

An Evaluation of Virginia's Foster Care System:

Exploring Emancipation Rates, Substance Abuse, and Housing Assistance

Prepared for Virginia's Joint Legislative Audit and Review Commission (JLARC)
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Disclaimer

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Executive Summary

Virginia has had one of the highest emancipation rates in the nation since 2000, despite having one of the lowest rates of children entering foster care. The "emancipation rate" refers to the proportion of foster youth who leave the foster care system due to age, without a permanent placement (i.e. a guardianship or other permanent home).

In September 2017, Virginia's Joint Legislative Audit and Review Commission (JLARC) authorized a study on foster care and adoption services in Virginia (JLARC, 2017; See Appendix D). This Applied Policy Project (APP) complements JLARC's project by investigating the issue of emancipation, including trends in Virginia's emancipation rate, how it compares to rates in other states, and potential causes of Virginia's high emancipation rate (e.g. older-age-at-entry or substance abuse). It also reviews relevant literature to assist JLARC staff in preparing their final report.

This APP uses data Adoption and Foster Care Analysis and Reporting System (AFCARS) data from 2010 to 2016 to provide an up-to-date analysis on current emancipation trends. Through an examination of raw data, and utilizing OLS multivariate regression, logistic regression, and survival analysis models, this project explores youth characteristics or factors related to a higher likelihood of emancipation. Results suggest that an older age at entry into foster care, and being either Black or Hispanic, are associated with a higher likelihood of emancipation. These data also showed that from 2011 to 2016, parental substance abuse was the number-one cause of entry into the foster care system.

State policymakers face two challenges: improving life outcomes for Virginia's transition-age youth (19 to 21 years old) and reducing emancipation rates in the long term. To address this first challenge, this report uses the criteria of cost, effectiveness, equity, and administrative feasibility to assess the expansion of two policy programs related to providing housing for transition-age youth. It recommends that JLARC investigate the possibility of partnering with non-governmental organizations in Virginia to implement group home options in the regions of the state with the highest rates of foster care (primarily rural Virginia). To address high emancipation rates, JLARC should investigate ways to better understand Virginia's foster care population, including collecting data on the long-term outcomes of foster youth.

Background

Introduction

In December 2017, the Fredericksburg-based *Free-Lance Star* reported on the story of Dominique Bryant, age 23, of Locust Grove, Virginia. Bryant was adopted in New York when she was 10, and moved with her foster mother to Charlottesville, VA. At age 17, her foster mother terminated her parental rights. This caused Social Services to place her in a sobriety house (even though Bryant was not an alcoholic). After failing to attend a mandatory sobriety meeting, a requirement for living in the house, Bryant was ejected and spent four months homeless in the Charlottesville area. Today, Bryant lives in Locust Grove with a member of her church and is pursuing her associate degree. (Uphaus-Connor, 2017). Bryant's experiences – the result of aging out of the foster care system without achieving a permanent placement – reflect the stories of many foster youth across Virginia.

Virginia has one of the highest emancipation rates in the nation, despite having one of the lowest rates of children entering foster care. The state had the highest rate from 2000 to 2013 and has remained among the top three states since 2014. In 2016, it had the second-highest rate in the nation, at almost 19% (AFCARS, 2016). Although Virginia's emancipation rate has fallen slightly since 2010 (from 26%), the national rate of emancipation is 9%, making Virginia's emancipation rate a cause for concern. "Emancipation" is when a child leaves the foster care system without a permanent placement (see Larson, 2018; English et al., 2010). This includes youth who age out of foster care, as well as minors who leave the foster care system without a permanent placement, which usually occurs at or just before age 18 (Child Welfare Information Gateway, 2017). Despite this high emancipation rate, Virginia's rate of entry into foster care is about 2 per 1,000 youth, half the national rate of 4 per 1,000 youth.

Review of foster care literature and policy approaches

Children are placed in the foster care system when their safety is threatened at home, usually due to neglectful or abusive parents. A large body of research focuses on best practices in foster care, including research on resource parents (Day et al., 2018; Moor et al., 2018; Dozier et al., 2001), child welfare workers (Miller et al., 2018), and cross-cultural foster care policy (Grumi et al., 2017; George et al., 2003). Adolescents' physical, emotional, and cognitive development does not stop at the

traditional foster care exit age of 18, making support beyond this age critical to foster youths' long-term life outcomes (Casey Family Programs, 2016; Jim Casey Youth Opportunities Initiative, 2011; Blome, 1997; and Barth, 1990).

The disparities in life outcomes between foster youth and their peers is well-documented (Morton et al., 2017). For example, Thompson et al. (2018) found that both current and former foster care youth often lack skills necessary for successful independent living. Compared to their peers, foster youth are less likely to have a high school diploma, pursue higher education, or earn a living wage, and more likely to experience economic hardships, have an unintentional pregnancy, or become involved with the criminal justice system (Courtney et al., 2007). Some researchers have suggested that transitionage youth (19-21 years old) may be a particularly high-risk subset of the foster youth population (Wertheimer, 2002). Jordan et al. (2017) demonstrate that, despite expansions in the resources available to foster youth since 2008, many still lack traditional social support networks and struggle with unstable living situations during their critical transition to legal adulthood.

In addition to disparities in outcomes and resources, many foster youths have suffered traumatic experiences and/or abuse, which increases their risk for mental health, emotional, and behavioral disorders (Bederian-Gardner et al., 2018; Perry and Price, 2018; Pecora et al., 2009; Clausen et al., 1998). Dubner and Motta (1999) found that 60% of sexually abused and 42% of physically abused foster children suffered from post-traumatic stress disorder (PTSD). A further 18% who had suffered neither type of abuse exhibited symptoms of PTSD, possibly because of exposure to domestic violence (Marsenich, 2002). Quasi-experimental design results suggest that expanding foster care services can have long-term positive effects on physical and mental health of foster youth (Fratto, 2016; Kessler et al., 2008; for a meta-analysis, see Winokur, 2014).

Table 1: Life outcomes of youth with foster care experience, compared to the general population

Life outcomes	Youth in foster	General
	care	population
<u>Education</u>		
Graduate high school by age 19	58%	87%
Earn a college degree by age 25	<3%	28%
Employment		
Employed at age 26	46%	80%
Eligible for employer-provided health insurance (pre-ACA and of those employed at age 26)	51%	79%
26-year-olds who earned any income from employment during the previous year	70%	94%
Housing and Finances		
Have their own residence at age 26	9%	30%
Experience at least one economic hardship, such as not enough money to pay rent, utility bills, or phone bills	45%	18%
Health		
Women who reported that they had ever been diagnosed with a sexually transmitted infection (STI) by age 26	44%	23%
Men who reported that they had ever been diagnosed with a STI by age 26	18%	11%
Females who had been arrested since age 18 by age 26	42%	5%
Males who had been arrested since age 18 by age 26	68%	22%

Notes: Table adapted from Table 1, Jordan et al., 2017, 4. Figures come from the National Longitudinal Study of Adolescent to Adult Health. Additional sources used by Jordan et al. include the Jim Casey Youth Opportunities Initiative, and the Midwest Evaluation of the Adult Functioning of Former Foster Youth: Outcomes at Age 26. Chapin Hall, (2011).

Two major longitudinal studies – the Northwest Foster Care Alumni Study, conducted by the Jim Casey Foundation, and the Midwest Study, conducted by Chapin Hall at the University of Chicago – have documented the importance of extending foster youth services beyond age 18. These studies built on prior research into the long-term impacts of foster care programs, including McDonald (1996) and Fanshel and Shinn (1978), and were influential in promoting the importance of extended foster care (Vogel, 2013). The Northwest Study recommended implementing a variety of mental health, education, and employment/finance policies, and highlighted the importance of permanency to overcoming mental health and employment barriers (Pecora et al., 2005). The Midwest Study compared life outcomes of foster youth to non-foster youth, finding that foster youth tended to have worse long-term outcomes than their peers (See Table 1; see also Courtney et al., 2011). This study also provided one of the few comparisons of a state that allows foster youth to remain in care until their twenty-first birthday (Illinois), and states in which foster youth tend to age out when they turn 18 (Iowa and Wisconsin). Both studies – as well as other research by Chapin Hall into extended foster

care in other states (e.g. Napolitano et al., 2015) – support the recommendation that states should extend the age of eligibility for foster care services.

