# Texas Foster Care Alumni Study Technical Report

## *Outcomes at Age 23 and 24*

**NOVEMBER 2012**

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# Executive Summary

## Study Overview

The Texas Alumni Study examined the demographic characteristics, maltreatment history, and foster care experiences among alumni of the Texas foster care system.[1] It also examined the effect those demographic characteristics, maltreatment history, and foster care experiences had on outcomes of the young adult alumni.

Currently, few comprehensive studies of young adults formerly in foster care (*alumni*) provide benchmarks against which agencies can measure the outcomes of alumni and track improvement of their own programs. Therefore, this study interviewed 173 23-year-old alumni from Texas in 2008 and 2009. The interviewed sample was 69.4% female and was ethnically diverse (30.6% Hispanic/Latino, 28.9% African American, 38.7% Non-Hispanic White, and 1.7% other or multiracial).

Two limitations of the study should be noted. First, alumni were very difficult to find; the response rate was 33%. This low response rate may affect the generalizability of the findings because the alumni who did participate may be different from those who did not participate. Second, most of the study findings are generated from retrospective self-report, which may be affected by biases due to recall, social desirability, or other factors. Findings should be interpreted with caution because of these limitations.

This study was made possible through the collaborative efforts of the University of Michigan Survey Research Center, Harvard Medical School, administrators and staff in Texas, Chapin Hall at the University of Chicago, and Casey Family Programs.

## Findings

The results presented in this report refer to alumni who exited care nearly ten years ago; the vast majority of those interviewed exited in 2002 and 2003. Results therefore reflect experiences and outcomes of youth who were in foster care prior to Texas' initiation of extensive practice improvements, as summarized below and available in detail here: Texas DFPS New Programs and Policies.

### Maltreatment history

Consistent with nationwide trends, most youth who entered Texas foster care in this sample (81.6%) did so because they had experienced some form of maltreatment. About half (50.8%) had experienced sexual abuse and about half (49.8%) had experienced neglect; a smaller percentage (36.7%) had experienced physical abuse. Two in five (18.5%) had experienced two types of maltreatment, and one quarter (24.6%) had experienced all three types of maltreatment—neglect, physical abuse, and sexual abuse—prior to entering care.

### Foster care experiences

On average, these young adults had entered care at the age of 14 and stayed in care for nearly four years, presumably until they emancipated ("aged out") at the age of 18. Overall, they experienced instability in their placements while in care. Alumni experienced a high average number of placements (11.1) and, on average, were in 3.3 placements per year in care. Three in

ten (30.6%) had experienced at least one reunification failure, and over half (56.3%) had run away at least once.

## Outcomes

Nearly seven in ten alumni (68.0%) had at least one mental health problem, as measured by the Composite International Diagnostic Inventory (CIDI), at some point in their lifetime, while four in ten (39.0%) had experienced at least one mental health problem in the past year. The most common lifetime diagnoses included alcohol abuse (32.4%), post-traumatic stress disorder (PTSD; 30.3%), and drug abuse (26.6%). The most common past-year diagnoses included PTSD (13.5%), depression (12.0%), and social phobia (10.7%).

Slightly less than half of the interviewed alumni (48.4%) had completed high school with a diploma; a greater percentage (72.1%) had completed high school with a diploma or GED, but this was much lower than the general population in the United States (92.7%).

Overall, less than half of the alumni (46.9%) were currently employed at least ten hours per week. About two in five (39.2%) were working at least 35 hours a week, which is lower than in the general population (57.3%), as reported in a subsample of the National Comorbidity Study Replication matched by age, gender, and race/ethnicity. Only half of alumni (51.6%) reported having a household income that was greater than the poverty line, and less than one in five (17.1%) reported having a household income that was at least three times greater than the federal poverty level.

Many alumni had experienced instability in their living arrangements after leaving care, with 47.8% reporting having lived in five or more places. Nearly two in five (37.7%) reported having been homeless and half (50.0%) had “couch surfed” since leaving care.

One in five alumni (21.7%) was currently married. More than half (58.3%) had given birth to or fathered a child; 10.0% of all alumni had done so before age 18. Among those who had children, about one in ten (9.9%) had a child placed in foster care.

Rates of involvement with the criminal justice system among alumni were disturbingly high. One in ten interviewed alumni (11.1%) was currently incarcerated. Nearly seven in ten males (68.0%) had been arrested since leaving care, 55.2% had been convicted of a crime, and 62.3% had spent at least one night incarcerated.[2] Although the rates of criminal justice involvement were lower for females, these rates were all higher than for the general population.

## Predictive analyses

Predictive analyses were conducted to determine which aspects of maltreatment history and foster care experiences were related to alumni outcomes. Alumni had better outcomes if they had a smaller total number of placements, a smaller number of placements per year in care, and no runaway episodes. They also had better outcomes if they had a driver’s license upon leaving care and if they had dishes and utensils upon leaving care. These findings are consistent with what was found in the Casey National and the Northwest Alumni Studies, in which placement stability and having resources upon leaving care were associated with better outcomes. These analyses, which demonstrate the effect of malleable factors (such as experiences in foster care, over which

foster care agencies have some control) on alumni outcomes offer areas of improvement to foster care agencies.

## Policy and Program Recommendations

### Recommendations based on descriptive findings

**Rethink the foster care service delivery model and roles of case managers.** As results in this and other studies of alumni of foster care indicate, changes need to be made to the foster care service delivery model. The role of foster care agencies—and case managers specifically—must be re-conceptualized so that they bring expert assessment and navigator skills to every child situation. In addition, there must be greater integration between the child welfare systems and other systems that serve youth in transition. Child welfare systems must assume a centralized role, acting as assessors, integrators, and navigators. Case managers, supported by their agencies, must assume responsibility for the following roles on behalf of youth in foster care: (1) ensuring safety, (2) seeking permanency, (3) navigating systems, and (4) preparing for adult living.

**Build practice frameworks.** We need to develop a more theory- and research-based conceptual practice framework to guide the design and implementation of transition programs for older youth in foster care. Better markers or milestones of success need to be identified so that both youth and program staff know with more clarity whether they are on the right track for successful transition.

**Increase access to evidence-based mental health treatment for youth in care and alumni of care.** Child welfare workers should be trained to identify children and youth who may need more formalized assessment and treatment for mental health disorders. Barriers to mental health care—including state and Federal eligibility requirements that limit access to funding—should be identified and addressed so that youth in care and alumni have greater access to the effective treatment methods that have been developed.

**Support youth in care and alumni of care in pursuing and completing educational degrees.** Make greater efforts to include graduation from high school in service plans. Support better preparation for, access to, and success in vocational training and other postsecondary education programs.

**Assist young alumni of care in finding, securing, and maintaining stable housing.** Reform systems to strengthen transitional housing and public/community housing systems (Choca et al., 2004; Kroner, 1999).

**Overhaul independent living preparation.** Federal and state funds should be redirected to the most promising independent living programs, which should be rigorously evaluated and replicated if successful.

**Assist youth in care in developing and maintaining healthy relationships throughout life.** Teach youth in care how to develop and maintain healthy dating relationships and healthy relationships with other adults, such as mentors and birth families, in the absence of supervision from a social worker.

**Reduce unplanned pregnancies and involvement with the criminal justice system.** All of the major alumni studies, including the present study in Texas, have uncovered these two serious problem areas. We need more careful reviews of the causal factors in order to design practical, cost-effective prevention strategies for these problems.

### Recommendations based on predictive analyses

**Foster care agencies should help maintain placement stability, which has a positive effect on outcomes.** In the predictive analyses, having a lower number of placements and a lower number of placements per year each predicted five positive outcomes, which is more than was predicted by any other predictor. The importance of placement stability found in the current study is consistent with findings from the Northwest Alumni Study. Initial placement decisions, although often made within the context of difficult time constraints, should be made carefully so that youth are less likely to move. Foster parents should be trained in how to implement social learning, behavior management, and other interventions that will minimize placement changes.

**Strengthen placements so that youth are less likely to run away.** Alumni who had run away frequently (at least six times) during care had poorer outcomes than those who had never run away. Although many factors influence whether a youth decides to run away, having a better match between foster parent and youth and having a clear plan for permanency may help prevent runaway episodes. Careful mental health assessments, outreach to extended family members so a child has some family members to relate to, better mental health care, and prompt crisis intervention by the case manager can also help prevent runaway behavior.

**Ensure that youth have concrete resources as they prepare to leave care.** In the predictive analyses, having a driver's license and having dishes and utensils each predicted four positive outcomes, and having at least $250 in cash predicted two positive outcomes. Having concrete resources when leaving care is likely a proxy for more comprehensive independent living preparation; thus, simply providing these resources at the time of exit is not likely to be helpful. Rather, these findings underscore the importance of helping youth achieve permanent connections with an adult as well as delivering effective independent living training.

## Texas DFPS Program and Policy Improvements

Texas DFPS has instituted numerous initiatives to improve their child welfare system since the time that alumni in this study were in care, as highlighted below:

- Improvement of placement stability (including minimizing the number of runaways) through trauma-informed care training and improved matching of foster parents and children.
- Provision of concrete resources to youth emancipating from foster care through a transitional living allowance and other refinements.
- Improved transition planning and preparation for independent living through a standardized statewide transition-planning process.
- Increased access to an annual behavioral health screening.
- Support for completion of educational degrees through more thorough education-related service planning; use of DFPS Education Specialists; supplemental educational services, such as vocational training and tutoring, through partnerships with colleges, community organizations, and foster care placement providers; and support provided by the Educational Training Voucher program.
- Bolstered assistance in finding, securing, and maintaining stable housing.

- Assistance in developing and maintaining healthy relationships through training on healthy partners and peer relationships.
- Reducing unplanned pregnancies through additional training on birth control, sexual responsibility, reproduction, and pregnancy risks provided through the Health and Safety core element of PAL classes.

A full list of initiatives, which describes changes instituted that relate to each of the recommendations above, is available online here: Texas DFPS New Programs and Policies. Select changes in practice and policy are described in the full report.

## Conclusions

Many of the results of this study are similar to that of other alumni studies conducted by Chapin Hall, Casey Family Programs, and Casey Family Services. The majority of youth in this study aged out of care as emancipated young adults rather than leaving the foster care system after having achieved permanency (through adoption, reunification, or guardianship).[3] One of the most effective ways to improve outcomes among alumni may be to ensure that they leave care through achievement of legal permanency rather than through emancipation. For example, to help youth in foster care secure permanent families, Casey Family Programs is assisting jurisdictions to develop and conduct permanency roundtables throughout the United States. These intensive roundtable sessions are staffed by internal and external experts who devote two hours to discussion of each case and development of a permanency action plan. Initial results from roundtables, particularly in Georgia, indicate that they can be an effective way to achieve permanency for youth who are considered "stuck" in foster care.[4]

This study of Texas foster care alumni underscores the need to include more mental health and other child well-being assessment indicators into child welfare agency performance dashboards so that some of the key services and outcomes are being implemented with fidelity and tracked. Although many foster care alumni outcomes were not positive, several foster care experiences (such as placement stability and having resources upon leaving care) were found to remediate those outcomes. Foster care agencies are not able to change the experiences that children and youth experience before they enter care, but the agencies are able to improve the experiences of children and youth who are in care, which can in turn lead to better adult outcomes.

# Chapter I. Introduction

## Foster Care in the United States

Unlike young adults who have been raised by their birth or adoptive families, young adults who emancipate from foster care are often not able to rely upon their families for assistance during the transition to adulthood. In 2009, nearly 30,000 young adults emancipated from foster care in the United States. These young adults were among the 700,000 children who were served in the foster care system during 2009. Many children spend a substantial amount of their childhood in foster care: The 276,266 children exiting foster care in 2009 spent an average of nearly two years (22 months) in care (U. S. Department of Health and Human Services, 2010). In Texas, 27,422 children were in foster care during 2009, and 1,453 emancipated (Texas Department of Family and Protective Services, 2010). Clearly, foster care affects a large number of children in the United States and it affects children for a significant length of time.

The costs of foster care are high, both financially and in terms of child well-being. The child welfare system itself is estimated to cost approximately $25.4 billion annually. When the associated costs of hospitalization, mental health treatment, and law enforcement are included, the annual total rises to approximately $33.1 billion (Scarcella, Bess, Zielewski, & Geen, 2006; Wang & Holton, 2008).

Studies indicate that children in foster care and former recipients of foster care (*alumni*) have poorer outcomes than their peers in the general population in areas such as mental health, employment, and education (American Academy of Pediatrics, 2000; Courtney, Dworsky, Lee, & Raap, 2010; McMillen et al., 2005; Pecora et al., 2010; Vandivere, Chalk, & Moore, 2003; White, Havalchak, Jackson, O'Brien, & Pecora, 2007; Williams, Pope, Sirles, & Lally, 2005).[5] One area of child well-being of particular concern is mental health. Recent studies have documented high rates of mental health disorders among alumni of foster care. For example, the Northwest Alumni Study found rates of post-traumatic stress disorder (PTSD), depression, anxiety, and social phobia among alumni in Oregon and Washington that far exceeded general population rates (Pecora et al., 2005). The Midwest Study found high rates of lifetime mental health disorders (Courtney et al., 2005). Given the large number of children involved in the foster care system, it is important to document their outcomes and to develop strategies to improve their outcomes.

Findings from studies of foster care alumni have influenced policy aimed at improving their outcomes. For example, the Midwest Study and the Northwest Alumni Study were both instrumental in the passage of the Fostering Connections to Success and Increasing Adoptions Act of 2008. This act extended Title IV-E eligibility to young adults in foster care up to the age of 21. Continued monitoring of outcomes after the passage of this act will allow for a better understanding of its effectiveness and a better understanding of how foster care should be changed to improve outcomes.

## Study Background, Rationale, and Collaborators

Currently, few comprehensive studies of alumni of foster care provide benchmarks against which agencies can measure the outcomes of these alumni and improve their own programs. Although current and forthcoming data (such as that provided by the National Survey of Child and Adolescent Well-Being [NSCAW] and the National Youth in Transition Database) will provide

important information about young alumni of foster care, there will be a significant knowledge gap concerning their longer-term outcomes.

This study was made possible through the combined efforts of the following organizations:

1. *University of Michigan Survey Research Center* interviewed alumni.
2. *Casey Family Programs* coordinated the study.
3. *Harvard Medical School* weighted the interview data and imputed missing data, and provided comparison data from the general population.
4. *Administrators and staff in Texas* pulled case record data, helped locate alumni, and provided feedback with respect to the study design and findings.
5. *Chapin Hall at the University of Chicago's* Midwest Study leaders, Mark Courtney and Amy Dworsky, gave permission for the use of their instrument items, study design information, and key data so the Texas and Michigan data could be compared to the Midwest Study findings.

## Research Questions

This study was informed by developmental theories, conceptual models, and previous foster care research (e.g., Cook, Fleishman, & Grimes, 1991; Courtney et al., 2010; Fanshel, Finch, & Grundy, 1990; Festinger, 1983; Pecora et al., 2010). The primary research questions were as follows:

1. What were the demographic characteristics of foster care alumni in Texas and what were their experiences while in foster care?
2. What were the outcomes of these foster care alumni at age 23 and 24? How do their outcomes compare with the outcomes of other young adults?
3. What risk and protective factors were associated with outcomes during early adulthood?
4. What was the relation between the foster care experiences of these alumni and their young adult outcomes?

# Chapter II. Study Sample and Methodology

## Design and Procedure

Professionally trained interviewers from the University of Michigan's Survey Research Center conducted one-time retrospective in-person (*n*=130) and telephone (*n*=43) interviews between December 2008 and November 2009. The interview included questions regarding experiences in foster care and outcomes as young adults in areas such as education, employment, mental health, relationships, and criminal justice involvement. The length of the interview ranged from 63 to 249 minutes with an average of 142 minutes. Although the interviewer read aloud the majority of the survey questions in person, participants had the option to answer questions related to sensitive topics (such as sexual experiences, criminal justice involvement, and spousal/partner violence) via a self-administered audio interview program on a laptop computer.

### Informed consent

The study protocol was approved by the University of Michigan's Institutional Review Board and the Casey Family Programs Human Subjects Review Committee. All participants read and signed a consent form, which explained the study procedures and stipulated that all data would be kept confidential and that results would be published in group form only (that is, no individual identifiers would be used). In additional, a Certificate of Confidentiality was received from the National Institutes of Health to ensure that participant data could not be shared because of legal demands (e.g., court orders, subpoenas).

### Incarcerated respondents

Given that incarcerated respondents were found to constitute a significant proportion of the sample, it was considered important for the overall validity of study findings to make a special effort to include them. Through tracking efforts, field staff located potential respondents in federal, state, and county correctional facilities. Approximately 10% of the sample was incarcerated at any given time. The Texas Department of Criminal Justice approved a research protocol allowing interviewing in state facilities. A total of 12 interviews (out of 49 eligible alumni in prison) were conducted in 10 prisons in the Texas Department of Criminal Justice system. No interviews were completed in federal prisons.

### Remuneration

All respondents who completed an interview were paid $90 in appreciation of their time and ideas. Towards the end of the interviewing period, potential respondents were offered an additional $60, for a total of $150, as a way to increase the response rate. Note that incarcerated respondents were not permitted to receive compensation for participating in the study.

## Sample

### Eligibility criteria

To be eligible for the study, alumni had to meet the following criteria:

1. Were placed in care initially due to child maltreatment and/or child behavior problems.

2. Entered care prior to their 16th birthday and were still in court-supervised care at age 17 (i.e., were wards of the court for at least one year).
3. 23 years old on September 1, 2008.
4. Speak English.
5. Mentally able to complete the interview.

There was no restriction on the way in which these young people exited foster care. Alumni could have exited care for any reason, including emancipation, reunification, or adoption. These eligibility criteria were chosen in consultation with Chapin Hall researchers so that the study in Texas would be comparable to the Midwest Study (Courtney et al., 2010). A total of 606 alumni of foster care were eligible to participate in Texas.

### Response rates

The biggest challenge in Texas was tracking and locating participants. Despite the use of extensive location strategies by the University of Michigan Survey Research Center, a relatively small proportion of alumni were located. A total of 173 alumni of foster care in Texas participated in the study. The weighted response rate (AAPOR RR2 – American Association for Public Opinion Research, Response Rate) was 33% (American Association for Public Opinion Research, 2009). Study findings should be interpreted with some caution due to this low response rate. (See Chapter VI for more information about this and other study limitations.)

### Demographic characteristics

More females than males were interviewed (see Table 1). This may be partially explained by the fact that there were more females than males in the full sample and because more males than females were found to be incarcerated at the time of the interview.[6] The interviewed sample was racially and ethnically diverse and roughly mirrored the race/ethnicity of the full sample, with about three in ten respondents identifying as Hispanic/Latino, nearly three in ten identifying as African American, and two in five identifying as Non-Hispanic White.

