reported experiencing at least one trauma considered valid according to DSM diagnostic criteria in their lifetime. Of these, the most frequently reported categories of the most severe types of trauma experienced included, for females, being molested or witnessing someone being injured or killed, and for males, witnessing someone being injured or killed, being physically assaulted, or

threatened with violence. Of those experiencing a DSM-valid trauma, 18.8% met lifetime diagnostic criteria of posttraumatic stress disorder.

Both maltreatment and trauma have been found to be linked to problematic educational experiences, including more negative college adjustment (Banyard & Cantor, 2004) and lower educational attainment in both foster care and non-foster care populations (Duncan, 2000; Stone, 2007). If youth are experiencing posttraumatic symptomatology while trying to be successful in college, this could clearly impact their capacity for success.

Stigma. Several studies have confirmed that youth who have spent time in foster care often feel stereotyped, stigmatized and devalued as a result of their identity of being in care (Kools, 1997; Martin & Jackson, 2002). Focus groups conducted by The Pew Commission on Children in Foster Care (Hochman, Hochman, & Miller, 2004) found that youth with foster care experience often held back sharing this identity for fear that it would impact the way that people treated them. Experiences of stigma were found by Martin and Jackson (2002) to translate to a sense of academic inferiority for many of these youth.

Tangible social support. The literature cited on social support experienced by youth with foster care experience suggests that social support may impact outcomes such as education. Social support was found to be a significant predictor of college retention by Robbins et al (2004). Although social support is a factor found to impact retention in the general population, it may have special significance for foster care alumni. For example, youth with foster care experience are likely to have lower levels of social support and a fractured social network due to initial placement and subsequent

disruptions (Perry, 2006). One element of social support that may be especially challenging for foster care alumni to access is tangible social support. Therefore, the study will test whether the specific subtype of tangible support is a stronger predictor than overall social support due to its unique importance to foster care alumni. Youth in care often develop and experience social support differently than those in the general population due to a wide variety of harsh circumstances related specifically to being in foster care. These include circumstances such as being removed from one's biological family (and thus not having stable family support), moving from placement to placement, being placed in non-family settings such as residential treatment facilities, changing schools frequently, and missing and being held back in school, all of which often result in tenuous, short-term, unreliable, non-existent, and most notably atypical, sources of social support (Courtney, Piliavin, Grogan-Kaylor, & Nesmith, 2001; James, Landsverk, & Slymen, 2004; Northwest Working Group on Foster Care and Education, 2007; Perry, 2006; Rosenfeld et al, 1997; Unrau, Seita, & Putney, 2008).

A study of transition-aged youth with foster care experience by Salazar, Keller, and Courtney (2011) found that, out of four types of social support (people to count on when feeling low, when needing small favors, when needing money, and to encourage the participant), over 80% reported having sufficient support of at least one of these types, but only 40% reported having sufficient levels of all four types. The least frequent type of social support available to these youth was having someone to lend them money during an emergency. An additional measure of types of perceived support found that youth most frequently had access to affectionate support and least frequently had access to emotional/information support and tangible support. Furthermore, out of

emotional/informational support, affectionate support, tangible support, and positive social interactions, tangible support was the only support type to be significantly correlated to later depressive symptomatology. Given the difficulty of replacing more resource- or time-intensive supports that these youth seem to experience, this type of social support may more uniquely affect college outcomes than other modes of social support. In seeming support of this line of thought, a study by Merdinger, Hines, Osterling and Wyatt (2005) found that in their sample of youth with foster care experience who had successfully enrolled in college, the majority of whom had made it to or beyond their junior year, over three-fourths (75.7%) reported having someone to borrow $200 from. This suggests that those who had this type of support may have been able to make it farther than the typical foster care alumni.

Independent living stability. The difficulty of the transition from foster care to adulthood is a challenge that is readily acknowledged by the child welfare field. The immensity of these challenges inspired the development of the federal ILP program. Whether youth participate in independent living programs or not, the skills that they target, such as housing, transportation, health, legal matters, money management, and employment, are skills that virtually all youth need in order to have stable, happy and productive lives but that youth who have spent considerable time in foster care often struggle to master. In a study of foster care alumni in college by Merdinger, Hines, Osterling and Wyatt (2005), they found that almost half (45.5%) of participants did not have health insurance, and that 58.2% had been able to obtain needed medical care. Lack of and worry about obtaining healthcare during college was also a common experience expressed in another study of high-achieving foster care alumni who had graduated from

four-year universities (Lovitt & Emerson, 2008). Furthermore, over 80% of participants defined their financial situation as fair or poor. Securing stable, year-round housing is a common problem for youth with foster care experience who do not always have someone to live with during college breaks, holidays, and summer vacations (Wolanin, 2005). Merdinger et al (2005) found that respondents reported experiencing a mean of 75 days per year (median=30) without a place to sleep.

Participation in foster youth-specific programming. As was previously discussed, there is a variety of programming designed specifically for youth with foster care experience that supports postsecondary goals, such as ILPs and college-based support programs. However, only some transition-aged youth participate in ILPs, and very few colleges have programming focused on the specific needs of youth with foster care experience. The study by Merdinger, Hines, Osterling and Wyatt (2005) found that 32% of foster care alumni participants in college did not know how to obtain needed services and 31% did not know where to obtain services. A study of high-achieving youth with foster care experience attending four-year universities (Lovitt & Emerson, 2008) also found a common theme of students wishing that there had been more services, especially those geared toward the unique needs of youth from care, available while they were in college. Whether youth participate in a program specifically designed to support the needs of foster care alumni may affect their success in accessing needed services, and thus their ultimate college outcomes.

Connectedness to loved ones. While connectedness to one's college is included in the general population Social Involvement factor, a more general connectedness to loved ones may play a role in postsecondary success for youth with foster care experience. A

sense of connectedness can be a unique and challenging issue to youth with foster care experience given their non-traditional relationship experiences with their family of origin (Frey, Cushing, Freundlich, & Brenner, 2008; Perry, 2006). Schofield (2002) explored the concept of belongingness and membership with 40 foster care alumni in the UK and found a variety of elements indicative of belongingness for youth in foster care, including family solidarity, family ritual, family relationships, family identify, and shared family culture. A study by Cashmore and Paxman (2006) of youth exiting care in New South Wales found that an increased sense of belongingness and security while in care was associated with improved outcomes after leaving care. Experiencing a sense of belongingness in this regard could thus affect connection to and success in postsecondary settings.

Goals of part one of current study. The study will provide valuable information to inform the development of effective college support programs for youth who have spent time in the foster care system. While there are already several college-based programs across the country designed to support foster care alumni, most have been designed without a strong base of evidence. Solid evidence could be a powerful tool for encouraging more colleges, high schools, and ILPs to create targeted interventions to support this population. Furthermore, the services offered by programs vary significantly by program, so knowing the most powerful elements of intervention based on college outcomes, whether they be those found to predict outcomes of the general population or if they are more unique to those spending time in foster care, would be valuable in informing development of the most effective model. For ILP providers or colleges hoping to create supports for their clients with very limited or no funding, this information could

inform decisions involving which key program elements to include if only a very few can be supported.

This study could also play an important role in increasing the credibility of already-existing college support programs if they are already targeting the key predictors that most often distinguish between graduation and success. If they are not, the results of this study could be used for program development and change. Finally, it is hoped that this study will help make the case for and encourage state governments to fund programs that target key predictors of college success as part of their ILP services they are required to provide.

Part Two: Benefits of Higher Education for Foster Care Alumni Versus General Population

The benefits of higher education in the general population. An article by Kates (1996) states that, "Higher education is not a panacea for all families in poverty, but for many it can provide important ways out of poverty" (p. 555). Higher education has been found to be beneficial in relation to a variety of individual adult circumstances, both economic and non-economic. In terms of economic benefits, higher education is found to be related not only to higher income overall, but for each racial/ethnic group and each gender as well (Baum & Ma, 2007). Furthermore, as education level increases, unemployment rates drop for all racial groups, and most dramatically for African Americans (Baum & Ma, 2007). Individuals with bachelors degree earn, on average, 73% more over a lifetime than individuals with only a high school diploma (Baum & Ma, 2007). Even having only some college without earning a degree leads to a 17% increase in lifetime earnings (Baum & Ma, 2007). Higher education has also been found to be

linked to increased saving (Institute for Higher Education Policy, 1998), increased job

security (Porter, 2002), and much lower rates of reliance on public welfare programs

(Baum & Ma, 2007; Perna, 2005). Studies have also found that the cost of going to

college, including tuition and years of not earning full wages, are outweighed by higher

earning power in only 15 years for the average person (Baum & Ma, 2007).

Non-economic benefits that have found to be related to higher education include

increased professional mobility, improved quality of life (Institute for Higher Education

Policy, 1998), lower smoking and incarceration rates, higher self-reports of health

quality, increased volunteerism and voting (Baum & Ma, 2007), and increased

participation in leisure activities (Perna, 2005). Furthermore, children of college

graduates were found to have increased school readiness as compared to the children of

non-graduates (Baum & Ma, 2007).

Not only is higher education an admirable commodity associated with a variety of

benefits, it is increasingly necessary to have higher education in order to secure a

satisfactory level of stability, which includes well-paying jobs with adequate benefits and

an appreciable level of job security (Baum & Ma, 2007).

Adult living circumstances of adult foster care alumni overall. A variety of

studies have looked at the adult functioning of foster care alumni overall, although not

breaking down findings by attained education level. The Casey National Alumni Study

(Pecora et al, 2003) found substantial differences between foster care alumni and the

general population on a variety of adult life factors. Individual and household incomes

reported by alumni were substantially lower than those found in the general population:

the median individual income for those aged 25-34 was $17,500, compared with the

general population's median of $25,558. Employment rates were slightly lower (88% versus 96% in general population). Over 12% of the foster alumni reported receiving public assistance, compared with only 3.4% of the general population. Only 27% of foster care alumni owned a home, compared with 67% of the general population. Because no comparison was made by education level, it is still unclear whether those who were able to obtain higher education were doing considerably better than the other alumni and to what degree they resembled general population college graduates.

Goal of part two of current study. The value of a higher education for those in the general population is clearly supported by the literature. However, it is unclear whether these same benefits are being experienced by foster care alumni who graduate from college. The current study aims to clarify the adult life circumstances of former foster youth college graduate in comparison to general population graduates and non-graduates in order to gauge the benefits associated with higher education specifically for this unique population.

Theoretical Foundations

The study is grounded within the framework of ecological systems theory (Bronfenbrenner, 1992), and includes additional theories within this framework to explain why certain factors are hypothesized to impact the successful attainment of higher education, as well as why foster care experience may continue to impact post-college outcomes.

Bronfenbrenner's Ecological Systems Theory. Bronfenbrenner's Ecological Systems Theory describes youth outcomes as being a product of interplay among a

youth's biology and the various levels of her or his environment. Bronfenbrenner's (1992) theory states that,

> The ecology of human development is the scientific study of the progressive, mutual accommodation, throughout the life course, between an active, growing human being, and the changing properties of the immediate settings in which the developing person lives, as this process is affected by the relations between these settings, and by the larger contexts in which the settings are embedded (p. 188).

The interaction of risk and protective factors at various levels has significant developmental consequences. Bronfenbrenner (1992) outlined a hierarchy of five levels, or systems, that impact a child's development: the microsystem, mesosystem, exosystem, macrosystem, and chronosystem. The microsystem is the "pattern of activities, roles, and interpersonal relations experienced by developing person in a given face-to-face setting with particular physical and material features, and containing other persons with distinctive characteristics of temperament, personality, and systems of belief" (p. 227). In other words, the microsystem represents the circumstances in which the developing child directly operates. The most prominent microsystem is the family; another is the school setting. The processes and relationships among microsystems create mesosystems. Exosystems include linkages to settings that children do not directly experience but which have a significant influence on their experience (such as parents' workplaces or social circles). The macrosystem consists of cultural/subcultural characteristics and patterns overarching the lower systems, "with particular reference to the developmentally-instigative belief systems, resources, hazards, life styles, opportunity

structures, life course options, and patterns of social interchange that are embedded in each of these systems" (1992). Finally, the chronosystem captures development over time, through life transitions, the effect of historical events, and the lifespan in general.

Bronfenbrenner states that microsystems have the strongest influence on the developing child due to their proximity with daily experience. So, if the closest systems (i.e., family/school) are abusive or break down, the impact on youth outcomes can often be severe. However, these experiences continuously interact with the higher-level systems to affect how one ultimately develops. If the remaining systems and linkages among these systems are equally unsupportive or do not offer sufficient opportunity, the developmental trajectories for these youth are not likely to improve. Certain factors, however, may be able to counteract these harmful experiences. For example, if a child is born in to an abusive home and has a history of severe maltreatment, the outcome of this abuse may be moderated by the child's mesosystem if the school the child attends is responsive to the abuse in a supportive way. Alternately, one's macrosystem social class norms could determine the opportunities and resources available to that child and her/his family that could determine how the abuse is dealt with, if it is at all.

Additional Part One theories for general population factors. There are a variety of factors that constitute many of the micro-, meso-, and exosystems that youth experience and that impact whether they successfully graduate from college given their experiences in the macrosystem of the foster care system. Three theories used in combination by Robbins, Lauver, Le, Davis, Langley and Carlstrom (2004) are utilized similarly in the current study to explain why a variety of factors affect college retention in the general population, and which may or may not explain graduation in the foster care

alumni population. Two of the theories are based in the educational literature, while one is focused on motivational factors based in the psychological literature.

Educational retention theory #1 – Tinto's Student Integration Theory. Tinto's theory of student integration (1975, 1993) draws from Van Gennep's work involving rites of passage and Durkheim's theory of suicide. This theory of integration claims that an individual's background, personal attributes, skills, resources, and previous educational experiences, among other characteristics, affect his or her intentions and commitments related to college. These intentions and commitments, along with external commitments and events (especially for minority students; Rendon, Jalomo, & Nora, 2000), impact interactions between the individual and the social and academic elements of the college environment which foster integration. The level of integration in turn impacts intentions and commitment, which in turn affect one's likelihood of departure from college.

Key to Tinto's theory is the extent of successful academic and social integration into college life, which is impacted by a combination of preceding factors. Full integration into both systems is not necessary; however, partial integration into both is (Tinto, 1993). Factors can have varying effects on student departure; for example, while external commitments can often pull students away from full participation in school, they can also be an encouraging force to help students stay in school. Thus the factors identified are important in understanding student departure, but do not behave in one single, uniform manner for all students.

Educational retention theory #2: Bean's Model of Student Attrition. Bean's model of student attrition, or dropout syndrome (1980, 1985) incorporates concepts of organizational turnover to explain college departure. Generally speaking, Bean asserts

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that organizational, personal, and environmental variables shape attitudes, which in turn affect behavioral intents that may lead to dropout. Bean (1980) found that, after controlling for intent to leave school, other factors do not powerfully contribute to the understanding of dropout. Thus, the model of dropout syndrome predicts one's intention to leave in addition to actually leaving school (Bean, 1985). Bean's dropout syndrome model suggests that academic, social-psychological, and environmental factors affect institutional selection and socialization variables including college performance, fit, and loyalty, which in turn impact intentions and actions related to dropping out. The importance of some of these factors varies over time; for example, if students are not either "selected or socialized to the values of the institution early they are likely to drop out" (Bean, 1985, p. 53). In addition, the impact that college grades have on dropout is strongest the first two years of college but then drops sharply in importance (Bean, 1985). Finally, Bean found the impact of students' social lives as powerful predictors of institutional fit, far beyond the effects of relationships with faculty.

Bean's model of student attrition has many similarities to Tinto's theory of student integration, thus they combine well to offer a more comprehensive model of student retention. Cabrera, Castaneda, Nora, and Hengstler (1992) found the models to be relatively convergent and complementary, with more of Tinto's hypotheses supported overall but with more variance accounted for in Bean's model in addition to important contributions related to its explicit acknowledgement of external factors. Both models also highlight the importance of interactions among various levels of factors over time, which fits nicely with Bronfenbrenner's framework of multi-system interaction.

The combination of these theories by Robbins et al (2004) resulted in four broad categories of factors that are theorized to impact college retention. These four factors are institutional contextual factors, social influence/support, social engagement, and academic engagement, which were defined in the following way:

(a) contextual influences, which are factors pertaining to an institution that are likely to affect college outcomes, including institutional size, institutional selectivity, and financial support; (b) social influence, represented by perceived social support; (c) social engagement, typified by social involvement, which includes social integration and belonging; and (d) academic engagement, including commitment to degree and commitment to institution (p. 263).

These factors were found to further overlap with factors from motivational theories presented next.

Motivational factors related to educational attainment. Robbins, Lauver, Le, Davis, Langley, and Carlstrom (2004) take this convergence of theories one step further to combine the models of Tinto and Bean with key factors emerging from the motivational psychology literature. In a review of the literature on how motivation impacts educational achievement, Covington (2000) found that:

it is the interaction between (*a*) the kinds of social and academic goals that students bring to the classroom, (*b*) the motivating properties of these goals, and (*c*) the prevailing classroom reward structures that jointly influence the amount and quality of student learning, as well as the will to continue learning (p. 172).

Robbins et al (2004) built off of this and similar studies of motivation to point out the importance of and evidence for considering key motivational factors such as drives, goals, expectancies and self-worth in addition to the contextual influences, social support and engagement, and academic engagement suggested by the two theories from educational literature to create a more complete understanding of psychosocial constructs that predict college persistence. For example, the degree to which a student is driven, or compelled toward action, to achieve educational goals will clearly have an impact on whether they succeed. Furthermore, one's academic goals determine how one approaches and participates in school, which in turn will affect one's ultimate educational outcome. Expectancies of what academic outcomes may look like can clearly affect students' commitment and ultimate success, as well as the degree of self-worth that students gain from their performance in their academic program.

Theoretical combination for current study. Part One of the current study is partially modeled after the meta-analysis of 109 studies exploring factors related to college retention by Robbins, Lauver, Le, Davis, Langley, and Carlstrom (2004). This study was based in a theoretical blend of Tinto's theory, Bean's theory, and motivational theory, and found 11 factors that were moderately (over .10) or strongly (over .30) related to college retention. These factors are listed in Table 1.

Table 1

Factors found by Robbins et al (2004) to be strongly related to college retention

Factor	Population Estimates of Correlation	Included in current study?

Academic-related skills	.366	Yes
Academic self-efficacy	.359	No
Academic goals	.340	Yes
Institutional commitment	.262	Yes
Social support	.257	Yes
High school GPA	.246	Yes
Institutional selectivity	.238	Yes
SES	.228	Yes
Social involvement	.216	Yes
Institutional financial support	.188	Yes
Standardized test score	.124	No

The current study will test whether factors found to be moderate to strong predictors of college retention for the general population also accurately represent the experiences of foster care alumni, or if their retention is better predicted by variables more uniquely experienced by foster care alumni. The final list of factors to be tested is in Table 3. The only two factors found by Robbins et al (2004) to predict college retention that will not be included in the current study are academic self-efficacy and standardized test scores. Academic self efficacy was not included because it was unclear how accurate this measurement would be retroactively, especially after students experienced academic success or dropout. While other factors, such as academic goals and institutional commitment, also present challenges regarding retroactive measurement, the use of

behavioral and indirect indicators of most lends more confidence in their retroactive measurement. For example, assessing the number of times a student transferred voluntarily as an indicator of institutional commitment removes a retroactive judgment of this commitment and instead bases it on behavioral criteria. The current study also leaves out standardized test college scores because, although they were collected, there appeared to be a high degree of inaccuracy in these self-reports, as evidenced by many reported scores not falling within the possible score range of a given test.

Additional Part One theories for foster care-specific factors. The following theories offer explanation for why some factors that more uniquely represent the experiences of foster care alumni may be stronger predictors of college retention. These factors include trauma/maltreatment/posttraumatic symptomatology, other mental health problems, stigma, independent living stability, participation in foster youth-specific programming, and tangible support.

Trauma Theory. As Bronfenbrenner suggested, individual biological factors (here, posttraumatic symptomatology) can affect developmental outcomes such as postsecondary success by interacting with other systems. Trauma theory offers a variety of more detailed explanations for how this may occur.

Youth who have spent time in foster care have often experienced trauma in a variety of ways. One primary mode is in the form of maltreatment. Youth with foster care experience have maltreatment histories at a much higher rate than the general population; in fact, maltreatment is the most frequent reason for being placed into foster care (Pecora et al, 2005). Youth with foster care experience have often experienced a high occurrence of other traumatic events as well, including being removed from the home and witnessing

domestic violence. Due to increased experiences of trauma, youth who have spent time in foster care experience posttraumatic stress disorder at a considerably higher rate than the general population (Keller et al, 2010; Pecora et al, 2005).

Trauma Theory focuses on the psychological process of the individual during and after experiencing a traumatic event. Trauma Theory is based on the assumption that "it is not the trauma itself that does the damage. It is how the individual's mind and body reacts in its own unique way to the traumatic experience in combination with the unique response of the individual's social group" (Bloom, 1999, p. 2). The DSM-IV-tr (American Psychiatric Association, 2000) defines a traumatic experience as one in which the person experienced

> an event that involves actual or threatened death or serious injury, or other
>
> threat to one's physical integrity; or witnessing an event that involves
>
> death, injury, or threat to the physical integrity of another person; or
>
> learning about unexpected or violent death, serious harm, or threat of
>
> death or injury experienced by a family member or other close associate
>
> (p. 463).

Furthermore, the experience had to involve "intense fear, helplessness, or horror" (p. 463).

Trauma theory posits that when humans feel that they are in danger, their fight-or-flight response takes over and changes basic bodily functioning to prepare them for either combat or escape. According to Trauma Theory, when someone is traumatized, their experience is so horrific that their mechanisms for responding to danger are overwhelmed and the victim is rendered helpless during the experience (Herman, 1997, p. 33). This

overwhelming of the system can cause the body's future responses to stress or danger to no longer react in an appropriate way. A key change that takes place is that the individual is no longer able to modulate his or her response to a given stressor depending on its level of danger; the stress reaction becomes an all-or-nothing reaction, where the individual will respond with the full-blown stress response no matter how slight the stressor is (Bloom, 1999). Furthermore, psychophysiological hyperarousal causes the person to be on constant alert for potential threats, causing the overreactive stress response to be frequently utilized. These oversensitive responses to stress can be especially harmful to children because they can interfere with children's normal development (Bloom & Reichert, 1998).

One reason individuals often continue experiencing these symptoms long after the trauma has passed is because they are not able to successfully process the traumatic event that they experienced. Humans are believed to create two types of memory: verbal and nonverbal (Van der Kolk, 1996). Non-verbal memory can be useful in mobilizing the individual during a stressful or traumatic situation, but the fact that traumatic experiences are often stored as non-verbal memories is highly problematic because they are not put into words, and thus extremely challenging to process (Bloom & Reichert, 1998). Furthermore, if a traumatic event reaches a point where it is entirely overwhelming, dissociation can take place (Bloom, 1999). A common form of dissociation during trauma is emotional numbing, where the person simply turns off their emotional response because it is too devastating to handle. Dissociation further complicates one's ability to process a traumatic experience. In the aftermath of the trauma, the body's "contradictory responses of intrusion and constriction" (Herman, 1992, p. 47), or re-experiencing and

avoidance, reflect its failed attempts to process and ignore the experience. Re-experiencing occurs rather than simply remembering, and this experience of reliving horror explains why one tries to avoid circumstances that may trigger memories of the event (Bloom, 1999).

Another possible consequence of trauma is learned helplessness (Bloom, 1999). When someone has been traumatized and is unable to escape or exert some level of force or power over the outcome, the utter helplessness experienced has powerful effects that translate to helplessness in one's life in general. Furthermore, individuals often lose their sense of purpose in life, their appreciation of the meaning of life, and their sense of self-worth after being traumatized. They often feel cutoff from the world around them (Bloom, 1999). In trying to deal with the experience and aftermath of trauma, individuals often take part in risky behaviors such as abusing alcohol or drugs. Children often reflect their struggle to cope by exhibiting problematic behaviors.

Trauma Theory offers several pathways from the experience of trauma to a resulting reduction in educational attainment. One possible explanation involves the stress reaction becoming highly sensitized to any type of stress. If participation in higher education is particularly stressful, traumatic symptoms such as flashbacks could be triggered which could lead the individual to avoid pursuing this goal. Another possibility is that reduced educational attainment becomes a function of learned helplessness. It also could be a result of self-destructive behavior that often takes place when individuals feel worthless or cut-off from the world around them, which may be amplified when students move into an unfamiliar college environment. Alternatively, following through with

higher education could simply seem pointless when an individual has lost her ability to give life meaning or feel a sense of purpose.