Cost-benefit analyses of extended foster care have demonstrated the long-term net social benefits resulting from extended services. The Jim Casey Youth Opportunities Initiative (2013) examined the costs of low educational attainment, increased health risks, and involvement with criminal justice at the national level. Using conservative cost estimates, they find that these negative outcomes place immense burdens on individual foster youth, their communities, and broader civil society. Statespecific studies such as Burley and Lee (2010), Peters et al. (2009), and Packard et al. (2008) also found that investing in state-level programs to support youth from ages 18 to 23 yield large personal and net social benefits. For example, Packard et al. concluded that just the financial benefits of extending foster care outweigh costs to state governments by about two to one (2009, 2). Courtney (2015) echoed Packard et al.'s findings, noting that additional non-monetary benefits of extended foster care included reductions in adolescent pregnancy, homelessness, criminal behavior, and justice system involvement. Sharp (2015) calculated that educational disparities alone generated a net social loss of over \$40 billion in the U.S. over a nine-year period (2003-2012), and supplemented his discussion with a compelling moral case for investing in policies – including permanency options – for youth who would otherwise emancipate. (For a comprehensive review of economic evaluations of child welfare policy between 1988 and 2009, see Goldhaber-Fiebert et al., 2011.)

Key federal legislation regarding foster care and permanency

John H. Chafee Foster Care Independence Act (1999): Established federal funds to focus on foster youth educational attainment, access to healthcare, and placement with permanent families.

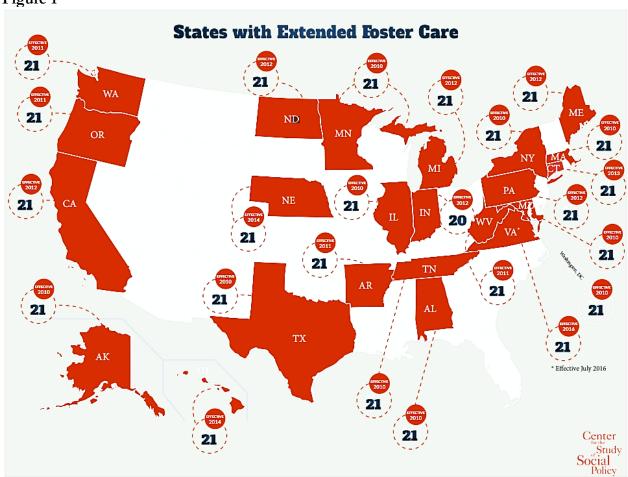
Fostering Connections Act (2008): Extends federal support for foster youth to age 21 and requires states to promote permanent families.

National Youth in Transition Database (2010): Federal regulation that requires states to report outcomes on youth who are aging out or have aged out of the foster care system.

Social Security Act, Title IV (amended 2008): Regulates federal funding for foster care systems nationwide.

Addressing issues facing older foster youth has only recently become a priority. In 1999, the Chafee Foster Care Independence Act amended Title IV-E of the Social Security Act, which doubled the amount of funds available to states for independent living services and gave states greater discretion on how to use those funds (McDaniel et al., 2014, 1). The Fostering Connections to Success and Increasing Adoptions Act of 2008 (hereafter, the Fostering Connections Act) expanded this flexibility, and allowed states to offer Title-IV services to foster youth up to age 21 (Child Welfare Information Gateway, 2018). The Fostering Connections Act gave states the option to provide services to youth during this three-year transition to adulthood, although much of its funding is aimed at promoting educational attainment (Dworsky et al., 2015). Figure 1 displays states who expanded their range of foster care services (and the maximum age of eligibility for these services) after the passage of the Fostering Connections Act. (More information on key legislation available through VDSS Child and Family Services Manual.)

Figure 1



Source: Center for the Study of Social Policy (Retrieved from https://www.cssp.org/policy/2016/STATEs-with-extended-foster-care-MAP.pdf).

In 2014, the Administration on Children and Families contracted with Chapin Hall to analyze programs supporting youth transitioning out of foster care. The research team focused on assessing educational attainment programs, including those tied to independent living programs. In their literature review, they noted that few (if any) program evaluations were based on experimental research (Dworsky et al., 2015; McDaniel et al., 2014). Since the passage of the Fostering Connections Act, states have begun taking steps to provide resources for youth after they age out of their foster care systems (NCSL, 2017; Wiltz, 2015). However, the lack of experimental data from program evaluations, in addition to challenges in collecting data on youth transitioning out of foster care, have led to a dearth of evidence-based policy decisions. Policymakers and researchers broadly agree that extending services for foster youth improves life outcomes. However, they remain uncertain as to which specific policies will be most effective in providing long-run benefits. JLARC staff may wish to investigate the feasibility of implementing a system to track long-run life outcomes of transition-age foster youth in order to better-inform future state foster care policy.

Emancipation and permanency

Exits from foster care can be divided into exits to permanency and exits to non-permanency. "Permanency" refers to adoption, guardianship, reunification with a parent/primary caretaker, or living with other relatives. "Non-permanency" includes emancipation, transfers to another agency, running away, or death of a child. In Virginia, transfers, runaways, and deaths are all relatively-minor proportions of the non-permanency rate; the vast majority of non-permanency exits are due to emancipation. (Jordan et al., 2017, 10).

Exits to permanency are the least likely to lead to foster children reentering the system, and most likely to result in better life outcomes. Goering and Shaw (2017) found that placement with family is associated with the lowest likelihood of reentry, followed by guardianship with non-family. In a related study, Duke et al. (2017) examine the importance of important non-parental adults as role models. (For an older foundational study, see Berrick et al., 1994.)

Transition-age youth, permanency, and housing

Increasing permanency rates among transition-age foster youth is a challenging puzzle for state policymakers. Despite Virginia's extension of resources to foster youth, the largest proportion of

emancipated youth in Virginia are over 18. In FY 2016, nearly 90% of emancipated youth were ages 17 to 21 (AFCARS, 2016). High rates of older youth exiting Virginia's foster care system suggest a lack of support programs for this age group, a lack of political or social will/effort to expand these programs, or some combination of the two. In her comprehensive book *Macro Perspectives on Youth Aging Out of Foster Care* (2015), Mary Collins identified three major barriers to positive policies targeted at transition-age youth: chronically underfunded and overstressed state foster care systems; state policies emphasizing family intervention and children over adolescents; and more-positive views of young children than adolescents. Empirical and anecdotal evidence from Virginia and other states suggests that these structural barriers may compound transitional difficulties for older foster youth. Many policy briefs addressed to state legislators emphasize preventing out-of-home placements and reduced stays in foster care (e.g. Freundlich, 2010, Susman, 2013). But as Collins notes, preventative measures do not remove barriers to foster youth already in the system, and limits discussion of policies aimed at transitioning foster youth. These policy prescriptions do little to encourage permanency in older youth and may have the unintentional side-effect of keeping youth in a poor home environment.

Researchers have identified non-permanency – in particular, unstable housing – as a root cause of lower educational, health, and employment outcomes for foster youth later in life (e.g. Jordan et al., 2017, 4). Expanding access to transitional housing is one crucial way in which policymakers can improve life outcomes for the large number of emancipated youth in Virginia. Transitional housing refers to housing for foster youth that bridges the gap between their foster home (or other foster care placement) and a fully-independent living situation. By providing older foster youth with a stable home environment during the critical transition period to adulthood, Virginia's foster care providers should be able to reduce the number of adolescents who exit without first securing a permanent living situation.

Multiple studies have documented foster youths' challenges with homelessness during their transition to adulthood, and others discuss the implications of a lack of stable housing on their cognitive, professional, and educational development (Fowler et al., 2017; Dworsky and Courtney, 2009). During one of their Midwest Study evaluations, Dworsky et al. (2013) found that between 31% and 46% of their participants had been homeless at least once by age 26. In their study on youth homelessness, Morton et al. noted that nearly one-third of surveyed homeless youth reported experience with foster care (2017, 10). Because even relatively-brief periods of homelessness can have extreme negative

consequences, many policymakers include housing as a component of foster care transition, educational, and employment plans (e.g. U.S. Department of Education, 2016, 36-45; Stern and Nakamura, 2012, 6-7).

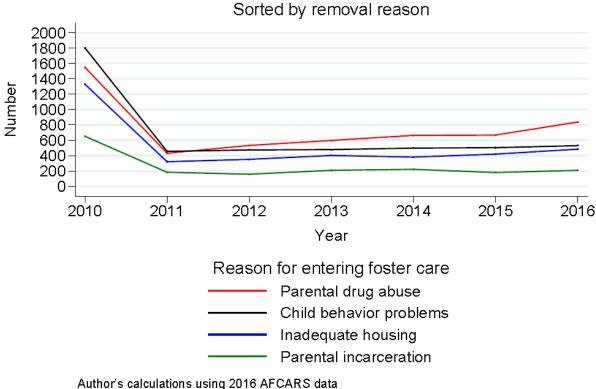
In 2013, the Department of Health and Human Services published a report focusing on the importance of building physical and relational permanency. It defines physical permanency as "having a home or a place to be," highlighting the importance of maintaining a stable home environment (Child Welfare Information Gateway, 2013, 1). Mathematica has produced a series of studies on increasing housing opportunities to combat homelessness after transitioning out of foster care (Dion, 2015; Dion et al., 2014; Dworsky et al., 2012). This research indicates that expanding housing options is one viable path toward improving employment or educational opportunities.