Table 1. Demographic Characteristics of the Interviewed Young Adults and the Full Sample

| DEMOGRAPHIC CHARACTERISTICS | | Interviewed young adults % | Full sample % |
|---|---|---|---|
| Gender* | Male | 30.6 | 43.2 |
| | Female | 69.4 | 56.8 |
| Primary race/ethnicity | Hispanic/Latino | 30.6 | 33.2 |
| | African American | 28.9 | 27.1 |
| | Non-Hispanic White | 38.7 | 38.4 |
| | Other or Multiracial | 1.7 | 1.3 |
| Age (at time of interview) | 23 | 27.2 | n/a |
| | 24 | 71.1 | |
| | 25 | 1.7 | |
| *Sample size* | | *173* | *606* |

* Indicates a statistically significant difference (chi-square) between the interviewed young adults and the full sample.

## Measures

### Administrative data

Case record data were pulled from Texas Department of Family and Protective Services databases. Data collected included information on demographic characteristics (sex, race/ethnicity, date of birth), placement history information (date[s] of removal; number, type, and length of placements; county of placement), and certain risk factors, such as being medically fragile, being learning disabled, and having a visual impairment.

### Interviews

A large proportion of the interview used the exact questions from the Midwest Study because the Texas Study was designed to determine how comparable Midwest Study findings were to other states. As such, the interview contained several standardized scales and covered a wide range of areas, including mental health, education, employment and finances, marriage and relationships, and parenthood. Among the standardized scales or sub-scales included in the interview are these:

- Lifetime Experiences Questionnaire (Gibb et al., 2001; Rose, Abramson, & Kaupie, 2000). This was used to measure respondents' emotional, physical, and sexual maltreatment history.
- Restrictiveness of Living Environment Scale (ROLES; Hawkins, Almeida, Fabry, & Reitz, 1992).[7] The ROLES was used to assess the restrictiveness of respondents' current living environments; living environments are rated based on how freely residents can enter, exit, and move within the facility, the facility's rules and requirements, etc.
- Conflict Tactics Scale for Partner and Spouse (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996): Eight items were chosen from the larger 39-item scale to match the items used in the National Longitudinal Study of Adolescent Health (Add Health) and the Midwest Study. The CTS2 measures the extent to which intimate partners (dating, cohabitating, or married) attack each other physically and psychologically. Cronbach's alpha for the current study was 0.84.

The Composite International Diagnostic Interview (CIDI) was used to assess mental health. The CIDI was created as a psychiatric diagnostic interview that can facilitate psychiatric epidemiological research without the need for clinician interviewers. The CIDI used type and severity of experienced symptoms to determine whether a young adult had a specific mental health diagnosis in the past 12 months or ever in his or her lifetime. It provided diagnoses for a number of mental health disorders, such as depression, post-traumatic stress disorder (PTSD), and substance abuse, and has demonstrated high validity (Haro et al., 2006, 2008; Kessler & Üstün, 2004). All study interviewers received standardized comprehensive training on administration of the CIDI.

## Data Analysis

### Weighting of data

Steps were taken to account for young adults who were eligible to participate in the study but not interviewed. The sample data were weighted using case record data on demographic

characteristics to adjust for non-response. Data were weighted so that survey respondents had distributions on characteristics comparable to those of the original target sample. This improved the ability to generalize to the population from which the sample was drawn. Thus, all of the outcome data presented in this report are based on weighted data (to the extent available) to adjust for these respondent-nonrespondent differences.

- The weight was created in several steps:
- First, a *sampling weight* was created to adjust for sampling. This was created by multiplying a *probability of selection weight* (to account for two-phase sampling among the target sample[8]) and an *incarcerated weight* (to account for the 49 people who were in prison at the time of the interview).
- Next, an *eligibility weight* was created to represent all 606 alumni who met the study eligibility criteria, which adjusted for those participants interviewed.
- Lastly, the final weight used in analyses was created by multiplying the sampling and eligibility weights.

The variables listed below were used to create the final weight:

- Age at interview
- Gender
- Race/ethnicity
- Confirmed neglect
- Confirmed physical abuse
- Parent's paramour was the perpetrator
- Other perpetrator (not a relative or parent's paramour)
- Gang activity/affiliation
- Diagnosed with depression
- Diagnosed as emotionally disturbed, medically complex
- Number of days in care

### Missing data

Frequencies were examined to determine the extent to which data were missing. Imputation of missing data was dependent on which variables had missing data and the type and quantity of missing data. Thus, there were different imputation methods for different types of missing data:

1. For dichotomous (yes/no) questions, missing values, don't know/refuse responses are all coded to "no."
2. For ordinal variables, the missing values, don't know/refuse responses are coded to the most likely response under ordinary circumstances.
3. For continuous variables, a regression-based imputation method in SAS (PROC MI) was used, controlling for demographic characteristics and other variables that may be correlated with the variable in question. The interview weight was used in the imputation.

## Benchmarking data

For most of the outcomes, comparisons between the Texas sample of young adults and young adults from these other studies are provided:

*Michigan Alumni Study*
A small sample (*n* =65) of 23-year-old alumni were surveyed in the exact same manner as in Texas between December 2008 and March 2009. Due to funding constraints resulting from the national financial crisis in late 2008 and early 2009, data collection was suspended early. As a result, interviews were completed with only 65 of the 302 released cases (20.3%).[9] Data from Michigan are reported as benchmarks in this report, and a technical report detailing findings is available (White et al., 2012).

*Midwest Evaluation of the Adult Functioning of Former Foster Youth (Midwest Study)*
The Midwest Study is a longitudinal study that has been following a sample of 732 young people from Iowa (*n*=63), Wisconsin (*n*=195), and Illinois (*n*=474) as they "age out" of foster care and transition to adulthood (Courtney et al., 2005). Eligibility criteria were similar to those in the Texas Study. Midwest Study participants were 17 or 18 years old at the time of their first interview. Of the participants, 82 percent (*n*=603) were re-interviewed at age 19; and 81 percent (*n*=591) were re-interviewed at age 21. A fourth wave of survey data was collected from 602 Midwest Study participants between July 2008 and April 2009 when the young adults were 23 and 24 years old. These are the data used for the comparison with the Texas sample.[10]

*Northwest Foster Care Alumni Study (Northwest Study)*
The Northwest Study was a cross-sectional study that examined the outcomes of 479 young adults between the ages of 20 and 33 who had been placed in family foster care between 1988 and 1998 (Pecora et al., 2005). To be included in the study, the young adults had to have (1) spent 12 or more continuous months in family foster care between the ages of 14 and 18; (2) reached their 18th birthday by September 30, 1998; and (3) had no significant physical or developmental disability. Just over three-quarters of these young adults had received foster care services from the public child welfare agencies in Oregon and Washington. The other quarter was served by Casey Family Programs in Washington State (Seattle, Tacoma, and Yakima) and in Oregon (Portland).[11] The Seattle, Tacoma, and Portland offices served urban areas whereas the Yakima office served a rural area. Researchers reviewed case records for the entire sample of 659 and interviewed 479 of the young adults between September 2000 and January 2002.

*National Longitudinal Study of Adolescent Health*
This report includes comparison data from a nationally representatives sample of 23- and 24-year-olds from the National Longitudinal Study of Adolescent Health (Add Health), a federally funded longitudinal study of adolescents' health-related behavior and outcomes. The data cited in this report are based on the sample of 23- and 24-year-olds who participated in the third wave of data collection in 2001 and 2002.[12]

*National Comorbidity Study Replication*
Mental health comparison data, matched on the age, race/ethnicity, and gender demographic characteristics of the Texas Study, were provided by the National Comorbidity Study Replication survey. This survey, conducted in 2001 and 2002, used the CIDI in a nationally representative sample of 9,282 people age 17 and older (Kessler et al., 2003; Kessler & Merikangas, 2004; Kessler & Walters, 2002); information from a subsample of 523 23- to 25-year-olds is included as general population comparison data in this report.

## Analyses

The results presented in this report refer to alumni who exited care nearly ten years ago; the vast majority of those interviewed exited in 2002 and 2003. Results therefore reflect experiences and outcomes of youth who were in foster care prior to Texas' initiation of extensive practice improvements, as summarized in Section VI and available in detail at Texas DFPS New Programs and Policies.

### Descriptive findings

Simple descriptive findings are presented for the entire interviewed sample and for comparison studies. Results were tested for significant differences between the Texas alumni and comparison studies using a significance level of $p<.05$. For continuous variables, a *t*-statistic was used; and for categorical variables, a chi-square statistic was used. Statistically significant differences are indicated by an asterisk.

### Regression analyses

Logistic regression analyses were used to determine which demographic characteristics and aspects of maltreatment history should be included when examining the relation between foster care experiences and outcomes; only demographic characteristics and maltreatment history variables that were significant predictors of outcomes were used as controls. Logistic regression analyses were also used to determine which foster care experiences predicted alumni outcomes after including controls.

### Odds ratios

Odds ratios are presented to demonstrate the relationship between (1) demographic characteristics, maltreatment history, and foster care experiences and (2) alumni outcomes.

# Chapter III. Maltreatment History and Foster Care Experiences

## Background

Although foster care is intended to be a temporary living situation, many children spend a substantial amount of time in care. In 2003 (about the time many of the young adults in the current study left care), children and youth exiting care had been in care for an average of 22 months, with nearly one in five (19%) having been in care for three years or more (U. S. Department of Health and Human Services, 2005). The services and support children and youth receive while in foster care can be a potentially powerful intervention for remediating the effects of child maltreatment and removal from the birth home; alternatively, unfavorable living situations and a lack of services and support while in care can exacerbate the negative effects of maltreatment and trauma.

The Texas Alumni Study examined the demographic characteristics, maltreatment history, and foster care experiences among alumni of the Texas foster care system. It also examined the relation between those demographic characteristics, maltreatment history, and foster care experiences and the outcomes of the young adult alumni. Improvement of the foster care system can impact the experiences the child has in foster care—ultimately affecting outcomes as a young adult. (For a full description of the impact of risk factors and foster care experiences on adult outcomes and for an analysis of how adult outcomes can be improved by improving foster care experiences, see Pecora et al., 2010).

Each of the following is a dimension of the foster care experience that is hypothesized to be related to outcomes. As such, these foster care experiences were included in analyses for the Texas Alumni Study. Note that there is little research on the relation of many of these factors to long-term outcomes because very few studies have interviewed older alumni.

### Placement stability

Changing homes because of placement disruption compounds the sense of loss that children face by leaving behind parents and often siblings and friends. James (2004) found that child behavior problems constituted the reason for a placement change in only 19.7% of the moves, as contrasted with “system or policy-related” reasons—such as a move to a short-term or long-term care facility, a move to be placed with a sibling or relative, group home closure, or a move to be closer to a relative or certain school—in 70.2% of the moves (p. 612). Similarly, Taber and Proch (1987) noted in their longitudinal study that “placement disruption may be a function primarily of the service system, not the child” (p. 436).

Placement stability was closely linked to positive alumni outcomes in the Northwest Study (Pecora et al., 2010) and was associated with success in a sample of alumni ranging in age from 20 to 51 (Pecora et al., 2003). Research has found that multiple placements increase child behavior problems (Newton, Litrownik, & Landsverk, 2000), and that these changes were associated with decreased school performance and increased delinquent behavior (Ryan & Testa, 2004). The experiences of these children while in care have important ramifications throughout their development. For young children, “multiple placements are thought to have a

pernicious impact on the development of attachment to primary caregivers, an early developmental milestone thought to be essential for the achievement of later developmental tasks" (Wulczyn, Kogan, & Harden, 2003, p. 2). School performance problems may be compounded by school changes related to placement changes (Rumberger & Larson, 1998). Multiple placement moves before age 14 are associated with delinquency filings after age 14 for males (Ryan & Testa, 2005).

Placement changes also disrupt service provision, distress foster parents (thereby lowering retention rates), cost worker time, and create administrative disruptions (James, 2004). Finally, although a variety of child, family, social worker, and agency factors have been researched in relation to placement change, it is nevertheless difficult to predict and therefore prevent disruptions in placement.

### Positive experience in foster care

Children and youth can benefit from a positive experience in foster care, which includes feeling that social workers were helpful, that foster families were helpful, and that overall, being in foster care was a satisfying experience. Children entering care are in need of nurturing adults who can help them begin to overcome the effects of child maltreatment by providing a warm, stable, and consistent environment (Wind & Silvern, 1994). Interviews with alumni from foster care have illustrated the importance of caring relationships with adults (Pecora et al., 2010). An absence of further maltreatment while in care is also critical to positive youth development.

### Preparation for leaving care

Educational support and career planning are two of the many contributors to life-skills preparation. These skills are intended to prepare youth for later success. Some of the most important skills include goal setting, problem solving and decision making, self-advocacy, personal health and safety awareness, employment readiness, knowledge of how to secure safe and stable housing, and the ability to establish social support networks (Casey Family Programs, 2001).

### Resources upon leaving care

When most children leave home, they have concrete resources such as a driver's license, cash savings, and dishes and utensils (Carnegie Council on Adolescent Development, 1989; Casey Family Programs, 2001). The Northwest Study found that alumni who had concrete resources upon leaving care had better outcomes than those who did not have such resources (Pecora et al., 2010). Having obtained these resources is likely an indicator of greater preparation for independent living.

### Therapeutic services and support

The literature on child maltreatment clearly documents that children and youth enter foster care with higher levels of physical disabilities and mental health impairments compared to children and youth who are not in foster care. For example, one study found that up to 80% of youth in foster care had at least one psychiatric diagnosis (Zima, Bussing, Yang, & Belin, 2000), and another found that 61% of youth in foster care age 17 had at least one psychiatric disorder at some point in their lives (McMillen et al., 2005). These studies underscore the importance of access to therapeutic services and support for youth in foster care.

### Family and community involvement

Recreational, spiritual, and other activities that foster families do together are recognized as helpful, but there is less firm research evidence of how much impact they have on youth outcomes (Berrick, Needell, Barth, & Jonson-Reid, 1998; Festinger, 1983; White et al., 2007). However, the literature suggests that foster families can act as a powerful protective mechanism for development, especially when the youth is engaged in the foster family and is an active participant in the foster care experience.

In sum, when the foster care experiences described above appear in their positive form (e.g., increased placement stability, receipt of services while in care), it was hypothesized that improved outcomes would be observed.

## Maltreatment History

Table 2 presents the maltreatment history of the young adults who were interviewed. Consistent with nationwide trends (Pecora et al., 2010), most youth who entered care (81.6%) did so because they had experienced some form of maltreatment. About half (50.8%) had experienced sexual abuse and about half (49.8%) had experienced neglect; a smaller percentage (36.7%) had experienced physical abuse. One quarter (24.6%) had experienced all three types of maltreatment—neglect, physical abuse, and sexual abuse—prior to entering care.

Table 2. Maltreatment History of the Interviewed Young Adults

| MALTREATMENT HISTORY | | % |
|---|---|---|
| Reason(s) for placement into foster care† | Behavior problems | 29.4 |
| | Maltreatment | 81.6 |
| | Parent substance abuse | 6.4 |
| Number of reason(s) for placement into foster care | 0 | 4.0 |
| | 1 | 77.0 |
| | 2 | 16.5 |
| | 3 | 2.5 |
| Maltreatment before care (young adults could have experienced more than one type) † | Neglect | 49.8 |
| | Physical abuse | 36.7 |
| | Sexual abuse | 50.8 |
| Number of types of maltreatment before care | 0 | 30.5 |
| | 1 | 26.4 |
| | 2 | 18.5 |
| | 3 | 24.6 |
| *Sample size: 173* | | |

† These variables were entered into the regression equations (see Chapter 5) as dummy variables. *Reason(s) for placement into foster care: behavior problems* was coded yes/no; *reason(s) for placement into foster care: maltreatment* was coded yes/no, etc.

## Placement History and Foster Care Experiences

### Placement history

Table 3 includes information about the placement history and foster care experiences of the interviewed young adults. On average, young adults had entered care at the age of 14 and stayed in care for nearly four years. For 82.5% of the sample, their case closure date was their 18th birthday; the remaining 17.5% exited while they were 17 years old.

On average, youth experienced instability in their placements while in care. Alumni experienced a high average number of placements (11.1) and, on average were in 3.3 placements per year in care. Three in ten (30.6%) had experienced at least one reunification failure, and over half (56.3%) had run away at least once.

Nearly half (48.6%) lived with one or more siblings at least once while in foster care, and 30.7% were placed with relative caregivers at least once.

Table 3. Placement History

| PLACEMENT HISTORY | | % |
|---|---|---|
| Age at child welfare case opening (in years) | 14 years or younger | 55.6 |
| | 15 years or older | 44.4 |
| Average age at child welfare case opening (in years): 14.0 (*SD*: 1.8) | | |
| Length of time in foster care (in years) | Less than 4 years | 45.2 |
| | 4 or more years | 54.8 |
| Average length of time in foster care (in years): 3.9 (*SD*: 1.8) | | |
| Number of placements | Less than 4 | 4.1 |
| | 4 to 7 | 35.8 |
| | 8 or more | 60.1 |
| Average number of placements: 11.1 (*SD*: 7.8) | | |
| Number of placements per year in care | Less than 1 | 7.1 |
| | 1 to 2.9 | 46.3 |
| | 3 or more | 46.6 |
| Average number of placements per year in care: 3.3 (*SD*: 2.7) | | |
| Number of failed reunifications | None | 69.4 |
| | 1 to 2 | 21.8 |
| | 3 or more | 8.8 |
| Average number of failed reunifications: 0.8 (*SD*: 2.1) | | |
| Number of runaway episodes | None | 43.7 |
| | 1 to 5 | 34.4 |
| | 6 or more | 21.9 |
| Average number of runaway episodes: 3.7 (*SD*: 5.8) | | |
| Lived with one or more siblings in foster care | | 48.6 |
| Lived with relatives (in at least one placement) | | 30.7 |
| *Sample size: 173* | | |

## Foster care experiences

Table 4 includes information about experiences in foster care among the interviewed alumni. Alumni provided a mixed assessment of their satisfaction with foster care: 43.5% disagreed or strongly disagreed with the statement, "Overall, I am satisfied with my experience in foster care," and a similar proportion (42.1%) agreed or strongly agreed. Just over half of alumni agreed or strongly agreed that their foster families were helpful (55.0%) or that their social workers were helpful (53.9%).

Nearly three in four alumni (72.7%) reported having a mentor during their adolescent years (after age 14). A smaller percentage (44.1%) said that their foster families helped them with ethnic and cultural issues.

Alumni-reported rates of maltreatment while in care are much higher than what is reported in Child and Family Services Reviews. Less than one percent (0.3%) of children in foster care in Texas were reported as victims of maltreatment in care in 2006 (U. S. Department of Health and Human Services, 2008, Table 3-20). However, 37.3% of alumni reported having experienced neglect, 28.5% reported having experienced physical abuse, and 23.4% reported having experienced sexual abuse at some point during their time in foster care. Note that very specific descriptors of child maltreatment were used as part of the interview.

Stories from the field:

*I had an interview where the respondent is still living with her foster family. She said, "It's my home," and she's been there since she was 11. It's nice to know sometimes it works out.*

Among those who experienced neglect before and during care, perpetrators were foster parents (75.1%), kinship foster parents (11.6%), and other people (35.8%), such as agency staff. Among those who experienced physical abuse before and during care, perpetrators were foster parents (77.3%), kinship foster parents (10.2%), and other people (20.1%), such as step-parents and agency staff. Among those who experienced sexual abuse in care, perpetrators were foster parents (37.7%), kinship foster parents (5.3%), and other people (73.5%), such as peers, counselors, and agency staff.[13]

Relatively small percentages of alumni reported having a driver's license (28.1%), at least $250 in cash (37.6%), or dishes and utensils (36.9%) when they left care. Nearly half of alumni (48.5%) had none of these three resources when leaving care, and less than one in five (18.0%) had all three. Just over half of alumni (54.7%) felt somewhat prepared or very prepared for independent living when they left care.