Reduced educational attainment as a result of trauma is clearly plausible for this population, and if factors such as maltreatment histories, posttraumatic symptomatology and PTSD diagnoses are found to be key in predicting postsecondary outcomes, it would lend evidence to this theoretical approach.

Other mental health problems. Similar to posttraumatic symptomatology, other mental health problems experienced by this population are additional individual biological factors that could impact educational outcomes by interacting with other system levels (Bronfenbrenner, 1992).

Tangible social support availability. A second theoretical approach to explaining differences in the college outcomes of foster care alumni is that of tangible social support. Social support has been found to have both direct and moderating effects on psychosocial outcomes. Social support has been found to be a moderator of the association between maltreatment and PTSD (Babcock, Roseman, Green & Ross, 2008; Schumm, Briggs-Phillips, & Hobfoll, 2006), child sexual abuse and dimensions related to loss (Murthi & Espelage, 2005), and dating victimization and psychological well-being (Holt & Espelage, 2005). Furthermore, the literature cited on social support experienced by youth with foster care experience suggests that social support may impact outcomes such as education both directly as well as through buffering against mental health problems.

Social support is frequently conceptualized as a moderator of the relationship between stressful or negative life events and psychosocial outcomes. Most frequently

social support is referred to as a buffer between the two. Cohen and Wills' buffering

hypothesis (1985) proposed that social support could act as a buffering agent 1) by

intervening between a stressful event and one's reaction to it, which prevents the event as

being perceived as stressful, and 2) by intervening between the experience of stress

following the event and subsequent mental health problems with supportive resources to

deal with the experience. Youth with maltreatment and foster care experience are not

likely shielded from the harmful perceptions of maltreatment experiences, so the second

mechanism seems more likely for this situation. The buffering hypothesis suggests that

there is little difference between mental health symptomatology for those with low versus

high social support when stress is low, but as one's stress level increases, higher social

support becomes a stronger buffer against the development of mental health

symptomatology.

Stigma. The stigma that youth who have spent time in foster care sometimes

experience may have an impact on postsecondary outcomes. An explanation for this can

be developed through the concept of stereotype threat (Steele, 1997). Stereotype threat is

the situational threat of being stereotyped in a stereotype-dominant domain. Those who

identify strongly with a given domain are most vulnerable to this threat, because their

identification with the domain is more central to their self-definition. One does not have

to believe the stereotype about oneself in order to be affected by it. Priming participants

to experience stereotype threat has been found to be effective in reducing performance

levels in stereotype-relevant domains. Researchers have found stereotype threat to exist

in postsecondary academic domains for females and African Americans, two groups who

often fall victim to academic stereotypes (Steele, 1997). Due to the lower educational

expectations that youth with foster care experience often feel society has for them (Martin & Jackson, 2002), it seems reasonable to expect that they may be vulnerable to this threat as well.

Independent living stability. One's independent living stability is conceptualized here to result from the interaction of one's various system levels, as described by Bronfenbrenner (1992). For example, whether one is able to secure stable, year-round housing could depend on 1) the individual's desirability as a tenant and the availability of 2) personal and 3) government funding for rent. Alternately, housing stability could depend on 1) whether the institution provides housing during school breaks, and 2) whether the student is willing to live in campus housing. Similar interactions could take place for stability of one's transportation situation, health care accessibility, legal matters, money management, involvement in extracurricular activities, and employment (State of Oregon DHS Independent Living Program, 2008).

Many students coming from foster care work many hours per week while in college and express an unwillingness to take out student loans for fear that they may get into financial difficulty. While this is a valid and respectable concern, one must also consider the negative consequences that having a heavy work schedule during college may hold, especially if these consequences may involve not completing one's postsecondary program. One possible phenomenon that may be taking place here is the experience of survivalist self-reliance. Survivalist self-reliance has been explained by Samuels and Pryce (2008) to occur when young adults with foster care experience adopt an identity of rugged independence and survivalist pride following being forced to take on adult roles at an early age combined with relative powerlessness over their lives while

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being involved with the child welfare system. Samuels and Pryce (2008) offer evidence

for the view that survivalist self-reliance can be an identity that is "both a healthy and

resilient asset as well as a potential challenge for youth in building informal connections

and mutually supportive relationships into adulthood" (p. 1198). This could drive youth

to work more than they can reasonably handle while they are in college. This may also

prevent them from becoming more involved in their school communities, whether due to

the exorbitant time commitment made to employment or to the perception that this type

of connection is simply not needed.

Foster youth-focused programming. As will be explained in the following

section, the foster care system can be conceptualized as a macrosystem with its own set

of subcultural practices and experiences. Foster youth-focused programming is

conceptualized as a microsystem factor that could provide a means of influencing one's

biological and mesosystem experiences by providing support where they are needed as a

result of participation in the foster care macrosystem.

Connectedness to loved ones. Adolescent connectedness theory (Karcher, 2006)

explains one's connectedness (through action and caring) to conventional (family, school,

and religion) and unconventional (peers, neighborhood, self) ecological worlds, which is

shaped over time. This theory is based in abstract self psychology, dynamic psychology,

and developmental psychology, and it evaluates connectedness as an adolescent's "ability

to satisfy their need to belong through their multiple opportunities for connectedness with

people and places" (p. 5). While college connectedness through social involvement has

been found to relate to retention in the body of general population factors, connectedness

to loved ones may also help explain college retention if this need to belong is unmet and causes interference with other ecological worlds.

      Part Two theoretical base: The foster care system as a macrosystem. Part two of the current study will conceptualize involvement in the foster care system as a macrosystem (Bronfenbrenner, 1992), and will test whether involvement in this system moderates adult living outcomes compared to those of the general population. Youth who spend time in foster care experience and are impacted by a unique system or subculture of hazards, opportunity structures, resources (or lack thereof), and life course options that often differ dramatically from those experienced by the general population. As Bronfenbrenner (1992) explains, "the test of whether the label of macrosystem is legitimately applied… is the demonstration that they do in fact exhibit characteristic life styles, values, expectations, resources, and opportunity structures that distinguish them" from those without foster care involvement (p. 229). The unique experiences gained from participation in the foster care system appear to impact adult outcomes after youth are no longer officially part of this system, as evidenced by literature explaining the harsh adult life circumstances (i.e., more health and mental health problems, lower home ownership, higher public assistance receipt) of foster care alumni (Pecora et al, 2003). The current study will investigate whether gaining a higher education neutralizes the effects of the foster care macrosystem on these youth's lives, or if these experiences are still moderating outcomes in adulthood when compared to the general population.

Chapter 3: Method

Participants

Participants in the study were all recipients of college scholarships from the Casey Family Scholarship Program and/or the Orphan Foundation of America's Foster Care to College scholarship program. Casey Family Programs is a Seattle-based organization serving youth in foster care through direct service, legislative advocacy, research, and organizational partnerships. It is the largest US-based foundation solely focused on youth in foster care and the child welfare system. The Orphan Foundation of America (OFA) is a national organization that supports youth with foster care experience as they navigate their postsecondary pursuits by providing scholarships, mentors, internships, and legislative advocacy.

Data were collected from a convenience sample of foster care alumni who received scholarships between the years of 2001 and 2009, and who either graduated from college or dropped out of the scholarship program before graduating. The Orphan Foundation of America (OFA) manages the Casey Family Scholarship Program and has a database of scholarship recipients, 528 of which have successfully graduated from college and 236 of which exited from the scholarship program prior to graduation, for a total of 764 potential participants. There are currently nine cohorts of scholarship recipients, with a new cohort starting the scholarship program each year since 2001. OFA maintains contact information for their scholarship recipients, and this was used to contact them for participation in the current study.

Scholarship eligibility requirements and winner selection criteria. There are four eligibility requirements for the Casey/OFA scholarships. Applicants must:

1. Have been in foster care for one consecutive year at the time of their

18th birthday OR have been adopted or taken into legal guardianship out

of foster care or upon the death of their parents after their 16th birthday

OR have lost both parents to death before the age of 18 and not been

subsequently adopted or taken into legal guardianship.

2. Be enrolled in or accepted into an accredited post-secondary program

at the undergraduate level (university, college, community college or

vocational/technical institute.)

3. Be under the age of 25 on [the application deadline].

4. Have been in foster care or orphaned while living in the United States.

U.S. citizenship is not required.

(Orphan Foundation of America, 2010).

Applications are evaluated in two phases; the first consists of a point system

where two reviewers read and score the applicant's essay. A combined score threshold is

set in order to move to the next round of review; however, students from certain

underrepresented populations, such as young men of color, Native American students,

and students pursuing vocational programs, may be moved to the next round of review if

they fall slightly short of the threshold but hold promise in other areas.

The second round of evaluation consists of teams of two evaluators who utilize a

more comprehensive point system including ratings of GPA, letters of recommendation,

and essays to decide which students receive awards. Actual award amounts vary by

student, but typically range from $2,500-$6,000 per year.

Sampling characteristics. Because all potential participants were part of the scholarship program, demographics of the sampling frame are known. The 528 completers consisted of 71% females and 29% males, while the early-exiter group consisted of 41% females and 59% males. This means the overall possible sample was comprised of 67% females. Race comparisons for the two groups were quite similar, with Caucasian students comprising 47% of the completers and 44% of the early exiters; African American students comprising 34% of completers and 29% of early exiters; Latino students comprising 9% of completers and 14% of early exiters; Native American students comprising 1% of completers and 5% of early exiters; Asian American students comprising 6% of completers and 4% of early exiters; mixed race students comprising 3% of completers and 2% of early exiters; and those not wishing to identify race comprising 0% of completers and 2% of early exiters.

Recruitment procedures. Recruitment took place as part of a mass-emailing of the data collection survey link to all former scholarship recipients. No prior contact was made with potential participants to inform them of the study: this email served as the introduction to the survey and at the same time provided the opportunity to participate. If potential participants chose to follow the link to the survey, they were directed through an informed consent process. Recipients were then able to decide whether or not to participate. If they agreed to participation, they were immediately led to the Foster Care and College Survey. The online survey was conducted using Survey Monkey questionnaire website with enhanced SSL security.

While email and internet communications have limitations to the level of confidentiality that can be guaranteed, the email was sent to email addresses that OFA

has been using for several years to communicate confidentially with these participants. Only the OFA staff knew the names and email addresses of participants that the survey was emailed to. Furthermore, survey responses were collected separately from identifying information needed to deliver the gift card incentives. Thus, responses were anonymous because they could not be linked with individual participants.

Sample demographics. Out of the 764 potential respondents, 453 graduates and 193 early exiters (646 total) were sent emails that were deliverable (i.e., did not "bounce back"). Of those emailed, 329 (50.9% of those with deliverable emails and 43.1% of the original sampling frame) responded fully enough to determine whether or not they had graduated from college and whether they had disengaged from college. These were the criteria for being included in Part One of the analysis. Table 2 contains demographic information of the 329 participants. The mean age of participants was 25.6 (*SD*=2.7), slightly higher than the mean age of participants in the Casey Family Northwest Alumni Study (*M*=24.1; Pecora et al, 2005) and lower than those in the Casey National Alumni Study (*M*=30.5, *SD*=6.3; Pecora et al, 2003). The proportion of females participating in the study was much higher than males (73.9% vs 26.1%), reflecting relatively similar proportions as the sampling frame. The proportion of females in the current study was higher than that found in both the Casey Family Northwest and National Alumni Studies (60.5% and 54.6%, respectively). The most common reported race was White (44.6%), followed by Black (27.9%), again similar to the proportions in the sampling frame and to the Northwest Alumni Study (45.6% and 21.3%, respectively). Over four-fifths of the sample (83.3%) had completed a bachelors degree or higher, while less than one-tenth had completed no degree or only a certificate. Of those who had graduated with a

Table 2

Participant Demographics

	Current Sample (N=329)	
	N	% (of those responding)
Gender		
Female	212	73.9%
Male	75	26.1%
Race/Ethnicity Identification		
White	128	44.6%
Black	80	27.9%
Native American	2	0.7%
Asian	9	3.0%
Other	9	3.0%
Mixed Race	37	12.9%
Hispanic/Latino	22	7.7%
Identifies as Having a Disability		
Yes	28	10.1%
No	250	89.9%
Highest level of education completed		
No degree	25	7.6%
Certificate	6	1.8%
Associates	24	7.3%
Bachelors	223	67.8%
Masters	47	14.3%
Doctorate	4	1.2%
Bachelors graduates who started at community college and/or with associates degree		
Yes	33	12.0%
No	241	88.0%
Current School Status		
Not currently enrolled in school	224	68.1%
Currently enrolled in school	105	31.9%
Program currently enrolled in…		Of total / Of those in school
Certificate	7	2.1% / 6.7%
Associates	5	1.5% / 4.8%
Bachelors	16	4.9% / 15.2%
Masters	58	17.6% / 55.2%
Doctorate	13	4.0% / 12.4%
Other/Did not specify	6	1.8% / 5.7%
Of those who started an associates or bachelors program and are not currently in an undergraduate program…		
Graduated without taking time off	211	72.3%
Graduated taking some time off or having an incomplete program	63	21.6%
Have not graduated and have been out for at least one year	18	6.2%
	Mean (SD)	Total N Responding
Mean Age	25.6 (2.7)	N=288
Mean age of entry into foster care	11.3 (5.1)	N=318
Mean number of years in foster care	8.7 (5.0)	N=309
Mean number of foster care placements	5.3 (5.8)	N=315
Of those who earned a bachelor's degree, number of years to bachelors degree graduation		
	4.6 (1.1)	N=264

bachelors degree, the mean reported time to graduation (including time disengaged from school) was 4.6 years (SD=1.1). While participants were only invited to participate if they had graduated college or dropped out of the scholarship program (thus suggesting disengagement from college), 6.4% of participants reported currently being enrolled in an associates or bachelors degree program.

Participants reported spending an average of 8.7 years in foster care (SD=5.0), and an average of 5.3 foster care placements (SD=5.8). The mean age of entry into foster care was 11.3 (SD=5.1). These characteristics were similar to those found in the Casey Northwest Alumni Study, which found participants to have an average age of entry into foster care of 11.1 years, average length of time in care of 6.1 years, and an average of 6.5 placements. The sample was also similar to the Casey National Alumni Study, which found participants to have an average age of entry into foster care of 13.2 years and average length of time in care of 7.2 years.

Research Design

Part One of the study utilized cross-sectional data from the "Foster Care and College" online survey to compare college-related factors experienced by foster care alumni who were recipients of the Casey Family Scholarship Program and/or the Orphan Foundation of America's Foster Care to Success scholarship. For the first phase, participants comprised two groups: those who graduated with a bachelors or associates degree without disengaging from school (i.e., did not report having an incomplete program or taking time off) and those who did disengage from school (who may or may not have graduated at the time of the study). The groups were compared on the variety of factors hypothesized to be related to college retention. For the second phase, bachelors

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degree graduation was predicted using the factors found to relate to school

disengagement. Results were used to determine which group of factors (general

population or foster care-specific) are more strongly associated with graduation. In

addition, results were used to reveal the individual items that were the strongest

predictors of postsecondary graduation.

Part Two of the study compared the "Foster Care and College" survey data to two

publicly available general population surveys, the General Social Survey and the Panel

Study of Income Dynamics, in order to compare post-college life situation outcomes.

Three groups were compared: foster care alumni bachelors degree graduates, general

population bachelors degree graduates, and general population non-graduates. The same

question wording as that used in the General Social Survey and Panel Study of Income

Dynamics was utilized in the "Foster Care and College" survey so that responses could

be directly compared.

General Social Survey. The General Social Survey (GSS) is a nationally

representative survey study of societal attitudes and trends that is conducted by the

National Opinion Research Center at the University of Chicago. The survey has been

conducted every one to two years since 1972. The survey has a core set of questions that

are repeated at every administration, in addition to questions regarding a variety of

subjects that vary by year. The current study utilized data collected during the 2006

administration exploring topics including employment status, income, home ownership,

health, mental health, happiness, and social activities, in addition to various

demographics.

Panel Study of Income Dynamics. The Panel Study of Income Dynamics (PSID) is a nationally representative longitudinal study of the economic, health, and social behaviors of American citizens. The study began in 1968 and is conducted by the Institute for Social Research at the University of Michigan. The current study used data from the 2007 administration and included questions related to public assistance use within the last year.

Assessment

Data collection procedure. The first step of data collection involved emailing potential participants a link to an online survey, the full version of which is included in Appendix B. All contact with students, including emailing the survey link, was conducted by OFA scholarship program staff who have had long and positive relationships with all potential participants, in an effort to foster a more positive and effective data collection experience. OFA staff sent out an initial invitation email to all participants that included a link to the survey, and sent weekly/bi-weekly survey reminders to non-responders for the duration of data collection. A mailed paper version of the questionnaire was available for participants who were uncomfortable responding online; however, no participants requested this version. Participants who responded to the survey were given a small token of appreciation in the form of a $10 gift card following survey completion. Data collection began July 2010 and was completed in September of 2010.

The "Foster Care and College" online survey consisted of questions exploring the supports, barriers, and experiences of participants before and during college, in addition to the life circumstances of participants during their post-college years. Participants were asked to reflect on what suggestions they may have for ways to support foster care

alumni preparing for and going to college. The survey asked questions allowing for the analysis of all the factors listed in Table 3 for Part One of the study, in addition to a variety of post-college life circumstance questions modeled after those in the General Social Survey and Panel Study of Income Dynamics in order to address Part Two of the study. General population and foster care-specific factors for Part One were assessed using either validated construct measures or questions modeled from construct definitions used in the studies included in the Robbins et al (2004) meta-analysis. Questions about foster care history (number of placements experienced, length of time in care, etc) and demographics were asked in order to more clearly identify the sample and how it may compare with other foster care alumni research.

Constructs and measures – Part One.

College retention. Two forms of college retention were examined as outcome variables in Part One of the current study. Phase One of the data analysis examined retention in relation to whether or not students ever disengaged from college. Disengagement was defined as (yes or no) taking time off from an associates or bachelors degree program or starting an associates or bachelors program but not completing it. The second phase of analysis examined retention by predicting whether participants successfully completed a college program. This was defined as (yes or no) successfully graduating from a bachelors degree program.

The following is an explanation of each factor tested as a predictor of retention in the current study. A summary of this information can be found in Table 3.

Academic-related skills. Academic-related skills are defined as tools and skills necessary for successfully achieving educational goals. Participants were asked to self-

report their perceived skill level as an undergraduate (not strong at all; not very strong; sort of strong; very strong) in a variety of areas important to college success, including time management, study skills, leadership skills, problem solving skills, and communication skills. In addition, they were asked whether they earned college credit while in high school with the question, "Did you earn any college credits while you were in high school (through AP/IB/college classes, etc)?"

Academic goals. Academic goals reflect one's commitment to obtaining a college degree. Participants were asked, "How would you have answered the following question as an undergraduate: It is important for me to graduate from college" (not at all important; not very important; somewhat important; extremely important). This question is modeled after one assessing commitment to the goal of graduation used by Pascarella and Chapman (1983).

Institutional commitment. Institutional commitment was gauged using two questions. The first was, "How many times did you transfer from one school to another as an undergraduate because another program offered better opportunity or because another program suited you better?" The second was, "How satisfied were you with the college you attended? If you attended more than one, please answer for the one you attended last" (not at all satisfied; a little satisfied; mostly satisfied; very satisfied).

Social support. Social support is defined as perceived availability of social support resources, and was measured using two approaches. The first was the Medical Outcomes Study Social Support Survey (MOS; Sherbourne & Stewart, 1991). The MOS Social Support Survey measures how often social support is available to the respondent and provides an overall perceived social support index in addition to four social support

subscales: emotional/ informational support, tangible support, affectionate support, and positive social interaction. An example of an item from this scale is how often one has available "Someone you can count on to listen to you when you need to talk" (none of the time; a little of the time; some of the time; most of the time; all of the time). Scores have a possible range of 1-5, with 1 indicating low perceived social support and 5 indicating high perceived social support. An evaluation of the MOS's psychometric characteristics with data from 2987 participants aged 18-98 revealed strong reliability; all subscales, as well as the overall scale, had a Cronbach's internal-consistency reliability coefficient of α=.91 or higher, and one-year stability coefficients of .72 or higher (Sherbourne & Stewart, 1991).

The second approach to measuring social support was a series of questions exploring whether or not respondents had a caring adult during college, and how helpful this person was, if at all. Participants were asked, "Did you have a supportive, caring adult to turn to while you were in college?" (yes or no) and to "rate from 1-10 how helpful this person/these people on average were, with 0 being "not helpful at all" and 10 being "extremely helpful".

High school GPA. Participants were asked to report their cumulative high school grade point average.

Institutional selectivity. Institutional selectivity is defined as a given school's standards for admission. Institutional selectivity was determined using each participant's school's Princeton Review selectivity score for the year the student was admitted[1] (The

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[1] College scores were collected from the 1998 – 2008 editions of The Princeton Review's *Best Colleges* publications.

Princeton Review). Schools earning a selectivity score were considered more selective than those not receiving a score. The comparison was made between students attending a ranked versus non-ranked school.

Social involvement. Social involvement as an undergraduate is defined as the extent to which one feels connected to her or his college. It was determined by asking whether students were involved in extracurricular activities (yes/no) and about the frequency of non-required contact with college professors and participation in social activities (never, less than once per term, around once per term, around once per week, multiple times per week) as an undergraduate. In addition, Connectedness to College Community was assessed using a 6-item college community connectedness subscale from the Hemingway Measure of Late Adolescent Connectedness (Karcher, 2000). Participants were asked to respond to statements such as, "There was nobody I liked spending time with at my college". Possible responses ranged from 1=Not True at All to 5=Very True.

Institutional financial support. Institutional financial support refers to the sufficiency of students' financial aid packages in meeting their needs as an undergraduate. Respondents were asked, "How well did your financial aid package (grants, Chafee/ETV supports, loans, scholarships) meet your needs as an undergraduate?" (very well, somewhat well, somewhat poorly, very poorly).

SES. SES can be a challenging construct to define and measure for youth with foster care experience. In one way, because youth in foster care are wards of the court they could all be considered to be of the same socioeconomic status; however, the socioeconomic nature of the settings that youth spend time in can clearly have an impact

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on educational trajectories. Because the variety of settings that participants may have lived in during high school could differ largely from their biological family or even from placement to placement, SES was determined by the average level of education of respondents' caregivers while they were in high school (less than high school; high school/GED graduates; some college; 2-year college degrees; 4-year college degrees; graduate school degrees) in addition to how many of the respondents' high school friends went to college (almost none of them, a few of them, around half of them, almost all of them).

Maltreatment/trauma/PTSD. Maltreatment history was assessed by asking participants whether they experienced maltreatment (physical abuse, emotional abuse, sexual abuse, neglect) never, a few times, or a lot of times before entering care, while in care, or any other time before college. Whether an individual had ever experienced a traumatic event was assessed by the one-item trauma screen from the Structured Clinical Interview for DSM-IV-TR, Patient Edition (First, Spitzer, Gibbon, & Williams, 2001). The one item is a yes/no question that asks, "Sometimes things happen to people that are extremely upsetting – things like being in a life threatening situation like a major disaster, very serious accident or fire; being physically assaulted or raped; seeing another person killed, or dead, or badly hurt; or hearing about something horrible that has happened to someone you are close to. At any time during your life, have any of these kinds of things happened to you?" Elhai, Franklin, and Gray (2008) found this trauma screen to have 66% sensitivity, 87% specificity, 92% positive predictive power, and 54% negative predictive power in a sample of college students and 76% sensitivity, 67% specificity,

89% positive predictive power, and 43% negative predictive power in a sample of primary care patients based on a lengthier established PTSD screen.

Posttraumatic symptomatology during college was assessed using the Primary Care PTSD Screen (PC-PTSD; Prins et al, 2003), a brief four-item screen with yes/no responses that assesses core symptomatology, including avoidance, hyperarousal, numbing, and re-experiencing. The PC-PTSD was found to have a 78% sensitivity, 87% specificity, 65% positive predictive power, and 92% predictive power in a sample of VA medical care patients. Participants were also asked to report previous mental health diagnoses; those reporting PTSD were considered to have a previous PTSD diagnosis and those who did not were considered not to have a history of PTSD.