Many of Virginia's youth struggle to maintain stable housing. Out of all 50 U.S. states, Virginia has the twelfth-largest proportion of children in low-income households with a high housing cost burden (66%, compared to a national average of 61%). However, it has the eighth-lowest proportion of children in families that receive public assistance (Kids Count, 2016). This struggle is most acutely felt in by foster youth, or youth who are placed into foster care due to inadequate housing. Physical permanency offers a basis for building social networks, improving health and education outcomes, and improving overall quality of life. Assessments of Virginia's foster care services note that the state offers a range of housing, supports, including both logistical and financial assistance, but that not all services are offered throughout the state (Jordan et al., 2017, 33). Improving housing affordability and access are crucial ways in which Virginia's policymakers can improve life outcomes for transition-age youth.

Virginia's Foster Care System

Virginia's foster care system currently serves just under 5,000 youth, according to the Virginia Department of Social Services (VDSS, 2018). Virginia's foster care system is characterized by high emancipation rates, although the commonwealth has one of the lowest rates of entry into the foster care system (Children's Bureau, 2017). From 2011 to 2016, the top reasons for a child entering Virginia's foster care system were parental drug abuse, child behavioral problems, inadequate housing, parental inability to cope, and parental incarceration (See Figure 2; inability to cope omitted for clarity). For a full list of removal reasons ranked in order of significance, see Appendix A, Table 1. During this same period, Virginia served just under 85,000 youth, placing it 28th out of 50 states in terms of the number of children served, according to AFCARS data.





In Virginia, children are placed with a state-certified and compensated foster parent, who acts as a guardian and cares for foster children with support from the VDSS. Foster care is intended to be a temporary solution for children who have been removed from their birth family homes (VDSS, 2018).

In addition to foster care for minors, Virginia's child social services also include "extended foster care" for adolescents aged 18-21, in recognition that many foster care youths require additional resources and support after they turn 18. Foster care services offered through the VDSS officially include:

- Placement services (i.e. placing a child in a group home, residential facility, or foster family)
- Teaching independent living skills for ages 14-21
- Physical or mental health treatments, including for substance abuse
- Mentoring
- Facilitating opportunities for a permanent living situation.

(For details on the scope of these services, see Division of Family Services, 2016, 11-74. See pages 75-91 for additional details.)

VDSS has published a series of issue briefs on the numerous challenges facing the foster care system. In 2011, the agency prepared an issue brief on the age at which youth tend to exit foster care, finding that 88% of youth stayed in the foster care system after their 18th birthday, but only about one in five continued until their 21st birthday (VDSS, 2011). In September 2017, the VDSS released its annual progress and services report on its five-year state plan for "child and family services." This strategic plan, required by the federal government, outlines outcomes and goals for fiscal years 2015 to 2019, and is a valuable source of information on key stakeholders (for example, local DSS), funding sources, and program statuses.

Costs and funding sources of the foster care system

Virginia appropriated about \$2 billion in both FY17 and FY18 for the Department of Social Services, which receives funding under the Office of Health and Human Resources (Budget Bill Chapter 836). Of this, Child Welfare Services received \$212 million and \$220 million in FY17 and FY18 respectively, excluding services that are not exclusively dedicated to foster care, like SNAP (Budget Bill Item 346: (DSS) Child Welfare Services, 2017). Table 3 breaks down these funding destinations and sources:

Table 3: VA General Assembly budget appropriations for Child Welfare Services, FY17 and FY18

	FY17	FY18
Category		
Foster Care Payments	\$60,158,124	\$62,104,143
Supplemental Child Welfare Activities	\$28,063,364	\$32,249,287
Adoption Subsidy Payments	\$123,381,375	\$125,422,430
Fund Sources		
General	\$107,582,982	\$109,715,398
Special	\$425,030	\$1,425,030
Dedicated Special Revenue	\$235,265	\$485,265
Federal Trust	\$103,359,586	\$108,150,167

Notes: Source: Virginia Legislative Information System, Budget Bill (Chapter 836, Item 346), 2017 Session). Available at https://budget.lis.virginia.gov/item/2017/1/HB1500/Chapter/1/346/.

A significant amount of money goes toward monthly foster care payments (although it is less than half of the money appropriated for adoption subsidy payments; the reason for this may be something JLARC staff wish to investigate). Foster youth who emancipate typically receive higher average monthly payments than youth who are adopted or exit for another reason (see Table 4). By encouraging permanency, Virginia's policymakers may be able to reduce long-run assistance costs.

Table 4: Foster Care Payments to Parents by Exit Reason in Virginia, 2010-2016

Exit reason	25 th Pctile.	Median	75 th Pctile.	Mean
Reunification with family	\$462.00	\$541.00	\$686.00	\$1,310.06
Living with Relatives	\$462.00	\$525.00	\$666.00	\$899.27
Adoption	\$462.00	\$541.00	\$1,050.00	\$903.04
Emancipation	\$666.00	\$986.00	\$3,090.00	\$2,400.47

Source: AFCARS 2016. Excludes youth who received no foster care payments. Note that the higher spread of foster care payments to emancipated youth are likely a result of youth who emancipate tending to be older, or enter foster care at an older age.

Virginia's average monthly foster care payments place it in the top twentieth percentile of all states. The states with the highest median and average monthly payments are Kentucky, Rhode Island, and Maryland (see Appendix E, Table 1). Although Virginia has relatively-high foster care supports, the state still has room for improvement in its foster care funding levels. One benchmark for assessing the adequacy of foster care funding levels are minimum adequate rates for children (MARCs). MARCs are designed to establish adequate compensation for foster caretakers, adjusted for state cost of living. Ahn et al. (2018) drew upon several older studies to update estimates of MARCs based on their age and their location in each state. The authors found that all but four states provided lower reimbursement rates for foster care families than recommended MARC costs in 2016; Virginia's MARCs were about 60% higher the state's current reimbursement rates (64). They concluded that

nationally, "average foster care rates require an increase of 35% for the 0–4 age group, 45% for the 5–13 age group, and 44% for the 14–18 age group" (61). By this metric, the disparity in Virginia's foster care reimbursements is even larger than the national average gap. (See Ahn et al., 2018, Table 4, 62-63, for a complete breakdown of state MARCs.)

Additional foster care funding comes from the Comprehensive Service's Act (now called the Children's Services Act, CSA). The General Assembly passed the CSA in 1993 to "create a collaborative system of services and funding for at-risk youth and families" (Office of Children's Services, 2017, 1). It provides treatment services for the "growing number of children [in Virginia] who exhibit serious emotional and behavioral problems" (Turnage et al., 1998, i). Caseworkers and providers offer substance abuse treatment, counseling, and a variety of other services both in communities and in residential centers. The CSA was an attempt to collate disparate child service providers, including foster care, under one funding pool.

The Office of Children's Services, which like VDSS receives its funding through the Office of Health and Human Resources, oversees the funds distributed through the CSA. Federal law mandates that children enrolled in foster care or special education programs receive support through the CSA (Molliet-Ribet et al., 2007, 1). The General Assembly appropriated just over \$330 million for the Office of Children's Services for FY 2018 (Budget Bill Item 285 (CSA) Protective Services, 2017). Total expenditures were just under \$400 million in 2017 (Office of Children's Services, 2017).

Data analysis: describing emancipation in Virginia's foster care system

This APP utilized AFCARS data from 2010 to 2016 to investigate and provide descriptions of Virginia's foster care system, and to compare it to the foster care systems in other states. Key outcome variables included entry rates into the foster care system; foster children's reasons for entry into the system (also called "reason for removal," referring to the reason they were removed from their home); and foster children's discharge reasons (i.e. whether a foster youth emancipated from the system). Regression analysis suggests than an older age at entry, and being Black or Hispanic, is correlated with a higher likelihood of emancipation in Virginia. However, these data do not suggest links between older age at entry and rates of foster care entry, or rates of foster care entry and emancipation rates.