Table 4. Foster Care Experiences – Self-Reported by Alumni of Care

| FOSTER CARE EXPERIENCES | | % |
|---|---|---|
| Satisfied with experience in foster care | Strongly disagree | 26.8 |
| | Disagree | 16.7 |
| | Neither agree nor disagree | 14.4 |
| | Agree | 24.8 |
| | Strongly agree | 17.3 |
| Foster families were a help | Strongly disagree | 21.1 |
| | Disagree | 10.0 |
| | Neither agree nor disagree | 13.9 |
| | Agree | 27.5 |
| | Strongly agree | 27.5 |
| Social workers were a help | Strongly disagree | 20.9 |
| | Disagree | 14.8 |
| | Neither agree nor disagree | 10.3 |
| | Agree | 27.3 |
| | Strongly agree | 26.6 |
| Had a mentor since the age of 14 (not necessarily while in care) | | 72.7 |
| Foster family helped with ethnic and cultural issues (during last placement of three months or more) | | 44.1 |
| Maltreatment while in care | Neglect | 37.3 |
| | Physical abuse | 28.5 |
| | Sexual abuse | 23.4 |
| Resources upon leaving care | Driver's license | 28.1 |
| | At least $250 in cash | 37.6 |
| | Dishes and utensils | 36.9 |
| Number of resources upon leaving care | 0 | 48.5 |
| | 1 | 18.4 |
| | 2 | 15.1 |
| | 3 | 18.0 |
| Felt prepared to live on own when left care | Not at all prepared | 33.9 |
| | Not very prepared | 11.4 |
| | Somewhat prepared | 32.6 |
| | Very prepared | 22.1 |
| *Sample size: 173* | | |

Table 5 presents types of independent living services alumni received while they were in care and ratings of their perceived helpfulness. The most commonly received services were budget and financial management services (68.2%) and educational support services (67.5%). Fewer alumni received employment or vocational support services (62.4%) or housing services (53.9%). Alumni generally rated the services they received as helpful, particularly employment services (84.4% of respondents rated these as somewhat or very helpful) and budgeting/financial services (82.2% rated these as somewhat or very helpful). Lastly, most alumni reported that they had access to therapeutic services (88.7%) and fun and/or religious activities (84.4%).

Table 5. Receipt and Helpfulness of Services

| RECEIPT AND HELPFULNESS OF INDEPENDENT LIVING SERVICES | | % |
|---|---|---|
| Received any educational support services[14] | | 67.5 |
| Helpfulness of educational services (among those who received services) | Not at all helpful | 12.8 |
| | Not very helpful | 6.4 |
| | Somewhat helpful | 36.3 |
| | Very helpful | 44.5 |
| Received any employment or vocational support services | | 62.4 |
| Helpfulness of employment services (among those who received services) | Not at all helpful | 6.0 |
| | Not very helpful | 9.6 |
| | Somewhat helpful | 43.7 |
| | Very helpful | 40.7 |
| Received any budget and financial management services | | 68.2 |
| Helpfulness of budgeting/financial services (among those who received services) | Not at all helpful | 9.1 |
| | Not very helpful | 8.7 |
| | Somewhat helpful | 36.9 |
| | Very helpful | 45.3 |
| Received any housing services | | 53.9 |
| Helpfulness of housing services (among those who received services) | Not at all helpful | 9.5 |
| | Not very helpful | 17.0 |
| | Somewhat helpful | 33.0 |
| | Very helpful | 40.5 |
| Had access to therapeutic services (during last placement of three months or more)[15] | | 88.7 |
| Had access to fun and/or religious activities (during last placement of three months or more) | | 84.4 |
| *Sample size: 173* | | |

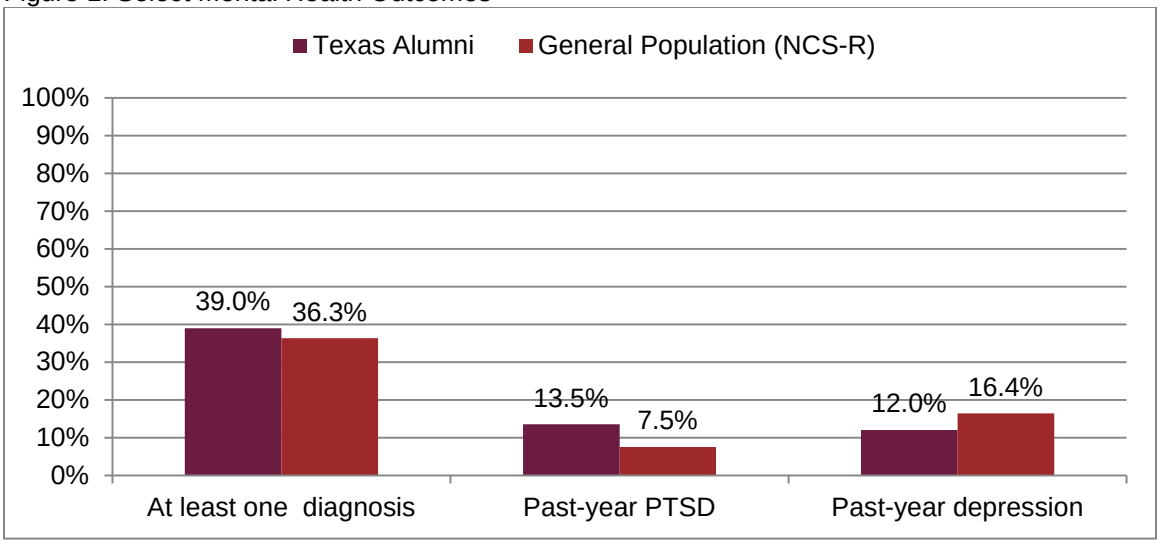
# Chapter IV. Outcome Findings

## Physical and Mental Health

This section reports on the physical and mental health outcomes of the alumni. Youth who are placed in foster care are at increased risk of mental health problems due to the maltreatment they received from their birth families and the trauma of entering and living in foster care (Garland et al., 2000; Leslie et al., 2003). Mental health outcomes are based on the CIDI (see Chapter 2). This report includes benchmarking data from Michigan, the Midwest Study, the Northwest Study, and the National Comorbidity Study Replication (NCS-R) survey (see Chapter 2 for more information).

About one in five alumni (19.3%) reported having a chronic physical or mental health condition that requires regular medical care (see Table 6). A sizeable percentage (45.5%) reported that they currently smoked, which is significantly higher than the general population (26.3%), as reported in the NCS-R. A significantly smaller percentage of alumni (60.1%) reported that they drank alcohol in the past year compared to the general population (72.9%) as reported in the NCS-R, matched on age, gender, and race/ethnicity.

Figure 1. Select Mental Health Outcomes




Nearly seven in ten alumni (68.0%) had at least one mental health problem, as measured by the CIDI, at some point in their lifetime, and four in ten (39.0%) had at least one mental health problem in the past year (see Figure 1). The most common lifetime diagnoses included alcohol abuse (32.4%), post-traumatic stress disorder (PTSD; 30.3%), and drug abuse (26.6%). The most common past-year diagnoses included PTSD (13.5%), depression (12.0%), and social phobia (10.7%). Note that prevalence rates reported for some diagnoses, such as past-year alcohol dependence (1.0%), were very low. Given that these findings were driven by a very small number of participants, the prevalence rates may be sensitive to sampling and may be unstable.

Table 6. Physical and Mental Health

| PHYSICAL AND MENTAL HEALTH | Texas | | Michigan | | Midwest Study | | Northwest Study | | NCS-R | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Life-time (%) | Past year (%) | Life-time (%) | Past year (%) | Life-time (%) | Past year (%) | Life-time (%) | Past year (%) | Life-time (%) | Past year (%) |
| Has a chronic physical or mental health condition[16] | n/a | 19.3 | n/a | 24.6 | n/a | 12.4 | n/a | 27.5*[a] | n/a | n/a |
| Currently smokes | n/a | 45.5 | n/a | 61.5* | n/a | 45.8 | n/a | 42.8 | n/a | 26.3* |
| Currently drinks alcohol (past year) | n/a | 60.1 | n/a | 67.7 | n/a | 49.1* | n/a | 46.9* | n/a | 72.9* |
| At least one CIDI DSM diagnosis | 68.0 | 39.0 | 73.8 | 50.8 | 41.0* | 19.2* | n/a | 54.4* | 48.8* | 36.3 |
| Three or more CIDI DSM diagnoses | 30.5 | 9.0 | 32.3 | 10.8 | 12.0* | 2.2* | n/a | 19.9* | 17.7* | 10.4 |
| Alcohol abuse | 32.4 | 3.0 | 32.3 | 12.3* | 19.7* | 2.8 | n/a | 11.9*[b] | 12.9* | 6.3 |
| Alcohol dependence | 8.6 | 1.0 | 10.8 | 6.2* | 6.9 | 0.6 | 11.3 | 3.6 | 5.7 | 2.2 |
| Drug abuse | 26.6 | 7.3 | 26.2 | 4.6 | 14.2* | 3.8 | n/a | 12.3[c] | 9.8* | 3.0* |
| Drug dependence | 13.2 | 3.2 | 12.3 | 6.2 | 2.1* | 0.3* | 21.0* | 8.0* | 5.3* | 0.9* |
| Any substance abuse or dependence | 44.1 | 10.5 | 47.7 | 18.5 | n/a | n/a | n/a | n/a | 17.3* | 9.0 |
| Depression | 17.9 | 12.0 | 24.6 | 10.8 | 15.0 | 8.6 | 41.1* | 20.1* | 25.7* | 16.4 |
| Generalized anxiety disorder | 10.9 | 8.6 | 10.8 | 4.6 | 6.7 | 4.3* | 19.1* | 11.5 | 11.0 | 9.5 |
| Mania | 10.8 | 6.3 | 18.5 | 12.3 | 0.1* | 0.1* | n/a | n/a | 2.0* | 1.0* |

| PHYSICAL AND MENTAL HEALTH | Texas | | Michigan | | Midwest Study | | Northwest Study | | NCS-R | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Life-time (%) | Past year (%) | Life-time (%) | Past year (%) | Life-time (%) | Past year (%) | Life-time (%) | Past year (%) | Life-time (%) | Past year (%) |
| Panic disorder | 8.6 | 6.2 | 4.6 | 1.5 | n/a | n/a | 21.1* | 14.8* | 9.0 | 8.6 |
| Post-traumatic stress disorder (PTSD) | 30.3 | 13.5 | 32.3 | 23.1 | 12.7* | 5.9* | 30.0 | 25.2* | 9.8* | 7.5* |
| Social phobia | 15.9 | 10.7 | 23.1 | 16.9 | 3.1* | 2.3* | 23.3* | 17.1* | 17.3 | 10.8 |
| *Sample size* | *173* | | *65* | | *602* | | *479* | | *523* | |

* Indicates a statistically significant difference between Texas and the comparison group (Michigan, Midwest Study, Northwest Study, and/or NCS-R), $p<.05$. For example, alumni in Michigan had a significantly higher rate of past-year alcohol abuse (12.3%) compared to alumni in Texas (3.0%).

[a] Chronic physical disorder includes heart disease, high blood pressure, chronic lung disease, ulcers, and human immunodeficiency virus. It does not include diabetes or asthma.

[b] Alcohol problem

[c] Drug problem

Alumni had significantly higher rates of lifetime diagnoses than the general population for several disorders, notably PTSD (30.3% for alumni vs. 9.8% for the general population), alcohol abuse (32.4% vs. 12.9%), drug abuse (26.6% vs. 9.8%), and mania (10.8% vs. 2.0%). However, the lifetime prevalence rate of depression was significantly lower for alumni of care (17.9%) than for the general population (25.7%) as reported in the NCS-R, matched on age, gender, and race/ethnicity.

Differences between alumni and the general population for past-year diagnoses were less pronounced, suggesting that recovery had occurred for many alumni. For some disorders, such as alcohol abuse, alcohol dependence, depression, generalized anxiety disorder, and panic disorder, alumni actually had lower past-year rates than the general population. However, the overall finding that 39.0% of alumni had at least one past-year diagnosis demonstrates that alumni need access to mental health treatment, including treatment for alcohol and drug problems.

Comparisons to other studies of alumni of care revealed mixed results and should be interpreted with some caution, given that differences in diagnosis rates could be attributable to several factors other than true differences. Differences could be due to (1) different response rates across studies, (2) differences in the age distribution of respondents across studies, and (3) in the Midwest Study, a downward bias in diagnosis rates between the first and fourth interview waves due to study participants learning how to avoid follow-up questions by responding “no” to CIDI screener questions about symptoms.

There were no significant differences in any lifetime mental health diagnosis rates between Texas and Michigan. Alumni in Michigan had higher rates of past-year alcohol abuse and alcohol dependence. Overall, alumni in the Midwest Study had lower rates of diagnoses than those in Texas, and alumni in the Northwest Study had higher rates of diagnoses.

## Education and Training

This section reports on the education and training outcomes of the interviewed alumni. Youth in foster care confront challenges completing their education, due to frequent school moves (both before and during care), a lack of educational support, and other adversities related to their placement in care, such as trauma and neglect (Leone & Weinberg, 2010; Pecora et al., 2010).

Table 7 presents education and training outcomes. Slightly less than half of the interviewed alumni (48.4%) had completed high school with a diploma (see Figure 2); a greater percentage (72.1%) had completed high school with a diploma or GED, but this was much lower than the general population as measured by Add Health (92.7%) and was lower than what was found in the Northwest Study (84.8%). Note that many education experts believe the high school completion rates in the United States are actually lower than 93% because dropouts are not counted properly. Nevertheless, child welfare agencies should be helping youth achieve educational success in much higher numbers.[17]

Table 7. Education and Training

| EDUCATION AND TRAINING | Texas (%) | Michigan (%) | Midwest Study (%) | Northwest Study (%) | Add Health (%) |
|---|---|---|---|---|---|
| Currently enrolled in school | 18.6 | 16.9 | 16.6 | 15.7 | 23.1 |
| Has high school diploma | 48.4 | 35.4 | n/a | 56.3 | n/a |
| Has high school diploma or GED | 72.1 | 69.2 | 75.6 | 84.8* | 92.7* |
| Any education beyond high school | 35.7 | 26.2 | 31.8 | 42.7 | 61.2* |
| Any diploma or certificate beyond high school | 7.8 | 13.8 | 6.2 | 20.6* | 33.6* |
| Completed college (bachelor's degree) | 4.9 | 7.7 | 3.0 | 1.8* | 24.2* |
| *Sample size* | *173* | *65* | *602* | *479* | *1486* |

*Indicates a statistically significant difference between Texas and the comparison group (Michigan, Midwest Study, Northwest Study, and/or Add Health), $p<.05$.

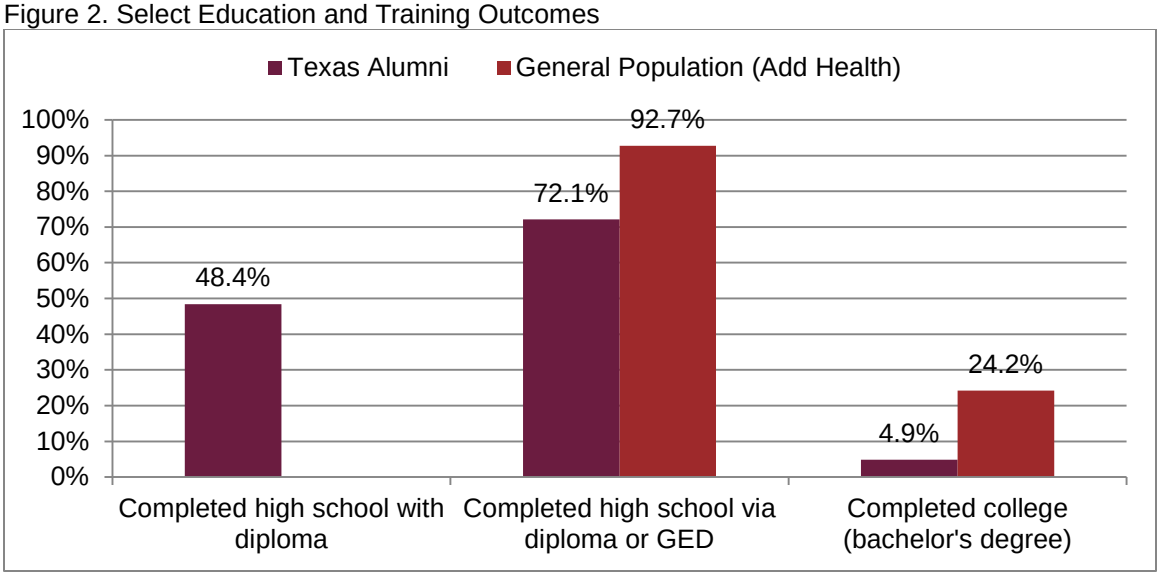
The high GED completion rates among these alumni are similar to other foster care alumni studies. Completion of high school via a GED rather than a high school diploma is a concern for several reasons (see, for example, Grubb, 1999):

1. High school graduates earn more than GED recipients in the labor market. That is, as measured by later economic success, it is more beneficial to finish high school than to drop out and earn a GED.
2. High school graduates are more likely to complete a four-year college degree, which will net them greater lifetime incomes.

Over one-third (35.7%) had received some education beyond high school, yet only 7.8% had completed a college diploma or certificate. The percent of alumni who had completed a bachelor's degree (4.9%) was significantly lower than that of the general population (24.2%). Given that 18.6% of the young adults were enrolled in school at the time of the interview, the percentage of youth who completed education after high school may rise over time; however, alumni face many challenges in completing their education, such as financial problems, pregnancy, and mental health problems (Pecora et al., 2006; Pecora et al., 2003).

Overall, there were no significant differences in education and training outcomes between alumni in Texas and those in Michigan and the Midwest Study. Northwest Study alumni had higher rates of high school completion (via a diploma or GED) and higher rates of having any diploma or certificate beyond high school, but they had lower rates of college completion.

Figure 2. Select Education and Training Outcomes




## Employment, Finances, and Economic Hardships

Table 8 reports on the employment and financial outcomes of alumni in Texas. Overall, less than half of the alumni (46.9%) were currently employed at least ten hours per week (see Figure 3). About two in five (39.2%) were working at least 35 hours a week, which is significantly lower than in the general population (57.3%), as reported in the NCS-R. Some of this could be attributed to the fact that interviews took place during 2008-2009, when the United States was in a recession, whereas the general population comparison data comes from interviews conducted in 2000-2001 (NCS-R).

About half of alumni (51.6%) reported having a household income that was greater than the federal poverty line, and less than one in five (17.1%) reported having a household income that was at least three times greater than the poverty line. These are both significantly lower than in the general population, in which 81.4% and 32.0% of young adults were at or above or three times greater than the poverty line, respectively (see NCS-R data in Table 8).