Other mental health problems. Other mental health problems were assessed using self-reported diagnosis history ("Have you ever been diagnosed with a psychological disorder or mental health issue?" (yes/no), and whether respondents felt that their mental health needs were met during college (not at all; somewhat; for the most part; very well or no needs).

Stigma. Stigma is defined as real or perceived changes in one's actions toward or opinions of someone due to a particular identity (here, having foster care experience), or one's hesitance at revealing this identity due to the expectation of or prior experience of these types of reactions. The level of stigma or the fear of stigma interfering with college success was measured with scaled responses to the question, "Did you feel that people knowing about your foster care experience would, in general, be helpful, harmful, or neither?" (extremely harmful, somewhat harmful, neither, somewhat helpful, extremely helpful).

Independent living stability. College independent living stability is defined as one's stability regarding independent living factors typically targeted by ILPs including housing, transportation, health, legal matters, money management, and employment (State of Oregon DHS Independent Living Program, 2008). These were measured with a variety of questions assessing the level of stability of each of these elements. Examples of questions included, "How would you rate your budgeting/money management skills as an undergraduate?" (very weak; rather weak; rather strong; very strong); "what effect did working have on your educational success?" (it made it extremely difficult; considerably difficult; a little difficult; not difficult at all); and "As an undergraduate, how often did you have access to year-round, safe, steady and reliable housing?" (none of the time; some of the time; most of the time; all of the time).

Participation in foster youth-specific programming. Participation in foster youth-specific programming refers to participation in programming such as ILPs or college-based programs such as Guardian Scholars that specifically serve youth with foster care experience. Youth were asked whether or not they participated in any of these programs (yes/no). If they participated in and ILP, they were asked how long they participated.

Tangible support. Tangible support is defined as the comprehensiveness of academic services available such as tutoring, academic advising, and similar services, in addition to one's perceived level of tangible support. A tangible support subscale score is available from the MOS social support scale to assess perceived support. Furthermore, participants were asked about the need, availability, and receipt of support with academic-related skills, deciding college major/program, housing, financial aid, tutoring,

career/college counseling, disability services, cultural supports, transportation needs.

Participants were classified as receiving sufficient support, insufficient support, or not

needing support in each domain.

Connectedness to Loved Ones. Connectedness to Family/Friends was assessed

using subscales from the Hemingway Measure of Late Adolescent Connectedness

(Karcher, 2000). Similar items from the Parent, Sibling, and Friend subscale were

combined to reflect the alternative family-like connections that these youth may

experience. An example of a statement participants were asked to respond to is, "I wanted

my family and/or friends to be proud of me". Possible responses ranged from 1=Not True

at All to 5=Very True.

Table 3

Factors to be tested as predictors of college retention

Factor	Definition (most for general population factors adapted from Robbins et al, 2004)	Theory	Means of Measurement
General population factors			
Academic-related skills	Tools and skills necessary for successfully achieving educational goals	Tinto's Student Integration Theory, Bean's Student Attrition Model, Motivational Theory	Self-reported skill level in time management, study skills, leadership skills, problem solving, and communication; whether earned college credit while in high school
Academic goals	Commitment to obtaining college degree		Self-reported: How important was it for me to graduate from college.
Institutional commitment	Satisfaction with and commitment to one's college		Self-reported number of voluntary undergraduate school

			transfers for a better opportunity; Mean satisfaction with college
Social support	Perceived availability of social support resources		Medical Outcomes Study Social Support Scale (MOS; Sherbourne & Stewart, 1991); whether received support from a caring adult
High school GPA	n/a		Self-report
Institutional selectivity	School's standards for admission		Whether or not school earned a Princeton Review selectivity score
Social involvement	Extent one feels connected to college		Self-reported level of activity in college extracurriculars, non-required contact with professors, and social events; and Hemingway Measure of Late Adolescent Connectedness (Karcher, 2000) – college community connectedness subscale
Institutional financial support	Extent of financial support provided by school		"How well did your financial aid package (grants, Chafee/ETV supports, loans) meet your needs as an undergraduate?"
SES	SES lifestyle most frequently exposed to during high school		Level of education of high school guardians; percentage of high school friends going to college
Foster care-specific factors			
Maltreatment /	Whether one experienced maltreatment/trauma and	Trauma theory	One-item trauma screen from

trauma/PTSD	whether one experienced posttraumatic symptomatology while in college		Structured Clinical Interview for DSM-IV-TR (SCID; First, Spitzer, Gibbon, & Williams, 2001); Primary Care PTSD Screen (PC-PTSD; Prins et al, 2003); self-reported maltreatment and PTSD diagnosis history
Other mental health problems	Any DSM diagnoses; perception of mental health needs being met prior to / during college	Ecological systems theory	self-reported mental health diagnosis history; self-reported perception of needs being met
Stigma	Real or perceived changes in one's actions toward or opinions of someone due to a particular identity; Hesitance at revealing identity of having foster care experience due to expectation of or prior experience of these types of reactions	Stereotype threat	Question regarding whether people knowing about foster care history was helpful or hurtful
Independent living stability	Stability of independent living factors including housing, transportation, health, money management, and employment	Common skills targeted by independent living programs; survivalist self-reliance	Self-reported stability of each of these factors while in college
Participation in foster youth-specific programming	Participation in programming such as ILPs or college-based programs such as Guardian Scholars that target youth with foster care experience		Self-reported extent of participation in ILP and foster youth-specific college support programs
Tangible support	Comprehensiveness of academic services available such as tutoring, academic advising, and similar services; level of perceived tangible support		MOS tangible support subscale; self-reported need and availability of academic support services

Connectedness to Loved Ones	Connectedness to one's family and friends	Connectedness theory	Hemingway Measure of Late Adolescent Connectedness (Karcher, 2000) – family/siblings/friends subscales

Constructs and Measures – Part Two. All Part Two measures were questions replicated from the General Social Survey and Panel Study of Income Dynamics. Each facet of post-college life was assessed with a single question, using identical wording as that used in each national survey. Questions from the GSS were used to assess Number of Hours Worked, Job Satisfaction, Job Security, Individual Yearly Earnings, Household Yearly Earnings, Financial Satisfaction, Home Ownership, Perceived Health, Perceived Mental Health, Happiness, Social Time Spent with Family, and Social Time Spent with Friends. Questions from the PSID were used to assess Public Assistance Usage. Because the questions asked in the current survey were replicated from these sources, the answer choices for continuous variables are often in ranges rather than exact values. For example, in assessing respondents' individual income, answer choices included "under $1,000", "$1,000-$2,999", … "$20,000-$22,499", "$22,500-$24,999", "$25,000-$29,999", … "$150,000 or over". Thus findings are reported as the mean range rather than the mean value.

Data Analysis Procedure

Data analysis for Part One was conducted using SPSS and STATA. STATA was used for the multiple imputation and survival analysis phase of Part One. All of Part Two analyses were conducted using SPSS.

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Part one. Data analysis consisted of two phases.

Phase One: Bivariate comparisons with college disengagement. The first phase involved a series of bivariate comparisons of the factors listed in Table 3 to determine whether and to what extent factors differed for those who did and did not disengage from college. These comparisons were made using logistic regressions. Odds ratios were calculated for each factor to indicate effect size.

Phase Two: Multiple imputation and discrete-time survival analysis. In order to prepare for the multivariate phase of analysis, multiple imputation was conducted to deal with the problem of missing data (Schafer, 1997; van Buuren, Boshuizen, & Knook, 1999). Multiple imputation techniques assume that data are missing at random (MAR). Most variables had very few missing values with no apparent pattern of dispersion, which supported the MAR assumption. However, when factors were put together into multivariate analysis 65.3% of the sample (*N*=215) were left out due to missing values. Thus, multiple imputation was used to substantially increase the utilization of available data. A large number of variables were included in the imputation step to make the MAR assumption even more plausible. Due to the categorical nature of many of the variables, the chained equation approach (van Buuren, Boshuizen, & Knook, 1999) was used rather than the iterative Markov chain Monte Carlo approach outlined by Schafer (1997). This was conducted in STATA using the ICE command (Acock, 2010). Similar results were achieved using 5, 10, and 20 imputations, so 5 were used for Phase 2 of the analysis.

The second phase of analysis utilized discrete-time survival analysis (Hosmer and Lameshow, 2000; UCLA Academic Technology Services, Statistical Consulting Group) to predict bachelors degree graduation. Survival analysis was utilized because it allowed

for the model to take into account varying amounts of time available to participants for achieving graduation due to membership in different cohorts. Furthermore, because so few participants who had started a bachelors program had not yet graduated with a bachelors degree, the use of survival analysis allowed for a much more powerful model due to the person-period format of the data. Survival analysis computes the rate of completion in a certain time period given the risk set for that period. In the current study, completion refers to graduation with a bachelors degree. Number of years to graduation was the time variable and data were right-censored with random censoring due to the cohort structure of the participants. Logistic regressions were again used, but this time with the purpose of producing discrete survival analysis estimates (UCLA Academic Technology Services, Statistical Consulting Group). Bachelors degree completion was the dependent variable, while the predictors included hypothesized factors and whether or not graduation happened at each eligible time point.

The calculation of each survival analysis involved testing five separate analysis (one with each imputed data set) and then pooling the regression coefficients and standard errors to represent the overall model results. The formulas used for combining estimates are those outlined by Rubin (1987). Odds ratios and 95% confidence intervals were also calculated using the pooled coefficient and standard error estimates.

Part two. Data analysis for Part Two began with identifying three groups for comparison: foster care alumni college graduates, general population college graduates, and general population non-graduates. The first phase of data analysis involved bivariate comparisons of group membership with each post-college outcome. ANOVA's with Bonferroni posthoc tests were used to compare means for continuous outcomes, while

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chi-square tests were used to compare categorical outcomes. The second phase of data

analysis involved ANCOVA's to compare means for continuous outcomes while

controlling for race, gender, and age, this time comparing group differences using

planned comparison contrast testing (and using an adjusted alpha of 0.05/3=0.017 to

protect against Type I error). Two additional ANCOVA's were run to compare means of

individual and household income while controlling for number of adults in the household

in addition to race, gender, and age.

<center>**Chapter 4: Results**</center>

Part One

Data analysis for Part One began by identifying two groups of participants: those who completed an associates or bachelors degree without disengaging from school during their program and those who did disengage (who may or may not still be in college).

Bivariate comparisons with school disengagement. The logistic regression analysis results of general population retention factors separately predicting college disengagement are reported in Table 4. Six of the nine factors (academic-related skills, academic goals, institutional commitment, social support, social involvement, and institutional financial support) had at least one item with a significant or trend-level relationship with disengagement, with higher levels of each factor associated with a lower likelihood of disengagement. High school GPA, institutional selectivity, and SES were factors not found to be significantly related to school disengagement.

Within the Academic-Related Skills factor, half of the items were significantly associated with school disengagement. Three of the five skills areas (Time Management, Study Skills, and Problem-Solving Skills) differentiated those who did and did not disengage, all with very similar odds ratios (b=-0.39--0.41, OR=0.66-0.68). Both items representing Institutional Commitment were significantly associated with college disengagement. Students transferring for a better opportunity were much more likely to disengage that those who did not (b=0.41, OR=1.50, p=.005), while those reporting satisfaction with their college were much less likely to disengage (b=-0.72, OR=0.49, p=.000). Similarly, the extent that one's financial aid package met one's needs was a trend-level indicator of lower disengagement (b=-0.34, OR=0.71, p=.059).

<div align="right">71</div>

Table 4

Descriptive Statistics (Actual and Imputed) of General Population Factors and Odds Ratios of these Factors Predicting Disengagement from an Associates or Bachelors Program

General pop vars		Actual			Imputed (MI=5)	
				Ever disengaged from school during undergraduate program?		Ever disengaged from school during undergraduate program?
		N or M(SD)	% (of those responding) or N	Exp(B) (95% CI)	% or M(SD)	Exp(B) (95% CI)
Academic-Related Skills						
(1=not strong at all to 4=very strong)						
Mean Time Management skills		3.1 (0.9)	N=323	0.68 (0.52-0.88)**	3.0 (0.9)	0.69 (0.53-0.89)**
Mean Study skills		3.0 (0.9)	N=324	0.67 (0.51-0.87)**	3.0 (0.9)	0.66 (0.51-0.86)**
Mean Leadership skills		3.3 (0.9)	N=319	0.96 (0.73-1.27)	3.2 (0.9)	0.95 (0.72-1.25)
Mean Problem solving skills		3.4 (0.8)	N=320	0.66 (0.48-0.91)*	3.4 (0.8)	0.69 (0.50-0.94)*
Mean Communication skills		3.3 (0.9)	N=322	0.82 (0.63-1.07)	3.2 (0.9)	0.83 (0.64-1.08)
College credit in high school	Yes	108	33.5%	1.15 (0.68-1.92)	33.8%	1.13 (0.67-1.92)
	No	214	66.5%		66.2%	
Academic Goals						
Mean rating of importance of graduating college (1=Not at all important to 4=Extremely important)		4.0 (0.3)	N=299	0.43 (0.16-1.17)^	3.9 (0.5)	0.83 (0.42-1.65)
Institutional Commitment						
Transferred for better opportunity	Yes	90	27.6%	1.50 (1.13-2.01)**	27.7%	1.94 (1.14-3.30)*
	No	236	72.4%		72.3%	
Mean satisfaction with college (1=not at all satisfied to 4=very satisfied)		3.4 (0.8)	N=297	0.49 (0.35-0.69)***	3.3 (0.9)	0.59 (0.44-0.81)**
Social support						
Mean Medical Outcomes Study Social Support score (1=support none of the time to 5=support all of the time)		3.4 (1.1)	N=308	0.81 (0.64-1.02)^	3.4 (1.1)	0.81 (0.64-1.03)^
Had a caring adult while in college	Yes	250	79.9%		80.2%	
	No	63	20.1%		19.8%	
If yes, mean helpfulness of caring adult (0=not helpful at all to 10=extremely helpful)		8.7 (1.5)	N=244	0.93 (0.87-0.99)*	8.5 (1.9)	0.93 (0.87-0.99)*
High School GPA						
Mean high school GPA		3.3 (0.6)	N=308	1.00 (0.66-1.52)	3.3 (0.6)	0.96 (0.64-1.44)

Table 4 (continued)

Descriptive Statistics (Actual and Imputed) of General Population Factors and Odds Ratios of these Factors Predicting Disengagement from an Associates or Bachelors Program

		Actual			Imputed (MI=5)	
				Ever disengaged from school during undergraduate program?		Ever disengaged from school during undergraduate program?
General pop vars						
		N or M(SD)	% (of those responding) or N	Exp(B) (95% CI)	% or M(SD)	Exp(B) (95% CI)
Institutional Selectivity						
Attended a Princeton Review ranked	Yes	109	41.3%	0.69 (0.35-1.35)	39.9%	0.73 (0.37-1.43)
college for bachelors degree	No	155	58.7%		60.1%	
Mean Princeton Review selectivity score of college for those ranked range=60 to 99)		84.5 (9.3)	N=109	n/a - left out of analysis		
Social Involvement						
Involved in extracurriculars?	Yes	216	71.8%	0.59 (0.34-1.03)^	69.0%	0.64 (0.38-1.08)^
	No	85	28.2%		31.0%	
Median frequency of non-required professor contact (1=Never to 5=multiple times per week)		3 (Around once per month) (N=289)		0.91 (0.76-1.10)	3 (Around once per month)	0.93 (0.78-1.12)
Median frequency of college social events (1=Never to 5=multiple times per week)		4 (Around once per week) (N=288)		0.80 (0.66-0.97)*	4 (Around once per week)	0.83 (0.68-1.01)^
Mean Hemingway college connectedness score (1=low to 5=high connectedness)		3.7 (0.9)	N=299	0.60 (0.44-0.81)**	3.8 (0.9)	0.60 (0.44-0.82)**
Institutional Financial Support						
Mean rating of how well did financial aid package meet needs (1=very poorly to 4=very well)		3.4 (0.7)	N=299	0.71 (0.50-1.01)^	3.4 (0.7)	0.69 (0.49-0.98)*
SES						
Median education level of guardians (1=less than high school to 6=graduate school degrees)		3 (some college)	N=296	1.03 (0.88-1.21)	3 (some college)	1.02 (0.88-1.20)
Median high school friends that went to college (1=almost none of them to 4=almost all of them)		4 (almost all of them)	N=309	1.25 (0.96-1.63)	4 (almost all of them)	1.26 (0.92-1.74)

^=p<.10
*=p<.05
**=p<.01
***=p=.000

Elements of both social support and social involvement had associations with disengagement. While MOS scores had a trend-level relationship with disengagement (b=-0.21, OR=0.81, p=.074), helpfulness of a caring adult had a significant association (b=-0.07, OR=0.93, p=.036). For both, higher scores indicated lower likelihood of disengagement. Furthermore, increased participation in both extracurriculars (b=-0.52, OR=0.59, p=.061) and college social events (b=-0.22, OR=0.80, p=.025), but not contact with a professor (b=-0.09, OR=0.91, p=.347), was indicative of a lower likelihood of school disengagement. College connectedness also significantly differentiated those who did and did not disengage (b=-0.51 OR=0.60, p=.001), with higher connectedness being indicative of less likely disengagement.

Results from logistic regression analyses for foster care-specific factors are reported in Table 5. Four out of seven of these factor categories (maltreatment/trauma/ PTSD, other mental health problems, independent living stability, tangible support) had at least one item with a significant or trend-level relationship with disengagement, again all in the expected direction (with increased maltreatment/trauma/ PTSD and other mental health problems associated with increased disengagement and increased independent living stability and tangible supported associated with decreased disengagement). Stigma, participation in foster youth-specific programming, and connectedness to loved ones were the three factor categories not found to be related to school disengagement.

Within the Maltreatment/Trauma/PTSD factor, having a history of severe maltreatment was indicative of higher disengagement (b=0.27, OR=1.31, p=.002), while the broader experience of trauma either before or during college was not (b=-0.05, OR=

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Table 5

Descriptive Statistics (Actual and Imputed) of Foster Care-Specific Factors and Odds Ratios of these Factors Predicting Disengagement from an Associates or Bachelors Program

Foster Care-Related Vars		Actual			Imputed (MI=5)	
				Ever disengaged from school during undergraduate program?		Ever disengaged from school during undergraduate program?
		N or M(SD)	% (of those responding) or N	Exp(B) (95% CI)	% or M(SD)	Exp(B) (95% CI)
Maltreatment/trauma/PTSD						
Experienced trauma before	Yes	232	75.3%	0.95 (0.54-1.69)	74.5%	0.98 (0.55-1.73)
college?	No	76	24.7%		25.5%	
Experienced trauma during	Yes	127	41.2%	1.52 (0.91-2.52)	41.2%	1.48 (0.89-2.46)
college?	No	181	58.8%		58.8%	
If yes to either, mean trauma symptom count (0 to 4)		2.3 (1.5)	N=226	1.17 (1.00-1.37)^	2.4 (1.5)	1.16 (1.00-1.36)^
If yes to either, PTSD screen	Yes	113	50.0%	2.01 (1.19-3.39)**	54.0%	1.87 (1.13-3.09)*
positive (3 or more symptoms)?	No	113	50.0%		46.0%	
Reported history of PTSD	Yes	34	10.9%	1.04 (0.46-2.38)	12.7%	1.39 (0.65-2.97)
diagnosis?	No	277	89.1%		87.3%	
Mean severe maltreatment count (0 to 5)		2.5 (1.7)	N=257	1.31 (1.10-1.55)**	2.4 (1.7)	1.25 (1.05-1.48)**
Other MH problems						
	Yes	101	32.0%	1.95 (1.15-3.29)*	32.7%	2.01 (1.20-3.36)**
Ever had mental health diagnosis	No	215	68.0%		67.3%	
Mental health needs met prior to	Not at all	50	15.7%	0.99 (0.79-1.24)	16.0%	0.97 (0.77-1.23)
college	Somewhat	74	23.3%		22.9%	
	For the most part	84	26.4%		26.1%	
	Very well or no needs	110	34.6%		35.0%	
Mental health needs met during	Not at all	48	15.8%	0.78 (0.61-0.98)*	15.6%	0.78 (0.62-0.98)*
college	Somewhat	72	23.8%		23.8%	
	For the most part	77	25.4%		24.8%	
	Very well or no needs	106	35.0%		35.8%	
Stigma						
	Extremely harmful	12	4.3%	0.88 (0.67-1.18)	4.7%	0.86 (0.66-1.12)
Was telling people that you were in	Somewhat harmful	62	22.0%		22.0%	
foster care harmful or helpful	Neither	123	43.6%		42.4%	
	Somewhat helpful	68	24.1%		24.2%	
	Extremely helpful	17	6.0%		6.7%	

Table 5 (continued)

Descriptive Statistics (Actual and Imputed) of Foster Care-Specific Factors and Odds Ratios of these Factors Predicting Disengagement from an Associates or Bachelors Program

Foster Care-Related Vars		Actual			Imputed (MI=5)	
				Ever disengaged from school during undergraduate program?		Ever disengaged from school during undergraduate program?
		N or M(SD)	% (of those responding) or N	Exp(B) (95% CI)	% or M(SD)	Exp(B) (95% CI)
Independent living stability						
Financial skills (1=very weak to 4=very strong)		2.8 (1.0)	N=300	0.82 (0.63-1.07)	2.8 (1.0)	0.82 (0.63-1.06)
Worked at least sometimes during	Yes	274	89.3%		88.1%	
college	No	33	10.7%		11.9%	
Average number of hours worked per week (for those who worked)		24.8 (10.8)	N=254	1.03 (1.01-1.05)**	25.2 (11.4)	1.03 (1.01-1.05)*
For those who worked, mean difficulty of being employed while in school (1=not difficult at all to 4=extremely difficult)		2.4 (1.0)	N=264	1.50 (1.15-1.94)**	2.4 (1.0)	1.43 (1.12-1.84)**
Access to stable housing	None of the time	6	2.0%	0.86 (0.63-1.18)	2.8%	0.87 (0.65-1.17)
	Some of the time	44	14.9%		15.4%	
	Most of the time	72	24.3%		24.3%	
	All of the time	174	58.8%		57.5%	
Access to reliable transportation	None of the time	10	3.4%	1.10 (0.82-1.49)	3.8%	1.05 (0.79-1.40)
	Some of the time	52	17.4%		17.5%	
	Most of the time	72	24.2%		23.5%	
	All of the time	164	55.0%		55.3%	
How often had health insurance	Never	60	19.9%	0.85 (0.68-1.06)	21.7%	0.86 (0.69-1.07)
	Sometimes	85	28.2%		28.0%	
	Usually	52	17.3%		17.0%	
	Always	104	34.6%		33.3%	
How often had untreated health	Never	156	52.7%	1.17 (0.87-1.57)	51.9%	1.13 (0.85-1.49)
problems	Sometimes	99	33.4%		32.6%	
	Usually	23	7.8%		8.3%	
	Always	18	6.1%		7.2%	
Participation in foster youth-specific programming						
Participated in college-based foster	Yes	11	3.6%	1.09 (0.27-4.48)	4.6%	1.06 (0.29-3.88)
youth-focused program	No	291	96.4%		95.4%	
Participated in ILP	Yes	124	37.8%		36.4%	
	No	204	62.2%		63.6%	
If yes, median length of time participated in ILP		2 years	N=114	1.01 (0.90-1.12)	2 years	1.00 (0.90-1.12)

Table 5 (continued)

Descriptive Statistics (Actual and Imputed) of Foster Care-Specific Factors and Odds Ratios of these Factors Predicting Disengagement from an Associates or Bachelors Progra

Foster Care-Related Vars		Actual			Imputed (MI=5)	
				Ever disengaged from school during undergraduate program?		Ever disengaged from school during undergraduate program?
		N or M(SD)	% (of those responding) or N	Exp(B) (95% CI)	% or M(SD)	Exp(B) (95% CI)
Tangible support						
Mean MOS tangible support subscale (RANGE)		3.1 (1.3)	N=308	0.95 (0.79-1.15)	3.1 (1.3)	0.95 (0.79-1.14)
Support received with…				(Reference category= Sufficient support)		(Reference category= Sufficient support)
5 Academic-Related Skills (time management, study skills, leadership, problem solving, communication)	Sufficient support received	111	35.8%		35.6%	
	Insufficient support received	151	48.7%	2.42 (1.37-4.29)**	50.8%	2.37 (1.35-4.17)**
	Support not needed	40	12.9%	0.58 (0.20-1.65)	13.7%	0.70 (0.26-1.89)
Deciding college major/program	Sufficient support received	133	43.0%		41.1%	
	Insufficient support received	67	21.7%	1.84 (0.96-3.50)^	22.0%	1.81 (0.97-3.41)^
	Support not needed	109	35.3%	0.86 (0.47-1.54)	36.9%	0.90 (0.51-1.59)
Housing	Sufficient support received	149	48.5%		46.7%	
	Insufficient support received	44	14.3%	2.41 (1.15-5.06)*	15.6%	2.39 (1.14-5.04)*
	Support not needed	114	37.1%	1.50 (0.86-2.61)	37.7%	1.48 (0.86-2.54)
Financial aid	Sufficient support received	199	64.0%		60.9%	
	Insufficient support received	45	14.5%	1.05 (0.51-2.17)	15.6%	1.02 (0.50-2.09)
	Support not needed	67	21.5%	1.29 (0.70-2.36)	23.5%	1.14 (0.62-2.08)
Tutoring	Sufficient support received	101	41.7%		33.4%	
	Insufficient support received	52	21.5%	1.12 (0.52-2.41)	31.5%	1.18 (0.62-2.25)
	Support not needed	89	36.8%	1.23 (0.66-2.33)	35.1%	1.03 (0.56-1.90)
Career/college counseling	Sufficient support received	89	38.5%		31.5%	
	Insufficient support received	84	36.4%	1.79 (0.92-3.48)^	38.7%	1.80 (0.89-3.66)^
	Support not needed	58	25.1%	0.98 (0.45-2.13)	29.8%	1.05 (0.55-2.01)
Disability services	Sufficient support received	14	6.4%		5.8%	
	Insufficient support received	13	5.9%	1.92 (0.38-9.80)	24.2%	0.92 (0.28-3.04)
	Support not needed	193	87.7%	0.71 (0.22-2.25)	70.0%	0.81 (0.27-2.43)
Cultural supports	Sufficient support received	21	10.6%		8.7%	
	Insufficient support received	26	13.1%	1.58 (0.43-5.82)	36.0%	1.38 (0.49-3.84)
	Support not needed	152	76.4%	1.06 (0.36-3.12)	55.3%	1.11 (0.37-3.27)
Transportation needs	Sufficient support received	39	17.6%		16.6%	
	Insufficient support received	53	23.9%	2.59 (0.99-6.79)^	36.8%	2.13 (0.95-4.76)^
	Support not needed	130	58.6%	1.57 (0.66-3.75)	46.6%	1.47 (0.69-3.11)
Connectedness to Loved Ones						
Mean Hemingway Connectedness to parents/ siblings/ friends score (1=low to 5=high connectedness)		4.2 (0.8)	N=302	0.80 (0.59-1.09)	4.1 (0.8)	0.80 (0.58-1.10)

^=p<.10
*=p<.05
 p<.01
 =p=.000

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0.95, *p*=.861 and *b*=0.42, *OR*=1.52, *p*=.106, respectively). Furthermore, higher counts of posttraumatic symptoms during college (*b*=0.16, *OR*=1.17, *p*=.056) and screening positively on the PTSD screen while in college (*b*=0.70, *OR*=2.01, *p*=.009) were associated with higher school disengagement, while a reported history of PTSD was not (*b*=0.04, *OR*=1.04, *p*=.920). However, a history of any type of mental health diagnosis (not only PTSD) was associated with higher disengagement (*b*=0.67, *OR*=1.95, *p*=.013). Finally, how well these mental health needs were supported while in college was related to disengagement (*b*=-0.25, *OR*=0.78, *p*=.033), with better support indicative of lower college disengagement.