This project investigates the following questions:

- Is a high emancipation rate related to children tending to enter foster care in Virginia at older ages than other states?
- What other characteristics are associated with a high emancipation rate?
- Is older-age-at-entry related to rates of foster care entry that are lower than other states?
- Are either older age at entry or high rates of foster care entry related to the high emancipation rate in Virginia?

These data suggest a higher age at entry is strongly correlated the likelihood of emancipation. Figure 3 shows the proportions of each age at entry into Virginia's foster care system from 2010 to 2016, with an average age at entry of 7.5 years old. While the majority of children enter before they reach age one, there is a slight uptick in the proportion that enter the system between ages 12 and 16.

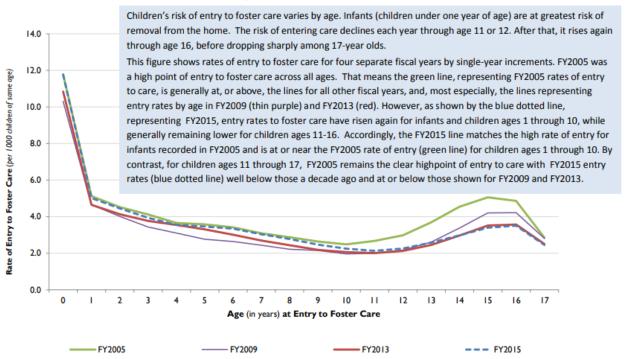
Density of age at entry in Virginia, 2010-2016

Output

This uptick at older ages mimics national trends, presented in Figure 4. A high number of children enter the foster care system between birth and age one, with a gradually-declining rate of entry until about age 12, when there is a slight increase until age 16.

Figure 4

Rate, shown on left axis, equals the number of children of a given age who entered foster care during the fiscal year for every 1,000 children of that same age in the 50 states, District of Columbia and Puerto Rico



Source: Figure prepared by the Congressional Research Service on November 30, 2016 for the 2016 version of the House Ways and Means Committee Green Book. Based on AFCARS data provided by HHS, ACF, ACYF, Children's Bureau, as reported by the states as of July 2014 (for FY2005 and FY2009) and June 2016 (for FY2013 and FY2015). Child population used to calculate rates was based on U.S. Census Bureau annual estimates for July I of each year for the 50 states, the Dstrict of Columbia and Puerto Rico (intercensal estimates for 2005 and 2009 and vintage 2015 estimates for 2013 and 2015).

Notes: See Table 11-10A for corresponding foster care entry rates by age.

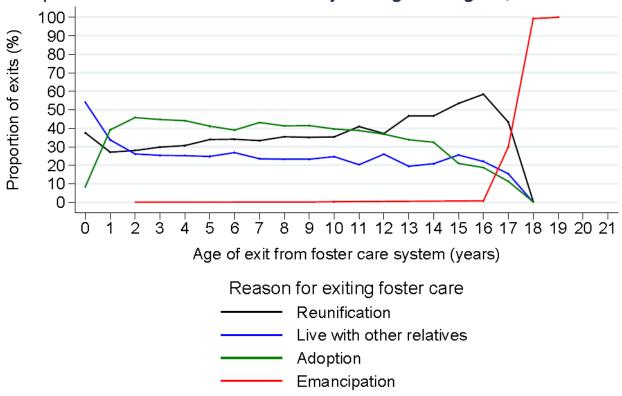
Source: House Ways and Means Committee,

https://greenbook-ways and means. house.gov/sites/greenbook.ways and means. house.gov/files/Figure%2011-10.%20 Table%2011-10%2C%20 Table%2011-10A%2C%20 Table%2011-10B.pdf.

The national average entry rate in 2016 was 4 per 1,000, while Virginia's was 2 per 1,000. Despite this low rate of entry into the foster care system, Virginia has maintained one of the highest emancipation rates in the country for over 15 years.

Figure 5 below presents the age at which children emancipate compared to the ages at which children exit to permanency. (See Appendix A, Table 3 for detailed data.)

Figure 5
Proportion of exits from foster care by exit age in Virginia, 2010-2016



Author's calculations using 2016 AFCARS data

An older age at entry into the foster care system is strongly related to a higher likelihood of emancipation. Table 5 presents the distribution of age at entry for youth who exited to permanency, and the age distribution for youth who emancipated in Virginia.

Table 5: Age at entry into Virginia's foster care system by exit reason, 2010-2016

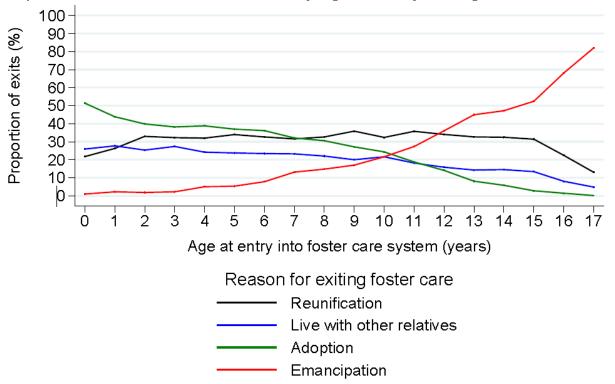
Exit reason	25 th Pctile.	Median	75 th Pctile.	Mean
Reunification with family	3	7	13	7.6
Living with Relatives	1	5	10	5.9
Adoption	0	3	7	3.9
Emancipation	12	15	16	13.5

Source: Author's calculations using 2016 AFCARS data.

The data presented in Figure 6 confirm the widely held assumption (cited in literature and anecdotally by foster care professionals) that younger children tend to exit to permanency, while older youth tend

to emancipate. After age 12, the proportion of children in Virginia who emancipate rises sharply. (For the data used to create Figure 6, see Appendix A, Table 4).

Figure 6
Proportion of exits from foster care by age at entry in Virginia, 2010-2016



Author's calculations using 2016 AFCARS data

Regression Analysis

This analysis used three regression models to investigate other characteristics of foster youth that are associated with a high likelihood of emancipation: OLS multivariate regression, logistic regression, and survival analysis. For a detailed description of the methodology used, see Appendix B. This analysis restricted the sample to Virginia youth over age 12, and tested several combinations of covariates, with an indicator variable for youth emancipation as the outcome variable. The final regression model is displayed in Figure 7, and results are presented in Table 6.

Figure 7

$$Y = \alpha + \sum_{t=13}^{17} \beta(X_t) + \gamma(D) + \delta(R) + \eta(S) + \varepsilon$$

Where Y is the change in probability of emancipation;

 α is a constant representing a baseline reference (in this case, a 13-year-old white female who did not enter foster care due to parental drug abuse);

 β represents the effect of each additional year of age at entry (Where X = ages 13 to 17) on the probability of emancipation;

γ represents the effect of parental drug abuse (D) on the likelihood of emancipation;

 δ represents the effect of a child's race (R) on the likelihood of emancipation;

 η represents the effect of a child's gender (S) on the likelihood of emancipation; and ϵ represents an error term.

Note that (D) and (S) are indicator variables (which take a value of 1 for parental drug abuse/male respectively), while (R) is a categorical variable.

The multivariate regression results are presented in Table 6. Confirming the results discussed above, age at entry was one of the characteristics most-strongly related with an increase in the likelihood of emancipation. This likelihood rose particularly sharply if youth entered foster care at ages 15, 16, or 17. Being Black or Hispanic was also associated with a higher likelihood of emancipation. Notably, parental drug abuse was associated with a lower likelihood of emancipation – this is likely due to the fact that youth who enter foster care for this reason tend to do so at a younger age.

Results in the "Margins" column of Table 6 present the average values of the probability of emancipation if every child in the data were treated as if they had that characteristic (all else constant). For example, the average probability of emancipation would be about 20% if every child in the data were treated as though they entered the foster care system at age 15.

Note that results in the "OLS Results" column present the average marginal effect on the likelihood of emancipation (i.e. in addition to the constant, or baseline, probability), while the "Margins" column presents the average probability all else held constant. For example, for an entry age of 15, the value in the "Margins" column (0.194) is equal to the constant (0.194) plus the marginal effect (0.0571) in the "OLS Results" column (numbers are rounded slightly).