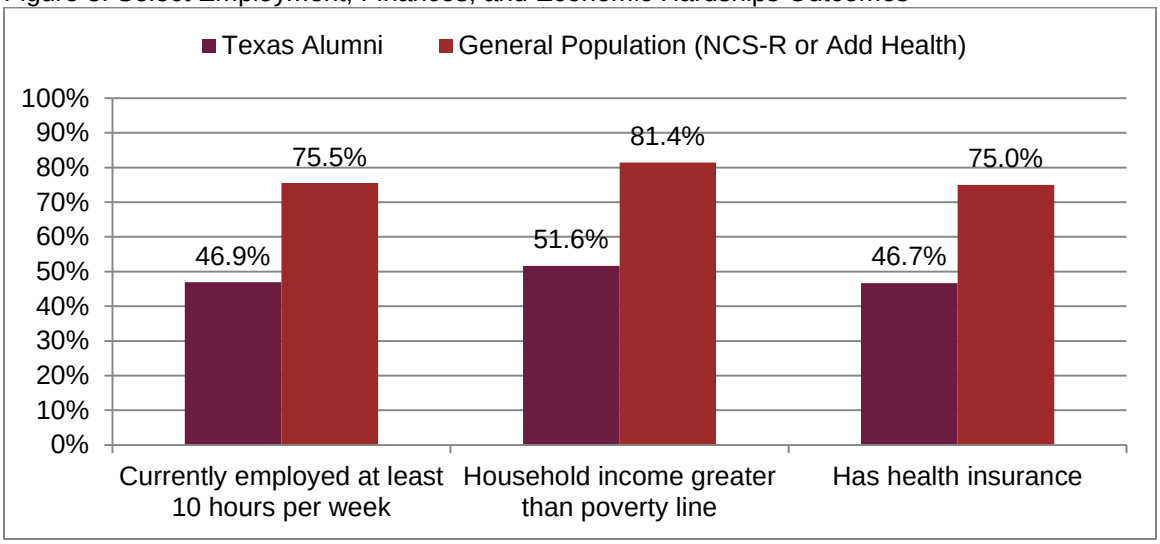
Alumni relied on public assistance to a great degree.[18] For example, nearly three-quarters (74.0%) reported having received public assistance since leaving care, and over half (52.4%) reported receiving public assistance in the past year. Both of these rates were significantly higher than that of the general population, in which 26.7% and 21.5% of young adults received public assistance ever or in the past year, respectively (see Table 8).

Stories from the field:

*This week resulted in interviews with two respondents with totally different situations. One is working, considering returning to school, and living with her husband and her in-laws. The second is a single mom with a small son who is trying to support both of them with SSI benefits and is in the process of reapplying for food stamps. The first appeared to have a secure living arrangement, and the second received an eviction notice while she was being interviewed. For both of these respondents, the economy has made things even more difficult in their day-to-day lives. This is truly a very trying time for many of the respondents who are in the young adult age range.*

A significantly lower proportion of young adults had a checking or savings account (50.2%) compared to their peers in the general population (85.1%). Less than half (46.7%) reported having health insurance, which is a concern given the physical and mental health challenges they faced.

Figure 3. Select Employment, Finances, and Economic Hardships Outcomes




About three in ten (29.2%) had experienced a time during the past 12 months when they were unable to pay their rent or mortgage, and 11.8% reported having been evicted during the past 12 months because of inability to pay. Three in ten (30%) reported being unable to pay their utility bill

during the past 12 months. Alumni experienced all of these economic hardships at a greater rate than the general population (see data from Add Health in Table 8).[19]

Table 8. Employment, Finances, and Economic Hardships

| EMPLOYMENT, FINANCES, AND ECONOMIC HARDSHIPS | Texas (%) | Michigan (%) | Midwest Study (%) | Northwest Study (%) | NCS-R/ Add Health (%) |
|---|---|---|---|---|---|
| Currently employed at least 10 hours per week | 46.9 | 43.1 | 48.0 | 69.1* | 75.5*[a,b] |
| Working 35 or more hours per week | 39.2 | 26.2 | 35.5 | 52.7* | 57.3* |
| Household income greater than the poverty line | 51.6 | 32.3* | 34.1* | 66.8* | 81.4* |
| Household income at least three times greater than the poverty line | 17.1 | 12.3 | 9.6 | 21.3 | 32.0* |
| Any public assistance since leaving care | 74.0 | 81.5 | 70.1 | 51.7*[d] | 26.7* |
| Any public assistance in past 12 months | 52.4 | 61.5 | 55.8 | 47.8[c] | 21.5* |
| Owns a residence | 14.5 | 13.8 | 5.9* | 9.3 | 19.5[a] |
| Has a checking or savings account | 50.2 | 43.1 | 46.7 | n/a | 85.1*[a] |
| Has health insurance | 46.7 | 47.7 | 55.7* | 67.0* | 75.0* |
| Unable to pay rent or mortgage | 29.2 | 33.8 | 28.5 | n/a | 7.4*[a] |
| Unable to pay and evicted | 11.8 | 9.2 | 8.6 | n/a | 0.7*[a] |
| Unable to pay utility bill | 30.0 | 43.1 | 26.9 | n/a | 11.8*[a] |
| *Sample size* | *173* | *65* | *602* | *479* | *523 / 1486* |

* Indicates a statistically significant difference between Texas and the comparison group (Michigan, Midwest Study, Northwest Study, Add Health, and/or NCS-R), $p<.05$.
[a] Add Health
[b] Employment could have been less than 10 hours per week.
[c] Past six months.
[d] Since age 18.

Overall, alumni in Texas had poorer employment, finances, and economic hardship outcomes compared to the general population on all outcomes except one (owns a residence). Outcomes

for alumni in Michigan were very similar to those in Texas; alumni in Michigan were less likely to have a household income above the poverty line, but all other outcomes were similar. Outcomes between Texas and the Midwest and Northwest Studies were fairly similar; however, for four outcomes, Texas alumni had better outcomes than Midwest Study alumni (Midwest Study alumni fared better on one outcome—has health insurance), and for three outcomes, Northwest Study alumni had better outcomes than Texas alumni.

## Living Arrangements and Household Composition

Table 9 presents information on the living arrangements and household composition of interviewed alumni.

Table 9. Living Arrangements and Household Composition

| LIVING ARRANGEMENTS AND HOUSEHOLD COMPOSITION | | Texas (%) | Michigan (%) | Midwest Study (%) | Northwest Study (%) | Add Health (%) |
|---|---|---|---|---|---|---|
| Current living arrangement† | By self | 54.8 | 58.5 | 49.0 | n/a | 63.2 |
| | With birth parent(s) | 7.4 | 6.2 | 7.0 | | 29.4 |
| | With other relative | 6.7 | 10.8 | 14.1 | | 3.4 |
| | With non-relative foster parents | 0.8 | 0.0 | 3.8 | | 0 |
| | With spouse/partner | 10.8 | 15.4 | 7.3 | | 0.7 |
| | With a friend | 5.8 | 7.7 | 6.5 | | 1.2 |
| | Group quarters (e.g., dorm; barracks) | 1.3 | 0.0 | 1.7 | | 1.1 |
| | Jail or prison | 11.1 | 0.0 | 7.0 | | 0.1 |
| | Homeless | 0.3 | 0.0 | 0.7 | | 0.1 |
| | Other | 0.8 | 1.5 | 3.0 | | 0.7 |
| Number of places lived since leaving care† | 1 | 10.7 | 15.4 | 12.1 | 3.4 | n/a |
| | 2 | 16.0 | 12.3 | 19.3 | 7.6 | |
| | 3 | 16.6 | 24.6 | 19.4 | 15.4 | |
| | 4 | 8.9 | 21.5 | 17.9 | 17.4 | |
| | 5 or more | 47.8 | 26.2 | 30.1 | 56.2 | |
| Lived with birth parents at least once since leaving care | | 42.0[a] (*n*=162) | 29.2 | n/a | n/a | n/a |
| *Sample size* | | *173* | *65* | *602* | *479* | *1486* |

* Indicates a statistically significant difference between Texas and the comparison group (Michigan, Midwest Study, Northwest Study, and/or Add Health), $p<.05$.
† Chi-square tests were not conducted on multilevel variables.
[a] Responses to this question are missing for 11 respondents.

Just over half of the alumni (54.8%) were living in their own place at the time of the interview, which is slightly less than those in the general population (63.2%), as reported in Add Health. Notably, a much lower percentage of alumni (7.4%) were living with their birth parents than their peers in the general population (29.4%). Although only 7.4% were currently living with birth parents, 42.0% had lived with their birth parents at least once since leaving care. The study found that many (11.1%) alumni were currently incarcerated; all but one of these incarcerated alumni were male.

Many alumni had experienced instability in their living arrangements after leaving care, with 47.8% reporting having lived in five or more places.

Table 10 presents data on homelessness. Nearly three in five (58.8%) reported having ever been homeless or "couch surfing" since leaving care. Among the 37.7% of alumni who had been homeless, 43.7% had experienced four or more episodes of homelessness, and 21.4% had been homeless for more than three months at a time. Similarly, among the 50.0% of alumni who had couch surfed, 47.8% had experienced four or more episodes of couch surfing, and 26.7% had couch surfed for more than three months at a time. Overall, alumni in Texas had higher rates of homelessness and couch surfing than did alumni in Michigan, the Midwest Study, and the Northwest Study.

Stories from the Field:

*After interviewing a young male respondent last week, I wished him well in his future endeavors. He expressed appreciation for my wishes but stated, "What I really need is your prayers." This particular respondent had indicated that he had survived several homeless periods after his discharge from foster care. He has only recently moved in with his former foster parents, and he indicated they have been very influential in his life.*

Table 10. Homelessness

| HOMELESSNESS | | Texas (%) | Michigan (%) | Midwest Study (%) | Northwest Study (%) |
|---|---|---|---|---|---|
| Ever homeless or couch surfed since leaving care | | 58.8 | 47.7 | 36.5* | n/a |
| Ever homeless since leaving care | | 37.7 | 30.8 | 24.3* | 22.2*[a] |
| Number of times homeless since leaving care (among those who had been homeless)[†] | 1 | 47.0 | 61.9 | 46.6 | 31.3[b] |
| | 2 | 4.9 | 19.0 | 13.7 | 19.3 |
| | 3 | 4.5 | 9.5 | 7.5 | 24.1 |
| | 4 or more | 43.7 | 9.5 | 27.4 | 25.3 |
| Longest period of time (in days) homeless (among those who had been homeless)[†] | 1 night | 12.3 | 9.5 | 9.6 | 1.1[c] |
| | 2 to 7 nights | 22.2 | 33.3 | 28.8 | 18.0 |
| | 8 to 30 nights | 24.2 | 19.0 | 24.0 | 17.5 |
| | 31 to 90 nights | 19.8 | 33.3 | 13.0 | 9.9 |
| | More than 90 nights | 21.4 | 4.8 | 20.5 | 52.4 |

| HOMELESSNESS | | Texas (%) | Michigan (%) | Midwest Study (%) | Northwest Study (%) |
|---|---|---|---|---|---|
| | Don't know | 0.0 | 0.0 | 4.1 | 1.1 |
| Ever couch surfed since leaving care | | 50.0 | 33.8* | 27.6* | n/a |
| Number of times couch surfed since leaving care (among those who had couch surfed)[†] | 1 | 22.6 | 22.7 | 32.5 | n/a |
| | 2 | 16.4 | 4.5 | 15.7 | |
| | 3 | 13.2 | 9.1 | 9.0 | |
| | 4 or more | 47.8 | 63.6 | 35.5 | |
| | Missing | 0.0 | 0.0 | 7.2 | |
| Longest period of time (in days) couch surfed (among those who had couch surfed)[†] | 1 night | 1.5 | 4.5 | 6.0 | n/a |
| | 2 to 7 nights | 21.4 | 31.8 | 22.9 | |
| | 8 to 30 nights | 30.5 | 22.7 | 25.9 | |
| | 31 to 90 nights | 19.9 | 13.6 | 16.9 | |
| | More than 90 nights | 26.7 | 27.3 | 18.7 | |
| | Don't know | 0.0 | 0.0 | 9.6 | |
| *Sample size* | | *173* | *65* | *602* | *479* |

* Indicates a statistically significant difference between Texas and the comparison group (Michigan, Midwest Study, and/or Northwest Study), $p<.05$.
[†] Chi-square tests were not conducted on multilevel variables.
[a] Homeless within a year of leaving foster care.
[b] This could include spells of homelessness before entering foster care.

## Marriage, Relationships, and Children

This section describes alumni outcomes for marriage, relationships, and children. Table 11 shows that slightly over one quarter of alumni (26.9%) had ever been married, and 21.7% were currently married. These rates are both similar to the general population as reported by the NCS-R. Comparisons with alumni from other studies are mixed: marriage rates in Texas were similar to those in Michigan, higher than those in the Midwest Study, and lower than those in the Northwest Study.

More than half (58.3%) had given birth to or fathered a child, which is significantly higher than the rate in the general population (33.4%); 10.0% of all alumni had done so before age 18. Among those who had children, about one in ten (9.9%) had ever had a child placed in foster care. Overall, 44.5% of young adults were currently parenting and living with at

Stories from the field:

*I interviewed a respondent who has three children under the age of 5. All three children were present during the interview. She said she learned her parenting skills from taking what her mother did with her and turning it around. The interview took almost three hours, and the kids were typical young kids—wanting attention, wanting snacks, wanting to be held, and not realizing that Mommy needed to finish this project. She never raised her voice, never yelled into another room; when the kids wanted cookies, she offered fruit. I was impressed with her parenting ability.*

least one child, and four in five of young adults living with children (80.1%) were female. The percent of young adults living with at least one child was over twice the rate in the general population (20.9%), as reported in Add Health. This rate is similar to that of alumni in Michigan and in the Midwest Study, but it is lower than that of alumni in the Northwest Study (54.4%).

Table 11. Marriage and Children

| MARRIAGE AND CHILDREN | Texas (%) | Michigan (%) | Midwest Study (%) | Northwest Study (%) | NCS-R / Add Health (%) |
|---|---|---|---|---|---|
| Ever married | 26.9 | 21.5 | 14.0* | 44.5* | 33.4 |
| Currently married | 21.7 | 21.5 | 11.8* | 30.4* | 27.5 |
| Has given birth to / fathered a child | 58.3 | 60.0 | 57.4 | 63.0 | 33.4* |
| • Child placed in out-of-home care | 9.9 | 6.2 | 8.6 | 8.2 | n/a |
| Had baby before age 18 | 10.0 | 13.8 | 12.4 | 7.3 | n/a |
| Had baby outside of marriage | 14.9 | 12.3 | 52.5* | 18.0 | n/a |
| Currently parenting / living with child(ren) | 44.5 | 49.2 | 41.3 | 54.4* | 20.9[a]* |
| *Sample size* | *173* | *65* | *602* | *479* | *523* |

Add Health
* Indicates a statistically significant difference between Texas and the comparison group (Michigan, Midwest Study, Northwest Study, and/or NCS-R), $p<.05$.
† Chi-square tests were not conducted on multilevel variables.

Despite having spent time in foster care, most alumni reported being somewhat or very close with at least one member of their birth family (see Table 12). Alumni were closest to their siblings (72.9%), followed by birth mothers (42.8%), grandparents (38.4%), and birth fathers (19.9%). In addition, nearly half of alumni (45.9%) reported being somewhat or very close to their foster parents.

Table 12. Relationships

| RELATIONSHIPS | | Texas (%) | Michigan (%) | Midwest Study (%) | Northwest Study (%) |
|---|---|---|---|---|---|
| No serious physical fights in past 12 months | | 70.3 | 76.9 | 82.9* | 88.2* |
| Closeness to birth mother† | Very or somewhat | 42.8 | 50.8 | 53.4 | n/a |
| | Not at all or not very | 33.2 | 29.2 | 26.8 | |
| | Not living, | 24.0 | 20.0 | 19.8 | |

| RELATIONSHIPS | | Texas (%) | Michigan (%) | Midwest Study (%) | Northwest Study (%) |
|---|---|---|---|---|---|
| | unknown, or missing | | | | |
| Closeness to birth father† | Very or somewhat | 19.9 | 40.0 | 30.2 | n/a |
| | Not at all or not very | 33.0 | 36.9 | 35.4 | |
| | Not living, unknown, or missing | 47.0 | 23.1 | 34.4 | |
| Closeness to grandparent(s)† | Very or somewhat | 38.4 | 44.6 | 49.4 | n/a |
| | Not at all or not very | 21.8 | 21.5 | 18.3 | |
| | Not living, unknown, or missing | 39.8 | 33.8 | 32.4 | |
| Closeness to sibling(s)† | Very or somewhat | 72.9 | 84.6 | 81.5 | n/a |
| | Not at all or not very | 20.0 | 13.8 | 15.3 | |
| | Not living, no siblings, unknown, or missing | 7.1 | 1.5 | 3.2 | |
| Closeness to foster parent(s)† | Very or somewhat | 45.9 | 35.4 | 54.3 | n/a |
| | Not at all or not very | 46.0 | 36.9 | 32.2 | |
| | Not living, unknown, missing, or did not live with foster parents | 8.2 | 27.7 | 28.9 | |
| *Sample size* | | *173* | *65* | *602* | *479* |

* Indicates a statistically significant difference between Texas and the comparison group (Michigan, Midwest Study, Northwest Study, and/or NCS-R), $p<.05$.

† Chi-square tests were not conducted on multilevel variables.

Table 13 presents results of eight items from the Conflict Tactics Scale, a brief scale to measure the extent to which threats, sexual coercion, or violence occur in relationships with partners (Straus, 1979; Straus & Smith, 1990). The questions were asked of all alumni who indicated that they were in a relationship (dating, cohabitating, or marital). Responses are reported separately for males and females, given expected differences in behavior between men and women. Results

should be interpreted with caution given that only a subset of the full scale's items was administered.[20]

Males reported higher rates of their partners making threats, pushing, shoving, or throwing something at them (20.7%) than females (16.2%), and males reported that they had been slapped, hit, or kicked (17.6%) more than females (8.7%). Males also reported that they had received an injury from their partner at a higher rate (16.3%) than females (10.8%). Most of these rates were fairly similar to those reported in the general population (as reported in Add Health), with the exception of receipt of injury, which was higher among alumni than among the general population. Females reported slapping, hitting, or kicking their partner at a higher rate (17.9%) than males (12.0%). Few differences were found between alumni in Texas and alumni in other studies; however, alumni in Texas had higher rates of physical violence than the general population.

As noted in the Midwest Study report (Courtney et al., 2010), the differences by gender should be interpreted with caution given that a small number of items was administered. The full scale includes items that are more severely violent; results might have been different if the full scale had been administered.