The most salient items within the Independent Living Stability factor were those associated with employment. Both number of hours worked and the perceived difficulty of working during college were associated with higher likelihood of disengaging from school (*b*=0.03, *OR*=1.03, *p*=.009 and *b*=0.40, *OR*=1.50, *p*=.002, respectively). Access to stable housing (*b*=-0.15, *OR*=0.86, *p*=.357) and transportation (*b*=0.10, *OR*=1.10, *p*=.518) were not significantly associated with disengagement; however, receiving insufficient support with these issues was indicative of increased disengagement (*b*=0.88, *OR*=2.41, *p*=.020, and *b*=0.95, *OR*=2.59, *p*=.054, respectively). Receiving insufficient support around developing the academic skills found to be important in the General Population Factor analysis was also related to higher disengagement (*b*=0.88, *OR*=2.42, *p*=.002), in addition to insufficient support with deciding on a college path (*b*=0.61, *OR*=1.84, *p*=.064).

The factors advancing to Phase Two of the analysis can be seen in Tables 6a and 6b. All factor items that had a significant or trend-level relationship with school

disengagement were included in Phase Two of the analysis, with one exception. One pair of items, trauma symptom count and positive PTSD screen, were highly correlated (p=.903). This was to be expected given that one variable was calculated from the other; however, each was analyzed at the bivariate stage for informational purposes. Since trauma symptom count was measured on a more detailed response scale (i.e., was a 0 to 4 count rather than a yes/no dichotomy), it was used in the survival analysis and PTSD screen was left out.

Discrete-time survival analysis of bachelors degree completion. To prepare for the second phase of data analysis, multiple imputation was conducted to deal with the problem of missing data. Variables included in the imputation step consisted of all items comprising the General Population and Foster Care-Specific factors, as well as gender, race, age, number of years spent in foster care, and number of placements experienced as auxiliary variables. Inclusion of these auxiliary variables supported the missing at random assumption. All participants from Phase One were included in the multiple imputation procedure, although some cases were left out of the subsequent survival analysis because this phase of the analysis was examining a slightly different outcome variable (graduation with a bachelors degree rather than disengaging from an associates or bachelors degree program) and because these dependent variables were not imputed.

Bivariate comparisons were re-run using the multiply imputed data; the pooled results can be found in the tables alongside non-imputed bivariate comparisons. Highly similar results were found with and without multiple imputation. One factor, Institutional Financial Support, changed slightly from a trend-level to a significant predictor of disengagement, while one element of the Social Involvement factor, frequency of college

social events, changed slightly from a significant to a trend-level factor; however, the actual odds ratios changed very little. Academic goals changed from a trend-level to non-significant relationship following imputation. Those factors with significant ($p<.05$) or trend-level ($p<.10$) differences between groups following imputation were included in the second phase of analysis.

The next step to prepare for discrete-time survival analysis involved restructuring data into person-period form so that each case reflected each possible year in which the participant could have graduated (given the length of time between starting college and participating in the study) and whether or not they did in that given year. Participants had anywhere from three to 14 years to successfully graduate with a bachelors degree. Only six cases had between 10 and 14 years; because these cases were outliers and their time variable caused problems with the estimation of the survival model, their time variable was changed to 9. Cases were omitted from the survival analysis if they had never attempted to earn a bachelors degree ($N=17$), if they only had one to two years to complete the degree before data collection took place ($N=2$), or if it was unclear how long it took them to graduate with a bachelors degree ($N=11$). Thus, the sample size for the survival analysis was $N=299$.

The hazard rate represents the probability that a student completed a bachelors degree in a certain year given they had not already completed the degree. The hazard function for bachelors degree graduation without predictors reaches a maximum value at Year 4 [p(Hazard)$=.5203$], remains relatively high for years 5 and 6 [p(Hazard)$=.4113$ and $.4179$, respectively], and then declines more sharply.

Model 1: Survival analysis of general population factors. All general population

factors with a significant or trend-level relationship to school disengagement were

entered together into a discrete-time survival analysis to predict bachelors degree

graduation. The pooled regression coefficients, standard errors, significance tests, and

odds ratios are reported in Table 6a. Two of the five factor categories contained an item

with a significant or trend-level relationship to graduation: Institutional Commitment

(satisfaction with college, pooled *OR*=1.28, *95% CI*=0.98-1.67, *p*=.069) and Social

Involvement (frequency of college social events, pooled *OR*=1.21, *95% CI*=1.01-1.44,

p=.035).

Model 2: Survival analysis of foster care-specific factors. The same process was

then completed with foster care-specific factors. The results of this analysis are reported

in Table 6b. Two of the four factor categories contained an item with a significant

relationship to graduation: Independent Living Stability (average number of hours

worked per week during college, pooled *OR*=0.97, *95% CI*=0.96-0.99, *p*=.001) and

Tangible Support (insufficient support with academic-related skills, pooled *OR*=0.58,

95% CI=0.39-0.88, *p*=.010).

The changes in Bayesian Information Criterion (BIC) scores from Models 1 and 2

were then compared to determine which set of factors better modeled bachelors degree

completion. These scores were compared for analyses tested within each imputed dataset

to ensure validity of comparisons. BIC is a method for comparing the fit of non-nested

models. BIC scores were lower for the General Population factor model than the Foster

Care-Specific factor model for all five imputations, indicating that the General Population

factor model better fit the data.

Model 3: Survival analysis combining all factors. All factors were then combined into one survival analysis to determine if foster youth-specific factors predicted college retention over and above general population factors. Results are reported in Table 6c. Only two factors, one general population factor and one foster care-specific, contained significant items (Institutional Commitment: satisfaction with college, pooled *OR*=1.29, *95% CI*=0.97-1.70, *p*=.080; and Independent Living Stability: average number of hours worked per week, pooled *OR*=0.97, *95% CI*=0.96-0.99, *p*=.003).

The changes in deviance scores from Models 1 and 3 were then examined using a likelihood ratio test (Hosmer & Lemeshow, 2000) to determine if model fit improved when adding in foster youth-specific factors with general population factors. The likelihood ratio test is used here rather than the BIC because models from Steps 1 and 3 are nested. None of these differences were significant.

Model 4: Survival analysis combining only significant or trend-level factors from Models One and Two. Finally, the fourth step was exploratory and involved a survival model only including the significant or trend-level factors from steps two and three, in order to delineate the most salient predictors without losing valuable information due to a complex model. The results of the final model are reported in Table 6d. Three of the factors (Institutional Commitment: satisfaction with college, Independent Living Stability: number of hours worked, and Tangible Support: insufficient support with academic-related skills) significantly predicted bachelors graduation, while frequency of college social events was a trend-level predictor. All factors predicted graduation in the expected direction, with increased satisfaction and frequency of college social events predicting higher likelihood of graduation and higher number of hours worked and

insufficient support with skills predicting lower likelihood of graduation with a bachelors

degree.

Table 6a

Discrete-Time Survival Analysis of General Population Factors Predicting Bachelors Degree Graduation

General population factors tested together	Pooled B	Pooled SE	t	p	OR (95% CI)
Academic-Related Skills					
Time Management skills	0.118	0.109	1.080	0.280	1.12 (0.91-1.39)
Study skills	0.163	0.105	1.547	0.122	1.18 (0.96-1.45)
Problem solving skills	0.089	0.117	0.757	0.449	1.09 (0.87-1.38)
Institutional Commitment					
Transferred for better opportunity	-0.143	0.202	-0.706	0.480	0.87 (0.58-1.29)
Satisfaction with college	0.248	0.135	1.834	0.069^	1.28 (0.98-1.67)
Social support					
MOS overall social support score	0.000	0.116	0.000	1.000	1.00 (0.80-1.26)
Helpfulness of caring adult while in college	0.030	0.030	1.008	0.314	1.03 (0.97-1.09)
Social Involvement					
Involved in extraurriculars?	-0.086	0.220	-0.391	0.696	0.92 (0.60-1.41)
Frequency of college social events	0.188	0.089	2.117	0.035*	1.21 (1.01-1.44)
Hemingway college connectedness score	0.028	0.160	0.175	0.861	1.03 (0.75-1.41)
Institutional Financial Support					
How well financial aid package met needs	0.067	0.125	0.531	0.596	1.07 (0.84-1.37)

^=p<.10
*=p<.05
**=p<.01
***=p=.000

Table 6b

Discrete-Time Survival Analysis of Foster Care-Specific Factors Predicting Bachelors Degree Graduation

Foster care-specific factors tested together		Pooled B	Pooled SE	t	p	OR (95% CI)
Maltreatment/trauma/PTSD						
Trauma symptom count during college		-0.056	0.084	-0.660	0.514	0.95 (0.80-1.21)
Severe maltreatment count		-0.071	0.068	-1.037	0.305	0.93 (0.81-1.07)
Other MH problems						
Ever had mental health diagnosis		-0.187	0.212	-0.881	0.380	0.83 (0.55-1.26)
Mental health needs met during college		-0.072	0.095	-0.761	0.447	0.93 (0.77-1.12)
Independent living stability						
Average number of hours worked per week during college		-0.026	0.008	-3.228	0.001**	0.97 (0.96-0.99)
Difficulty of being employed while in school		-0.115	0.111	-1.043	0.297	0.89 (0.72-1.11)
Tangible support						
Support received with…						
5 Academic-Related Skills (time management, study skills,	insuf	-0.542	0.210	-2.583	0.010*	0.58 (0.39-0.88)
leadership, problem solving, communication)	noneed	-0.033	0.311	-0.106	0.915	0.97 (0.53-1.78)
Deciding college major/program	insuf	-0.242	0.270	-0.895	0.371	0.79 (0.46-1.33)
	noneed	0.173	0.239	0.726	0.469	1.19 (0.74-1.90)
Housing	insuf	-0.152	0.284	-0.536	0.592	0.86 (0.49-1.50)
	noneed	0.087	0.224	0.387	0.699	1.09 (0.70-1.69)
Career/college counseling	insuf	0.068	0.306	0.224	0.826	1.07 (0.59-1.95)
	noneed	0.152	0.327	0.466	0.649	1.16 (0.61-2.21)
Transportation needs	insuf	-0.065	0.341	-0.192	0.849	0.94 (0.48-1.83)
	noneed	-0.136	0.329	-0.414	0.683	0.87 (0.46-1.66)

^=p<.10
*=p<.05
**=p<.01
***=p=.000

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Table 6c

Discrete-Time Survival Analysis of Combined Factors Predicting Bachelors Degree Graduation

All factors combined		Pooled B	Pooled SE	t	p	OR (95% CI)
Academic-Related Skills						
Time Management skills		0.042	0.126	0.333	0.739	1.04 (0.81-1.34)
Study skills		0.155	0.122	1.262	0.208	1.17 (0.92-1.48)
Problem solving skills		-0.011	0.137	-0.077	0.939	0.99 (0.76-1.30)
Institutional Commitment						
Transferred for better opportunity		-0.058	0.229	-0.252	0.801	0.94 (0.60-1.48)
Satisfaction with college		0.252	0.143	1.765	0.080^	1.29 (0.97-1.70)
Social support						
MOS overall social support score		0.072	0.133	0.539	0.591	1.07 (0.83-1.39)
Helpfulness of caring adult while in college		0.025	0.033	0.746	0.457	1.02 (0.96-1.09)
Social Involvement						
Involved in extraurriculars?		-0.046	0.246	-0.185	0.853	0.96 (0.59-1.55)
Frequency of college social events		0.131	0.101	1.297	0.198	1.14 (0.94-1.39)
Hemingway college connectedness score		0.023	0.174	0.129	0.897	1.02 (0.73-1.44)
Institutional Financial Support						
How well financial aid package met needs		0.031	0.144	0.213	0.832	1.03 (0.78-1.37)
Maltreatment/trauma/PTSD						
Trauma symptom count during college		0.011	0.088	0.127	0.900	1.01 (0.85-1.20)
Severe maltreatment count		-0.067	0.067	-0.998	0.321	0.94 (0.82-1.07)
Other MH problems						
Ever had mental health diagnosis		-0.255	0.235	-1.085	0.282	0.77 (0.49-1.23)
Mental health needs met during college		-0.106	0.109	-0.969	0.335	0.90 (0.73-1.11)
Independent living stability						
Average number of hours worked per week during college		-0.025	0.008	-2.988	0.003**	0.97 (0.96-0.99)
Difficulty of being employed while in school		-0.067	0.118	-0.565	0.572	0.94 (0.74-1.18)
Tangible support						
Support received with…						
5 Academic-Related Skills (time management, study skills,	insuf	-0.276	0.249	-1.107	0.269	0.76 (0.47-1.24)
leadership, problem solving, communication)	noneed	-0.063	0.321	-0.197	0.844	0.94 (0.50-1.76)
Deciding college major/program	insuf	-0.087	0.285	-0.306	0.760	0.92 (0.52-1.60)
	noneed	0.286	0.245	1.171	0.242	1.33 (0.82-2.15)
Housing	insuf	-0.208	0.299	-0.695	0.487	0.81 (0.45-1.46)
	noneed	0.021	0.235	0.091	0.927	1.02 (0.64-1.62)
Career/college counseling	insuf	0.180	0.339	0.530	0.606	1.20 (0.62-2.33)
	noneed	0.167	0.337	0.496	0.629	1.18 (0.61-2.29)
Transportation needs	insuf	0.047	0.357	0.131	0.897	1.05 (0.52-2.11)
	noneed	-0.052	0.340	-0.151	0.881	0.95 (0.49-1.85)

^=p<.10
*=p<.05
**=p<.01
ɔ=.000

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Table 6d

Discrete-Time Survival Analysis of Combined Factors Significant or Trend-Level in Predicting Bachelors Degree Graduation

All significant/trend-level factors combined		Pooled B	Pooled SE	t	p	OR (95% CI)
Institutional Commitment						
Satisfaction with college		0.271	0.115	2.347	0.020*	1.31 (1.05-1.64)
Social Involvement						
Frequency of college social events		0.131	0.067	1.943	0.052^	1.14 (1.00-1.30)
Independent living stability						
Average number of hours worked per week during college		-0.025	0.007	-3.633	0.000***	0.97 (0.96-0.99)
Tangible support						
Support received with…						
5 Academic-Related Skills (time management, study skills,	insuf	-0.494	0.198	-2.502	0.012*	0.61 (0.41-0.90)
leadership, problem solving, communication)	noneed	0.131	0.275	0.477	0.633	1.14 (0.67-1.95)

^=p<.10
*=p<.05
**=p<.01
***=p=.000

Part Two

       Data analysis for Part Two began with identifying three groups for comparison: foster care alumni college graduates, general population college graduates, and general population non-graduates. Foster care alumni from the current sample were included in Group 1 if they met the following criteria:

1) They were between the ages of 21 and 31. Only two outliers aged 33 and 37 were left out of the analysis in order to create a more comparable group with the national studies. If participants did not report their age, this value was imputed by taking the mean of other participants who graduated from high school the same year; and

2) They had earned a bachelors degree or beyond.

This resulted in a foster youth graduate group with N=250.

       To obtain a comparable sample of general population students, cases were selected from the GSS 2006 individual survey based on the following criteria: 1) respondents were between the ages of 21 and 31 (same range as those included in foster youth sample), and 2) had at least graduated from high school. Remaining cases were then divided into two groups: those who had obtained at least a bachelors degree (Group 2) and those who had not (Group 3). Respondents in the comparison groups could have had previous foster care experience; however, due to the low prevalence in general society this was not a major concern. Due to the non-respondent, sub-sampling design utilized by the GSS, the cases were weighted using the WTSSNR variable provided in the GSS data file. Weights were recalibrated using only the cases chosen for the current study. The foster youth group members were all given weights equaling 1. The weighted sample sizes for the two groups were 195 Group 2 participants and 499 Group 3

participants. As was previously explained, the GSS has core items asked every year in addition to year-specific questions. The year-specific questions are conducted using a rotation design and are only asked to approximately two-thirds of participants; thus the N's for these items are smaller.

Descriptive statistics for the foster youth group (Group 1), general population bachelor's completion group (Group 2), and the general population non-completion group (Group 3) are displayed in Table 7a. The three groups differed significantly on gender, race, age, and relationship/household composition, with Group 1 having a higher percentage of female, black, and unmarried participants than the other groups and Group 2 having more white and married participants.

A similar case selection procedure to the one employed with the GSS was used for the PSID. The data used for PSID analysis was household-level; thus, individual descriptive statistics were not directly compared. Cases were chosen based on the following criteria to create two similar groups to those created from the GSS: 1) the family had at least one bachelors-level graduate who was between 21 and 31 years old (weighted N=644), or 2) the family had no college graduates and at least one person aged 21 to 31 who had graduated from high school (weighted N=1306).

Power analysis. According to Cohen (1992), in order to be able to detect a medium effect size for Part Two's ANOVA analysis with power=.80 and α=.05, a sample size of 52 for each group would be needed. For chi-square analysis, a sample size of 107 would be needed to detect medium effects. The GSS comparisons in current study had a sample size of N=250 foster youth graduates, N=195 general population graduates, and N=499 general population non-graduates, indicating power to detect medium

differences. The PSID comparisons in the current study had a sample size of $N=250$ foster youth graduates, $N=644$ general population graduates, and $N=1306$ general population non-graduates, indicating power to detect small to medium differences. Comparative results of the three groups are shown in Tables 7b and 7c.

Work-related factors. Of those working, all three groups reported working a mean of over 40 hours per week. An ANOVA comparing number of hours typically worked was significant ($F=4.1$, $df=2$, $p=.017$), with Group 2 working significantly more hours than Group 3 ($M=44.7$ and $M=41.2$, respectively). Group 1 fell between these two groups, reporting a mean of 42.5 hours per week. A new pattern was found using an ANCOVA controlling for race, gender, and age ($F=5.3$, $df=2$, $p=.005$), with Groups 1 and 2 each working approximately 44 hrs per week and Group 3 working significantly less per week ($M=41$ hrs) than each of the other groups.

Job satisfaction was found to be significantly higher for general population graduates than the other two groups, even after controlling for race, gender, and age ($F=4.8$, $df=2$, $p=.009$). General population graduates reported a mean job satisfaction between moderately and very satisfied ($M=3.4$), while the other two groups were closer to the moderately satisfied classification ($M=3.1$ for Group 1, $M=3.2$ for Group 3). Job security was also highest for general population graduates, with Group 1 reporting significantly lower perceived security than Group 2 ($F=5.0$, $df=2$, $p=.007$). This difference remained after controlling for race, gender, and age ($F=3.4$, $df=2$, $p=.034$; $M=3.1$ vs $M=3.4$). Group 3's perceived job security fell between that of Groups 1 and 2, and did not significantly differ from either ($M=3.3$).

Table 7a

Demographics of Current Foster Youth Bachelors Graduates and GSS General Population Samples Who Have and Have Not Graduated with a Bachelors Degree

Demographic Variables		Group 1: Former foster youth college graduates (Bachelors degree or higher) (N=250)		Group 2: General population college graduates (Bachelors degree or higher) (N=195)		Group 3: General population non-bachelors graduates (with at least a high school diploma) (N=499)		Difference Tests Among Groups (Chi-square, ANOVA, ANCOVA)
		N or M(SD)	% (of those responding) or N	N or M(SD)	% (of those responding) or N	N or M(SD)	% (of those responding) or N	
Gender								χ2=40.4*** (df=2, p=.000)
	Female	179^^+	75.8%	103	52.5%	260	52.1%	
	Male	57	24.2%	93	47.5%	239^^-	47.9%	
Age		25.6 (2.4)	N=250	27.0 (2.5)	N=195	25.5 (3.3)	N=499	F=22.1*** (df=2, p=.000)
Race								χ2=63.6*** (df=4, p=.000)
	White	104^^-	44.1%	154^^+	78.9%	317	63.7%	
	Black	73^^+	30.9%	14^^-	7.0%	79	15.8%	
	Mixed/ Other	59	25.0%	28	14.1%	102	20.5%	
Relationship status								χ2=19.9* (df=8, p=.011)
	Married	59	25.2%	80^^+	41.1%	152	30.4%	
	Widowed	1	0.4%	0	0.0%	2	0.3%	
	Divorced	7	3.0%	5	2.5%	18	3.6%	
	Separated	1	0.4%	0	0.0%	10	2.0%	
	Never married	166^^+	71.0%	110	56.4%	317	63.6%	
Number of people living in household including self		2.4 (1.4)	N=233	2.8 (1.3)	N=195	3.2 (1.4)	N=499	F=30.6*** (df=2, p=.000)
Highest degree completed								
	High school	--	--	--	--	422	84.6%	--
	Associates	--	--	--	--	77	15.4%	--
	Bachelors	204	81.6%	159	81.6%	--	--	--
	Graduate	46	18.4%	36	18.4%	--	--	--
Work status (NOT directly comparable with GSS because GSS only allows one category)								--
	Working fulltime	159	63.6%	140	71.6%	299	60.1%	
	Working parttime	30	12.0%	17	8.5%	59	11.9%	
	With job but temporary illness/strike/vacation	4	1.6%	3	1.7%	9	1.8%	
	Unemployed, laid off, looking for work	34	13.6%	6	3.1%	24	4.9%	
	Retired	0	0.0%	0	0.0%	0	0.0%	
	In school	54	21.6%	15	7.8%	55	11.0%	
	Keeping house	18	7.2%	14	7.3%	49	9.8%	
	Other	27	10.8%	0	0.0%	2	0.5%	

^=p<.10
*=p<.05
**=p<.01
***=p=.000
^^+ : Adjusted Standardized Residual Ł 2.58
^^- : Adjusted Standardized Residual Š -2.58

Note: Sometimes N's for general population samples might not add up to expected values because a weighted sample is used.