Table 6: OLS results of the effect on probability of emancipation in Virginia, 2010-2016

2010-2016				
Variable	OLS Results	Margins		
Age at entry				
13		0.137**		
		(0.005)		
14	0.0182**	0.156**		
	(0.00729)	(0.005)		
15	0.0571***	0.194**		
	(0.00742)	(0.005)		
16	0.171***	0.308**		
	(0.00804)	(0.006)		
17	0.392***	0.529**		
	(0.0116)	(0.010)		
Parental drug abuse				
Yes	-0.0319***	0.200**		
	(0.00908)	(0.009)		
No		0.232**		
		(0.003)		
Race/Ethnicity				
White		0.216**		
		(0.004)		
Black	0.0310***	0.247**		
	(0.00608)	(0.005)		
American Indian	0.0286	0.244**		
	(0.125)	(0.125)		
Asian	0.00895	0.225**		
	(0.0306)	(0.030)		
Hawaiian/Pac. Islander	-0.126**	0.090		
	(0.0578)	(0.058)		
Two or more races	0.00677	0.223**		
	(0.0119)	(0.011)		
Hispanic (any race)	0.0217**	0.238**		
	(0.00906)	(0.008)		
Male	-0.00441	0.227**		
	(0.00535)	(0.004)		
Female		0.231**		
		(0.004)		
Constant	0.129***			
	(0.00640)			
Observations	13,932	13,932		
NT A 1 1 1 1 1	10,734	13,734		

Notes: Author's calculations using 2016 AFCARS data. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

OLS coefficients represent the marginal effect on emancipation in Virginia above the constant probability (the last row in the "OLS Results" column). The numbers presented in the "Margins column" are average values of the probability of emancipation based on an OLS regression. For example, the average probability of emancipation if a youth enters foster care at age 13 is about 14%, while at age 17, it is about 53%.

The marginal results for the logistic regression were the same as the marginal results for the OLS multivariate regression. For further discussion of the logistic regression model and survival analysis, as well as full tables of results, see Appendix B.

Results from the logistic regression and survival analysis models were consistent with those of the OLS multivariate regression: older ages at entry, and being Black or Hispanic, were the characteristics associated with a higher probability of emancipation.

Trends in age at entry, foster care entry, and emancipation

The relationship between age at entry and foster care entry is uncertain. Of the ten states with the highest average ages at entry in 2015, six of them have entry rates at or below the national average (4 per 1,000 children). Similarly, of the ten states with the lowest average ages at entry, seven of them have entry rates at or above the national average. States with entry rates above the national average have average age of entries ranging from 4.5 years old to just over 7 years old, while states below the national average had average ages of entry ranging from just over 4.5 years old to over 8.5 years old. Annual comparisons from 2010 through 2014 yielded similar patterns (see Appendix A, Table 5).

These data suggest older age at entry into the foster care system is related to a high emancipation rate in Virginia. Virginia's average age at entry has fallen slightly over the past seven years, and the emancipation rate fell during the same period. However, the average age decreased by less than half a year from 2010 to 2016, while the emancipation rate fell from approximately 26% to 19% during the same period. This implies that an older age at entry may not be the strongest predictor of a high emancipation rate, even if it is associated with a high emancipation rate.

Comparisons to other states support this interpretation. Although the two states with the highest emancipation rates in 2016 (New Hampshire and Virginia) had relatively high average ages at entry, other states with high ages at entry (e.g. West Virginia, Colorado) had similar ages at entry but much lower emancipation rates. Although several states have both extremely high average ages at entry and emancipation rates, there is significant variance on a state-by-state basis. For a full comparison of average age at entry and state emancipation rates, see Appendix A, Table 6.

High rates of foster care entry do not appear to be systematically related to a higher emancipation rate. Of the ten states with the highest rates of entry into the foster care system in 2015 (6 or more per 1,000 children), only one had an emancipation rate above the national average of 9% (Kansas, with 10%). In contrast, several states with extremely high emancipation rates, including Virginia, Maryland, Delaware, and New Hampshire, all had rates of entry of 2 children per 1,000 (half the national rate of entry of 4 per 1,000). For a full comparison of state foster care entry rates, emancipation rates, and average ages at entry, see Appendix A, Table 7.

Virginia foster care and the opioid epidemic

Virginia's foster care system faces some unique challenges. The most significant is the opioid crisis, which has caused a sharp increase in the proportion of children entering foster care due to parental drug abuse (VDSS, 2017). DePaul Community Resources, a Charlottesville-based non-profit that assists communities with foster care services, reported that this rate may be as high as one in four children (Hausman, 2018). In fiscal year 2016, the number of children exposed to drugs in utero increased by 21 percent, to 1,334; 80 of these babies were placed in the foster care system during the first six months of the year (Kleiner and Demeria, 2017; see also GAO, 2017). The children of parents who abuse drugs and alcohol have an increased risk of physical abuse, early drug use, and the development of physical or psychological disorders (Smith et al., 2016). Mirick and Steenrod (2016, 547) found in a review of several studies that parents who abuse opioids are more likely to have their children placed in foster care, and are less likely to reunite with their children, than parents who abuse alcohol or other substances. The increasing availability of opioids may also impact youth already in foster care. Studies in Virginia's neighboring states suggest that children in foster care use drugs at a higher rate than the similar-aged youth not in the foster care system (e.g. Ahmadi-Montecalvo et al., 2016).

The opioid crisis will strain VDSS capacity both in the short and long term. Parental substance abuse was the top cause of child placements into the foster care system (Note: This does not include parental alcohol abuse. See Appendix A, Table 1). The proportion of children removed from their birth home due to parental drug abuse rose from 27% in 2011 to 37% in 2016, even though the number of cases declined slightly (see Table 6).

Table 6: Youth who were placed in Virginia's foster care system due to parental substance abuse, 2011-2016

	2011	2012	2013	2014	2015	2016
Number	431	533	598	664	667	838
Proportion	27.49%	32.96%	35.47%	35.62%	36.38%	40.56%

Source: Author's calculations using 2016 AFCARS data. Proportions were calculated by dividing the number of youth placed in the system due to parental drug abuse by the total number of youth in the system that year.

Although parental substance abuse causes the majority of foster care removals in Virginia, rates of removal for this reason are lower in Virginia than in many other states. From 2010 to 2016, the number of foster care removals due to parental drug abuse comprised over 60% of total cases in 11 states. A further 22 states attributed between 45% and 60% of their cases to parental substance abuse. Table 7 presents these states:

Table 7: Proportion of foster cases due to parental substance abuse, 2016

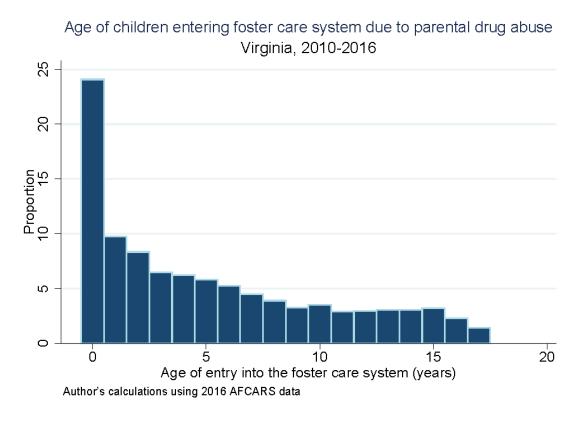
Table 7. I Toportion of Toster cases due to parental substance abuse, 2010			
Greater than 60%	45-60%		
Alaska (60%)	Alabama	Michigan	
Arizona (67%)	Colorado	Minnesota	
Indiana (72%)	Connecticut	Nebraska	
Maine (69%)	Delaware	New Jersey	
Mississippi (66%)	Florida	New Mexico	
Missouri (61%)	Georgia	North Carolina	
Montana (78%)	Hawaii	North Dakota	
Oklahoma (68%)	Idaho	Pennsylvania	
Oregon (75%)	Iowa	South Carolina	
Washington (63%)	Kansas	Utah	
	Kentucky	West Virginia	

Source: Author's calculations using 2016 AFCARS data. Some states had a notably-low rate of foster care cases attributed to parental substance abuse in 2016. In California these comprised only about one in five cases, with "caretaker inability to cope" comprising over 50% of cases. New Hampshire had an extremely low rate – 11 percent – but this is partially due to the small number of cases.

During the past 15 years, the mean and median age for children entering foster care has fallen, and foster care workers point to drug abuse as one major driver of this trend (Matthew and Rivlin, 2017). Before 2005, teens were more likely to be placed in foster care. However, tightening regulations have contributed to an uptick in the proportion of younger children placed in the foster care system. Federal laws requiring hospitals to notify child protective services of infants affected by prenatal substance exposure make it likelier that CPS will spot and remove children at an earlier age (Wiltz, 2016). As Figure 7 demonstrates, removals due to parental substance abuse were consistently associated with

removals at an earlier age (see also Appendix A, Table 2). If Virginia follows national trends, policymakers may expect to see a decrease in the age at entry of foster youth in coming years.