Table 13. Conflict Tactics Scale

| CONFLICT TACTICS SCALE | Texas | | Michigan | | Midwest Study | | Add Health Study | |
|---|---|---|---|---|---|---|---|---|
| | Males (%) | Females (%) | Males (%) | Females (%) | Males (%) | Females (%) | Males (%) | Females (%) |
| Your partner: | | | | | | | | |
| Threatened you with violence, pushed or shoved you, or threw something at you that could hurt | 20.7 | 16.2 | 56.3* | 32.4 | 23.6 (*n*=165) | 18.1 (*n*=210) | 14.3 (*n*=371) | 17.4 (*n*=483) |
| Slapped, hit, or kicked you | 17.6 | 8.7 | 37.5 | 23.5* | 22.7 (*n*=163) | 17.5 (*n*=212) | 12.2 (*n*=369) | 10.3 (*n*=485) |
| Made you have sexual relations | 3.7 | 5.5 | 6.3 | 11.8 | 6.1 (*n*=164) | 3.3 (*n*=212) | 5.4 (*n*=371) | 7.1 (*n*=482) |
| Caused you to have an injury, such as a sprain, bruise, or cut | 16.3 | 10.8 | 12.5 | 17.6 | 10.9 (*n*=165) | 12.7 (*n*=213) | 3.5* (*n*=370) | 3.3* (*n*=484) |
| You: | | | | | | | | |

| CONFLICT TACTICS SCALE | Texas | | Michigan | | Midwest Study | | Add Health Study | |
|---|---|---|---|---|---|---|---|---|
| | Males (%) | Females (%) | Males (%) | Females (%) | Males (%) | Females (%) | Males (%) | Females (%) |
| Threatened your partner with violence, pushed or shoved your partner, or threw something at your partner that could hurt | 18.6 | 19.6 | 31.3 | 26.5 | 13.4 (*n*=164) | 21.6 (*n*=213) | 12.5 (*n*=369) | 22.2 (*n*=482) |
| Slapped, hit, or kicked your partner | 17.9 | 12.0 | 6.3 | 26.5 | 10.3 (*n*=165) | 19.7 (*n*=213) | 7.0* (*n*=370) | 17.5 (*n*=485) |
| Made your partner have sexual relations | 6.8 | 3.1 | 6.3 | 2.9 | 3.1 (*n*=163) | 2.3 (*n*=214) | 5.9 (*n*=371) | 3.9 (*n*=485) |
| Caused your partner to have an injury, such as a sprain, bruise, or cut | 13.7 | 5.8 | 0.0 | 14.7 | 5.5 (*n*=164) | 7.0 (*n*=214) | 4.3* (*n*=370) | 5.6 (*n*=483) |
| *Sample size* | *37* | *71* | *16* | *34* | *163-167* | *210-214* | *369-372* | *482-485* |

* Indicates a statistically significant difference between Texas and the comparison group (Michigan, Midwest Study, and/or Add Health), $p<.05$.

## Criminal Justice Involvement

Table 14 presents rates of involvement with the criminal justice system for alumni of care. Results are presented separately for males and females, given established differences by gender.

The arrest rate among males is disturbing and is very similar to what was found in the Midwest Study. Nearly seven in ten males (68.0%) had been arrested since leaving care, and 55.2% had been convicted of a crime. Both of these rates are significantly higher than those found in the general population (see Figure 4).

Although rates of criminal justice involvement were lower for females, they were significantly higher than for the general population as

Stories from the field:

*Several times throughout the interview [in a prison], the respondent expressed that he was getting out in 10 months and he had nowhere to go, no job skills, and no family… As I was packing to leave, this respondent kept saying "Please don't forget me, I don't have anyone." He followed me down the hall and as I approached the guard to let him know that I was ready to leave, this inmate continued to say, "Please don't forget me."*

reported in Add Health. For example, 40.5% of female alumni had been arrested since leaving care, compared with 0.3% of females in the general population who had been arrested since age 18. There were very few differences in criminal justice involvement outcomes between alumni studies, with one exception: the Midwest Study alumni had lower rates of having ever spent at least one night incarcerated.[21]

Figure 4. Select Criminal Justice Involvement Outcomes for Males

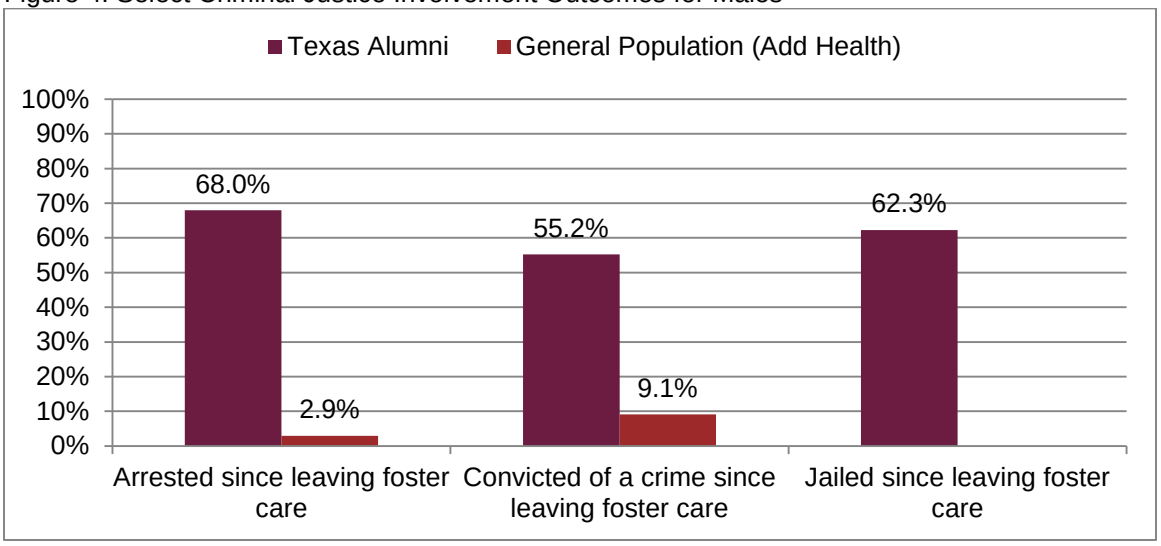



Table 14. Criminal Justice Involvement

| CRIMINAL JUSTICE INVOLVEMENT | Texas | | Michigan | | Midwest Study | | Add Health | |
|---|---|---|---|---|---|---|---|---|
| | Males (%) | Females (%) | Males (%) | Females (%) | Males (%) | Females (%) | Males (%) | Females (%) |
| Ever arrested since leaving foster care | 68.0 | 40.5 | 54.5 | 39.5 | 64.0[a] (*n*=272) | 38.7[a] (*n*=315) | 2.9*[a] | 0.3*[a] |
| Ever convicted of a crime since leaving foster care | 55.2 | 12.5 | 40.9 | 25.6 | 42.8[a] (*n*=264) | 18.4[a] (*n*=304) | 9.1*[a] | 1.6*[a] |
| Ever spent at least one night incarcerated since leaving foster care | 62.3 | 41.9 | 59.1 | 25.6 | 44.9*[b] (*n*=254) | 17.9*[b] (*n*=308) | n/a | n/a |
| *Sample size* | *82* | *91* | *22* | *43* | *254-272* | *308-315* | *725* | *762* |

* Indicates a statistically significant difference between Texas and the comparison group (Michigan, Midwest Study, and/or Add Health), $p<.05$.
[a] Since age 18.
[b] Since last interview (at age 21).

## Post-Foster Care Services

Nearly half of alumni (43.3%) had contact with their foster care agency after leaving care (see Table 15).

Table 15. Post-Foster Care Services

| POST-FOSTER CARE SERVICES | Texas (%) | Michigan (%) | Midwest Study (%) |
|---|---|---|---|
| Had contact with foster care agency after leaving care | 43.3 | 32.3 | n/a |
| Types of help received from foster care agency after leaving care: | | | |
| Tutoring or other educational services | 11.2 | 12.3 | 7.5 |
| Financial help | 19.2 | 4.6* | 10.3* |
| Help with personal problem | 19.8 | 18.5 | 12.5* |
| Help with employment problem | 11.1 | 9.2 | 6.6 |
| Help with family problem | 12.5 | 15.4 | 5.8* |
| Help with housing problem | 9.3 | 1.5* | 7.1 |
| Help with health problem | 7.6 | 1.5 | 3.2* |
| Help with some other problem | 15.0 | 3.1* | 3.0* |
| *Sample size* | *173* | *65* | *602* |

* Indicates a statistically significant difference between Texas and the comparison group (Michigan and/or Midwest Study), $p<.05$.

This was most frequently for help with a personal problem (19.8%), financial help (19.2%), help with some other problem (15.0%), or help with a family problem (12.5%). Overall, alumni in Texas had higher rates of receiving post-foster care services than those in Michigan or the Midwest Study.

Stories from the field:

*I interviewed a young man this week who indicated his foster care agency had been very influential in his keeping in touch with his birth family and maintaining those ties. He was very appreciative of this support by the agency, and at present was living with his brother and his brother's family. Also, he had*

## Community Involvement

One quarter of alumni (26.9%) reported having performed unpaid volunteer or community service in the past year, which is comparable to the general population as reported by Add Health (25.2%; see Table 16). Nearly two in three (64.9%) were registered to vote, and 23.8% had voted in the most recent presidential election, which is significantly less than the general population as measured by Add Health (49.9%).

Table 16. Community Involvement

| COMMUNITY INVOLVEMENT | Texas (%) | Michigan (%) | Midwest Study (%) | Add Health (%) |
|---|---|---|---|---|
| Performed unpaid volunteer or community service work in past 12 months | 26.9 | 16.9 | 18.2* | 25.2 |
| Registered to vote | 64.9 | 86.2* | 74.2 | 77.3* |
| Voted in most recent presidential election | 23.8 | 58.5* | 44.3* | 49.9* |
| *Sample size* | *173* | *65* | *582* | *1487* |

* Indicates a statistically significant difference between Texas and the comparison group (Michigan, Midwest Study, and/or Add Health), $p<.05$.

# Chapter V. Predictive Analyses

## Description of Analyses

Predictive analyses were conducted to determine which aspects of maltreatment history and foster care experiences were related to alumni outcomes. The large numbers of outcomes reported in Chapter 4 was reduced to a more manageable set of 24 for analyses. Outcomes were selected for inclusion in the predictive analyses based on their salience in the child welfare field and on their prevalence in the current study (for example, given that only 1.0% of alumni had a past-year diagnosis of alcohol dependence, this outcome was not included in the predictive analyses). The outcomes are included in Table 17 below.

Table 17. Outcomes Included in the Predictive Analyses

| PHYSICAL AND MENTAL HEALTH |
|---|
| Chronic physical or mental health condition[22] |
| Past-year mental health diagnosis |
| Three or more past-year diagnoses |
| Past-year substance abuse or dependence |
| Past-year depression |
| Past-year PTSD |
| Past-year social phobia |
| **EDUCATION AND TRAINING** |
| Has high school diploma |
| Has high school diploma or GED |
| Any education beyond high school |
| Any diploma or certificate beyond high school |
| Completed college (bachelor's degree) |
| **EMPLOYMENT, FINANCES, AND ECONOMIC HARDSHIPS** |
| Currently employed (at least 10 hours per week) |
| Working 35 or more hours per week |
| Household income greater than the poverty line |
| Household income at least three times greater than the poverty line |
| Received public assistance in past 12 months |
| Homeless since leaving foster care |
| **RELATIONSHIPS AND PARENTHOOD** |
| Currently married |
| Had a baby before age 18 |
| **CRIMINAL JUSTICE INVOLVEMENT** |
| Arrested since leaving foster care |
| Convicted of a crime since leaving foster care |
| Incarcerated since leaving foster care |
| Incarcerated at the time of the interview |

For each outcome, logistic regressions were run. In the first step, a logistic regression was run for each dichotomous outcome to determine which demographic characteristics and aspects of maltreatment history significantly predicted the outcome (see Tables 1 and 2 for the demographic characteristics and aspects of maltreatment history that were included in the analyses). Next, a second logistic regression was run to determine the relationship between foster care experiences and each outcome after controlling for the significant demographic characteristics and/or maltreatment history entered in the first step.

The foster care experiences included in the predictive equations match those presented in Tables 3, 4, and 5 with the following exceptions:

- Age at child welfare case opening, length of time in foster care, number of placements, and number of placements per year in care: Only the continuous variable was entered into the regression equation; the corresponding dichotomized or trichotomized variables were not included.
- Satisfied with experience in foster care, foster families were a help, social workers were a help: These were dichotomized into *strongly agree or agree* vs. *neither agree nor disagree, disagree, or strongly disagree*.
- Felt prepared to live on own when left care: The four categories for this variable were trichotomized into (1) *not at all prepared or not very prepared*, (2) *somewhat prepared*, and (3) *very prepared*.
- Helpfulness of services (educational, employment, budgeting/financial, housing): These variables were not included in the predictive analyses because they were not asked of all alumni; only alumni who received services were asked to rate their helpfulness.

Reference (or holdout) groups are indicated by italics in the tables below. For most variables, *no* is the reference group (e.g., no maltreatment before care: neglect). Continuous predictor variables had no reference group. For demographic predictor variables, the reference groups for sex and race/ethnicity were female and Non-Hispanic White, respectively. There were no hypotheses about the directionality of the odds ratios for these demographic variables.

Each table includes only those demographic characteristics, maltreatment history, or foster care experiences that significantly predicted at least one outcome in a given domain. For example, Table 18 contains ten predictors for Physical and Mental Health Outcomes, and Table 19 contains only seven predictors for Education and Training Outcomes. More than two-thirds (26) of the 37 demographic characteristics, maltreatment history, and foster care experience variables entered into the regression analysis predicted at least one outcome, but 11 did not predict any outcomes. Those that did not predict any outcomes and do not appear in the Tables 18-21 are as follows:

- Age (at time of interview)
- Reason for placement into foster care: parent substance abuse
- Number of reasons for placement into foster care
- Maltreatment before care: neglect
- Maltreatment before care: physical abuse
- Number of types of maltreatment before care

- Number of failed reunifications
- Social workers were a help
- Maltreatment while in care: physical abuse
- Received any budgeting/financial services
- Had access to fun and/or religious activities (during last placement of three months or more).

## Results of Predictive Analyses

### Physical and mental health outcomes

Table 18 presents the results of predictive analyses for seven physical and mental health outcomes. All models were significant ($p<.05$).

Two aspects of maltreatment history (*reasons for placement into foster care: behavior problems* and *maltreatment before care: sexual abuse*) predicted mental health outcomes. Alumni who entered care because of behavior problems had 3.33 times higher odds of having three or more past-year mental health diagnoses than alumni who did not enter care because of behavior problems. Among alumni who entered care because of behavior problems, 15.3% had three or more past-year diagnoses; among alumni who did not enter care because of behavior problems, 6.3% had three or more past-year diagnoses. Alumni who experienced sexual abuse before entering care had higher odds of having a chronic physical or mental health condition (2.33 times higher odds), having a past-year mental health diagnosis (2.16 times higher odds), and having post-traumatic stress disorder (PTSD; 3.16 times higher odds) compared to alumni who did not experience sexual abuse before entering care. Among alumni who experienced sexual abuse before entering care, 51.1% had a past-year mental health diagnosis; among alumni who did not experience sexual abuse before entering care, 26.6% had a past-year mental health diagnosis.

Eight foster care experience variables predicted physical and mental health outcomes. *Placements per year* predicted three outcomes. Alumni who experienced more placements per year were more likely to have a chronic physical or mental health condition (1.28 times higher odds); three or more past-year diagnoses (1.27 times higher odds); and past-year depression (1.07 times higher odds). This finding is similar to the Northwest Study, in which it was found that alumni who had a low placement change rate were less likely to have depression than alumni who had a high placement change rate (White et al., 2009). None of the alumni who experienced less than one placement per year had three or past-year diagnoses; in comparison, 12.9% of alumni who experienced three or more placements per year had three or more past-year diagnoses.

A small but slowly growing body of literature is emphasizing the value of placing siblings together whenever safely possible (Herrick & Piccus, 2005; Robins, 1985). Alumni who *lived with one or more siblings in care* had 0.45 times lower odds of having a past-year mental health diagnosis than those who did not live with siblings while in care. Among alumni who lived with one or more siblings in foster care, 32.9% had a past-year mental health diagnosis, while among alumni who did not live with one or more siblings in foster care, 44.8% had a past-year mental health diagnosis.

Experiencing neglect while in foster care was associated with having difficulty with drugs or alcohol. Alumni who experienced *maltreatment while in care: neglect* had 6.03 times higher odds of having a past-year substance abuse or dependence. Among those who experienced neglect while in care, 22.9% had past-year substance abuse or dependence; among those who did not experience neglect while in care, 3.1% had past-year substance abuse or dependence.

Having a *driver's license upon leaving care* predicted two outcomes (past-year mental health diagnosis and past-year PTSD) in the unexpected direction; that is, although it was expected that having a driver's license would be a protective factor, alumni who had a driver's license when they left care were more likely to have a past-year mental health diagnosis and more likely to have past-year PTSD compared to those who did not have a driver's license. Because it was expected that possession of resources upon leaving care would be associated with positive outcomes, this finding runs counter to past research and is difficult to explain.

Table 18. Results of Predictive Analyses: Physical and Mental Health Outcomes (n=173)

| PREDICTOR | | Chronic physical or mental health condition | Past-year mental health diagnosis | Three or more past-year diagnoses | Past-year substance abuse or depen-dence | Past-year depress ion | Past-year PTSD | Past-year social phobia |
|---|---|---|---|---|---|---|---|---|
| Prevalence | | 19.3% | 39.0% | 9.0% | 10.5% | 12.0% | 13.5% | 10.7% |
| Overall model test | | $\chi^2(4)=25.77$* | $\chi^2(4)=21.53$* | $\chi^2(3)=18.27$* | $\chi^2(3)=22.15$* | $\chi^2(1)=6.18$* | $\chi^2(2)=12.10$* | $\chi^2(1)=3.91$* |
| **Demographic characteristics and maltreatment history** | | | | | | | | |
| Reason for placement into foster care: Behavior problems | Yes | | | 15.3% | 11.9% | | | |
| | *No* | | | 6.3% | 9.9% | | | |
| | Odds ratio | | | 3.33 (1.13-9.85)* | 2.30 (0.83-6.34) ‡ | | | |
| Maltreat-ment before care: Sexual abuse | Yes | 22.2% | 51.1% | | | | 18.8% | |
| | *No* | 16.4% | 26.6% | | | | 8.0% | |
| | Odds ratio | 2.33 (1.04-5.24)* | 2.16 (1.12-4.15)* | | | | 3.16 (1.18-8.42)* | |
| **Foster care experiences** | | | | | | | | |
| Placements per year† | Less than 1 | 3.9% | | 0.0% | 0.0% | 3.4% | | |
| | 1 to 2.9 | 14.0% | | 6.4% | 8.8% | 3.7% | | |
| | 3 or more | 27.0% | | 12.9% | 13.7% | 21.5% | | |
| | Odds ratio | 1.28 (1.08-1.53)* | | 1.27 (1.05-1.54)* | 1.20 (1.00-1.43) ‡ | 1.07 (1.02-1.12)* | | |
| Lived with | Yes | | 32.9% | | | | | |

| PREDICTOR | | Chronic physical or mental health condition | Past-year mental health diagnosis | Three or more past-year diagnoses | Past-year substance abuse or depen-dence | Past-year depress ion | Past-year PTSD | Past-year social phobia |
|---|---|---|---|---|---|---|---|---|
| one or more siblings in foster care | *No* | | 44.8% | | | | | |
| | Odds ratio | | 0.45 (0.23-0.87)* | | | | | |
| Foster families were a help | Agree or strongly agree | | 28.2% | | | | | |
| | *Neither agree nor disagree, disagree, or strongly disagree* | | 52.2% | | | | | |
| | Odds ratio | | 0.45 (0.24-0.87)* | | | | | |
| Maltreat-ment while in care: Neglect | Yes | | | | 22.9% | | | 18.2% |
| | *No* | | | | 3.1% | | | 6.2% |
| | Odds ratio | | | | 6.03 (2.04-17.82)* | | | 2.78 (1.00-7.71)‡ |
| Maltreat-ment while in care: Sexual abuse | Yes | 26.3% | | | | | | |
| | *No* | 17.2% | | | | | | |
| | Odds ratio | 2.37 (1.00-5.61)‡ | | | | | | |
| Had a driver's license upon leaving care | Yes | | 51.1% | | | | 25.2% | |
| | *No* | | 34.2% | | | | 8.9% | |
| | Odds ratio | | 2.05 (1.01-4.17)* | | | | 2.85 (1.19-6.80)* | |
| Had dishes and utensils upon leaving care | Yes | 9.7% | | | | | | |
| | *No* | 25.0% | | | | | | |
| | Odds ratio | 0.41 (0.17-0.99)* | | | | | | |
| Received any | Yes | | | 5.0% | | | | |
| | *No* | | | 17.3% | | | | |

| PREDICTOR | | Chronic physical or mental health condition | Past-year mental health diagnosis | Three or more past-year diagnoses | Past-year substance abuse or depen-dence | Past-year depress ion | Past-year PTSD | Past-year social phobia |
|---|---|---|---|---|---|---|---|---|
| educational services | Odds ratio | | | 0.30 (0.10-0.89)* | | | | |

* $p<.05$.