Table 7b

Comparisons of Current Foster Youth Bachelors Graduates and GSS General Population Sample Who Have and Have Not Graduated with a Bachelors Degree

	Group 1: Former foster youth college graduates (Bachelors degree or higher) (N=250)		Group 2: General population college graduates (Bachelors degree or higher) (N=195)		Group 3: General population non-bachelors graduates (with at least a high school diploma) (N=499)		Difference Tests Among Groups (Chi-square, ANOVA, ANCOVA)
Post-College Life Situation Variables from GSS							
Work-Related Factors							
If working fulltime, parttime, or with job but temporarily not working, mean number of hours typically worked per week	42.5 (11.6)	N=186	44.7 (13.8)	N=158	41.2 (13.1)	N=367	F=4.1* (df=2, p=.017)
*Adjusted mean number of hours, controlling for age, race, and gender	44.0		44.2		41.0		F=5.3** (df=2, p=.005)
If working or keeping house, job satisfaction							
1 = Very dissatisfied	21	10.8%	2	1.3%	17	5.9%	
2 = A little dissatisfied	21	10.8%	13	9.6%	33	11.7%	
3 = Moderately satisfied	64	32.8%	49	37.2%	129	45.2%	
4 = Very satisfied	89	45.6%	68	51.8%	106	37.3%	
Mean job satisfaction rating (1 to 4)	3.1 (1.0)	N=195	3.4 (0.7)	N=131	3.1 (0.8)	N=285	F=4.6* (df=2, p=.011)
*Adjusted mean job satisfaction rating, controlling for age, race, and gender	3.1		3.4		3.2		F=4.8** (df=2, p=.009)
If working fulltime, parttime, or with job but temporarily not working, job security							
1 = Not at all true	26	14.0%	4	3.6%	15	7.0%	
2 = Not too true	20	10.8%	12	10.0%	25	11.6%	
3 = Somewhat true	63	33.9%	38	32.7%	74	33.4%	
4 = Very true	77	41.4%	63	53.7%	106	48.0%	
Mean job security rating (1 to 4)	3.0 (1.0)	N=186	3.4 (0.8)	N=117	3.2 (0.9)	N=220	F=5.0** (df=2, p=.007)
*Adjusted mean job security rating, controlling for age, race, and gender	3.1		3.4		3.3		F=3.4* (df=2, p=.034)
Income and Residence							
Median individual yearly earnings	$22,500-$24,999	N=218	$30,000-$34,999	N=149	$20,000-$22,499	N=366	
Mean individual yearly earnings	$20,000-$22,499		$25,000-$29,999		$17,500-$19,999		F=23.1*** (df=2, p=.000)
*Adjusted mean individual yearly earnings, controlling for age, race, and gender	$20,000-$22,499		$22,500-$24,999		$17,500-$19,999		F=13.8*** (df=2, p=.000)
Median household yearly earnings	$30,000-$34,999	N=203	$60,000-$74,999	N=170	$35,000-$39,999	N=430	
Mean household yearly earnings	$22,500-$24,999		$50,000-$59,999		$30,000-$34,999		F=33.7*** (df=2, p=.000)
*Adjusted mean household yearly earnings, controlling for age, race, and gender	$25,000-$29,999		$50,000-$59,999		$30,000-$34,999		F=21.0*** (df=2, p=.000)
*Adjusted mean household yearly earnings, controlling for age, race, gender, and number of adults in household	$25,000-$29,999		$40,000-$49,999		$30,000-$34,999		F=17.1*** (df=2, p=.000)

Table 7b (continued)

Comparisons of Current Foster Youth Bachelors Graduates and GSS General Population Sample Who Have and Have Not Graduated with a Bachelors Degree

		Group 1: Former foster youth college graduates (Bachelors degree or higher) (N=250)		Group 2: General population college graduates (Bachelors degree or higher) (N=195)		Group 3: General population non-bachelors graduates (with at least a high school diploma) (N=499)		Difference Tests Among Groups (Chi-square, ANOVA, ANCOVA)
Financial satisfaction								χ2=29.4*** (df=4, p=.000)
	Not satisfied at all	78	34.1%	19^^-	13.4%	106	31.3%	
	More or less satisfied	81^^-	35.4%	80^^+	55.2%	161	47.1%	
	Pretty well satisfied	70	30.6%	45	31.4%	74^^-	21.6%	
Rent or own home								χ2=38.9*** (df=2, p=.000)
	Own	54^^-	23.4%	50^^+	53.5%	109^^+	47.4%	
	Rent/Other	177^^+	76.6%	44^^-	46.5%	120^^-	52.6%	
Health and Mental Health								
Health rating (1=poor to 4=excellent)		3.1 (0.7)	N=236	3.5 (0.6)	N=147	3.2 (0.7)	N=384	F=17.0*** (df=2, p=.000)
*Adjusted mean health rating, controlling for age, race, and gender		3.1		3.6		3.2		F=15.5*** (df=2, p=.000)
Mental health - mean number of days not good in last 30 days		6.8 (8.5)	N=212	2.3 (5.0)	N=120	3.9 (7.7)	N=227	F=15.5*** (df=2, p=.000)
*Adjusted mean number of days mental health not good controlling for age, race, and gender		6.6		2.3		3.6		F=12.5*** (df=2, p=.000)
Happiness rating								χ2=25.7*** (df=4, p=.000)
	Not too happy	34	14.6%	5^^-	3.4%	43	12.7%	
	Pretty happy	123	52.8%	74	51.3%	209	61.4%	
	Very happy	76	32.6%	66^^+	45.4%	88^^-	25.8%	
Social Support (1=never to 7=almost every day)								
Median social time with family		4 (about once a month) N=228		5 (several times a month) N=94		5 (several times a month) N=229		
Mean social time with family		4 (about once a month)		5 (several times a month)		5 (several times a month)		F=14.4*** (df=2, p=.000)
*Adjusted mean social time with family controlling for age, race, and gender		4 (about once a month)		5 (several times a month)		5 (several times a month)		F=9.8*** (df=2, p=.000)
Median social time with friends		5 (several times a month) N=229		5 (several times a month) N=94		5 (several times a month) N=229		
Mean social time with friends		5 (several times a month)		5 (several times a month)		5 (several times a month)		F=0.1 (df=2, p=.940)
*Adjusted mean social time with friends controlling for age, race, and gender		5 (several times a month)		5 (several times a month)		5 (several times a month)		F=1.7 (df=2, p=.186)

^=p<.10
*=p<.05
**=p<.01
***=p=.000
^^+ : Adjusted Standardized Residual L 2.58
^^- : Adjusted Standardized Residual Š -2.58

Note: Sometimes N's for general population samples might not add up to expected values because a weighted sample is used.

Table 7c

Comparisons of Current Foster Youth Bachelors Graduates and PSID General Population Sample Who Have and Have Not Graduated with a Bachelors Degree

Post-College Life Situation Variables from PSID		Former foster youth college graduates (Bachelors degree or higher) (N=250)		Households with at least one college graduate aged 21-31 (Bachelors degree or higher) (N=644)		Households with no college graduates (with at least one person aged 21 to 31 having a high school (N=1306)		
Public Assistance Usage in the Past Year								
State or local welfare assistance used by household								χ2=40.1*** (df=2, p=.000)
	Yes	16^^+	6.9%	0^^-	0.0%	30	2.3%	
	No	215^^-	93.1%	644^^+	100.0%	1276	97.7%	
SSI used by household								χ2=22.0*** (df=2, p=.000)
	Yes	7	3.0%	0^^-	0.0%	44^^+	3.4%	
	No	223	97.0%	644^^+	100.0%	1263^^-	96.6%	
Other types of public assistance used by household								χ2=53.0*** (df=2, p=.000)
	Yes	13^^+	5.8%	0^^-	0.0%	11	0.8%	
	No	212^^-	94.2%	644^^+	100.0%	1294	99.2%	
Any public assistance use (any of the above)								χ2=55.1*** (df=2, p=.000)
	Yes	25^^+	10.7%	0^^-	0.0%	76^^+	5.8%	
	No	208^^-	89.3%	644^^+	100.0%	1231^^-	94.2%	

^=p<.10
*=p<.05
**=p<.01
***=p=.000
^^+ : Adjusted Standardized Residual L 2.58
^^- : Adjusted Standardized Residual Š -2.58

Note: Sometimes N's for general population samples might not add up to expected values because a weighted sample is used.

Income and residence. Income comparisons were made with individual and household yearly earnings. Before controlling for demographic factors, mean individual yearly incomes differed significantly among all groups (F=23.1, df=2, p=.000), with Group 2 reporting the highest income (M=$25,000-$29,999) followed by Group 1 (M=$20,000-$22,499) and then Group 3 (M=$17,500-$19,999). However, after controlling for race, gender, and age (F=13.8, df=2, p=.000) Groups 1 and 2 no longer differed significantly on mean individual income (M=$20,000-$22,499 and M=$22,500-$24,999, respectively). Group 3 remained significantly lower than both other groups, with a mean individual income of $17,500 to $19,999. Adding number of adults in the household as a control variable, these findings remained unchanged.

A different pattern was found for household income. Before controlling for demographic variables, the three groups again differed significantly (F=33.7, df=2, p=.000), but this time with Group 2 reporting the highest household income (M=$50,000-$59,999) followed by Group 3 (M=$30,000-$34,999), and Group 1 reporting the lowest household income (M=$22,500-$24,999). After controlling for race, gender, and age the differences among these means lessened slightly but remained significant (F=21.0, df=2, p=.000), with Group 1 continuing to have lower household incomes than the other two groups and Group 3 continuing to have lower income than Group 2. Finally, after adding number of adults in the household as a control variable, the differences are further reduced. Group 2 continues to have significantly higher mean household incomes than both Groups 1 and 3, but their adjusted mean is now $40,000-$49,999. Furthermore, while the mean income brackets of Groups 1 and 3 remain the same, the difference between these groups is no longer significant.

Financial satisfaction also differed by group (χ^2=29.4, *df*=4, *p*=.000), with almost

one-third of Groups 1 and 2 reporting high satisfaction compared to one-fifth of Group 3.

However, only 13.4% of Group 2 reported no satisfaction at all compared with

approximately one-third of Groups 1 and 3. Finally, home ownership was found to occur

significantly more frequently for the two general population groups, regardless of higher

education status (χ^2=38.9, *df*=2, *p*=.000). Over three-fourths of the foster youth graduate

group reported not owning their home compared with around half of the other two

groups.

  Health and mental health. Significant differences were found among groups for

self-reported assessments of quality of health, mental health, and happiness. General

population graduates reported significantly higher health ratings (between "Good" and

"Excellent") than the other two groups ("Good"), even after controlling for race, gender,

and age (*F*=15.5, *df*=2, *p*=.000). No health rating differences were found between foster

youth graduates and general population non-graduates. Happiness ratings were also

significantly higher for Group 2 (χ^2=25.7, *df*=4, *p*=.000), with higher than expected

ratings of "very happy" and lower than expected ratings of "not too happy" occurring for

Group 2. Slightly more foster youth graduates than general population non-graduates

reported being "very happy". Foster care graduates reported having poor mental health

almost a quarter of each month (*M*=6.8 days), which was a significantly higher number

of days than either of the other two groups (*M*=2.3 days for Group 2 and *M*=3.9 days for

Group 3). This difference remained even after controlling for race, gender, and age

(*F*=12.5, *df*=2, *p*=.000).

Social connections. Foster youth graduates reported spending social time with family approximately once per month, which was less than the other two group means of several times per month, even after controlling for race, gender, and age ($F=9.8$, $df=2$, $p=.000$). However, this difference was only significant between Groups 1 and 3. No differences were found among the groups for time spent with friends ($F=1.7$, $df=2$, $p=.186$), with all groups reporting a mean of several times per month.

Public assistance usage. No participants in Group 2 reported using any type of public assistance in the past year. Foster youth graduates reported a higher percentage of overall public assistance usage as well higher rates of each individual type of assistance listed except for SSI compared with each of the other groups. Approximately 11% of foster youth graduates reported using some type of assistance compared with 5.8% of general population non-graduates and 0% of general population graduates ($\chi^2=55.1$, $df=2$, $p=.000$).

Chapter 5: Discussion

Summary of Findings and Interpretation

Part one. The first set of research questions addressed the types of factors associated with college retention for a sample of highly successful youth with foster care experience. The first hypothesis, that factors found to predict college retention in the general population will be significantly associated with college retention for foster care alumni, was partially supported. Five of the nine factor categories (academic-related skills, institutional commitment, social support, social involvement, and institutional financial support) had at least one item with a significant or trend-level relationship with disengagement, while the remaining four (academic goals, high school GPA, institutional selectivity, and SES) were not found to be significantly related to school disengagement. Some of the general population factors found in the current study to be associated with retention were similar to those outlined in other studies of college-attending foster care alumni. These included academic-related skills and the quality of financial aid received by students, similar to the lack of academic preparation for college and awareness of resources for paying for college as suggested by Dworsky and Perez (2009). The importance of institutional commitment was similar to the risk factor of losing interest in school as found by White, Holmes, O'Brien, and Pecora (2005).

The second hypothesis, that foster care-specific factors will be significantly associated with college retention for foster care alumni, was also partially supported. Four out of the seven factors (maltreatment/trauma/ptsd, other mental health problems, independent living stability, tangible support) had at least one item with a significant or trend-level relationship with disengagement, while the remaining three factors (stigma,

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participation in foster youth-specific programming, and connectedness to loved ones) were not found to be related to school disengagement.

Finally, the third hypothesis, that when tested together, foster care-specific factors as a group will predict college retention over and above the group of factors associated with retention in the general population, was not supported. No improvement in model fit was found when foster care-specific factors were added into the general population factor model. Furthermore, comparing the model fit of the two separate factor models, the general population factor model appeared to fit the data slightly better than the foster care-specific factor model, although there is no test to determine if this difference is significant or important.

Thus, the answer to the first set of research questions appears to be that a variety of factors, both those found in retention research with the general population as well as those more specific to those with foster care experience, are associated with and likely affect college retention for youth with foster care experience. However, foster care-specific factors do not appear to explain a significant portion of variation around college graduation beyond what general population factors explained.

Part One interpretation: Individual factors. The current study was framed in terms of Bronfenbrenner's ecological systems theory. The findings of the current study seem to suggest that the various systems experienced by youth with foster care experience work together to impact college retention. For example, both having mental health needs (a micro-level factor) and not being able to have these needs supported (a meso-level factor often depending on the school) were associated with increased school disengagement. Similarly, both academic-related skills (i.e., study skills, time

management skills – micro-level factors) and receipt of sufficient support with things such as developing these skills and securing housing and transportation (meso-level factors) were more indicative of maintained engagement. Other factors, such as one's satisfaction and connectedness with the college environment, were mixtures of micro and mesosystem experiences. Factors even further removed from students' micro or meso levels, such as the availability of sufficient financial aid (possibly interpreted as an exosystem or macrosystem factor), also had salient bivariate associations with college disengagement.

The current study offered partial support for the educational theories explaining the factors related to retention in the general population. Five of the nine factor categories were found to differentiate those who disengaged from school from those who did not, and, combining them in analysis, two of these five continued to stand out. The two most prominent factors were institutional commitment and social involvement. Both of these factors involve an interaction between students and their school environments as was outlined by Tinto (1975, 1993), as well as possibly a selection or socialization into the values of their colleges as was suggested by Bean (1985). However, many of the hypothesized factors, including academic goals, high school GPA, institutional selectivity, and SES were not indicative of higher dropout. These findings revealed a different pattern than that hypothesized by Tinto and Bean. This may be partially explained by a lack of variability in the responses reported for some of these factors, especially for academic goals and high school GPA. It could also be argued that these factors are much more reflective of students' microsystems regardless of the integrative nature of their colleges, so it is possible that the true power of the factors studied here

was their ability to integrate or help students find a comfortable place in their schools. This would hold true for the other factors found to be significant at the bivariate level, including social support and institutional financial support. The only factor found to be significant at the bivariate level that is more of a microsystem variable is academic skills; however, receiving support with these skills was also indicative of increased success, suggesting that integration is still key here.

Many of the foster youth-specific factors found to impact college retention were similar to those found previously in the literature. For example, tangible supports (specifically support with academic-related skills) and PTSD and other mental health issues (at the bivariate level) were similar to some of the factors outlined by Dworsky and Perez (2009), including appropriate supports offered by colleges and emotional/behavioral problems. Similar factors to those found by White, Holmes, O'Brien, and Pecora (2005) to relate to program non-completion were also found, including needing to work and having an emotional or behavioral problem.

Several items within the Trauma/Maltreatment factor were found to differentiate those who did and did not disengage; however, all of these effects disappeared in the multivariate analysis. While this factor does seem to warrant some attention given its bivariate relationship with disengagement, it appears that retention can be better explained by experiences more directly related to one's everyday college experience, including receiving support with academic skills and spending a substantial time working instead of focusing on school. It is interesting, however, to compare the reported trauma exposure rates of this group to those found in the general population of college students. A study by Bernat, Ronfeldt, Calhoun, and Arias (1998) found that in a sample of 937

college students, two-thirds reported having experienced a traumatic event in their lifetime. In the current study, three-fourths of the sample reported experiencing a traumatic event before college and 41% reported a traumatic experience during college, with over 80% of the sample reporting having experienced a trauma either before or during college. Furthermore, the Bernat et al (1998) study found 12% of respondents who had experienced trauma to meet PTSD criteria within the past week. While the current study did not assess PTSD symptomatology for a specific cross-section of time, 50% of those who had experienced trauma before or during college screened positive for PTSD at some point during their time in college.

A more recent study by Read, Ouimette, White, Colder, and Farrow (2011) measured trauma exposure and PTSD prevalence in a large sample of newly enrolled college students and found 66% of students to have experienced a traumatic event in their lifetime, almost identical to Bernat et al's (1998) finding and again slightly less than the current foster care alumni sample. Read et al also found that 9% of students met diagnostic criteria for PTSD, slightly lower than that found by Bernat (1998). Read et al did find gender and socioeconomic status to be associated with trauma severity and risk for PTSD, with females and those experiencing lower SES experiencing increased risk for PTSD. These variables likely explain part of the increased rates of PTSD found in the current study.

It is interesting to note that none of the independent stability variables tested except for those related to employment were found to be associated with college success. This suggests that these factors may have largely been worked out by the time these youth make it to college, or possibly that colleges were successful in helping to create

stable environments for these youth. However, whether or not they received sufficient support with certain facets of independent living such as housing and transportation needs were indicators of increased school retention, at least at the bivariate level. It is possible that since supports were significant but the actual issues of stability were not that this support was being received relatively early in the college process, before issues of stability were allowed to materialize.

Three foster youth-specific factors were not found to be associated with school disengagement. The first was stigma. The perception of stigma due to one's identity of being in foster care was not found to be a salient factor in regard to retention as it has with other stigmatized populations such as African Americans and females (Steele, 1997). While the experience of stigma has been found to operate in youth in foster care, it is possible that stereotype threat works more as a deterrent to college enrollment rather than retention. Another explanation may be have to do with the fact that, while the foster care identity may be perceived as stigmatizing, students may choose to hide this identity if they think it could be harmful, thus avoiding the potential negative consequences that stereotype threat may have. Hiding this identity is not an option for female or African American students, which may explain the retention impact found for these groups but not the foster youth group.

The second factor failing to differentiate those who did and did not disengage was connectedness to loved ones. However, connectedness to the college environment itself was significant, at least at the bivariate level. These findings suggest that connectedness is playing more of a direct role in impacting these youths' ecological world of college rather than the indirect role that connectedness to loved ones would imply. However, it is

possible that connectedness to loved ones played more of a role in postsecondary enrollment rather than retention. Finally, participation in foster youth-specific programming was not found to impact college retention. However, all of the factors that were found to be associated with retention are factors that programming could target. This will be discussed further in the "Implications for Social Work Practice" section below.

Part One interpretation: Factor models. The current study found that the foster youth-specific factor model did not significantly improve the fit of the model predicting retention, and that BIC scores of the general population model were lower than those of the foster youth-specific models, indicating that the general population model had better fit. However, due to the lack of statistical comparison for BIC scores it is unclear just how much better the general population factor model fit the data. Furthermore, a second analysis of deviance scores, this time comparing the foster care model and the combined factor model, also revealed no significant improvements in model fit. This suggests that the superiority of the general population factor model over the foster care-specific factor was likely small. Thus it can be argued that, while putting the factor groups together does not appear to be beneficial in better predicting retention, neither group appears to have a substantial advantage over the other in terms of predictive power.

Part two. The second set of research questions addressed how college graduates with foster care experience were faring in their adult lives compared with general population graduates and non-graduates, and whether the foster care macrosystem reduced the level of benefit achieved from higher education. The first hypothesis, that both general population and foster care alumni graduates will fare more positively than

general population non-graduates on income, job security, job satisfaction, financial satisfaction, public assistance, physical health, mental health, general happiness, home ownership, and public assistance use was partially supported. The hypothesis was confirmed for three factors: individual income, financial satisfaction, and happiness. Only the general population graduates were found to be faring better than general population non-graduates in terms of household income, job satisfaction, health and mental health ratings, home ownership, and public assistance use. There were no differences in perception of job security found between the college graduates and the non-graduate group.

Some findings were actually opposite to those anticipated. In terms of household income, the general population graduate group had higher income than non-graduates but the foster youth graduate group actually had lower incomes than the general population non-graduate group before controlling for number of adults in household. The foster youth graduate group also reported lower home ownership rates and higher public assistance use rates than the general population non-graduate group. Furthermore, the foster youth graduate group spent significantly less time with their families than the general population non-graduate group, and reported a substantially larger number of days per month with poor mental health than the non-graduate group.

The second hypothesis, that foster care alumni graduates will fare less positively than their general population counterparts due to moderating effects of foster care macrosystem involvement, was also partially supported. Foster youth graduates fared less positively on job satisfaction, financial satisfaction, job security, household income, health and mental health ratings, happiness, home ownership, and public assistance use

than general population graduates. However, no differences were found between the graduate groups on individual income or time spent with friends.

The two factors that were found to confirm both hypotheses simultaneously, i.e. that graduates fared better than non-graduates but that foster youth graduates experienced a lesser degree of advantage than general population graduates, were financial satisfaction and happiness. For financial satisfaction, the group of non-graduates had significantly fewer than expected participants reporting high satisfaction (no difference between two graduate groups), but the general population graduates had significantly fewer than expected participants reporting no satisfaction. Thus the foster youth graduate group fell between the two general population groups in relation to satisfaction with finances. A similar pattern was found with happiness, with more general population graduates than expected and fewer non-graduates than expected reporting to be very happy (with foster youth graduates falling in between).

The answer to the research question would thus appear to be mixed. College graduates with foster care experience do seem to be making gains following graduation from college. For example, the Casey National Alumni Study (Pecora et al, 2003) found significant individual income differences, with foster care alumni overall having significantly lower incomes than their general population counterparts. The current study, on the other hand, found foster youth graduates to have very similar individual incomes to the general population graduate group and significantly higher individual incomes than the general population non-graduate group. However, these gains are not consistent over all areas of life. Self-reported health ratings, for example, were the same for the foster youth group and the general population non-graduates, and both were significantly lower

than the ratings of the general population graduate group. This finding suggests a different pattern than that found by Baum and Ma (2007) regarding an association between graduating from college and higher self-reported health quality. It is possible that the foster care macrosystem may interfere with the gains in this area that have been found to occur in the general population.

In some areas, the foster youth group was struggling more than both general population graduates and non-graduates. For example, foster youth college graduates continued to have significantly lower household incomes than either general population group, continuing to reflect the pattern of the overall foster care alumni population found in the Casey National Alumni Study (Pecora et al, 2003). The difference between the foster care graduates and general population non-graduates largely disappears when controlling for number of adults in the household; however, if foster care alumnis' individual incomes are higher than non-graduates' but household incomes are the same, this still suggests that the benefits of higher education are not translating in a more global manner that transforms the overall living situations of these youth. Relatedly, the foster youth graduate group continued to report much higher rates of public assistance use (10.7%) than either of the general population groups, continuing to reflect the pattern found in the overall foster alumni population (approximately 12%; Pecora et al, 2003), and again showing a different pattern than that found in the general population by Baum and Ma (2007) and Perna (2005) of college graduation being associated with lower public assistance use. These findings regarding household assets suggest that foster care alumni graduates may be playing a unique role in their families – that of the primary, and possibly more frequently the only, wage earner.