Figure 7



Despite the recent uptick in foster care removals resulting from parental substance abuse, the impact on emancipation rates is unclear. The ten states with the highest rate of children entering foster care due to parental drug abuse in 2016 all had emancipation rates at or below the national average of 9% (except Maine, which was one percentage point above). See Appendix A, Table 8.

In addition to raising health care costs for the state, parental substance abuse places strain on the foster care system through higher rates of neglect and incarceration. Children of incarcerated parents are much likelier to have poorer health outcomes and lower long-run educational attainment (see, e.g., Hopper, 2017). Some states, including Rhode Island, have used medication-assisted treatment (MAT) to help lower substance abuse rates among prison inmates (Joseph, 2017). In Virginia, Chesterfield County's Heroin Addiction Recovery Program (HARP) has also had success in reducing addiction (Adam, 2017). An assessment of family drug treatment courts (FDTCs) in North Carolina showed

that children of parents who completed an FDTC spent less time in the foster care system, and had higher reunification rates (Gifford, 2014).

Children removed from their homes due to parental substance abuse tend to be removed at younger ages, while emancipation is generally related to a higher age at entry into the system. Although it contributes to the majority of cases, parental substance abuse is not strongly related to the likelihood of emancipation (see Table 6). However, policies that reduce substance abuse will help reduce the total number of foster cases in Virginia, easing strain on the system.

Outlook

Outside of incarceration-specific measures, peer mentoring programs may be one effective way to lower the rate of children placed in foster care due to substance abuse (see Huebner et al., 2012, 2015, and 2018). Lloyd et al. (2017) outlines the links between parental drug use and difficulties with retaining permanency, while Hill (2017) discusses reasons why parents enter into voluntary placement agreements. Hansel et al. (2015) demonstrate how family-based, in-home treatment can effectively address the challenges facing parents who are both struggling with addiction and raising young children. Holistic interventions, which simultaneously address issues like parental drug abuse and incarceration, should also reduce the overall number of children entering Virginia's foster care system.

However, parental drug abuse was not strongly associated with a higher likelihood of emancipation (likely because youth who enter for this reason, tend to enter at younger ages). The question remains: what removal reasons correspond with high ages at entry in Virginia? The removal reasons with consistently high ages at entry included child alcohol and substance abuse; sexual abuse of a child; child behavior problems; death of a parent; and relinquishment of parental rights (see Appendix E, Panel A). Some of these – particularly death of a parent – are outside state policymakers' control. However, JLARC may wish to investigate policies that will help reduce the number of children who abuse alcohol or other substances, or ways to incentivize parents and other caretakers to not relinquish the rights of adolescent youth (early termination of parental rights contributes to the cases of emancipation that occur before age 18; see Appendix A, Table 3). These reasons for entry into foster care are some of the most difficult to address from a policymaking standpoint, but they contribute to youth entering Virginia's foster care system at a higher age.

Policy Analysis

Reducing emancipation rates in Virginia is a long-term goal. In the short term, state policymakers must investigate and implement policies that will improve life outcomes for the significant number of youth emancipating each year. Expanding the range of transitional housing options is one way in which Virginia's policymakers can help improve life outcomes for these youth. **Transitional housing** refers to housing for foster youth that bridges the gap between their foster home (or other foster care placement) and their independent living situation.

The two policy options analyzed below represent pilot programs focused on improving the ability of transition-age youth (19-21 years old) to maintain stable housing, while simultaneously increasing access to other necessary resources like therapy or workforce development. These programs could be scaled up if they meet with success, measured in terms of post-foster care housing access and employment. Each option builds on a wider body of research improving foster youth life outcomes through access to affordable housing (e.g. Cunningham et al., 2015; Dion et al., 2014; Dworsky et al., 2012), and is assessed on measures of cost, effectiveness, equity, and administrative feasibility. These efforts should take place within the broader context of programs that work to simultaneously address other challenges foster youth face, including barriers to education, health care, and employment.

Criteria

Cost

This criterion addresses the projected costs of each policy option based on interviews with experts, reviews of literature and state program budgets, and research on costs of living and housing prices in Virginia. General assumptions include the timeframe of the proposed policy options; the number of youth served; and the discount rate. Option-specific costs include administrative and operation costs. Note that all costs are given in present value after appropriate discounting.

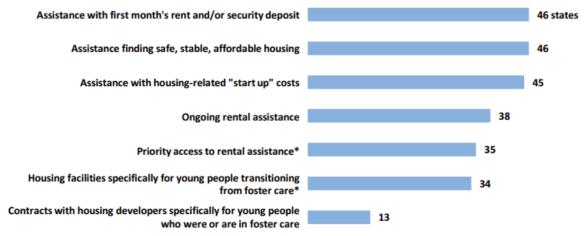
Effectiveness

This criterion outlines the number of transition-age foster youth served by each option. Option-specific estimates are provided below.

Equity

Jordan et al. found that Virginia was one of only two states to offer a full range of housing supports, but that it did not offer these services equally throughout the state (See Figure 8).

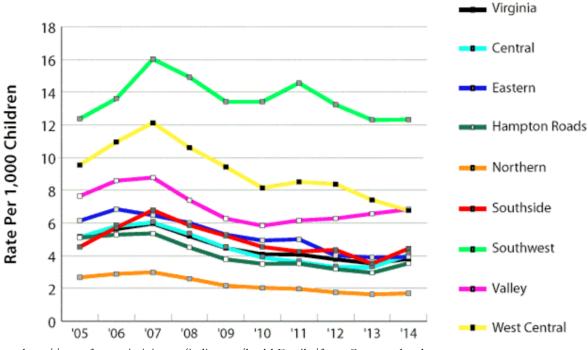
Figure 8: Affordable housing support access



Source: Jordan et al., 2017, 33.

Because Virginia's rural regions have higher rates of foster care, and are historically under-resourced, I assume that disparities in services occur primarily in poor, rural parts of the state (See Figure 9). Service disparities are also apparent in Virginia's smaller cities, including Charlottesville, Lynchburg, and Harrisonburg (Hausman, 2018). Each option's equity is rated "low," "medium," or "high" based on the extent to which it addresses geographic disparities in services.

Figure 9: Foster care rates by region



Source: http://vaperforms.virginia.gov/indicators/healthFamily/fosterCare-graphs.php

Administrative feasibility

Administrative feasibility refers to the ease with which state and local government officials can implement the proposed options. Each option's administrative feasibility is ranked as "low," "medium," or "high" based on assessments of political and institutional barriers to implementation.

Options

Housing assistance is not offered equally around the state. Although few policymakers dispute the issue's importance, foster care is typically underreported in the press and garners less public attention than other, more-controversial issues. However, the sustained nature of the problems with Virginia's system – including an uptick in cases caused by the opioid crisis, as well as sustained high emancipation rates – have galvanized members of the General Assembly who have experiences with foster care. Delegates David Reid (D-Loudon) and Emily Brewer (R-Suffolk) were both foster children, while Del. Brenda Pogge (R-Norge) has been a foster parent for over 20 children (Ress 2018; Lemieux, 2018). Together, these delegates rallied support to pass three foster care-related bills: HB-241, which lowers the time a foster child needs to reside with family members before being adopted (Brewer,

2018a); HB-1333, which streamlines the process to become a foster parent and bolsters financial supports (Brewer, 2018b); and HB-1219, which reforms the legal process of restoring parental rights to a foster youth's parents (Reid, 2018).

Despite recent legislative successes, letting present trends continue imposes immense social and financial costs on the state and is not recommended. For example, Voices for Virginia's Children estimated the "cost of doing nothing" for emancipated youth at about \$100,000 per youth, per year. This means that without the program, the 550 children who emancipated in 2016 would have cost Virginia approximately \$55 million per year in lost tax revenue, safety net subsidies, criminal justice costs, and health, homelessness and unemployment services (cost categories from Woolard, 2015, 2). Over the course of the five years of each pilot program's implementation, this totals \$275 million.

OPTION 1: EXPAND FINANCIAL ASSISTANCE THROUGH FOSTERING FUTURES JLARC may wish to investigate the implementation of a housing financial assistance and workforce development pilot program to 100 transition-age foster youth through Fostering Futures.

Under this program, the state would fund initial security deposits and monthly rent over a three-year period, plus enrollment in a workforce development program (this keeps it in line with Fostering Futures' qualification requirements).