*Note*: The reference group is italicized. The odds ratio compares the other groups to the reference (holdout) group.

† This variable was entered into the regression equation as a continuous variable. The frequencies for the dichotomized variable are presented to assist in interpreting the finding.

‡ This variable was included in the regression equation but the odds ratio was not significant.

## Education and training outcomes

Table 19 presents the results of predictive analyses for five education and training outcomes. All models were significant (p<.05).

No demographic characteristics or maltreatment history predicted any education and training outcomes. Number of placements was related to three education and training outcomes. Alumni were more likely to have a high school diploma or GED (1.11 times higher odds), any education beyond high school (1.09 times higher odds), or any diploma or certificate beyond high school (1.23 times higher odds) if they had fewer placements while in care.23 For example, among alumni who experienced fewer than four placements while in care, 91.5% completed a high school diploma or GED; among alumni who experienced eight or more placements, 63.3% completed a high school diploma or GED.

A lower number of placements per year predicted receipt of a high school diploma; among alumni who experienced three or more placements per year, only 32.3% received a high school diploma, compared with 72.3% of alumni who experienced less than one placement per year. The negative impact on education, health, and relationships caused by changes in placements and association of placement stability with educational achievement has been documented by a wide range of studies (e.g., Pecora et al., 2003; Rubin, Alessandrini, Feudtner, Localio, & Hadley, 2004; Staub, Emerson, White, & O'Brien, 2010).

Alumni who had 1 to 5 runaway episodes had 0.37 times lower odds and alumni who had 6 or more runaway episodes had 0.21 times lower odds of receiving a high school diploma compared with those who had no runaway episodes. Alumni who lived with relatives in at least one placement had 0.44 times lower odds of receiving a high school diploma (35.2%) than those who did not live with relatives (54.3%).

The only significant predictor of college completion was having a driver's license upon leaving care, which resulted in 6.72 times higher odds of completing college than not having a driver's license. This finding may be unstable because the percentage of alumni who completed college was so low (4.9%).

Table 19. Results of Predictive Analyses: Education and Training Outcomes (n=173)

| PREDICTOR | | Has high school diploma | Has high school diploma or GED | Any education beyond high school | Any diploma or certificate beyond high school | Completed college (bachelor's degree) |
|---|---|---|---|---|---|---|
| Prevalence | | 48.4% | 72.1% | 35.7% | 7.8% | 4.9% |
| Overall model test | | $\chi^2(5)=63.26$* | $\chi^2(3)=49.40$* | $\chi^2(1)=10.67$* | $\chi^2(1)=8.06$* | $\chi^2(1)=5.66$* |
| **Foster care experiences** | | | | | | |
| Number of placements† | Less than 4 | | 91.5% | 20.8% | 20.8% | |
| | 4 to 7 | | 84.8% | 50.6% | 12.2% | |
| | 8 or more | | 63.3% | 27.9% | 4.3% | |
| | Odds ratio | | 0.90 (0.85-0.95)* | 0.92 (0.87-0.97)* | 0.81 (0.67-0.98)* | |
| Placements per year† | Less than 1 | 72.3% | | | | |
| | 1 to 2.9 | 61.0% | | | | |
| | 3 or more | 32.3% | | | | |
| | Odds ratio | 0.69 (0.54-0.88)* | | | | |
| Number of runaway episodes | *None* | 71.0% | | | | |
| | 1 to 5 | 39.4% | | | | |
| | 6 or more | 17.6% | | | | |
| | Odds ratio (1 to 5) | 0.37 (0.17-0.82)* | | | | |
| | Odds ratio (6 or more) | 0.21 (0.07-0.66)* | | | | |
| Lived with relatives in at least one placement | Yes | 35.2% | | | | |
| | *No* | 54.3% | | | | |
| | Odds ratio | 0.44 (0.20-0.99)* | | | | |
| Had driver's license upon leaving care | Yes | | | | | 14.5% |
| | *No* | | | | | 1.1% |
| | Odds ratio | | | | | 6.72 (1.26-35.89)* |
| Had dishes and utensils upon leaving care | Yes | 75.5% | 90.4% | | | |
| | *No* | 32.6% | 61.5% | | | |
| | Odds ratio | 3.81 (1.77-8.19)* | 2.79 (1.13-6.89)* | | | |
| Received any educational services | Yes | | 85.0% | | | |
| | *No* | | 45.5% | | | |
| | Odds ratio | | 4.28 (1.95-9.39)* | | | |

*$p<.05$.

*Note*: The reference group is italicized. The odds ratio compares the other groups to the reference (holdout) group.

† This variable was entered into the regression equation as a continuous variable. The frequencies for the dichotomized variable are presented to assist in interpreting the finding.

## Employment, finances, and economic hardship outcomes

Table 20 presents the results of predictive analyses for six employment, finances, and economic hardship outcomes. All models were significant ($p<.05$).

Four demographic characteristics and maltreatment history variables (*gender, race/ethnicity, reason for placement into foster care: behavior problems*, and *reason for placement into foster care: maltreatment*) predicted employment, finances, and economic hardship outcomes. Compared to males, females had 2.52 times higher odds of having a household income above the poverty line, but they also had 9.18 times higher odds of receiving public assistance in the past 12 months.

Behavior problems as a child or adolescent were associated with full-time alumni employment as adults. Alumni who entered care because of behavior problems had 0.37 times lower odds of working 35 or more hours per week than those who did not enter care because of behavior problems. Alumni who entered care because of maltreatment had 2.98 times higher odds of being currently employed compared to those who did not enter care because of maltreatment; among those who entered care because of maltreatment, 54.1% were currently employed, compared to 15.1% of those who did not enter care because of maltreatment.

Fifteen foster care experience variables predicted employment, finances, and economic hardships outcomes. Most foster care experience variables predicted only one outcome, but two (*number of placements* and *had driver's license upon leaving care*) predicted two outcomes. Alumni who experienced fewer placements were more likely to have a household income greater than the poverty line (1.06 times higher odds) and more likely to have a household income at least three times greater than the poverty line (1.16 times higher odds).[24] Alumni who had a driver's license when they left care were more likely to be currently employed (4.27 times higher odds) and less likely to have received public assistance in the past 12 months (0.16 times lower odds) than those who did not have a driver's license. Most of these findings are similar to those found by other alumni studies (e.g., Pecora et al., 2010).

Some foster care experience variables predicted outcomes in the unexpected direction. For example, alumni who *received any employment services* were less likely to have a household income greater than the poverty line (0.18 times lower odds) than those who had not received employment services, and alumni who *received any housing services* were more likely to have received public assistance in the past 12 months (2.51 times higher odds) than those who had not received housing services. It is possible that receiving these services was an indicator that the alumni needed help in these areas and continued to struggle after foster care.

Alumni who became homeless since leaving foster care had a higher *length of time in foster care* (1.24 times higher odds). This may be due to their ability to maintain ties with birth and extended family members. Interestingly, among those who had been in foster care for less than four years, 51.7% experienced homelessness, compared to 26.1% of those who had been in foster care for

four or more years. More than three in five alumni (62.4%) who were in care for two years experienced homelessness and more than two in five alumni (42.2%) who were in care for three years experienced homelessness. These are young adults who entered care at ages 15 or 16 and exited shortly thereafter; it may be that they did not receive sufficient preparation for independent living prior to leaving care.

Those with higher rates of post-foster care homelessness also had experienced a higher *number of placements per year* (1.79 times higher odds). Among alumni who had experienced less than one placement per year, 9.5% had experienced homelessness since leaving care; among alumni who had experienced three or more placements per year, 63.2% had experienced homelessness since leaving care. Alumni whose *foster family helped with ethnic and cultural issues* were less likely to become homeless (0.40 times lower odds).

Table 20. Results of Predictive Analyses: Employment, Finances, and Economic Hardship Outcomes (n=173)

| PREDICTOR | | Currently employed (at least 10 hours per week) | Working 35 or more hours per week | Household income greater than the poverty line | Household income at least three times greater than the poverty line | Public assistance in past 12 months | Homeless since leaving foster care |
|---|---|---|---|---|---|---|---|
| Prevalence | | 46.9% | 39.2% | 51.6% | 17.1% | 52.4% | 37.7% |
| Overall model test | | $\chi^2(3)=27.88$ * | $\chi^2(2)=15.88$ * | $\chi^2(9)=46.52$ * | $\chi^2(1)=12.01$ * | $\chi^2(6)=54.35$ * | $\chi^2(4)=52.65$ * |
| **Demographic characteristics and maltreatment history** | | | | | | | |
| Gender | Female | | | 57.9% | | 69.5% | |
| | *Male* | | | 44.6% | | 33.5% | |
| | Odds ratio (Female) | | | 2.52 (1.14-5.55)* | | 9.18 (3.77-22.35)* | |
| Race/ ethnicity | Hispanic / Latino | | | 62.2% | | | |
| | Non-Hispanic African American | | | 42.7% | | | |
| | Other | | | 0.0%[a] | | | |
| | *Non-Hispanic White* | | | 51.2% | | | |

| PREDICTOR | | Currently employed (at least 10 hours per week) | Working 35 or more hours per week | Household income greater than the poverty line | Household income at least three times greater than the poverty line | Public assistance in past 12 months | Homeless since leaving foster care |
|---|---|---|---|---|---|---|---|
| | Odds ratio (Hispanic / Latino) | | | 1.20 (0.53-2.72) | | | |
| | Odds ratio (Non-Hispanic African American) | | | 0.57 (0.24-1.36) | | | |
| | Odds ratio (Other) | | | 0.00[a]* | | | |
| Reason for placement into foster care: Behavior problems | Yes | | 24.1% | | | | |
| | *No* | | 45.5% | | | | |
| | Odds ratio | | 0.37 (0.16-0.83)* | | | | |
| Reason for placement into foster care: Maltreatment | Yes | 54.1% | | | | | |
| | *No* | 15.1% | | | | | |
| | Odds ratio | 2.98 (1.10-8.08)* | | | | | |
| **Foster care experiences** | | | | | | | |
| Length of time in foster care (in years)[†] | Less than 4 | | | | | | 51.7% |
| | 4 or more | | | | | | 26.1% |
| | Odds ratio | | | | | | 1.24 (1.04-1.48)* |
| Number of placements[†] | Less than 4 | | | 29.3% | 20.8% | | |
| | 4 to 7 | | | 65.1% | 26.6% | | |
| | 8 or more | | | 45.1% | 11.3% | | |
| | Odds ratio | | | 0.94 (0.89-0.99)* | 0.86 (0.77-0.96)* | | |
| Placements per year[†] | Less than 1 | | | | | | 9.5% |
| | 1 to 2.9 | | | | | | 16.3% |
| | 3 or more | | | | | | 63.2% |

| PREDICTOR | | Currently employed (at least 10 hours per week) | Working 35 or more hours per week | Household income greater than the poverty line | Household income at least three times greater than the poverty line | Public assistance in past 12 months | Homeless since leaving foster care |
|---|---|---|---|---|---|---|---|
| | Odds ratio | | | | | | 1.79 (1.40-2.28)* |
| Satisfied with experience in foster care | Agree or strongly agree | 58.3% | | | | | |
| | *Neither agree nor disagree, disagree, or strongly disagree* | 38.7% | | | | | |
| | Odds ratio | 2.11 (1.10-4.05)* | | | | | |
| Foster families were a help | Agree or strongly agree | | | | | | 20.5% |
| | *Neither agree nor disagree, disagree, or strongly disagree* | | | | | | 58.7% |
| | Odds ratio | | | | | | 0.46 (0.21-1.00)‡ |
| Had a mentor since the age of 14 (not necessarily while in care) | Yes | | | 59.8% | | | |
| | *No* | | | 29.6% | | | |
| | Odds ratio | | | 2.85 (1.24-6.58)* | | | |
| Foster family helped with ethnic and cultural issues | Yes | | | | | | 19.1% |
| | *No* | | | | | | 52.3% |
| | Odds ratio | | | | | | 0.40 (0.18-0.91)* |

| PREDICTOR | | Currently employed (at least 10 hours per week) | Working 35 or more hours per week | Household income greater than the poverty line | Household income at least three times greater than the poverty line | Public assistance in past 12 months | Homeless since leaving foster care |
|---|---|---|---|---|---|---|---|
| Maltreatment while in care: Sexual abuse | Yes | | | | | 53.6% | |
| | *No* | | | | | 52.0% | |
| | Odds ratio | | | | | 4.01 (1.44-11.14)* | |
| Had a driver's license upon leaving care | Yes | 63.7% | | | | 33.6% | |
| | *No* | 40.4% | | | | 59.8% | |
| | Odds ratio | 4.27 (2.04-8.93)* | | | | 0.16 (0.07-0.39)* | |
| Had at least $250 in cash upon leaving care | Yes | | | 61.1% | | | |
| | *No* | | | 45.8% | | | |
| | Odds ratio | | | 3.63 (1.60-8.25)* | | | |
| Had dishes and utensils upon leaving care | Yes | | 45.1% | | | | |
| | *No* | | 35.8% | | | | |
| | Odds ratio | | 3.02 (1.55-5.85)* | | | | |
| Felt prepared to live on own when left care | Very prepared | | | | | 60.2% | |
| | Somewhat prepared | | | | | 42.7% | |
| | *Not at all or not very prepared* | | | | | 55.6% | |
| | Odds ratio (Very prepared) | | | | | 4.24 (1.39-12.90)* | |
| | Odds ratio (Somewhat prepared) | | | | | 0.86 (0.37-2.00) | |
| Received any | Yes | | | 56.9% | | | |
| | *No* | | | 40.5% | | | |

| PREDICTOR | | Currently employed (at least 10 hours per week) | Working 35 or more hours per week | Household income greater than the poverty line | Household income at least three times greater than the poverty line | Public assistance in past 12 months | Homeless since leaving foster care |
|---|---|---|---|---|---|---|---|
| educational services | Odds ratio | | | 2.42 (0.89-6.57)‡ | | | |
| Received any employment services | Yes | | | 49.0% | | | |
| | *No* | | | 55.9% | | | |
| | Odds ratio | | | 0.18 (0.06-0.53)* | | | |
| Received any housing services | Yes | | | | | 59.7% | |
| | *No* | | | | | 43.9% | |
| | Odds ratio | | | | | 2.51 (1.18-5.31)* | |

*$p$<.05.
*Note*: The reference group is italicized. The odds ratio compares the other groups to the reference (holdout) group.
† This variable was entered into the regression equation as a continuous variable. The frequencies for the dichotomized variable are presented to assist in interpreting the finding.
‡ This variable was included in the regression equation but the odds ratio was not significant.
[a] Only three people were classified as belonging to "Other" in terms of racial or ethnic group.

### Relationships and parenthood outcomes

Table 21 presents the results of predictive analyses for two outcomes related to relationships and parenthood and for four outcomes related to criminal justice involvement. All models were significant ($p$<.05).

Two demographic characteristics variables (*gender, race/ethnicity*) predicted relationships and parenthood outcomes. Females had 4.64 times higher odds of being currently married (31.6% of females were married; 10.7% of males were married). Compared to non-Hispanic Whites, non-Hispanic African Americans were less likely to be currently married (0.24 times lower odds); 29.0% of non-Hispanic White alumni were currently married, compared to 8.5% of African American alumni.

Alumni whose *age at child welfare case opening* was higher were less likely to have had a baby before the age of 18 (0.75 times lower odds). Among alumni who entered care before the age of 15, 13.9% had had a baby before age 18; among those who entered care at age 15 or older, 5.2% had had a baby before age 18. In addition, alumni who had a *number of runaway episodes* greater than zero were more likely than those who had never run away to have had a baby before the age of 18: alumni who ran away one to five times and alumni who ran away six or more times

had 20.59 times and 8.35 times higher odds, respectively, of having a baby before the age of 18 compared to alumni who had no runaway episodes.

### Criminal justice involvement outcomes

One demographic variable (*gender*) predicted all four criminal justice involvement outcomes. Compared to males, since leaving foster care females were less likely to have been arrested (0.24 times lower odds), convicted of a crime (0.08 times lower odds), or incarcerated (0.33 times lower odds). Females were also less likely to be incarcerated at the time of the interview (0.03 times lower odds). Over one in five males was incarcerated (22.6%) at the time of the interview, compared to 0.8% of females. One risk factor (*reason for placement into foster care: behavior problems*) predicted whether an alumnus had ever been incarcerated since leaving foster care; among those who had entered foster care because of behavior problems, 65.3% had been incarcerated since leaving foster care, compared to 45.8% of alumni who had not entered foster care because of behavior problems.

Child advocates such as CASA volunteers and child welfare agency staff are concerned about the relatively high rates of runaway behavior of children in foster care because it places those youth at much higher risk of further victimization as well as exposure to delinquent or criminal behavior opportunities – some of which may have serious consequences or enduring negative effects (Brandford, Moe, Brummel, & Clark, 2005; Fasulo, Cross, Mosley, & Leavey, 2002).

Data from the current study indicate that child advocates have reason to be concerned about runaways. Three foster care experiences predicted criminal justice involvement outcomes. Alumni who had a high *number of runaway episodes* (6 or more) were more likely to have been arrested (3.78 times higher odds), to have been convicted of a crime (4.09 times higher odds), and to have been incarcerated (3.03 times higher odds) since leaving foster care compared to alumni with no runaway episodes. Among alumni who entered care because of behavior problems, 68.8% had been arrested since leaving foster care, compared to 47.3% of alumni who did not enter care because of behavior problems. Similarly, 65.3% of alumni who entered care because of behavior problems had been incarcerated since leaving foster care, compared to 45.8% of alumni who did not enter care because of behavior problems.