Job security also showed a different pattern than findings by Baum and Ma (2007) regarding an association between college graduation and job security in the general population. In the current study, general population graduates had the highest security ratings, followed by general population non-graduates and lastly foster youth graduates. This finding is especially interesting given the fact that the foster youth group had similar incomes to the general population graduate group. It could be that foster care alumni are more likely to obtain less secure jobs or that the economic recession taking place during the study added an additional threat to security that was not experienced by the general population graduate group in 2006. Another explanation is that youth coming from foster care may tend to feel less secure about the stability of their lives in general. Given their histories of home removal, placement instability, and experiences of trauma, it is possible that a lack of perceived security continues to be pervasive.

Finally, the foster youth graduate group continued to own their homes at a much lower rate than either of the general population groups, again reflecting similar findings as those found for foster care alumni overall in the Casey National Alumni Study (Pecora et al, 2003). Income does not appear to be the barrier here, given foster youth graduate households were found to be making approximately as much as general population non-graduates, who reported much higher rates of home ownership. It is possible that the foster care macrosystem is continuing to operate here in relation to the tangible supports available in adulthood. Often young home owners have co-signers and/or down payment support from their families that allow them to qualify for financing. It is possible that the foster youth graduate group simply do not have these types of resources, which may be preventing them from participation in home ownership at comparable rates to their

general population counterparts. These limitations in tangible supports could also extend to the network of people with which foster care alumni are connected that may be able to connect them with career opportunities. It is possible that smaller networks of connection and support could partially explain the lower rates of job satisfaction and security found in the foster youth graduate group.

These combined findings from Part Two offer compelling evidence that foster care involvement does in some ways function as a macrosystem as framed by Bronfenbrenner (1992). The foster youth graduate group did appear to experience some of the benefits of higher education found to occur in the general population; however, the experience of the foster care macrosystem appears to moderate the benefits gained from achieving higher education even after youth are no longer involved in the system. Findings seem to support the sentiment expressed earlier by Kates (1996) that higher education many not be a panacea for poverty but can begin to offer pathways out.

Limitations

Limitations of research design. The current study used cross-sectional, non-experimental data to explore predictors of college success. While associations between the outlined variables were explored and causality can be suggested, it cannot ultimately be inferred.

Although predictors of college retention were designed to be as objective as possible, they were collected after the outcomes (college disengagement/ completion) occurred. Because of this, recollection and reporting may have been influenced by the outcome. For example, those more successful at completing college may have more positive recollections of how involved they were in their school environments or how

supported they felt. This is also the reason that a retrospective measure of academic self-efficacy was not collected.

Secondly Part Two of the current study conceptualizes foster care as a macrosystem that moderates the benefits reaped by a college education. However, because there was not a sample of foster youth non-graduates in the current study it was not possible to statistically test for moderation. Moderation could only be inferred by the level of benefit of the foster youth group falling between the general population graduates and non-graduates.

Limitations of convenience sample and generalizability. While it is anticipated that information from this study will be used to generalize to college-bound youth aging out of care as a whole, the fact that data was collected from a convenience sample presents several limitations to generalizability. Most of the students in the sample attended a four-year university, which is relatively uncommon for youth with foster care experience. Furthermore, all youth selected for the scholarship program had strong credentials that got them into the program in the first place, so the exceptional nature of their abilities and accomplishments may or may not generalize to other youth with foster care experience who go to college. It is possible that the strengths, supports and barriers that affect this sample's retention are different from those who are not as high-achieving; however, it does not seem unreasonable to assume that these factors will relate at least to a certain degree to less high-achieving youth with foster care experience, such as those who did not receive scholarships for college or those who worked toward two-year degrees.

Another limitation attributable to the sampling procedures of the current study is related to the group comparisons in Part Two. The foster youth sample was put into statistical analysis with GSS and PSID samples; however, these participants were drawn from very different samples using different sampling and interview procedures, limiting the accuracy of the results that directly compare them. Furthermore, general population samples from the GSS and PSID could have contained respondents who were foster care alumni. Finally, the fact that data from the general population comparison groups were collected approximately three to four years before the data from the foster youth group clouds comparisons, especially those involving income. Data from the foster youth group was collected in the midst of an economic recession, which is one example of the additional nonequivalence of these groups.

Limitations of data collection and measures. There are a variety of limitations related to conducting data collection through an online survey. First, there was no in-person contact to ensure understanding of the measures, response to all questions, confidentiality of the environment in which the participant is responding, or that the respondent is even the intended participant. Furthermore, there was no way to offer direct support or comfort if participants experienced distress or confusion due to survey questions, which could have resulted in potentially harmful circumstances for the client or incomplete responses to survey questions.

The measures used also present a variety of limitations. Several constructs were represented by only one or two survey items that have not been validated. A similar problem was experienced in the Robbins et al (2004) meta-analysis on which the current study is modeled. Secondly, all data except for ratings of school selectivity were self-

report, preventing a triangulation of findings. An additional limitation is that participants were asked to report on experiences that happened in the past, sometimes several years ago. Maltreatment self-reports in particular could be inaccurate for a variety of reasons, including memory error, inaccessibility of memory due to experiences of trauma, or the wording or scoring of the measure (Delillo et al, 2006). Furthermore, participants' mental health diagnosis rates were determined by asking participants to list prior diagnoses they had received. Rates are likely under-reported due to 1) an inability to remember full diagnostic histories and 2) the presence of mental health challenges that went undiagnosed.

The current study did not measure academic self-efficacy, which was found to be the strongest predictor of college retention in the Robbins et al (2004) meta-analysis. It did not seem plausible to expect accurate reports of past academic self-efficacy, given that these would likely be affected by subsequent experience of college success or drop-out. Using a present-focused general self-efficacy measure was considered; however, Robbins et al (2004) tested general self-concept as a predictor of college retention and did not find it to be a significant predictor, suggesting it would not be a fitting substitution. Furthermore, the current study collected self-reported standardized test score data, another significant predictor of retention in the Robbins et al (2004) meta-analysis, but the data was unusable due to the lack of accuracy in reporting (evidenced by, for example, several reported scores not falling within the actual range of possible scores on a given test). The use of national dataset questions and samples as control groups also created some limitations. Part Two questions needed to mirror national dataset question

wording in order to be directly comparable, but the availability and wording of relevant questions was not always ideal for exploring topics of interest.

Implications for Social Work Policy and Practice

> **Part One.** The current study suggests many implications for both social work policy and practice. First and foremost, it is interesting to find that participation in foster youth-focused programming was not a significant predictor of college retention; however, all of the factors, both general population factors and foster care-specific factors, that were found to be related to disengagement are factors that independent living programs and other programs focused on supporting youth in foster care could be targeting. In particular, this study suggests that social workers should spend more time supporting youth in four primary areas: increasing their satisfaction with college, participating in social events, finding a balance between school and work, and building academic-related skills. Two of these skills, increasing college satisfaction and finding a balance between work and school, are similar to but more complex than some of the skills typically addressed in independent living programs. Independent living workers in some states frequently support students in the logistics of getting enrolled in a college program of their choice; however, whether or not there is a frank exploration about which school would be a good fit or most satisfying for a student may be less common. Furthermore, it may be out of the realm of traditional independent living programs to support students in finding a comfortable and fitting place within their new schools. Often students (whether general population or foster care alumni) decide, before even visiting, that a certain school is their dream school. This could be based on knowing others who have gone there or the reputation of the school in general. It is an independent

living worker's job to help the student apply for and successfully enroll in postsecondary education; however, this deeper exploration into what would be a good fit, an exploration that may take place more often, for example, in a family with invested parents, may not take place without an explicit reason for doing so (such as an evidence base that such exploration is needed).

Independent living programs also often support students around preparing for and finding employment; however, it is unclear whether these supports extend to exploring a healthy school-work balance. The findings of the study do seem to support the idea of survivalist self-reliance as outlined by Samuels and Pryce (2008). Working less often means taking out more loans, and financial support such as this may suggest a type of dependence on the system that is uncomfortable for youth with foster care experience. Furthermore, the Casey/OFA scholarship grants obtained by youth in the current study are designed to provide for any "unmet financial need" as specified by the students federal SAR (student aid report) from the FAFSA so an actual need for these students to take on heavy workloads is unlikely – working may simply feel like a necessary part of life for someone whose identity is partially constructed on the ideal of independence. For independent living programs to be able to make connections with youth that help them feel more comfortable with interdependence and constructing healthy school-work balances, or to make any sort of meaningful progress for that matter, it seems they must be able to help youth build relational skills rather than focusing on just "the economic and physical aspects of adult independence that are observable, measurable, and more easily taught" (Samuels & Pryce, 2008, p. 1208; Propp et al., 2003).

Providing support with academic-related skills certainly seems to fall within the realm of what independent living programs could provide. While these types of supports may be present in some programs, they do not seem to be common. Furthermore, the skill levels needed for college-level functioning are likely more complex and specialized than those needed in high school. Being able to provide skill-building supports that meet individual students' needs could prove to be challenging for programs that already operate under tight budgets with limited employees. The last of the four most salient factors for independent living program to consider is supporting participants in being more active in their school's social events. Again, providing such specialized, campus-specific supports could be challenging for an ILP worker with a heavy caseload. Three recommendations for improving ILPs' ability to meet the unique needs of college-attending youth are offered.

1. *ILPs should prioritize supportive development of the youth in their environment rather than simply the logistics of living independently.* The current study seems to clearly indicate the need for supports that go beyond the logistics of filling out applications, creating resumes, opening checking accounts, and other bureaucratic requirements of creating a stable life. This is not to undermine the importance of these services or the relationships developed between ILP workers and their clients; while ILPs have had little evaluation there is at least some evidence that these functions are important and worthwhile (Georgiades, 2005; Lindsey & Ahmed, 1999). However, youth appear to need support not only navigating the logistics of adulthood but also supports becoming more integrated and finding a sense of belongingness and satisfaction for themselves, especially those going to college.

2. *ILPs could identify workers that specialize in working with college-bound and college-attending youth.* An additional approach that ILPs could take is identifying ILP workers who are "college experts". All youth aspiring toward or attending college could be assigned to these workers, who in turn would become immersed in the unique experiences, needs, and challenges of college-attending clients. These workers would become more familiar with the happenings and resources at local colleges, which would make connecting students more fully into their environments much simpler. They could develop partnerships with staff at local schools so that they have a go-to person if a unique issue surfaces with a youth. Furthermore, they could support friendships and networking among students in their caseloads who attend the same schools in an effort to foster more familiar supports. Finally, their immersion in helping students with similar goals would ideally help them gain more insight into how to support youth more appropriately around some of the unique issues that have surfaced in the current study, including finding a work-school balance, becoming more socially involved, accessing specialized academic-related supports, and, ultimately, gaining more satisfaction with their school environments.

3. *If ILPs do not have the time or resources to have ILP workers attend to the specialized needs of these youth, they could start a targeted volunteer mentoring program to pair youth with college-experienced adults.* Providing more relational and integrative skill building and supports can be quite time-consuming, and could prove to be a challenge for many ILPs. One possible method for circumventing this issue could be starting a volunteer mentoring program. Mentoring programs are a popular approach to providing long-term, low-cost, one-on-one support from community members. For ILPs

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trying to better support youth attending college, this mentoring program could be targeted to specifically focus on supporting college integration and the unique needs discussed above. Not only would a volunteer mentoring program provide a relatively inexpensive way to elicit the help of college-experienced individuals who want to help; this is also a means of providing youth with more opportunities to build relationships and network – with someone not involved in the child welfare system and not paid to spend time with them. Volunteer tutors could also be recruited. College-experienced volunteers are often not hard to find – many professions and college programs reward or even require that their students/employees participate in volunteer activities. Furthermore, mentoring of this nature can be very appealing in that it offers an opportunity for mentors to use their specialized skills, education, and connections to support less fortunate youth.

One independent living program, the Multnomah County Independent Living Program in Portland, Oregon, has recently started a pilot project of such a program. The project, entitled Coaching for College Success, pairs college-involved youth with foster care experience with a college-experienced mentor. The mentor is either currently a junior or beyond in college, has successfully graduated from college within the last few years, or currently has close connections with a local college. Mentors and mentees spend time together working on four primary areas: academic performance, involvement in extracurricular activities, developing social/professional/academic connections, and career preparation. Mentor pairs spend a minimum of 5 hours per month together working toward goals as well as having fun together. The project intends to enroll 30 matches at a time, and is run by one FTE of staff time. If found to impact the outcomes it is targeting, the project could offer an economical approach to providing specialized

supports and many new community connections through only one additional fulltime position. This approach can also offer a cost-effective means of continuing support past the traditional age of eligibility for independent living supports, which is often 18 to 21.

Improvements in practice approaches are one area in which to intervene; changes could also be made to improve the policy that outlines services for these youth. Most current policy, including the Higher Education Act of 2008 and the College Cost Reduction and Access Act (2007), primarily addresses financial elements of college support. However, policy could outline expectations for rates of postsecondary completion of youth with foster care experience (comparable to those of the general population) and recommend (and provide funding for the development of) the use of evidence-based practices in supporting youth through college. As was discussed earlier, not all states even offer postsecondary supports as part of their independent living programs (United States General Accounting Office, 1999) – building in incentives to do this may be necessary to get some programs to participate. Programs could be rewarded for finding effective (and cost-effective) ways to support these youth, as evidenced by higher rates of college enrollment and graduation. Furthermore, policy could require that youth were automatically enrolled in ILPs once they reach a certain age unless they opt-out, instead of vice-versa. The fact that most youth do not even participate in most ILP services (Courtney et al, 2005) must be addressed if improvements in services are to actually impact those they are designed to support.

Part Two. The finding that involvement in the foster care macrosystem continues to have an effect even beyond successful college graduation is concerning and deserves the attention of practice and policy alike. One could make recommendations regarding

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the extension of services and supports available to foster care alumni indefinitely, or at least through age 25 when many have had time to successfully complete a postsecondary program. Supports related to home ownership, such as offering government co-signing options or down payment support, could be helpful in meeting the continued gaps in tangible supports. However, findings such as these are a serious reminder of the lasting effects of the complex experiences that many of these children and youth encounter. Whether the effects continue from early trauma and removal from the home or from their experiences in the foster care system itself, it does not appear that social work has figured out a way even to support the most resilient youth in reaching many of the quality of life achievements experienced by society in general.

Future Directions for Research

The current study provides insight into the experiences of foster care alumni as they move through college, as well as what their lives are like post-graduation. However, it also reveals a variety of areas that would benefit from further exploration. The current study looked at retention primarily for scholarship recipients students attending, and ultimately graduating from four-year universities. There certainly needs to be more exploration into factors associated with retention for: 1) students not heavily supported by scholarships; 2) students pursuing two-year programs; and 3) students who did not manage to return and graduate after a brief disengagement from school. It is possible that some of the factors in the current study that were not found to be significant or that disappeared in multivariate analysis, such as independent living stability or the perception of stigma, are more pertinent for these students.

Furthermore, while the current study is focused on retention much is still not known about factors differentiating those who do and do not enroll in college in the first place. This could be another place where factors such as trauma history or high school GPA could be more powerful differentiators. It also may be more reasonable to expect that actually enrolling in or starting college may be more affected by the set of foster care-specific variables than the general population set – it could be explored whether those not as affected by foster care-specific variables are the ones who make it to college in the first place.

Many general population factors, such as social support and academic-related skills, could have clearly been affected by foster-care specific factors such as trauma or access to tangible supports. How much these factors overlap and explain each other could also be a valuable avenue for exploration to understand where intervention is most likely to be beneficial. Furthermore, the current study only tested linear associations between factors and retention. It is possible that non-linear associations may better explain some of the relationships among the factors in the current study.

Finally, exploring further how to improve supports available to youth with foster care experience is clearly a fertile area for continued exploration. The current study found foster care-specific programming to not significantly differentiate those who disengaged from those who did not; however, there is no inherent reason why this has to be so. Further research is sorely needed to figure out how to improve supports for these youth that they already have access to but that may not be serving them as well as they could.

In relation to post-college outcomes, future directions include 1) comparing the adult experiences of foster youth graduates and non-graduates (i.e., being able to

statistically test the moderation effect of the foster care macrosystem); 2) examining the social capital and network supports available to foster care alumni college graduates and how these may impact post-college life situations; 3) exploring possible policy initiatives that may offer continued support to foster care alumni up to age 25, or as long as they are enrolled in a postsecondary program, and what the effects of these policies may look like; and 4) exploring whether adult circumstances for college graduates with foster care experience improve after graduates have been out of school for a substantial amount of time.

Conclusions

Many youth with foster care experience make it successfully to and through college; however, this is not the norm. Youth from foster care experience a variety of factors that support or interfere with college retention. Some of these factors are similar to those experienced by the general population, and some are more unique to experiencing the macrosystem of foster care. The current study found a variety of factors associated with college retention for a highly successful sample of youth with foster care experience. Four factors – Institutional Commitment, Social Involvement, Independent Living Stability (in relation to employment during school), and Tangible Support (primarily with academic-related skills) surfaced as the most salient. In order to address these factors, approaches that go beyond logistical support to address relational and integrative aspects of college life, seem necessary.

Society is responsible for supporting the needs, strengths, and talents of youth placed into foster care, and social workers are the entities directly charged with fulfilling this responsibility. Social workers are thus responsible for creating and improving

supports that effectively meet the goals, including postsecondary pursuits, of these youth. Independent living programs are the federal government's primary strategy for supplying these services; however, the impact that these programs are making is unclear at best. Independent living programs are present in every state; why is more attention not being paid to improve these programs to better meet the postsecondary needs of youth aging out of foster care? A popular approach to attempt to support these youth tends to be creating new, isolated programs (for example, those based at college campuses) that work to meet needs not met by other programming. These programs provide invaluable support to the students who happen to attend a college where a program is located. But what about students who want to attend a school that does not have a program uniquely designed to meet their needs? What if a student wants to start at one for their first two years and then transfer to another – how can continued support be offered? Independent living programs could be this continued support – the financial infrastructure is there, but the effort to bolster and improve these programs, especially through systematically studying best practice and what factors to attend to, is lacking.

Finally, foster care alumni college graduates do seem to be experiencing some of the same post-college benefits reaped by the general population graduates. However, the effects of being in foster care seem to continue to moderate these benefits, even for the most successful foster care alumni. How can we as a society consider our responsibility for this moderating effect? And what can be done to reduce this effect? Social workers must consider solutions for either continuing supports or to more deeply consider just how severe the lasting effects of being involved with the child welfare system are and what this means to how we provide child welfare services throughout clients' childhoods.

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    improving their educational opportunities. *Child Abuse and Neglect, 28*, 917-923.

Foster Youth and College Survey

Introduction

You are invited to take part in the Foster Youth and College survey as a result of your involvement with the Casey Family Scholars and/or Orphan Foundation of America scholarship program. The purpose of this survey is to learn more about how we can best support college students who have spent time in foster care in having successful college experiences. The following screen will tell you more about the survey, what it will be about, and any risks and benefits associated with participation. Thanks so much for taking the time to check it out!

<screen #2: informed consent>

Informed Consent

Foster Care and College Study

You are invited to participate in a research study conducted by the Orphan Foundation of America (OFA), Casey Family Programs, and Amy Salazar from the Portland State University School of Social Work. The researcher hopes to learn about the best ways to help support youth who have spent time in foster care to have more positive and successful college experiences. This study is being conducted in partial fulfillment of the requirements for a doctoral degree, under the supervision of Dr. Thomas Keller, Professor of Social Work at Portland State University.

You were selected as a possible participant in this survey as a result of your involvement with the Casey Family Scholars and/or Orphan Foundation of America scholarship program.
If you decide to participate, you will be asked to respond to an online survey that will take approximately 20-40 minutes. The survey will ask about some of your experiences getting ready for college and being in college, as well as some of your experiences related to being in foster care. You will be asked about services and supports that you may have received to be successful in college, difficult experiences that may have made it difficult for you to be successful in college, and what advice you would give to other youth with foster care experience who want to go to college. You will also be asked to answer some questions about how you are doing now in terms of income, job stability, health, mental health, and other related questions.

While participating in this study, it is possible that you may find some of the questions regarding some of your past experiences upsetting or uncomfortable, such as questions about any abuse, neglect, or trauma that you may have experienced. Questions about

mental health challenges you have experienced will also be asked. Furthermore, you will be asked to share about some of your experiences related to being in foster care. You are free to skip any questions that you do not feel comfortable answering. You are also free to stop the survey at any time. A phone number will be provided for an organization that can help you if you feel that you need support. It is hoped that the study may help to increase knowledge which may help other youth with foster care experience in the future. To thank you for your participation, you will be offered a $10 gift card as compensation for your time. You will be offered a gift card even if you complete only some of the survey.

Any information that is obtained in connection with this study and that can be linked to you or might be able to identify you will be kept confidential. Only the OFA, Casey Family Programs, and Amy Salazar from Portland State University will have access to identifying data. Furthermore, your name and your survey answers will be collected in separate files so that they will not be linked. Confidential information will be kept in password-protected files at Portland State University and/or the OFA. Your name will not be kept with any of your responses because they will be collected separately.

Your participation is voluntary. You do not have to take part in this study, and it will not affect your relationship with OFA or Casey Family Programs. You may also withdraw from this study at any time without affecting your relationship with OFA or Casey Family Programs.

If you have concerns or problems about your participation in this study or your rights as a research subject, please contact the Human Subjects Research Review Committee, Office of Research and Sponsored Projects, 600 Unitus Bldg., Portland State University, (503) 725-4288 / 1-877-480-4400. If you have questions about the study itself, contact Amy Salazar, Portland State University Regional Research Institute, PO Box 751, Portland, OR 97207-0751 at 503-725-9628. You can also contact Tina Raheem at the Orphan Foundation at 571-203-0270, or John Emerson at Casey Family Programs at 206-270-4921.

By clicking "I agree to participate" below, you indicate that you have read and understand the above information and agree to take part in this study. Please understand that you may withdraw your consent at any time without penalty, and that, by signing, you are not waiving any legal claims, rights or remedies. If you do not want to participate, please check I DO NOT agree to participate, and enter your name and email address so that we will not contact you again.

     ☐ I agree to participate

     ☐ I DO NOT agree to participate

If you DO NOT want to participate, please enter your email address and name so that we can take you off of our email list:
_____

<SKIP: if say DO NOT agree to participate, respondent is exited from survey>

<screen #3: start survey; survey will be broken up across several screens and will contain skip patterns>

Your responses will help us learn about the best ways to help support youth who have spent time in foster care to have more positive and successful college experiences. Please share only what you feel comfortable sharing. Thank you in advance!

I received an OFA/Casey scholarship because I (check all that apply):
a.   Was in foster care for the 12 consecutive months prior to my 18th birthday
b.   Am an unadopted orphan
c.   Went into guardianship or was adopted from foster care after my 16th birthday

High School/College History

1. When did you graduate from high school/earn your GED? If you are not sure of the exact date, just estimate. <u>MM/DD/YYYY</u>

1a. What type of high school diploma did you earn?
A) regular high school diploma
b) modified high school diploma
c) GED
d) don't want to respond
e) other (please specify) _____

1b. Approximately what was your cumulative high school GPA? _____

Which of the following college entrance exams did you take (please check all that apply):
___ SAT (math and verbal version)
___ SAT (math, verbal, and writing version)
___ ACT
___ ACT Plus Writing
___ Didn't take an entrance exam
___ Don't know/don't want to answer
___ Other (please specify) _____

<SKIP: if "didn't take an entrance exam or don't know/don't want to answer, skip to #2 Are you currently in any type of school>

What was your APPROXIMATE highest score?