Fostering Futures is a program that allows foster youth who were in the foster care system as a minor to continue to receive foster care services up to age 21. It is based on expanded benefits under the Fostering Connections Act (2008). The program is funded primarily by VDSS. The Virginia General Assembly appropriated \$1 million in FY2017 and \$2.9 million for FY2018 to implement Fostering Futures (Budget Bill Item 346: (DSS) Child Welfare Services, 2017). Other state and federal funding sources include the Chafee Foster Care Independence Program (CFCIP) and the CSA(VDSS, 2015). The program includes the following services:

- Maintenance payments (intended to cover costs of food, shelter, clothing, supplies, and "personal incidentals");
- Supervised independent living (SIL) that includes licensed apartments, agency-approved agency homes, or other independent living arrangements. SIL also includes minimum-monthly

visits by service workers (see Fostering Futures, 2017; and VDSS Child and Family Services Manual, accessed April 2018).

22 states and Washington, D.C. have implemented a version of the Fostering Futures program, based on expanded regulations under the Fostering Connections Act (Woolard, 2015). Others offer additional housing support programs. Jordan et al. (2017) highlight the Independent Living (IL) stipend in New Mexico. This program offers youth stipends of approximately \$620 per month, conditional on attending school, abstaining from illegal activities, and monthly check-ins with a Youth Transition Specialist (Zama et al., 2017). Jordan et al. also highlight the Family Unification Program (FUP), which is a program under which Housing Choice Vouchers (HCVs) are provided to either prevent families from placing their children in foster youth due to inadequate housing, or to foster youth older than 18 who are at risk of homelessness (HUD, 2017).

VDSS and LDSS officially began implementation of Fostering Futures on July 1, 2016. 328 youth were enrolled in the Fostering Futures program as of December 2017 (Evans, 2018). The program's resources are available to youth who are full-time students, employed at least part-time (80 hours per month), participating in workforce development, or unable to work or attend school due to a medical condition (Voices for Virginia's Children, 2015; VDSS, n.d., 14-15). Importantly, foster youth who served time in the juvenile correctional system and were released between ages 18 and 21 are eligible for Fostering Futures.

Costs

Through the Fostering Futures program, youth receive \$700 per month (\$8,400 per year) to use on housing and living expenses (Evans, 2018). Research suggests expanding voucher programs is a cost-effective way to provide low-income housing (Olsen, 2009). Participation in workforce development programs would cost approximately \$430 per youth enrolled per year (Dunnigan, 2017; Harper-Anderson, 2014; Harper-Anderson & Jin, 2014). This yields a total cost of about \$8,830 per youth, per year. Note that the state would not pay total constant costs per year. This is because new cohorts of youth age out of the system each year, but Fostering Futures is a three-year program. Total program costs would be just over \$3.5 million for the full five years, or about \$700,000 per year. See Appendix C for detailed cost calculations.

Effectiveness

This pilot program would serve 20 youth not currently enrolled in Fostering Futures per year and serve each cohort of transition-age youth for three years. (I.e. it would serve 20 youth who emancipate in 2019, 20 in 2020, and 20 in 2021). This brings the total number of youth served to 60.

Equity

Medium. Although this option expands equal access to the program, it does not necessarily ensure equity of opportunity. Foster youth may still face geographic constraints on the type of housing access or the quality of workforce development programs available to them.

Administrative feasibility

High. Fostering Futures is a program that legislators, NGOs, and other foster care professionals hope to expand. Therefore, the administrative feasibility of this option is high, as it aligns with the goals of both program implementers and the general public. However, it may be difficult to appropriate sufficient funding to expand the program, and difficult to measure its effectiveness (i.e. exclude endogenous factors in individual attainment of employment).

OPTION 2: USE PUBLIC-PRIVATE PARTNERSHIPS TO EXPAND ACCESS TO PHYSICAL HOUSING

JLARC may wish to investigate forming public-private partnerships to invest in the physical provision of housing for Virginia's transition-age foster youth, in areas of the state with high concentrations of foster youth.

Under this pilot program, a group of recently-emancipated foster youth would live in a home free of charge for up to three years. Specifically, the state would invest in a public-private partnership to implement this option. Key government stakeholders would include the VDSS and the Virginia Homeless Solutions Program (VHSP), which operates through Virginia's Department of Housing and Community Development ("Virginia Homeless Solutions Program (VHSP)," 2018). This partnership could also be tailored to assist NGO programs like the Possibilities Project or the services the Virginia

Housing Development Authority (VHDA), which are currently working to expand access to housing for foster youth ("The Possibilities Project," 2018; VHDA, 2018). Living in this setting would also include access to counseling and/or substance abuse therapy services through VDSS/LDSS, in addition to regular services provided by Virginia's foster care system. Like financial assistance programs, physical access to housing for foster youth is not available in all parts of the state.

This option is modeled transitional housing, which researchers have found to be associated with fewer incidences of housing instability, substance abuse, and contact with the criminal justice system (Jones, 2011). It is based on housing programs in other states that are deemed successful by anecdotal consensus or qualitative analysis (as mentioned earlier, little direct quantitative impact analysis of housing programs currently exists). Jordan et al. (2017) highlighted two housing programs in Kansas: Spero House provides services to foster youth up to age 22 who have recently left the system, while Hope House focuses on young women ages 18-27 who have aged out of foster care and facing homelessness ("Spero House," 2018; Hope House, 2013). These provide an example of a state partnership with an NGO – both were initially founded as ministries and have had success aiding foster youth transition to independent adulthood. California's CalWORKs Housing Support Program is an example of a large-scale state program that provides foster youth with housing support (CDSS, 2018).

Cost

Primary costs include the initial purchase of properties, plus annual maintenance and administrative costs. Administrative costs include the salary of a VDSS/LDSS official responsible for monthly checkins with house residents, plus the cost of supplemental services like substance abuse therapy or counseling. This option assumes that the state provides half of the property purchase and maintenance costs. The total cost to the state would be \$273,000, or around \$22,000 per year of the program's operation. See Appendix C for detailed cost calculations.

Effectiveness

This option would serve an estimated **20 youth** over a three-year period (not counting "year 0," representing the time between the home's purchase and the time youth are able to move in.

Equity

High. This partnership would work to identify regions of the state that have high foster care populations and are simultaneously underserved by state resources. It would then target these areas for implementation. Because most of these areas are rural, implementation costs would be lower than in urban areas. However, it would trade an element of equality of access to these services in that they are not offered equally throughout the state.

Administrative feasibility

Medium. Public-private partnerships are popular policy solutions, as they allow local flexibility while still giving the state government a hand in implementation. However, this program would require significant up-front administrative attention, as well as an expansion of administrative services to these homes on an annual basis. These estimates also assume that the state pays for half the costs of the program; if this is not an option, it maybe more difficult to appropriate funding.

OUTCOMES MATRIX

Table 8 contrasts the options above based on the evaluation of each criterion. The evaluation of letting present trends continue represents the Virginia foster care system's baseline as assessment above.

Table 8: Summary Matrix of Policy Options and Criteria

Policy Alternative	Cost	Effectiveness	Equity	Feasibility
Let present trends continue	\$275 million	0	Low	High
Expand housing financial assistance (Option 1)	\$3.6 million	60	Medium	High
Invest in physical housing options (Option 2)	\$273,000	20	High	Medium

Notes: Cost estimates are given in cost per youth, per year to the state. Costs are given as a total for a five-year period (after appropriate discounting). Effectiveness measures for each option are given as the number of children the program would serve per year. This table uses 2016 estimates for simplicity.

Recommendations

Policy recommendation

Based on this analysis, JLARC should consider investigating the feasibility of OPTION 2.

Option 2 requires a higher up-front cost and serves fewer youth than Option 1, but it provides the state with an opportunity to expand foster care capacity at the local level in the areas of the state that require the most intervention. It is also important to note that the long-term benefits of stable housing far outweigh the costs. For example, Amy Woolard of Voices for Virginia's Children drew upon research from the Jim Casey Foundation to estimate the financial benefits of the Fostering Futures program outweigh the costs by a factor of two to one (Woolard, 2015). See Appendix C for additional details on key assumptions.

While this option is expensive and requires significant buy-in from both state government and NGO actors, it has the potential to generate the greatest long-run social benefits. By offering a safe home environment free of charge, older youth will have greater flexibility to work, pursue educational opportunities, save money, and plan their futures. Access to therapy, counseling, or other psychological support services will also improve the likelihood that youth develop the skills to maintain a job once they have found employment, a major concern with individuals who have experienced homelessness.

This targeted approach includes is equitable in that it helps foster youth in areas with desperately-needed access. Expanding Fostering Futures would help youth across the state, but not necessarily work to reduce geographic disparities. This policy option presents a longer-term approach to solving foster care-related homelessness in transition age youth, in a part of the state that will likely continue to experience this phenomenon in years to come.