Having a *driver's license upon leaving care* was related to lower rates of being arrested (0.42 times lower odds) and lower rates of incarceration (0.41 times lower odds) since leaving foster care. A driver's license may be one of the key components in building capacity and skills for self-sufficiency, or it may also be associated with certain types of other independent living supports.

Table 21. Results of Predictive Analyses: Relationships, Parenthood, and Criminal Justice Involvement Outcomes (n=173)

| PREDICTOR | | Relationships and Parenthood | | Criminal Justice Involvement | | | |
|---|---|---|---|---|---|---|---|
| | | Currently married | Had a baby before age 18 | Arrested since leaving foster care | Convicted of a crime since leaving foster care | Incarcerated since leaving foster care | Incarcerated at the time of the interview |
| Prevalence | | 21.7% | 10.0% | 53.6% | 32.9% | 51.5% | 11.1% |
| Overall model test | | $\chi^2(5)=25.60$ * | $\chi^2(3)=20.03$ * | $\chi^2(5)=39.29$ * | $\chi^2(4)=47.37$ * | $\chi^2(5)=37.74$ * | $\chi^2(1)=21.49$ * |
| **Demographic characteristics and maltreatment history** | | | | | | | |
| Gender | Female | 31.6% | | 40.5% | 12.5% | 41.7% | 0.8% |
| | *Male* | 10.7% | | 68.0% | 55.2% | 62.4% | 22.6% |
| | Odds ratio | 4.64 (1.77-12.18)* | | 0.24 (0.11-0.52)* | 0.08 (0.32-0.20)* | 0.33 (0.15-0.71)* | 0.03 (0.004-0.26)* |
| Race/ ethnicity | Hispanic / Latino | 27.4% | | | | | |
| | Non-Hispanic African American | 8.5% | | | | | |
| | Other | 0.0%[a] | | | | | |
| | *Non-Hispanic White* | 29.0% | | | | | |
| | Odds ratio (Hispanic / Latino) | 0.70 (0.31-1.57) | | | | | |
| | Odds ratio (Non-Hispanic African American) | 0.24 (0.09-0.64)* | | | | | |
| | Odds ratio (Other) | 0.0[a] | | | | | |
| Reason for placement into foster care: | Yes | | | 68.8% | | 65.3% | |
| | *No* | | | 47.3% | | 45.8% | |

| PREDICTOR | | Relationships and Parenthood | | Criminal Justice Involvement | | | |
|---|---|---|---|---|---|---|---|
| | | Currently married | Had a baby before age 18 | Arrested since leaving foster care | Convicted of a crime since leaving foster care | Incarcerated since leaving foster care | Incarcerated at the time of the interview |
| Behavior problems | Odds ratio | | | 2.08 (0.92-4.71)‡ | | 2.43 (1.08-5.47)* | |
| **Foster care experiences** | | | | | | | |
| Age at child welfare case opening (in years)† | Less than 15 | | 13.9% | | | | |
| | 15 or older | | 5.2% | | | | |
| | Odds ratio | | 0.75 (0.60-0.94)* | | | | |
| Number of runaway episodes | *None* | | 1.8% | 40.1% | 21.8% | 34.7% | |
| | 1 to 5 | | 20.6% | 57.2% | 32.0% | 60.1% | |
| | 6 or more | | 9.8% | 74.8% | 56.3% | 71.5% | |
| | Odds ratio (1 to 5) | | 20.59 (3.18-133.54)* | 2.63 (1.22-5.67)* | 2.82 (1.05-7.56)* | 3.31 (1.54-7.12)* | |
| | Odds ratio (6 or more) | | 8.35 (1.15-60.56)* | 3.78 (1.48-9.68)* | 4.09 (1.29-12.95)* | 3.03 (1.22-7.54)* | |
| Had a driver's license upon leaving care | Yes | | | 37.3% | | 32.3% | |
| | *No* | | | 60.0% | | 59.0% | |
| | Odds ratio | | | 0.42 (0.19-0.92)* | | 0.41 (0.19-0.88)* | |
| Received any employment services | Yes | | | | 21.9% | | |
| | *No* | | | | 51.1% | | |
| | Odds ratio | | | | 0.39 (0.16-0.98)* | | |
| Had access to therapeutic services (during last placement of three months or more) | Yes | 18.3% | | | | | |
| | *No* | 48.5% | | | | | |
| | Odds ratio | 0.33 (0.11-1.00)‡ | | | | | |

*$p<.05$.
*Note*: The reference group is italicized. The odds ratio compares the other groups to the reference (holdout) group.
† This variable was entered into the regression equation as a continuous variable. The frequencies for the dichotomized variable are presented to assist in interpreting the finding.
‡ This variable was included in the regression equation but the odds ratio was not significant.
[a] Only three people were classified as belonging to "Other" in terms of racial or ethnic group.

## Summary of Predictive Analyses Results

As mentioned earlier, many of the findings from these predictive analyses are consistent with what was found in the Casey National and the Northwest Alumni Studies, in which placement stability was associated with better education and mental health outcomes (Pecora et al., 2003; Pecora et al., 2010). However, there was no strong pattern of results: No foster care experience variables predicted more than five outcomes. In most cases, the foster care experience variables predicted one or two outcomes. The predictors of the highest number of outcomes were *total number of placements*, *number of placements per year in care*, *resources upon leaving care: driver's license*, *resources upon leaving care: dishes and utensils*, and *number of runaway episodes*.

*Number of placements* was negatively correlated with five outcomes. That is, alumni who experienced a high number of placements were less likely to have a high school diploma or GED, any education beyond high school, any diploma or certificate beyond high school, household income greater than the poverty line, and household income at least three times greater than the poverty line. *Number of placements per year in care* was negatively correlated with five outcomes; that is, alumni who experienced a high number of placements per year in care were more likely to have a chronic physical or mental condition, three or more past-year mental health diagnoses, past-year depression, and no high school diploma, and they were more likely to have experienced homelessness since leaving foster care.

*Resources upon leaving care: driver's license* was positively correlated with five outcomes. Alumni who had a driver's license upon leaving care were more likely to have completed college, to be currently employed (at least 10 hours per week), not to have been on public assistance in the past 12 months, not to have been arrested since leaving foster care, and not to have been incarcerated since leaving foster care. Interestingly, having a driver's license when leaving care was correlated with two outcomes in the unexpected direction: alumni who had a driver's license were more likely to have a past-year mental health diagnosis and, in particular, a past-year diagnosis of PTSD.

*Resources upon leaving care: dishes and utensils* predicted four outcomes in the expected direction. That is, alumni who possessed these resources upon leaving care were more likely to have no chronic physical or mental condition, a high school diploma, and a high school diploma or GED, and they were more likely to have been working 35 or more hours per week. Having a driver's license and having dishes and utensils when leaving care were also significant predictors in the Northwest Study. These particular tangible resources are likely indications of better preparation for independent living (Pecora et al., 2010).

*Number of runaway episodes* predicted four outcomes in the expected direction. Alumni who had not run away were more likely to have a high school diploma, to have not been arrested since

leaving foster care, to have not been convicted of a crime since leaving foster care, and to have not been incarcerated since leaving foster care. Running away while in care interrupts schooling, making it more difficult to complete high school with a diploma. Results from the current study indicate that it may also be a sign that a young adult is at risk of becoming involved with the criminal justice system.

# Chapter VI: Study Limitations, Summary, Recommendations, and Conclusions

## Study Limitations

Several important study limitations should be noted. First, findings may not be generalizable to the larger population because the interviewed sample was constrained in several ways (by geographical location and respondent age, for example). Notably, the interview response rate (33%) was low, which may further limit the generalizability of the findings. Alumni who were doing less well may have been more difficult to find given their relative disconnectedness from society. Males were underrepresented in the interviewed sample (possibly due in part to their higher incarceration rates), although the weighting of study data helped to mitigate that limitation. The study included alumni from the state of Texas only, which further limits the generalizability of findings.

The sample size of 173 is relatively small and reduced the statistical power of the regression analyses. For example, the only predictor of completion of a college degree was having a driver's license when leaving care. However, only seven people in the interviewed sample had completed college by the time of the interview. Had more people been interviewed, and therefore had more people achieved the outcome, it is possible that other foster care experience variables could have been significant predictors.

Available case record data from administrative files were somewhat limited and could contain errors. This affected the ability to describe the sample, to weight interview data, and to control for demographic characteristics and maltreatment history. Finally, as is the case with all studies that rely on interview data, the results may have been affected by the fact that most of the foster care experiences and all outcomes were measured by retrospective self-report. Some interview questions referred to experiences that had occurred many years before; as such, responses could be affected by biases due to recall, social desirability, or other factors. Further, alumni who were doing better at the time of the interview may recall their experience in foster care more positively than alumni who were not doing well at the time of the interview.

Study results should be interpreted with caution given these limitations.

## Summary of Findings

Despite the limitations noted above, results of the study are useful in that they support the findings of previous studies and provide updated information about outcomes among alumni of foster care. Many of the results of this study are similar to those of other alumni studies conducted by Chapin Hall, Casey Family Programs, and Casey Family Services (see, for example, Courtney et al., 2007; Courtney et al., 2010; Kerman, Wildfire, & Barth, 2002; Pecora et al., 2003; Pecora, et al., 2010). Findings related to the effect of malleable factors (such as experiences in foster care, over which foster care agencies have some control) on alumni outcomes offer areas for foster care agencies to improve.

The placement history of the alumni indicates that they had unstable living situations while in care; on average, alumni had experienced 11.1 placements while in care (an average of 3.3

placements per year). Three in ten (30.8%) had experienced at least one failed reunification; that is, they re-entered care after reuniting with their birth family. Over half (56.3%) ran away at least once while they were in care.

Overall, alumni of foster care had higher rates of mental health problems than the general population. Two in five alumni (39.0%) had a past-year mental health diagnosis, and nearly one in ten (9.0%) had three or more past-year diagnoses. Although lifetime rates for substance abuse were high, past-year rates were lower, suggesting that many alumni had recovered from their substance abuse. Similarly, although three in ten alumni (30.3%) had experienced PTSD at some point in their life, a smaller percentage (13.5%) had experienced it in the past year.

Completion of high school and post-secondary education was lower for alumni than for the general population on all measured items. In particular, only 4.9% of alumni had completed college (bachelor's degree), compared to 24.2% of the general population of the same age. Alumni were also employed at a lower rate and had lower household incomes than the general population, and they were more likely to receive public assistance and to have difficulty paying their bills. Nearly three in five (58.8%) had been homeless or couch surfed since leaving foster care.

About one in five (21.7%) alumni was married at the time of the interview, and 44.5% were currently parenting and living with children, which is more than twice the rate in the general population as measured by the NCS-R (20.9%). One in ten (10.0%) had had a baby before the age of 18. Alumni's relationships with partners were more violent than those in the general population, according to responses on the Conflict Tactics Scale (Straus et al., 1996).25 Both male and female alumni were significantly more likely to have been arrested and/or convicted of a crime than their peers in the general population.

## Selected Outcomes

### MENTAL AND PHYSICAL HEALTH

- 39.0% have at least one past-year mental health diagnosis.
- 19.3% currently have a chronic physical or mental health condition.
- 44.1% have had any substance abuse or dependence in their lifetime.
- 30.3% have experienced PTSD in their lifetime.

### EDUCATION AND TRAINING

- 48.4% have a high school diploma.
- 72.1% have completed high school via a diploma or GED.
- 4.9% have completed college (bachelor's degree).

### EMPLOYMENT, FINANCES, AND ECONOMIC HARDSHIPS

- 46.9% are currently employed.
- 51.6% have a household income above the poverty line.
- 46.7% have health insurance.
- 29.2% have been unable to pay their rent or mortgage during the past year.

### LIVING ARRANGEMENTS AND HOUSEHOLD COMPOSITION

- 47.8% have lived five or more places since leaving foster care.
- 37.7% have been homeless since leaving foster care.
- 43.7% of those who have been homeless have been homeless four or more times.

### MARRIAGE, RELATIONSHIPS, AND CHILDREN

- 21.7% are currently married.
- 58.3% have given birth to or fathered a child.
- 9.9% of those who have had a child have had a child placed in foster care.

### CRIMINAL JUSTICE INVOLVEMENT

- 68.0% of males and 40.5% of females have been arrested since leaving foster care.
- 55.2% of males and 12.5% of females have been convicted of a crime since leaving foster care.
- 62.3% of males and 41.9% of females have spent at least one night incarcerated since leaving foster care.

## Recommendations

### Recommendations based on descriptive findings

**Rethink the foster care service delivery model and the roles of case managers.** As results in this and other studies of alumni of foster care indicate, changes need to be made to the foster care service delivery model. The role of foster care agencies—and case managers specifically—must be re-conceptualized so that they bring expert assessment and navigator skills to every child situation. In addition, there must be greater integration between the child welfare and other systems that serve youth in transition (e.g., mental health, education, employment, housing, juvenile justice, health). Child welfare systems must assume a centralized role, acting as assessors, integrators, and navigators.

Case managers, supported by their agencies, must assume responsibility for the following roles on behalf of youth in foster care: (1) ensuring safety, (2) seeking permanency, (3) navigating systems, and (4) preparing for adult living.

1. *Ensuring safety* encompasses several aspects of responsibility, including the following:
    a. Ensure that a youth is not in immediate danger when he or she enters care.
    b. If placement into care is necessary, ensure that potential foster parents have been properly screened and trained, and are an appropriate match for the youth and his or her needs.
    c. Given the high rates of maltreatment while in care, assess for safety issues regularly.
    d. Ensure that birth family visits are properly supervised and assessed for potential problems.
    e. Regularly talk with the youth about their relationships with romantic partners to ensure that these relationships are healthy.

2. *Seeking permanency* encompasses a broad range of activities that include the following:
    a. Minimize placement (and associated educational) disruption. For example, try to make the first placement the only placement.
    b. Discuss the importance and benefits of permanency with the youth. Have these conversations multiple times: it may take a while for youth to fully understand and appreciate the value of permanency.

    Regularly explore barriers to permanency and strategies to overcome them. For example, youth in care may struggle with emotional and behavioral problems. Case managers must be able to recognize warning signs and know how to pursue help on behalf of the youth. Additionally, many youth lack permanency resources. Diligent search techniques must be implemented when youth come into care and periodically thereafter. This includes regular check-ins with the family about relatives who may be permanency resources.

3. *Navigating systems* must become a central role of case managers. Specifically, case managers cannot be expected to provide mental health and educational support to the youth. Instead, they must be trained to recognize the needs of youth and to find the resources available to help. For example, case managers must be able to recognize the

signs of emotional and behavior problems. Then, instead of serving as therapist, the case manager must know what resources in the community are available to address these problems. Additionally, case managers need to enable the youth to learn to navigate systems themselves so that when the youth begin living independently, they know where to turn for help from different systems. A critical component of systems integration is that those systems must be versed in the unique circumstances and needs of youth in care. Child welfare must continue to educate those working in these systems as to how to best help youth in care.

4. *Preparing for independent living* includes many of the concepts discussed previously. The roles that have been the primary responsibility of the case managers must be transferred to the youth so that youth no longer rely on the safety net of the foster care agency and case manager, a safety net that disappears upon emancipation. For example, youth must learn to ensure their own safety. This becomes particularly important as youth leave care because case managers are no longer available to help them navigate relationships (with the birth family, for example). Next, because permanency is critical at any stage of life, the importance of permanency must become ingrained in youth before they leave care. Having healthy relationships with others who can be relied upon is critical for productive adult living. Further, as mentioned previously, helping youth learn how to navigate systems is critical so they can seek help on their own as young adults.

**Build significantly different practice frameworks.** What practice frameworks will allow us to connect the dots between the critical areas of mental health, education, continuity of relationships, and safety so vividly outlined in the study? Whittaker (2005) argued for the construct of a *prosthetic environment*:

> *A "prosthetic environment" involves the planful use of a purposefully constructed multi-dimensional environment to enhance or provide treatment, education, socialization, support and protection to children with identified mental health needs and their families. At its most fundamental level, the notion of a "prosthetic environment" is based on the idea that we need to broaden our therapeutic vision from a singular focus on individual child or even family functioning to include a deeper, more contextualized picture of person-in-environment. This view seeks to refine our understanding of "environment" in all of its multiple levels and restore it to a position of centrality in both assessment and intervention.* (p. 109)

By building on the MacArthur Network on Transitions to Adulthood, foster care alumni guidance, the new SAMHSA-sponsored mental health-oriented youth transition projects such as *Building Bridges*, new approaches to permanency planning, and Arnett's conceptual work (2004), a more theory- and research-based conceptual practice framework needs to be developed to guide the design and implementation of transition programs for older youth in foster care.[26] This framework and these programs should include efforts to support permanency, promote connections with caring adults, and improve preparation for adult living. Better markers or milestones of success need to be identified so that both youth and program staff know with more clarity whether youth are on the right track for successful transition.

Can family foster care—with all of the enhancements and improvements described—continue to serve as the foundation platform for a comprehensive and robust remedy, or is a new service

design called for? Piecemeal fixing—as in identification of specific interventions to match identified mental health issues—will not likely result in an integrated system of care and treatment. Might we not also explore alternate service paradigms that address simultaneously some of the interrelated educational, behavioral, and mental health challenges documented in the study? Two possible designs are as follows:

- Cluster fostering arrangements as informed by the Lighthouse foster home networks and Mockingbird HUB home model.[27]
- Neighborhood-based small group homes might offer sibling placement along with a strong educational program for older teens who might not find a permanent family and who need a practical alternative while the search for a caring adult continues through some form of family finding, such as that created by Catholic Community Services in Tacoma.[28]

**Increase access to evidence-based mental health treatment for youth in care and alumni of care.** Because so many youth enter foster care with behavioral or emotional disorders, agencies should develop procedures to assess children and youth upon entry into foster care to determine whether they need services. Regular, discreet screenings should be administered to all youth in care. A number of state mental health and child welfare agencies are implementing standardized mental health screeners.[29] Child welfare workers should be trained to identify children and youth who may need more formalized assessment and treatment for mental health disorders.

Barriers to mental health care—including state and Federal eligibility requirements that limit access to funding—should be identified and addressed so that youth in care and alumni have greater access to the effective treatment methods that have been developed. These include cognitive behavior therapy for depression, trauma-focused cognitive behavior therapy (TF-CBT), dialectic behavior therapy, and Chorpita's *common elements* approach, as exemplified by the MATCH interventions for treating anxiety, depression, and disruptive behavior disorders.

Part of what complicates effective mental health treatment is our lack of understanding of complex trauma, other forms of trauma, and other emotional and behavioral disorders that manifest themselves over the life course for youth in foster care and alumni. Another challenge is the difficulty many systems encounter as they try to scale up the interventions on a community or statewide basis, such as finding and training staff and foster parents with the necessary knowledge, skills, and attitudes (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005).[30]

Finally, navigating the transition from child-serving mental health systems to the adult mental health system is a challenge for many alumni. Given the shortage of adult mental health services and gaps in youth health insurance coverage, maximizing youth healing while in care, having access to various self-help resources, and teaching effective self-help skills would be valuable – with the understanding that the pathways to healing vary by age, gender, and culture.