___ SAT (math and verbal version)
___ SAT (math, verbal, and writing version)
___ ACT
___ ACT Plus Writing
___ Didn't take an entrance exam
___ Don't know/don't want to answer
___ Other

2. Are you currently in any type of school?
a) yes
b) no

<SKIP: if "No", skip to #3 which degree programs completed>

2a. Type of school/program you are currently in:
a) 2-year degree (i.e., associates)
b) 4-year degree (i.e., Bachelor's)
c) vocational program
d) certificate program
e) graduate school
f) other (please specify) _____

2b. Please tell a bit about your current program:
Degree _____
Major _____
Credits completed to date _____

3. Please check all degree(s) you have completed to date.
___ Have not yet completed a degree program
___ Certificate
___ Associates/ junior college
___ Bachelors
___ Masters
___ JD, MD, PhD, or other doctorate
___ Other (please specify _____)

<SKIP: if have not yet completed a program, skip to #5 How many schools did you attend as an undergraduate?>

4. Please share information about the first degree/program you completed.
Degree _____
Major _____
School _____
Year started _____

Year completed _____
Amount of time taken off between starting and completing this program _____

Please share information about the second degree/program you completed.
Degree _____
Major _____
School _____
Year started _____
Year completed _____
Amount of time taken off between starting and completing this program _____

Please share information about the third degree/program you completed.
Degree _____
Major _____
School _____
Year started _____
Year completed _____
Amount of time taken off between starting and completing this program _____

Please share information about the fourth degree/program you completed.
Degree _____
Major _____
School _____
Year started _____
Year completed _____
Amount of time taken off between starting and completing this program _____

Please share information about the fifth degree/program you completed.
Degree _____
Major _____
School _____
Year started _____
Year completed _____
Amount of time taken off between starting and completing this program _____

5. How many different colleges did you attend as an undergraduate?
a) only 1   b) 2   c) 3   d) 4   e) 5   f) 6 or more   g) don't know/don't want to respond

<SKIP: if only 1 or don't know/ don't want to respond, skip to #6 are there any degree programs that you have started but did not complete?>

5a. How many times did you transfer from one school to another as an undergraduate because another program offered better opportunity or because another program suited you better? _____

6. Are there any degree programs that you have started but not completed? Please DO NOT include programs you are currently enrolled in.
a) Yes   b) No   c) Don't want to respond

<SKIP: if no or don't know/ don't want to respond, skip to #1 How old were you when you entered foster care?>

6a. How many degree programs did you start but not complete? Please DO NOT include programs you are currently enrolled in. _____

The following questions allow you to share about up to three programs hat you did not complete.

Please share the following details about the first program that you did not complete.
Degree _____
Major _____
School _____
Credits completed _____
Reason did not complete program _____
Year started _____
Year exited _____

Please share the following details about the second program that you did not complete.
Degree _____
Major _____
School _____
Credits completed _____
Reason did not complete program _____
Year started _____
Year exited _____

Please share the following details about the third program that you did not complete.
Degree _____
Major _____
School _____
Credits completed _____
Reason did not complete program _____
Year started _____
Year exited _____

Pre-College Experiences

Foster Care History and Experiences

1. How old were you when you first entered foster care? _____

2. About how much time did you spend in foster care:
total?   __ months __ years
while you were in high school?   __ months __ years

3. Approximately how many total placements were you in:
Ever? _____
During high school? _____

3b. How many of each of these placement types did you experience during high school?
Non-relative foster care: ___
Kinship care: _____
Residential treatment/ Group home: ____
Supervised Independent living program: _____
Guardianship: _____
Other: _____

4. How old were you when you exited care for the last time? ____

5. How did you exit care?
a) aged out
b) adopted
c) placed in non-relative guardianship
d) placed with relatives
e) reunified with birth or step parent
f) don't know/don't want to answer
g) other (please specify) _____

5a. Were you still in the foster care system when you started college?
a) Yes   b) No   c) Don't want to respond

6. On average, what was the educational level of the guardian(s) who took care of you most while you were in high school? Please choose the highest level if guardians had different levels of education.
a) less than high school
b) high school/GED graduates
c) some college
d) 2-year college degrees
e) 4-year college degrees
f) graduate school degrees

g) don't know/ don't want to answer

7. Approximately how many of your high school friends started college around the time you did?
a) almost none of them
b) a few of them
c) around half of them
d) almost all of them
e) don't know/ don't want to answer

Academic Experiences

1. How would you rate your skills in the following areas as an undergraduate? Did you receive support developing these skills? How helpful was this support?

	Your skill level as an undergraduate <not strong at all; not very strong; sort of strong; very strong; don't know/skip>	Received help? <A lot, a little, not at all; don't know/ skip>	Was the support helpful? <Not helpful at all; not very helpful; sort of helpful; very helpful; don't know/skip>
Time management			
Study skills			
Leadership skills			
Problem solving skills			
Communication skills			
Deciding on college/major/program			
Finding housing for during college			
Applying for/securing financial aid			
Applying for Chafee/ETV			
Other			

Please specify other:_____

2. Did you earn any college credits while you were in high school (through AP/IB/college classes, etc)?
a) yes   b) no   c) don't know/ don't want to answer

3. Did you visit college campuses before deciding on a college to attend?

a) yes   b) no   c) don't know/ don't want to answer

3a. About how many? _____

4. What other activities did you participate in or supports did you receive to help you **prepare for** college? How helpful were these? What would have made them better?

_____
_____
_____
_____
_____
_____

ILP Services

12. Did you ever participate in an Independent Living Program (ILP):
a) yes   b) no   c) don't know/ don't want to answer

<SKIP: if no or don't know/don't want to answer, skip to #1 have you ever been diagnosed with a psychological disorder or mental health issue?>

12a. Did you participate in an ILP:

while in high school? A) yes b) no   for how long?
                                             A) n/a – never b) less than 1 year
                                             c) 1 year   d) 2 years   e) 3 years
                                             f) 4 years   g) 5 years   h) 6 years
                                             i) 7 years   j) 8 years   k) 9 years
                                             l) 10 years or more

while in college?   A) yes b) no   for how long?
                                             A) n/a – never b) less than 1 year
                                             c) 1 year   d) 2 years   e) 3 years
                                             f) 4 years   g) 5 years   h) 6 years
                                             i) 7 years   j) 8 years   k) 9 years
                                             l) 10 years or more

12a. What kinds of things did you receive support or help with from your ILP program?

_____
_____
_____
_____

12b. Did you receive help getting into college from ILP?
a) yes   b) no   c) don't know/ don't want to answer
Explain _____
_____

12c. Did you receive college-related support from ILP while you were in college?
a) yes   b) no   c) don't know/ don't want to answer
Explain _____
_____

Difficult Experiences

The following section asks questions that may be upsetting about a variety of difficult experiences, such as abuse and trauma, as well as mental health challenges that you might have experienced. Please only respond if you feel comfortable doing so.

1. Have you ever been diagnosed with a psychological disorder or mental health issue?
a) yes   b) no   c) don't know/ don't want to answer

<SKIP: if no or don't know, skip to #2 thinking about your mental health services needs and use>

1a. Please describe the history of your diagnoses as best as you can. Please name the diagnosis, say when you were diagnosed (age and whether it was before, during, or after your time in care), and whether you still have the diagnosis.

Diagnosis 1 _____
Diagnosis 2 _____
Diagnosis 3 _____
Diagnosis 4 _____
Diagnosis 5 _____
Diagnosis 6 _____
Diagnosis 7 _____
Diagnosis 8 _____

Think about your mental health services needs and use, and respond to the following:

2. Did you…	Before college	As an undergraduate	Currently
	<not at all; a little; quite a bit; a great deal; don't know/skip>	<not at all; a little; quite a bit; a great deal; don't know/skip>	<not at all; a little; quite a bit; a great deal; don't know/skip>

Need mental health services?			
Have access to mental health services?			
Receive mental health services?			

3. Overall, did you feel your mental health needs were met…

before college?
a) not at all b) somewhat c) for the most part d) very well
Why or why not? _____

during your time as an undergraduate?
a) not at all b) somewhat c) for the most part d) very well
Why or why not? _____

after college?
a) not at all b) somewhat c) for the most part d) very well
Why or why not? _____

4. Sometimes things happen to people that are extremely upsetting – things like being in a life threatening situation such as a major disaster, very serious accident or fire; being physically assaulted or raped; seeing another person killed, or dead, or badly hurt; or hearing about something horrible that has happened to someone you are close to. At any time during your life, have any of these kinds of things happened to you?
a) yes   b) no   c) don't know/ don't want to answer

<SKIP: if no or don't know, skip to #6 did you ever experience any of the following (types of maltreatment)?>

Did any of these things happen to you before, during, or after college? Check all that apply.
___ Before college
___ During college
___ After college
___ Don't want to respond

4b. Think about how the worst of these events affected you while you were in college.
While in college:

a. While in college, did you have nightmares about the event or think about it when you did not want to?

a) yes   b) no   c) don't know/ don't want to answer

b. While in college, did you try hard not to think about it or go out of your way to avoid situations that reminded you of it?
a) yes   b) no   c) don't know/ don't want to answer

c. While in college, were you constantly on guard, watchful, or easily startled?
a) yes   b) no   c) don't know/ don't want to answer

d. While in college, did you feel numb or detached from others, activities, or your surroundings?
a) yes   b) no   c) don't know/ don't want to answer

6. Did you ever experience any of the following?

	Before Entering Care <never, a few times; a lot of times; don't know/skip>	While in Care <never, a few times; a lot of times; don't know/skip>	Any other time **before college** <never, a few times; a lot of times; don't know/skip>
Physical Abuse			
Emotional Abuse			
Sexual Abuse			
Neglect			
Abandonment			

If you feel like you may be experiencing a crisis or need help now, help is available. Please call 1-800-273-TALK (1-800-273-8255); TTY: 1-800-799-4TTY (4889) to be connected with someone who can offer you support.

Social Support

1. How often was each of the following kinds of support available to you if you needed it?
Please respond regarding when you were an undergraduate and currently.

	As an undergraduate	**Currently**
<none of the time; a little of the time; some of the time; most of the time; all of the time; don't know/ skip>		
Someone you can count on to listen to you when you need to talk		
Someone to give you information to help you		

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understand a situation		
Someone to give you good advice about a crisis		
Someone to confide in or talk to about yourself or your problems		
Someone whose advice you really want		
Someone to share your most private worries and fears with		
Someone to turn to for suggestions about how to deal with a personal problem		
Someone who understands your problems		
Someone to help you if you were confined to bed		
Someone to take you to the doctor if you needed it		
Someone to prepare your meals if you were unable to do it yourself		
Someone to help with daily chores if you were sick		
Someone who shows you love and affection		
Someone to love and make you feel wanted		
Someone who hugs you		
Someone to have a good time with		
Someone to get together with for relaxation		
Someone to do something enjoyable with		
Someone to do things with to help you get your mind off things		

Supportive Relationships

2. Did you have a supportive, caring adult to turn to while you were in college?
a) yes   b) no   c) don't know/ don't want to answer

<SKIP: if no or don't know, skip to #3 did you have a mentor?>

2a. Who was this supportive adult? If you had more than one, please check them as well.
___ Foster parent
___ Bio family member
___ Family friend
___ Teacher
___ Case worker
___ Pastor, rabbi, or other religious leader
___ Other
___ Don't know/ skip

Please describe your relationship to this person in more detail (for example, if they were a grandparent or an ILP worker, etc). _____
_____

2b. Rate from 1-10 how helpful this person/these people on average were, with 0 being "not helpful at all" and 10 being "extremely helpful". _____

2c. Please describe how this person/these people were helpful, if at all. _____
_____

2d. About how old were you when you became connected with this person/these people? _____

A mentor is a type of caring adult who is a positive role model you can go to for support.

3. Did you have a mentor, either formally or informally, while you were in college?
a) yes   b) no   c) don't know/ don't want to answer

<SKIP: if no or don't know, skip to #4 What other types of social support did you receive from those around you while you were in college?>

3a. Who was this mentor?
___ from a mentoring program, such as Big Brothers Big Sisters
___ OFA vMentor
___ Teacher
___ College professor
___ Case worker
___ Pastor, rabbi, or other religious leader
___ Don't know/ skip

3b. Rate from 1-10 how helpful this mentor was, with 0 being "not helpful at all" and 10 being "extremely helpful". _____

3c. Please describe how this mentor was helpful, if at all. _____
_____

3d. About how old were you when you became connected with this mentor? _____

4. What other types of social support did you receive from those around you while you were in college? What were your social/family connections like while you were in college? What was most helpful? Least helpful?
_____
_____
_____
_____
_____
_____

Please think about when you were in college and answer the following statements using Not at all true; Not really true; Sort of true; True; or Very true.

During college…	Not at all true	Not really true	Sort of true	True	Very true	Don't know/ skip
5. I enjoyed spending time with family and/or friends.						
6. I wanted my family and/or friends to be proud of me.						
7. I felt close to my family and/or friends.						
8. It was important that my family and/or friends trusted me.						
9. I got along with my family and/or friends.						

Please fill in the following table regarding financial resources you received as an undergraduate.

Funding Source	Did you receive? <yes; no; don't know/skip>	How long you received it <less than 1 year; 1 year; 2 years; 3 years; 4 years; 5 or more years; don't know/ skip>	Approx. how much did you receive? <less than $1000; $1000-$5000; $5001-$10000; $10001-20000; $20001-$30000; over $30000; don't know/ skip>
OFA/Casey scholarship			
ETV/Chafee			
Pell grant			
Other Grants/Scholarships			
Work study			
Other employment			
Student loans			
Family/friend			
Other income sources			

If you selected other income sources, what were these? _____

5. How well did your financial aid package (grants, Chafee/ETV supports, loans, scholarships) meet your needs as an undergraduate?

a) very well   b) somewhat well   c) somewhat poorly   d) very poorly e) don't know/skip

5a. How well did the income from your employment, financial aid package, and family/friend support meet your needs as an undergraduate?
a) very well   b) somewhat well   c) somewhat poorly   d) very poorly e) don't know/skip

6. As an undergraduate, did you have:
a checking account?
A) none of the time b) some of the time c) most of the time d) all of the time e) don't know/skip

a savings account?
A) none of the time b) some of the time c) most of the time d) all of the time e) don't know/skip

7. How would you rate your budgeting/money management skills as an undergraduate?
a) very weak   b) rather weak   c) rather strong   d) very strong e) don't know/ skip

Employment as a Student

1. How often were you employed (full-time or part-time) during your undergraduate career?
A) almost all the time
b) a lot of the time
c) some of the time
d) hardly any or no time
e) don't know/ skip

<SKIP: if "hardly any or no time" or "don't know/skip", skip to #2 Did you have any other responsibilities or obligations as an undergraduate">

1a. Did you participate in work-study employment?
a) yes – always
b) yes – sometimes
c) no – never
d) don't know/ skip

1b. About how many hours did you work on average per week while you were in college:
Freshman/sophomore years   _____
Junior/senior/additional years _____

1c. What effect did working have on your educational success?
It made it:
a) extremely difficult
b) considerably difficult
c) a little difficult
d) not difficult at all
e) don't know/ skip

2. Did you have any other responsibilities or obligations as an undergraduate that took time away from your studies or made it difficult to be successful in your undergraduate program?
a) yes   b) no   c) don't know/ don't want to answer
2a. If yes, Please explain
_____
_____
_____

1. As an undergraduate, how often did you have access to year-round, safe, steady and reliable housing?
a) none of the time   b) some of the time   c) most of the time   d) all of time   e) don't know/skip

If not all of the time, explain why, for how long it was unstable, what you did during these times, etc.
_____
_____
_____

1a. Did you ever have trouble finding a place to live during school breaks, over the summer, or any other time the dorms were closed?
a) none of the time b) some of the time c) most of the time d) all of time e) don't know/ skip

2. As an undergraduate how often did you have access to appropriate transportation to get to/from school or work?
a) none of the time b) some of the time c) most of the time d) all of time e) don't know/ skip

If not all of the time, please explain why and what you did to get around: _____
_____
_____

College Extracurriculars

1. While in college, were you involved in any extracurricular activities, such as clubs, sports teams, music, or church?
a) yes   b) no   c) don't know/ don't want to answer

<SKIP: If no or don't know, skip to #2 did you participate in any internships>

1a. If yes, what were they? _____
_____

1b. About how many hours per week did you spend doing extracurricular activities? ____

2. While in college, did you participate in any internships?
a) yes   b) no   c) don't know/ don't want to answer

<SKIP: If no or don't know, skip to #3 how frequently did you have non-required contact with professors>

2a. How helpful was your internship experience…

…in helping you move toward your career goals?
a) extremely helpful b) somewhat helpful c) not very helpful d) not at all helpful e) don't know/ skip

…in helping you to get a job?
a) extremely helpful b) somewhat helpful c) not very helpful d) not at all helpful e) don't know/ skip

3. As an undergraduate, how frequently did you…	Never	Less than once per term	Around once per term	Around once per week	Multiple times per week	Don't know/ skip
have non-required contact with professors as an undergraduate (conversations beyond required class work, helping out with a research project, discussing career paths, working together in a club or on a committee, having a meal together, discussing a personal problem, etc)?						
participate in social						

events with other students at your college, such as going out, attending an athletic event, having a movie night, etc?						

Please answer the following using the provided scale.

	Not at all true	Not really true	Sort of true	True	Very True	Don't know/ skip
5. There was nobody I liked spending time with at my college.						
6. I liked spending time at my college.						
7. I felt lonely at my college.						
8. I spent a lot of time in my college community.						
9. I hung out a lot with others in my college.						
10. My college was boring.						
11. I enjoyed being at my college.						

12. How would you have answered the following question as an undergraduate:
It is important for me to graduate from college.
a) not at all important
b) not very important
c) somewhat important
d) extremely important
e) don't know/ skip

13. How satisfied were you with the college you attended? If you attended more than one, please answer for the one you attended last.
a) not at all satisfied b) a little satisfied c) mostly satisfied d) very satisfied e) don't know/ skip

Identifying as Having Foster Care Experience

1. When you were in college, did you generally tell people that you had spent time in foster care?

a) not at all b) sometimes c) all the time d) don't know/ skip

1a. Did you feel that people knowing about your foster care experience would, in general, be helpful, harmful, or neither?
a) extremely harmful
b) somewhat harmful
c) neither
d) somewhat helpful
e) extremely helpful
f) don't know/ skip

<SKIP: if "neither", "somewhat helpful", "extremely helpful", or don't know, skip to #1 did you have health insurance while you were in college>

1b. Did your concern about telling people you were in foster care interfere with your ability to or comfort in accessing services or supports?

1	2	3	4	5	X
Not at all		Somewhat		A great deal	Don't know/skip

Access to Healthcare While in College

1. Did you have health insurance when you were in college?
a) never b) sometimes c) usually d) always e) don't know/skip

2. Did you have any health problems or needs that went untreated?
a) never b) sometimes c) usually d) always e) don't know/skip

<SKIP: if "never" or "don't know/skip", skip to #1 What are some of your personal strengths or skills>

2a. If yes, why?

2b. How serious were the health problems that went untreated?
a) not serious at all b) not very serious c) rather serious d) extremely serious e) don't know/skip

Strengths, Supports, and Barriers to Staying In and Graduating From College

1. What are some of your personal strengths or skills that have helped you to be successful in and overcome barriers to higher education?
_____
_____

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_____
_____
_____
_____

2. What barriers or unmet needs did you have that made it difficult for you to maintain your enrollment and/or progress in college? Please explain.

_____
_____
_____
_____
_____
_____

3. Which of the following did you need/receive to help you **stay enrolled in/be successful in/graduate from** college?

	Needed?	Available?	Received?	Were happy with
	<never, sometimes, usually, always>			
Academic Services				
Tutoring				
College/career counseling				
Disability services				
Deciding on college major/program				
Help developing study skills				
Help with time management				
Help getting/maintaining financial aid				
Help getting/maintaining Chafee/ETV				
Academic Counseling				
Cultural supports (specify)				
Help finding housing				
Transportation assistance				
Legal services				
Other				

If you selected other or cultural supports, please describe these supports.

_____
_____

4. Did you ever have to repeat a class or be put on academic probation while you were in college?   a) yes   b) no   c) don't know/ don't want to answer

<SKIP: if no or don't know, skip to #5 Which OFA resources did you access>

4a. How many times did you ever have to repeat a class while you were in college? ___

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4b. How many times were you put on academic probation while you were in college? ___

5. Which OFA resources did you access that were part of your scholarship award?

	Accessed? <Yes or no>	How often? <Never, less than once a year, a few times a year, about every month, about every week>
Online mentoring		
Emergency funds		
Care packages		
Internships		
1-800 number and/or the scholarship team's cell		

6. What other supports did you receive to help you **stay enrolled in/be successful in/graduate from** college? How helpful were these? What would have made them better?

_____
_____
_____
_____
_____
_____

6a. What would you say are the factors that are critical to success in college? What advice would you give to other youth from foster care about how they can be successful in college?

_____
_____
_____
_____
_____
_____

7. Did your undergraduate university have any college support programs specifically designed for youth who had spent time in foster care (i.e., Guardian Scholars)?
a) yes   b) no   c) don't know/ don't want to answer

<SKIP: if no or don't know, skip to Post-College Experiences #1 What is your current work/school status>

7a. Did you participate in this program?
  a) yes   b) no   c) don't know/ don't want to answer

<SKIP: if no, skip to #7d Why did you not participate in this program>

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7b. <if yes> for how long?   _____Months   _____ Years

7c. <if yes> what was helpful about it? Not helpful?

_____
_____
_____

<SKIP to Post-College Experiences #1 What is your current work/school status>

7d. <if no> Why did you not participate in the program?

_____
_____
_____

Post-College Experiences

Current Employment and Income

1. What is your current work/school status? (Check all that apply):
__ Working fulltime   __ Retired
__ Working part time   __ In school
__ With a job, but not at work because   __ Keeping house
of temporary illness/vacation/strike   __ Other specify _____
__ Unemployed, laid off, looking for
work

2. <If working full time, part time, or with a job but not currently working>
How many hours do you typically work per week, at all jobs? _____

3. What kind of work do you do? What is your job called? _____

3a. Is your job in the same field as your college major/college degree?
a) not at all   b) not really   c) somewhat   d) definitely   e) don't know/ skip

4. Overall, how satisfied are you with the work you do?
a) Very dissatisfied   d) Very satisfied
b) A little dissatisfied   e) Don't know/ skip
c) Moderately satisfied

5. How much do you agree with the following: I have good job security.
a) Not at all true   d) Very true
b) Not too true   e) Don't know/ skip
c) Somewhat true

5a. How long after graduating from college did it take for you to find stable employment?
_____ months   _____ years

6. How much were ONLY YOUR earnings from ALL sources last year, before taxes or other deductions?

Under $1,000	$15,000-	$35,000-	$110,000-
$1,000-$2,999	$17,499	$39,999	$129,999
$3,000-$3,999	$17,500-	$40,000-	$130,000-
$4,000-$4,999	$19,999	$49,999	$149,999
$5,000-$5,999	$20,000-	$50,000-	$150,000 or
$6,000-$6,999	$22,499	$59,999	over
$7,000-$7,999	$22,500-	$60,000-	don't know/skip
$8,000-$9,999	$24,999	$74,999	
$10,000-	$25,000-	$75,000-	
$12,499	$29,999	$89,999	
$12,500-	$30,000-	$90,000-	
$14,999	$34,999	$109,999	

6a. How much were your TOTAL HOUSEHOLD earnings from ALL sources last year, before taxes or other deductions?

Under $1,000	$15,000-	$35,000-	$110,000-
$1,000-$2,999	$17,499	$39,999	$129,999
$3,000-$3,999	$17,500-	$40,000-	$130,000-
$4,000-$4,999	$19,999	$49,999	$149,999
$5,000-$5,999	$20,000-	$50,000-	$150,000 or
$6,000-$6,999	$22,499	$59,999	over
$7,000-$7,999	$22,500-	$60,000-	don't know/skip
$8,000-$9,999	$24,999	$74,999	
$10,000-	$25,000-	$75,000-	
$12,499	$29,999	$89,999	
$12,500-	$30,000-	$90,000-	
$14,999	$34,999	$109,999	

7. At any time during 2009, even for one month, did your or anyone in your household receive the following:

i) any public assistance or welfare payments from the state or local welfare office? Please do NOT include federal food stamps or SSI. DO include ADC, AFDC/TANF, General Assistance Programs, emergency assistance, Cuban/Haitian refugee, or Indian assistance.
a) yes   b) no   c) don't know   d) don't know/ skip

ii) Supplemental Security Income
a) yes   b) no   c) don't know   d) don't know/ skip

iii) income from any other welfare or assistance program?

a) yes   b) no   c) don't know   d) don't know/ skip

8. How satisfied would you say you and your family are with your present financial situation?

a) Not satisfied at all   c) Pretty well satisfied
b) More or less satisfied   d) Don't know/ skip

9. Do you currently have outstanding student loans?

a) yes   b) no   c) don't know/ skip

<SKIP: if no or don't know, skip to #1 Do you own or rent your home>

9a. Approximately how much student loan debt do you currently have? _____
9b. How much are your monthly payments? _____

9c. How hard are you finding it to pay back your student loans?

a) not hard at all   b) not very hard   c) a little hard   d) very hard   e) don't know/ skip

Resources

1. Do you/does your family own your home/apartment, pay rent, or what?

a. Rent   b. Own   c. Other _____   d. Don't know/ skip

2. Would you say your own health, in general, is excellent, good, fair, or poor?

a) Poor   d) Excellent
b) Fair   e) Don't know/ skip
c) Good

3. Overall, how happy would you say you are these days?

a. Not too happy   b. Pretty happy   c. Very happy   d. Don't know/ skip

4. Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good? _____

5. How often do you do the following things…	Never	About once a year	Several times a year	About once a month	Several times a month	Once or twice a week	Almost every day	Don't know / skip
Spend a social evening with								

friends?								
Spend a social evening with someone who lives in your neighborhood?								
Spend a social evening with friends who live outside your neighborhood?								
Spend fun time with family?								

Strengths, Supports and Barriers Related to Careers and Living Independently

4. What strengths, supports, or barriers did you experience that made it easy or difficult for you to find and start a career in your desired field, or do you anticipate experiencing any of these in the future? Please explain.

_____
_____
_____
_____
_____

5. Did you or do you anticipate experiencing barriers in the future that could make it difficult for you to be independent or self-sufficient? Please explain.

_____
_____
_____
_____
_____

Demographics

1. What is your gender?
a) male   b) female   c) transgender/other   d) don't want to respond

2. What is your Race/Ethnicity? Please circle all that apply.

White	American Indian or	Filipino
Black or African	Alaska Native	Japanese
American	Asian Indian	Korean
	Chinese	Vietnamese

Other Asian	Samoan	Some other
Native Hawaiian	Other Pacific Islander	race/ethnicity
Guamanian or Chamorro		

If you selected any other, please specify.

_____

3. How old are you? _____
3a. Year of birth: _____

4. What is your Relationship Status?
a) Married	d) Separated	g) Domestic partnership
b) Widowed	e) Never Married	h) Other (specify)
c) Divorced	f) Living with partner,	_____
	not married	

5. How many children do you have? _____

5. How many people, including yourself, live altogether in your household? ____
5a. How many are adults _____ children (under 18) _____
5b. Ages of children _____   _____   _____

6. Do you have any other children who do not live with you?
a) yes   b) no   c) don't know/ skip
6a. How old are they? _____

7. How well are your childcare needs met?
a) extremely well   b) somewhat well   c) not very well   d) not well at all
          e) n/a

7. What state do you currently live in? _____

8. Do you identify as having a disability?
a) yes   b) no   c) don't know/ skip

8a. If yes, please explain (if you feel comfortable doing so)
_____

Thanks for completing the survey! This information will help us improve supports to other students in the future. Thank you! Please push "next" for info on getting your giftcard.

You're Finished!

After you submit your survey, you will be taken to a new page to enter your name and address so that we can send you your gift card. Please note that your name and your survey results WILL NOT be connected – your survey responses will be anonymous, and your name will be kept separately, unconnected to your survey responses.

Resources

If you feel like you may be experiencing a crisis or need help now, help is available. Please call 1-800-273-TALK (1-800-273-8255); TTY: 1-800-799-4TTY (4889) to be connected with someone who can offer you support.

Thank you for your participation!

**Portland State University Human Subjects Research Review Committee
IRB Application Proposal**

I. Investigator's Assurance
This form must be filled out completely and accompanied by the proper signatures.

Assurance form attached.

II. Project Title & Prospectus
In 300 words or less, clearly identify the research question and provide a summary of the project and its significance, including a brief description of the methods and procedures to be used. Use neutral language and do not use jargon. Define any acronyms used.

Investigating the Predictors of Postsecondary Success and Post-College Life Circumstances of Former Foster Youth

Youth who have spent time in foster care are, in the aggregate, far behind the general population when it comes to educational attainment, especially postsecondary education. Most do hold aspirations for higher education; however, these youth face a variety of obstacles that interfere with actually being able to complete a postsecondary program. The current dissertation proposal intends to answer two sets of questions. The first is, "What factors predict college retention for youth with foster care experience? Are they the same as those experienced by the general population and other at-risk groups, or are different factors unique to having foster care experience more powerful?" To answer this first question set, the proposed study will compare the life circumstances, barriers, and supports of former foster youth scholarship recipients who graduated from college with former foster youth scholarship recipients who enrolled in college but did not graduate to determine whether factors salient to general population college retention differentiate these two groups, or whether the groups are better differentiated by factors more unique to the experience of being in foster care.

The second research question addressed by the proposed study involves post-college life outcomes. While there is general consensus that higher education is beneficial to foster youth in overcoming adversity, no prior study has examined how former foster youth who graduate from college actually fare in their adult lives compared with the general population of college graduates, or with foster youth who did not graduate college. Therefore, the second research question is, "How do former foster youth who do/do not graduate from college fare in their adult lives compared to the general

population of college graduates?" To address this question, the second part of the study will compare life circumstances of former foster youth college graduates with general population graduates, as well as former foster youth and the general population who started college but did not graduate to explore how beneficial higher education actually was for this population in relation to factors such as employment status, income, housing, receipt of public assistance, family life, mental health, and general happiness and life satisfaction.

The proposed study will collect cross-sectional survey data from former foster youth recipients of the Casey Family Scholar Scholarship or the Orphan Foundation of America's Foster Care to Success Scholarship between 2001 and 2009 who have either graduated college or exited college before graduation. Data will be collected using the "Foster Care and College" online survey, which is included in Appendix B. This instrument was developed by the PI (Amy Salazar), and includes some validated measures, including the Medical Outcomes Study Social Support Scale (Sherbourne & Stewart, 1991), the one-item trauma screen from the Structured Clinical Interview for DSM-IV-TR (First, Spitzer, Gibbon, & Williams, 2001), and the Primary Care PTSD Screen (Prins et al, 2003). Piloting of the instrument when it was near completion was conducted with three youth with foster care experience who were currently in college. It took them between 15 and 18 minutes to complete the paper version of the survey. The youth commented that they felt the survey would be even quicker when it was online and when the skip patterns would prevent participants from having to scan through questions that were not applicable to them. This feedback in combination with the slight increase in questions led to an estimated timeframe of 20-40 minutes for participants in the study.

For Part Two of the study, publicly available national surveys will be used to create a general population group to compare post-college life circumstances with study participants.

<div align="center">Section References</div>

First, M.B., Spitzer, R. L., Gibbon, M., & Williams, J. B. W. *Structured Clinical Interview for   Axis 1 DSM-IV-TR Disorders – Patient Edition (with Psychotic Screen)* (SCID-I/P W/   PSY SCREEN). New York: Biometrics Research, New York State Psychiatric Institute,   November 2002.

Prins, A., Ouimette, P., Kimerling, R., Cameron, R. C., Hugelshofer, D. S., Shaw-Hegwer, J., et al. (2003). The primary care PTSD screen (PC-PTSD): Development and operating characteristics. *Primary Care Psychiatry, 9*(1), 9-14.

Sherbourne, C. D., & Stewart, A. (1991). The MOS Social Support Survey. *Social Science and Medicine, 32*, 705-714.

III. Exemption Claim for Waiver of Review

If your research falls into one of the categories of studies exempt from HSRRC review (see section IV, "Types of Review"), cite the exemption category and the associated rationale. Please note that anonymity means that the subject's/respondent's identity is unknown (in other words, that responses cannot be linked to individuals); confidentiality implies that, while the researcher can identify each subject and his/her responses, that the identity of the subject will be kept private, and not revealed to others.

Not applicable.

IV. Subject Recruitment

This section should provide a description of the subject population, including the number of participants which the researcher expects to recruit, the characteristics of that population, which can include age, gender, ethnic background and health status, and the methods to be used for their recruitment. A description of how subjects are selected, approached and invited to participate in the research must be included. Criteria for inclusion and exclusion should be detailed; justification is required if the subject population is restricted to one gender, age or ethnic group, as the federal government strongly encourages investigators to include women, children and ethnic minorities in their research. If different subject groups are to be included in the research, recruitment information must be included for each group.

A. Description of Human Subjects

The participants for this study will be former foster youth who received scholarships from either the Casey Family Scholar Scholarship Program or the Orphan Foundation of America's Foster Care to Success Scholarship between 2001 and 2009 (eight cohorts). Only those who either graduated from college or who dropped out will be recruited; those currently in college will not be recruited. There are currently 391 potential participants with which the Orphan Foundation of America has maintained contact. This number may change slightly over time depending on whether contact is lost with some of these individuals or regained with other former scholarship recipients with which OFA does not currently have contact. All will be contacted to request participation in the survey.

Eligibility criteria for the scholarship programs include the following:
Applicants must:
1. Have been in foster care for one consecutive year at the time of their 18th birthday OR have been adopted or taken into legal guardianship out of foster care or upon the death of their parents after their 16th birthday OR have lost both parents to death before the age of 18 and not been subsequently adopted or taken into legal guardianship.
2. Be enrolled in or accepted into an accredited post-secondary program at the undergraduate level (university, college, community college or vocational/technical institute.)
3. Be under the age of 25 on [the application deadline].

4. Have been in foster care or orphaned while living in the United States. U.S. citizenship is not required.

In addition, scholarship applicants are screened based on the strength of their application essay, letters of recommendation, and GPA. All of those selected to be scholarship recipients and who have either completed or prematurely exited college will be recruited for the proposed study.

Previous analysis of the first seven cohorts of most scholarship recipients found 69% of recipients to be female and 59% to be students of color. All participants are over 18 years of age. Participants of all genders, races, and ethnicities will be included in the current study.

Data from the publicly available national surveys General Social Survey and the Panel Study of Income Dynamics will be used to serve as a general population comparison group. All identifiable information has been removed from this data and no attempt will be made to contact these participants.

Four groups of participants will be formed: former foster youth college graduates; former foster youth who exited college before graduating; general population college graduates; and general population early college exiters. The former two will be formed through the proposed study's data collection; the latter two will be formed using the General Social Survey and Panel Study of Income Dynamics surveys.

Inclusion Criteria for Former Foster Youth College Graduate Group Participation:
- Students who were recipients of the Casey Family Scholar Scholarship Program or the Orphan Foundation of America's Foster Care to Success Scholarship between 2001 and 2009
- Have graduated from college
- Are not currently in a college program (such as graduate school)

Inclusion Criteria for Former Foster Youth Early Exiter Group Participation:
- Students who were recipients of the Casey Family Scholar Scholarship Program or the Orphan Foundation of America's Foster Care to Success Scholarship between 2001 and 2009
- Have dropped out of college (i.e., exited early from one of the scholarship programs and did not graduate from college)
- Are not currently in a college program

Exclusion Criteria for Study Participation:
- Currently enrolled in college
- Never enrolled in one of the scholarship programs between 2001-2009

B. <u>Methods of Recruitment</u>

The Orphan Foundation of America (OFA) manages both scholarship programs and has a database of scholarship recipients that contains participants' contact information. The director of the scholarship program at OFA maintained weekly email contact with participants throughout their time in the scholarship program and will be the person emailing out the survey link and bi-weekly survey reminders to all potential participants.

Recruitment will take place as part of a mass-emailing of the data collection survey link to all former scholarship recipients. No prior contact will be made with potential participants to inform them of the upcoming study: this email will serve as the introduction to the survey and at the same time will provide the opportunity to participate. If potential participants choose to follow the link to the survey, they will be directed through an informed consent process. Recipients will then be able to decide whether they choose to participate. If they agree, they will immediately be led through the Foster Care and College Survey. Survey data will be collected using Survey Monkey or a similar online survey service.

V. Informed Consent
Both federal and university regulations require researchers to obtain informed consent from their subjects before they may be enrolled in a study, unless otherwise permitted by the IRB. Describe both by whom and in what manner consent will be obtained from each appropriate sample category (see below) and include a copy of the informed consent form(s) or cover letter (s). If requesting a waiver of signed consent, a justification must be included (see Informed Consent section on web page for help in preparing an appropriate consent document and for information on altering or waiving the consent process).
• Adult subjects (includes persons 18 years of age and over)
• Child subjects (includes all persons under 18 years of age) will require written parent/guardian permission/consent, as well as verbal or written assent from the subjects themselves.

• In some cases, institutional subjects, such as prisoners and mental health patients, may require the consent of an appropriate witness in addition to that of the participant him- or herself.

• When the researcher seeks to use a passive consent process, the Committee will determine that research is one in which a waiver of signed consent is appropriate. If the research and passive consent process is being done in an in an educational setting, the Committee must be assured that the passive consent process has been approved by an appropriate school official. When writing the passive consent form, the researcher should give the subjects (and parent/guardian if subject is a minor) ample time to decline participation and must offer a variety of ways in which the researcher can be contacted to decline participation.

<u>Adult Subjects:</u>

As was previously described, potential participants will be emailed a link to the Foster Care and College survey. If potential participants choose to follow the link to the survey, they will be directed through an informed consent process. Recipients will then be able to decide whether they choose to participate. If they agree, they will immediately be led through the Foster Care and College Survey. Agreement to participate will be indicated by checking the "I agree to participate" box at the end of the informed consent screen at the beginning of the online survey. There is also an "I DO NOT agree to participate" option. If participants choose this, they will be thanked for their consideration and will not be given access to the online survey. No signed paper version of the informed consent will exist since it is conducted online. Furthermore, agreement to participate will be anonymous because participant names and survey data will be collected in two separate online survey files.

VI. First-Person Scenario
Provide a short paragraph that presents the experience from the subject's point of view (e.g., "I received a letter last week in the mail which described a new research study…Once I decided to participate, I set up an appointment to meet the researcher…I was seated at a table with the investigator and…"). This scenario should begin when the subject is first contacted, whether by letter or in person, should describe each activity in which he or she is required to take part, and should conclude only with the end of the subject's participation. If different subject groups are to be included in the research, a scenario must be included for each group.

"I received an email last week from my old OFA scholarship director. She told me about a survey for OFA scholars that I could participate in. The email said that the information collected from the survey would be used to help other foster youth to be more successful in college and that I could share my advice about how to better support people like me who have foster care experience. I clicked on the link to the survey, and saw a description of what it was about. The survey was about my experiences as an undergraduate, and the strengths and supports I had, as well as the challenges that I faced, while I was in college. It was also about how I am doing now that I am out of college. It explained that there would be some questions that may be upsetting, such as about how I might have been abused as a child. The instructions said I would receive a $10 gift card as a thank-you for participating. Once I read about what the study would be about and agreed to participate, I took the online survey. The survey took about 20 or 30 minutes to complete. Some of the questions were tough, but I was able to skip ones that I did not want to answer. At the end, the survey asked me to provide information about my name and address so that they could mail me my gift card. I was also able to decide whether I wanted to hear about the outcomes of the study after it is over. Within a couple of weeks I received my gift card."

VII. Potential Risks and Safeguards
The risk/benefit ratio for subjects is particularly crucial to a human subjects review. Some research cannot be approved unless the possible benefits to participants or to

humanity outweigh the possible risks. Please describe any potential physical, social, psychological, employment, legal, economic, risk of coercion, or other risks to subjects, including discomfort or embarrassment (e.g., nature and seriousness of risk, incidence of probability, etc.). Also describe the safeguards which will be adopted to eliminate or manage these risks, and/or the steps to be taken to detect and treat any injury or distress incurred by subjects.

Risks to potential participants in this study are minimal. The primary risks of this study are related to the sensitivity of information being collected. The survey will ask about sensitive topics such as what mental health diagnoses participants have had, whether they have experienced maltreatment in the past, or whether they have had traumatic experiences and related symptomatology. Participants may experience discomfort, sadness, or remembrance of past trauma, all of which may be unpleasant or emotionally stressful. In order to provide safeguards for these potential risks, potential participants will be informed of the sensitive nature of the survey questions during the informed consent process before they consent to participation. Furthermore, an emergency/crisis telephone number will be supplied during sensitive sections of the survey, as well as at the end.

There is also a potential risk related to contacting potential participants by email about a survey related to being a former foster youth – information that many participants may want to keep confidential. Email cannot be guaranteed to be confidential. However, OFA has been utilizing these email addresses for many years to maintain contact with the youth so this mode of communication should not be new or unexpected for those contacted. Furthermore, all potential participants know and have a relationship with the OFA employee who will be sending the email.

VIII. Potential Benefits
Describe briefly the anticipated benefits of participation in the study. Subjects might benefit directly, such as having an opportunity to share their story, or indirectly, as the results of a study of blood donors leads to a better-marketed blood drive and, therefore, increased blood bank stores. If a form compensation is offered for participation in research, it should be described as a token of appreciation for participating, not as a benefit of the research.

The proposed study will potentially benefit participants by allowing them to share their stories in a way that could allow them to help others in similar circumstances. The survey asks participants to share their strengths and skills that have helped them to be successful, which may be an empowering experience for some participants. The study will potentially benefit foster care alumni as a whole through adding to the research base about what factors lead to more versus less successful college outcomes for former foster youth, as well as how well foster care college graduates are doing compared with general population graduates and whether they continue to need supports to reach a comparable level of success.

VIII. Confidentiality, Records & Distribution
Discuss procedures which will be used to maintain subject confidentiality, including the implementation of any codes or pseudonyms to conceal identities, both during the course of research and in the period thereafter. Regarding confidentiality in a group setting, the researcher must address, both in person and in the consent process, the risk that confidentiality cannot be guaranteed in a group setting. Also, explain records storage and access methods, the description of which must include information regarding where and for what length of time data provided by subjects will be stored. If possible, records should be securely stored at PSU and/or on a secure PSU network. If subjects will be audio- or videotaped during their participation, this must be addressed, as well, both in this section and on the consent document. Federal regulations require all data and records to be kept on file for a minimum of three years after the completion of research.

The online survey will be designed to collect data in two separate files: one that will contain identifying information (name, address, email, etc) and one that will contain survey responses. Thus, identifying information will never be directly linked to survey responses. Identifying information will be kept in password-protected files on the Portland State University network and/or with OFA, and will only be used to distribute gift cards for participation. For survey data, participants will be assigned code numbers. This code number will not be linked to their identifying information. Only other members of the research team (Amy Salazar, Tina Raheem, John Emerson) will have access to identifiable data. All data will be kept in password-protected files for at least three years after the study ends. At the end of the three-year period, the file containing all identifying data will be destroyed.

Email to college completers (both recent and older):

Good morning! (afternoon, etc. whenever I send it out)

Are you wondering why you're hearing from me and it's not even your birthday or a major national holiday? It's like, oh my goodness, what does SHE want?!

Casey Family Programs and Portland State University have put together an online survey to learn more about the best ways to help former foster youth have a positive and successful college experience. As a college graduate and former OFA/Casey Family Scholar you're part of a very elite group, you know. You've heard the statistics about how less than 10% (and I'm being generous, here) of foster youth graduate from college?

Nearly three quarters of OFA/Casey Family Scholars graduate. That's you. When I think about it, I'm so proud of you I could bust a button.

<u>**<survey** link></u>

Completing the survey will take approximately 20-40 minutes. It asks about a variety of things including your experiences getting ready for college and being in college, as well as some of your experiences related to being in foster care. It asks about services and supports that you may have received to be successful in college, difficult experiences that may have made it harder for you to be successful in college, and what advice you'd give to other foster youth who want to go to college. It also asks about how you're doing now in terms of income, job stability, health, mental health, etc.

When you participate in the survey, we'll send you a $10 Target gift card.

No, you don't have to do it. But we – especially me – would be very grateful if you would.

Here's the link again:

<u>**<survey** link></u>

If you have any questions about participating, you can contact Amy Salazar, Portland State University Regional Research Institute, at 503-725-9628. You can also contact John Emerson at Casey Family Programs at 206-270-4921. Or you can contact me, of course.

Please fill in the survey. Let's show the whole darn world how AWESOME you are.

And by the way, if for some reason things aren't going too great in your life, this is a good opportunity for me to remind you that OFA is still here. We're always here – just because you finished the program doesn't mean you're not still part of the family. You can always email or call me for any reason at all. But I'm sure you already know that.

You're on line right now. Now would be a great time to fill in the survey –

<u>**<survey** link></u>

Thanks, guys!

Tina Raheem

Director, Scholarships and Grants
Orphan Foundation of America

21351 Gentry Drive, Suite 130
Sterling, VA 20166
www.orphan.org
www.causes.com/orphandotorg
www.twitter.com/orphandotorg
571-203-0270 phone
571-203-0273 fax

Email to early exiters:

Good morning! (afternoon, etc. whenever I send it out)

Are you wondering why you're hearing from me and it's not even your birthday or a major national holiday? It's like, oh my goodness, what does SHE want?!

Casey Family Programs and Portland State University have put together an online survey to learn more about the best ways to help former foster youth succeed in college and as independent young adults. As a former OFA/Casey Family Scholar your experiences can really help us help the young people who follow you.

<u>survey</u> link>

Completing the survey will take approximately 20-40 minutes. It asks about a variety of things including your experiences getting ready for college and being in college, as well as some of your experiences related to being in foster care. It asks about services and supports that you may have received to be successful in college, difficult experiences that may have made it harder for you to be successful in college, and what advice you'd give to other foster youth who want to go to college. It also asks about how you're doing now in terms of income, job stability, health, mental health, etc.

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And by the way, if for some reason things aren't going too great in your life, this is a good opportunity for me to remind you that OFA is still here. We're always here – just because you are no longer in the program doesn't mean you're not still part of the family. You can always email or call me for any reason at all – and if you decide to go back to school, PLEASE get in touch with me!. But I'm sure you already know that.

You're on line right now. Now would be a great time to fill in the survey –

<u>**survey** link**></u>

Thanks, guys!

Tina Raheem

Director, Scholarships and Grants
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21351 Gentry Drive, Suite 130
Sterling, VA 20166
www.orphan.org
www.causes.com/orphandotorg
www.twitter.com/orphandotorg
571-203-0270 phone
571-203-0273 fax

Appendix C. Human Subjects Approval Letters

Portland State
UNIVERSITY

Human Subjects Research Review Committee

Post Office Box 751   503-725-4288 tel
Portland, Oregon 97207-0751   503-725-3416 fax
                                   hsrrc@lists.pdx.edu

July 7, 2010

To: Amy Salazar

From: Nancy Koroloff, HSRRC Chair

Re: Approval of changes to your application titled, "Investigating the Predictors of
        Postsecondary Success and Post-college Life Circumstances of Former Foster
        Youth" (HSRRC Proposal # 101323).

Dear Amy,

In response to your request for an approval of change in your original HSRRC application, the
Human Subjects Research Review Committee has reviewed your above-referenced project, last
approved on June 1, 2010, for compliance with Department of Health and Human Services
policies and regulations on the protection of human subjects. The committee is satisfied that your
provisions for protecting the rights and welfare of all subjects participating in the research
continue to satisfy federal requirements.

The following changes are approved: revised recruitment scripts (submitted 6/28/2010).

**Please be reminded that this project is due for continuing review two months before the
expiration date of June 1, 2011**. Please submit a *Continuing Review Report* at that time (form is
available in ORSP).

If you have questions or concerns, please contact the HSRRC in the Office of Research and
Sponsored Projects (ORSP), (503) 725-4288, 6th Floor, Unitus Building, 4th & Lincoln.

Cc: Tom Keller

casey family programs

fostering families. fostering change.

Amy Salazar
Doctoral Research Fellow, Department of Social Work
Portland State University Regional Research Institute
PO Box 751
Portland, OR 92707-0751

July 7, 2010

Dear Ms. Salazar:

I have reviewed your request for approval to modify your Casey Human Subjects proposal titled: Investigating the Predictors of Postsecondary Success and Post-college Life Circumstances of Former Foster Youth. After review, I am satisfied that you have taken adequate steps to protect study participants. This letter serves as your formal notice of approval of the requested change to the recruitment script.

If you encounter any unexpected problems during your research, or if you decide to alter your research protocol in any way, please notify me. Additional minor revisions to research protocols can be approved quickly.

Please contact me if you need further assistance. Best wishes in your research endeavors.

Sincerely,

Karen Tao, PhD
Research Analyst
Co-Chair, Casey Family Programs Human Subjects Committee
Email: ktao@casey.org
Phone: (206) 709.2104
Fax: (866) 265.4006