One issue to address is the behavioral problems exhibited by youth entering care. Regardless of the therapy used, the reason for removal from the home and experience while in care must be addressed to determine their impact on the youth. Addressing child behavior problems can be a critical step in expediting permanency (Madden, McRoy, Maher, & Ward, 2009; Rogg, Davis, & O'Brien, 2011) and in achieving positive long-term outcomes.

**Support youth in care and alumni of care in pursuing and completing educational degrees.** Given findings that high school completion rates are low and a higher proportion of youth from foster care obtain GEDs than the general population, greater efforts should be made to include graduation from high school in service plans. Barriers (such as behavioral and mental health challenges, placement instability) to graduating from high school with a diploma should be identified and addressed.

In addition, support better preparation for, access to, and success in vocational training and other postsecondary education programs. Caseworkers, foster families, and other stakeholders should encourage young people in foster care to plan for college or vocational school, and help them become adequately prepared for higher education and training. This includes identifying scholarship opportunities available to alumni of foster care, such as through Orphan Foundation of America,[31] exposure to various educational possibilities, and on-campus supports like the Guardian Scholars Program.[32]

**Assist young alumni of care in finding, securing, and maintaining stable housing.** Nearly three in five alumni (58.8%) had experienced homelessness or had couch surfed since leaving foster care, and nearly half (47.8%) had lived in five or more places since leaving care. Reform systems to strengthen transitional housing and public/community housing systems. Government agencies can work with local Section 8 landlords to help allocate apartments for low-income alumni from foster care (Choca et al., 2004; Van Leeuwen, 2004). Alumni can benefit from housing models that not only provide housing subsidies but also home-based case management or other adult guidance, such as scattered-site, sober living, Master-Lease Models, and Housing and Urban Development (HUD), Section 8 housing assistance, and funds from the Chafee Act that can be used for housing (Casey Family Programs, 2005; Clark, Deschenes, & Jones, 2000; Massinga & Pecora, 2004; Polcin, 2001; Shirk & Stangler, 2004).

**Overhaul independent living preparation.** Alumni varied widely in their level of readiness for emancipation from foster care. Federal and state funds should be redirected to the most promising independent living programs, which should be rigorously evaluated and replicated if successful. Increase youth access to actual job experience through subsidized and non-subsidized jobs, Individual Development Accounts (IDAs), special *youth opportunity passports*, and asset-accumulation strategies like debit accounts to help youth become more future-oriented and practical.[33]

Training in how to secure a living wage job with health care benefits is essential. This may include the educational support necessary for obtaining certain types of jobs and critical employment skills including résumé writing, interviewing skills, and workplace etiquette. In addition, *booster session* programs that provide a toll-free phone number and various fallback services should be made available to alumni after they leave care. This service could include ongoing access to special job or housing search help.

*Note that a critical strategy for helping youth learn key life skills and to have the support they need to transition successfully is to ensure they have a caring adult in their life who will be there for them over a long period of time*. For some alumni from foster care, birth or extended family members are important resources. However, successful engagement of birth or extended family needs to happen during the early phase of foster care—not only as the youth is preparing to

leave care or after the youth has left care. Part of this means helping youth develop patience, interpersonal skills, and the ability to get along with others with whom they might be living. As mentioned previously, integrating permanency, familial connections, and preparation for adult living into services is essential, and this must be done early and throughout a youth's stay in foster care (see Heckman, Stixrud, and Urzua [2006] for more information on skills in processing social and environmental information).

**Assist youth in care in developing and maintaining healthy relationships throughout life**. Two in five alumni (42.0%) lived with their birth families at least once since leaving foster care. Case managers should teach youth in care how to develop and maintain healthy dating relationships and healthy relationships with their birth families in the absence of supervision from a social worker. Child welfare agencies should provide foster parents and alumni of foster care with resources for maintaining their relationship after emancipation; a discussion of this issue could be part of a youth's transition plan. Alumni who are parents should be provided with resources to prevent the intergenerational transmission of involvement with the foster care system.

One of the most effective ways to improve outcomes among alumni may be to ensure that they leave care through achievement of legal permanency rather than through emancipation. To assist youth in care in achieving permanency, Casey Family Programs is sponsoring permanency roundtables throughout the United States. These intensive roundtable sessions are staffed by internal and external experts who devote two hours to discussion of each case and development of a permanency action plan. Initial results from roundtables, particularly in Georgia, indicate that they can be an effective way to achieve permanency for youth who are considered "stuck" in foster care (Rogg et al., 2011).

**Reduce unplanned pregnancies and involvement with the criminal justice system.** All of the major alumni studies, including the present study in Texas, have uncovered these two serious problem areas. We need more careful reviews of the causal factors in order to design practical cost-effective prevention strategies for these problems. Otherwise we will continue to see the transition plans of youth in foster care hampered by an unplanned pregnancy, and we will continue the "cradle to prison pipeline" publicized by the Children's Defense Fund.[34]

In addition, could court-appointed special advocate (CASA) volunteers play a stronger role with this population? For example, Milford Barnes (1967) wrote about the construct parental force, referring to the parent-like role played by a foster care agency during any period of psychiatric treatment of a child in the custody of such an agency. Given the complex and multidimensional functions that families fulfill—such as emotional support, information, advice, access to legal counsel for young people who come in contact with the criminal justice system—it would seem such functions would be even more important for older youth in foster care and alumni, particularly given the individual- and community-level variables related to vulnerability identified in this and other studies, and the extra burden borne by youth of color who can expect even greater scrutiny by law enforcement. Thus, the rationale would be for an additional and ongoing buffer through a CASA or other adult volunteer (Personal Communication, James K. Whittaker, April 8, 2011).

### Recommendations based on predictive analyses

As described in Chapter 5, predictive analyses were conducted to determine which aspects of maltreatment history and foster care experiences were related to alumni outcomes. Alumni had better outcomes if they had a smaller total number of placements, a smaller number of placements per year in care, and no runaway episodes. They also had better outcomes if they had a driver's license upon leaving care and if they had dishes and utensils upon leaving care. Recommendations related to these analyses are listed below:

**Foster care agencies should help maintain placement stability, which has a positive effect on outcomes.** In the predictive analyses, *number of placements* and *number of placements per year* each predicted five outcomes, which is more than was predicted by any other predictor. The importance of placement stability found in the current study is consistent with findings from the Northwest Alumni Study (Pecora et al., 2010). Initial placement decisions, although often made within the context of difficult time constraints, should be made carefully so that youth are less likely to move. Foster parents should be trained in how to implement social learning, behavior management, and other interventions that will minimize placement changes.[35]

**Strengthen placements so that youth are less likely to run away.** Alumni who had run away frequently (at least six times) during care had poorer outcomes than those who had never run away. Although many factors influence whether a youth decides to run away, having a better match between foster parent and youth and having a clear plan for permanency may help prevent runaway episodes. Careful mental health assessments, outreach to extended family members so a child has some family members to relate to, better mental health care, and prompt crisis intervention by the case manager can also help prevent runaway behavior.

**Ensure that youth have concrete resources as they prepare to leave care.** In the predictive analyses, having a *driver's license* and having *dishes and utensils* each predicted four outcomes in the expected direction, and having *at least $250 in cash* predicted two outcomes. Having concrete resources when leaving care is likely a proxy for more comprehensive independent living preparation, including receiving one-on-one coaching by a caring adult over time. Simply providing these resources at the time of exit is not likely to be helpful. Rather, these findings underscore the importance of helping youth achieve permanent connections with an adult, as well as delivering effective independent living training.

## Texas DFPS Program and Policy Improvements

Texas DFPS has instituted numerous initiatives to improve their child welfare system since the time that alumni in this study were in care. A full list of initiatives, which describes changes instituted that relate to each of the recommendations above, is available Texas DFPS New Programs and Policies. Select changes in practice and policy include the following:

- Improvement of placement stability (including minimizing the number of runaways):
  - DFPS is working on a new paid foster care service model called Foster Care Redesign. One of the principles of the redesign includes placing children in their home communities and minimizing moves.
  - As mandated by Texas law in 2009, foster parents, adoptive parents, kinship caregivers, and caseworkers receive trauma-informed care training, which helps them recognize a

child's trauma and focus on what needs further assessment. Provision of this training increases the likelihood that they will be able to respond to issues with the children in their care rather than requesting a placement change.

- Because better matched placements and better trained providers may result in fewer placement moves, a bill passed in 2007 required a statewide needs assessment and implementation of recommendations for expanding and improving capabilities of providers.
- DFPS has worked during the past decade to expand placements with relatives, expanding the Relative Caregiver (Kinship) Assistance Program statewide to provide support and services to relative caregivers. Analyses by DFPS have indicated that youth placed with kin have more stable placements.

- Provision of concrete resources to youth emancipating from foster care:
  - The Preparation for Adult Living (PAL) provides emancipating youth with a transitional living allowance of up to $500 per month (not to exceed $3,000 per client) to use on rent, utilities, food, etc.
  - DFPS policy ensures that youth receive a certified copy of their birth certificate, a Social Security card, and a personal identification card (Texas ID) prior to age 16.
- Transition planning and preparation for independent living:
  - The PAL program was strengthened in legislation passed in 2005. All youth older than age 16 receive a transition plan meeting or Circle of Support (a type of Family Group Decision Making meeting) every year until they exit DFPS care. The purpose of the Circle of Support is to develop a transition plan which includes connections to caring, supportive adults.
  - Youth in care and alumni of care developed the Texas Foster Care Handbook for Youth (first published in 2004), which includes information on the PAL program.
  - As of 2006, a standardized transition-planning process was instituted statewide to ensure that all youth are receiving consistent services. In 2009, the Texas Legislature required DFPS to create a comprehensive transitional living service plan incorporating best practices and recommendations from a stakeholder workgroup (which included youth, foster parents, and experts in transitional living services).
  - In 2011, DFPS created a transitional living service checklist for youth ages 14 to 21 to ensure that youth aging out of foster care receive services to help them transition out of foster care successfully. Caseworkers and supervisors review progress on the checklist annually.
- Access to evidence-based mental health treatment:
  - The STAR Health Medicaid Managed Care Program, implemented in 2008, ensures that (1) all children in foster care are eligible for Medicaid, and (2) young adults who emancipate from foster care are eligible for continued coverage through STAR Health if they meet certain requirements, such as being enrolled in school.
  - Through STAR Health, an annual behavioral health screening (known as a Texas Health Steps Checkup) is required upon entry into foster care and annually.

- Support for completion of educational degrees:
  - Service plans include educational goals, and graduation from high school is encouraged over completion of a GED. As of 2009, a Regional Director must approve a service plan that includes completion of a GED (except when directed by a court order).
  - DFPS Education Specialists assist youth in care to ensure that they meet secondary school needs and requirements.
  - Many youth receive supplemental educational services, such as vocational training and tutoring, through partnerships with colleges, community organizations, and foster care placement providers.
  - The Educational Training Voucher program, which is federally-funded and state-administered, provides eligible youth and young adults with up to $5,000 annually to help pay for postsecondary education. In addition, former recipients of foster care do not need to pay tuition at in-state public colleges and universities.
  - Youth who are in enrolled in PAL services may receive mentoring, scholarships, and free residential housing from colleges.
  - In 2011, the Texas Education Agency received a grant from the Administration for Children and Families to improve cross-system collaboration between courts, education, and child welfare. The goals of the project are to build a model collaboration system, facilitate policy and practice changes, and produce resource guides.
- Assistance in finding, securing, and maintaining stable housing:
  - As mentioned above, youth receiving PAL services receive a transitional living allowance of up to $500 per month (not to exceed $3,000 per client) to use on rent, utilities, food, etc.
  - Sixteen Transition Centers, located throughout the state, assist youth in finding housing after they leave care.
  - A bill passed in 2011 requires higher education institutions to assist foster care alumni in locating and paying for temporary housing between academic terms if the cost is not covered by the student's financial aid.
- Assistance in developing and maintaining healthy relationships:
  - Training on healthy partners and peer relationships is provided through the Personal and Social Relationships core element of PAL classes. Discussion about how youth feel about interacting with their birth families is included.
  - As part of the Foster Care Redesign, youth in care will be able to participate in more normative experiences and activities, allowing for more opportunities to develop and maintain healthy relationships.
- Reducing unplanned pregnancies:
  - Training on birth control, sexual responsibility, reproduction, and pregnancy risks is provided through the Health and Safety core element of PAL classes. Youth learn about the effects of becoming a parent in the Life Decisions/Responsibilities core element of PAL classes.
  - DFPS policy states that youth in foster care may request and receive any contraceptive device except sterilization without consent from their parents, caregivers, or caseworker.

## Conclusions

The majority of youth in this study aged out of care as emancipated young adults rather than leaving the foster care system after having achieved permanency through adoption, reunification, or guardianship.[36] One of the most effective ways to improve outcomes among alumni may be to ensure that they leave care through achievement of legal permanency rather than through emancipation (e.g., through more aggressive family-finding or permanency roundtables) (Rogg et al., 2011).

This study of Texas foster care alumni underscores the need to include more mental health and other child well-being assessment indicators into the performance dashboards of child welfare agencies so that key service and outcomes are being implemented with fidelity and are being tracked. Although many foster care alumni outcomes were not positive, several foster care experiences (such as placement stability and having resources upon leaving care) were found to improve those outcomes. Foster care agencies are not able to change the experiences that children and youth have experienced before they enter care, but the agencies are able to help more children and youth who are in care have positive life-changing experiences.

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# Endnotes

[1] The word *alumni* is used to refer to both males and females who were formerly in foster care.
[2] This includes jail, prison, juvenile hall, or another correctional facility.
[3] The case closure date was the young adult's 18th birthday for 83.2% of the interviewed young adults; the remaining 16.8% of young adults exited care between their 17th and 18th birthdays.
[4] See http://www.casey.org/Resources/Initiatives/garoundtable
[5] The word *alumni* is used to refer to both males and females who were formerly in foster care.
[6] Twelve interviews were conducted in jails and prisons, but 37 incarcerated individuals were not interviewed.
[7] This scale was not used in the Midwest Study.
[8] In March of 2009, when extensive initial tracking efforts had been completed, the decision was made to subsample out outstanding non-locatable cases. This curtailed the effort spent locating the large number of difficult-to-locate cases, while preserving a representative sample of these cases. This allowed more resources to be devoted to locating a smaller set of cases.
[9] It had been anticipated that a total of 447 cases would have been released for interviewing to reach the goal of 300 completed interviews. However, only 300 eligible cases had been released for interviewing by the time interviewing ended in Michigan on March 2, 2009.
[10] There are several exceptions. Some questions that were asked in the Texas Study (about maltreatment during care, for example) were included in and reported from earlier waves of the Midwest Study.
[11] Nearly all of these young adults had received services from a public child welfare agency before being placed with Casey Family Programs.
[12] Several groups were over-sampled (e.g., African American youth from highly educated families or a parent with a college degree), but only youth in the core sample were included in the analyses. Abstracted from Courtney et al. (2010, p. 5).
[13] Because of the way questions were asked regarding neglect and physical abuse, if a respondent answered that he or she experienced the maltreatment both before and during care, it is not possible to disentangle the perpetrator before care from the perpetrator during care. Responses to questions about sexual abuse refer to time in foster care only.
[14] Educational support services included career counseling; study skills training; school to work support; GED preparation, high school equivalency, Certificate of Completion; standardized test preparation, assistance with college applications; assistance with financial aid / loan applications; and attendance at university / college fairs.
[15] Access to therapeutic services included access to counseling or other mental health services, alcohol or drug treatment services, and group work or group counseling.
[16] The question asked in the current study was as follows: "Do you have any chronic physical or mental health conditions for which you need medical care on a regular basis?"
[17] See Pham (2011) for a review of the controversy over the true high school graduation rate in the United States.
[18] Public assistance included food stamps, WIC, SSI, rental assistance / public housing, or cash payments from a state's assistance program.
[19] Debt load was not measured in the current study as another indicator of economic hardship. Given that many young adults have debt, this could be an important economic indicator to include in future studies.
[20] These eight items were chosen because they were the items used in Add Health.
[21] This includes jail, prison, juvenile hall, or another correctional facility.
[22] The question asked was this: "Do you have any chronic physical or mental health conditions for which you need medical care on a regular basis?"
[23] Odds ratios in this sentence are inversed to show the relationship between fewer placement changes and education outcomes. For example, the odds ratio of 0.90 showing the relationship between a higher *number of placements* and *has high school diploma or GED* is inversed to become 1/0.90=1.11.
[24] Odds ratios in this sentence are inversed to show the relationship between fewer placement changes and outcomes. For example, the odds ratio of 0.94 showing the relationship between a higher *number of placements* and *household income greater than the poverty line* is inversed to become 1/0.94=1.06.

[25] The ability to draw conclusions about partner violence is limited by the fact that only eight items from the Conflict Tactics Scale were used.
[26] See, for example, Arnett (2004); Casey Family Programs (2001, 2010); Furstenberg, Kennedy, McLoyd, Rumbaut, & Settersten (2003); Osgood, Foster, Flanagan, & Ruth (2004); and the Building Bridges Initiative at www.buildingbridges4youth.org.
[27] See http://www.lys.org for more information on Lighthouse. See http://www.mockingbirdsociety.org for more information on the Mockingbird Family Model. Both of these use a form of a "hub" foster home to help provide respite care, social events, and other support services for the other network foster homes.
[28] See http://www.emqff.org/press/docs/FSE_guide.pdf for more information about family search and engagement.
[29] See www.thereachinstitute.org and a chapter on screening in a recent Institute of Medicine report for more information (see Chapter 7 in National Research Council and the Institute of Medicine, 2009).
[30] See www.fpg.unc.edu for more information about the national implementation network.
[31] See www.orphan.org for more information. Also see Salazar (2011).
[32] See, for example, www.orangewoodfoundation.org/programs_scholars.asp.
[33] See Polcin (2001) and the Thresholds Programs for Family and Youth at www.thresholds.org/find-services/family-and-youth.
[34] See www.childrensdefense.org/programs-campaigns/cradle-to-prison-pipeline.
[35] See, for example, Project KEEP (Price, Chamberlain, Landsverk, & Reid, 2009) and functional family therapy (www.fftinc.com).
[36] The case closure date was the young adult's 18th birthday for 83.2% of the interviewed young adults; the remaining 16.8% of young adults exited care between their 17th and 18th birthdays.

# Acknowledgments

Casey Family Programs Research Services staff would like to thank the many alumni from foster care who participated in this study. The study would not have been possible without their willingness to share openly about their experiences in foster care and after leaving care.

The research team thanks the staff at the Texas Department of Family and Protective Services for providing administrative and contact data for young adults who had been in DFPS care.

Mark Courtney and Amy Dworsky at Chapin Hall Center for Children shared the Midwest Study instrument; consulted during the planning, interviewing, and analysis phases; and provided valuable feedback on earlier drafts of the report.

Numerous internal and external reviewers provided valuable feedback, helped clarify results, and helped interpret findings.

Special thanks go to the following Casey Family Programs staff: Carolyne Rodriguez, Senior Director of Strategic Consulting; and Rori Bonnell, Executive Assistant**.**

The research team also appreciates the work of Kirsten Alcser and Jenny Bandyk at the University of Michigan for coordinating the data collection, as well as the interviewers hired by the University of Michigan for their dedication and flexibility.

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