Option 2 will result in some significant administrative barriers. The largest is forming an effective partnership with NGO and other non-state institutions to offset some of the costs. However, the recent expansion of organizations working to address this issue (e.g. the Possibilities Project) suggests that this may be an optimal moment to pursue this option in Virginia.

Additional recommendations

In the long-term, expanding housing should be just one step of a multifaceted approach to reducing emancipation rates and improving the life outcomes of foster youth. One key step is future data collection, especially on long-term life outcomes of former foster youth. Because programs like Fostering Futures are relatively recent introductions in Virginia, there is little empirical assessment of their impacts. JLARC may wish to investigate implementing a system to track both short- and long-term life outcomes for participants in the program. This is based on consensus in academic and government literature that, as a whole, little data exists on which to base program or impact evaluations of programs like Fostering Futures (Dworsky & Dion, 2014; Josephson, 2013).

JLARC may also wish to investigate the possibility of an assessment of foster youth, particularly foster youth over age 14, as well as their caretakers. This survey would collect information on what foster youth and their caretakers feel are their most pressing needs. Although this should not be the sole basis for forming policy, these voices should not be lost as the commonwealth tackles this pressing challenge. Contacting some of the leading foster care NGOs in Virginia for input is a vital first step to incorporate the voices of foster youth, including the Possibilities Project; Project LIFE/Fostering Futures, Voices for Virginia's Children; Virginia Poverty Law Center, DePaul Community Resources; the Better Housing Coalition; Court Appointed Special Advocates (CASA); and People Places.

Appendices

Appendix A: Supplemental Tables

Table 1 presents the reasons for removal (i.e. the reason for placement into foster care) for Virginia from 2010 to 2016.

Table 1: Reasons for placements into Virginia's foster care system, 2010-2016

Reason	2010	2011	2012	2013	2014	2015	2016	All years
Parental drug abuse	1,550	431	533	598	664	668	838	5,282
_	26.75%	27.49%	32.96%	35.47%	35.62%	36.38%	40.56%	32.14%
Child behavior problems	1,803	456	474	479	498	504	530	4744
	31.11%	29.08%	29.31%	28.41%	26.72%	27.45%	25.65%	28.87%
Inadequate housing	1,330	321	352	402	381	42 0	484	3,690
	22.95%	20.47%	21.77%	23.84%	20.44%	22.88%	23.43%	22.46%
Caretaker inability to cope	1,088	255	244	255	264	254	245	2,605
	18.77%	16.26%	15.09%	15.12%	14.16%	13.83%	11.86%	15.85%
Parental incarceration	652	184	158	209	222	180	209	1,814
	11.25%	11.73%	9.77%	12.40%	11.91%	9.80%	10.12%	11.04%
Parental alcohol abuse	564	138	140	167	181	193	224	1,607
	9.73%	8.80%	8.66%	9.91%	9.71%	10.51%	10.84%	9.78%
Relinquishment	637	149	113	110	132	141	165	1,447
	10.99%	9.50%	6.99%	6.52%	7.08%	7.68%	7.99%	8.81%
Abandonment	444	134	108	133	148	142	162	1,271
	7.66%	8.55%	6.68%	7.89%	7.94%	7.73%	7.84%	7.73%
Child alcohol abuse	64	24	22	24	27	16	21	198
	1.10%	1.53%	1.36%	1.42%	1.45%	0.87%	1.02%	1.20%
Child drug abuse	161	60	47	68	76	60	91	563
	2.78%	3.83%	2.91%	4.03%	4.08%	3.27%	4.40%	3.43%
Child disability	193	32	31	35	44	26	36	397
	3.33%	2.04%	1.92%	2.08%	2.36%	1.42%	1.74%	2.42%
Parents' death	74	30	12	14	25	16	24	195
	1.28%	1.91%	0.74%	0.83%	1.34%	0.87%	1.16%	1.19%
Total	5,795	1,568	1,617	1,686	1,864	1,836	2,066	16,432

Source: Author's calculations using 2016 AFCARS data. These are total cases per year (rather than unique cases) and include children who were removed for more than one reason. This is why percentages add to more than 100.

Table 2 presents a breakdown of the age-at-entry into Virginia's foster care system due to drug abuse from 2010 to 2016.

Table 2: Children placed into Virginia's foster care system due to drug abuse, 2010-2016

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Age at entry into	2010	2011	2012	2013	2014	2015	2016	Total
foster care system 0	390	106	131	123	165	154	2016	1,272
U								
1	25.16% 155	24.59% 42	24.58% 50	20.57% 51	24.85% 80	23.05% 59	24.22% 77	24.08% 514
1	10.00%	9.74%	9.38%	8.53%	12.05%	8.83%	9.19%	9.73%
2	118	9.74% 47	9.3670 47	6.3370 46	49	6.63% 57	9.1976 77	
2	7.61%			7.69%			9.19%	441
2	100	10.90% 21	8.82% 45	7.0976	7.38% 46	8.53% 40	9.19 ₇₀ 56	8.35%
3	6.45%	4.87%		5.69%	6.93%	5.99%	6.68%	342 6.47%
4	0.45% 99	4.87%	8.44% 31	5.69%	6.93% 38			
4						35	43	328
г	6.39%	6.73%	5.82%	8.86%	5.72%	5.24%	5.13%	6.21%
5	75	34	37	39	44	42	36	307
	4.84%	7.89%	6.94%	6.52%	6.63%	6.29%	4.30%	5.81%
6	69	19	23	36	41	41	49	278
_	4.45%	4.41%	4.32%	6.02%	6.17%	6.14%	5.85%	5.26%
7	73	20	22	35	21	33	34	238
	4.71%	4.64%	4.13%	5.85%	3.16%	4.94%	4.06%	4.51%
8	59	16	17	25	29	26	34	206
	3.81%	3.71%	3.19%	4.18%	4.37%	3.89%	4.06%	3.90%
9	56	11	13	16	25	18	33	172
	3.61%	2.55%	2.44%	2.68%	3.77%	2.69%	3.94%	3.26%
10	61	14	22	22	15	25	26	185
	3.94%	3.25%	4.13%	3.68%	2.26%	3.74%	3.10%	3.50%
11	53	9	14	14	17	26	21	154
	3.42%	2.09%	2.63%	2.34%	2.56%	3.89%	2.51%	2.92%
12	44	12	11	17	18	23	32	157
	2.84%	2.78%	2.06%	2.84%	2.71%	3.44%	3.82%	2.97%
13	58	9	14	21	20	15	24	161
	3.74%	2.09%	2.63%	3.51%	3.01%	2.25%	2.86%	3.05%
14	52	10	14	18	17	22	28	161
	3.35%	2.32%	2.63%	3.01%	2.56%	3.29%	3.34%	3.05%
15	48	12	16	26	18	16	33	169
	3.10%	2.78%	3.00%	4.35%	2.71%	2.40%	3.94%	3.20%
16	27	13	15	13	9	24	19	120
	1.74%	3.02%	2.81%	2.17%	1.36%	3.59%	2.27%	2.27%
17	13	7	11	9	12	11	13	76
	0.84%	1.62%	2.06%	1.51%	1.81%	1.65%	1.55%	1.44%
Totals	1,550	431	533	598	664	667	838	5,281

Source: Author's calculations using 2016 AFCARS data. This table explores the links between age at entry into the foster care system and substance abuse.

Table 3 presents the proportion of exits to permanency and due to emancipation for each age at which youth exited the foster care system.

Table 3: Proportion exit reason per exit age in Virginia, 2010-2016

Age at exit	Reunification with family	Living with Relatives	Adoption	Emancipation
0	280	403	63	0
	37.53%	54.02%	8.45%	0.00%
1	314	391	454	0
	27.09%	33.74%	39.17%	0.00%
2	319	298	522	1
	27.98%	26.14%	45.79%	0.09%
3	316	269	474	1
	29.81%	25.38%	44.72%	0.09%
4	296	243	426	0
	30.67%	25.18%	44.15%	0.00%
5	290	212	352	1
	33.92%	24.80%	41.17%	0.12%
6	283	223	324	0
	34.10%	26.87%	39.04%	0.00%
7	255	180	330	0
	33.33%	23.53%	43.14%	0.00%
8	248	163	289	0
	35.43%	23.29%	41.29%	0.00%
9	226	150	267	1
	35.09%	23.29%	41.46%	0.16%
10	222	155	249	2
	35.35%	24.68%	39.65%	0.32%
11	262	130	248	0
	40.94%	20.31%	38.75%	0.00%
12	226	158	224	0
	37.17%	25.99%	36.84%	0.00%
13	283	118	205	0
	46.70%	19.47%	33.83%	0.00%
14	275	123	191	0
	46.69%	20.88%	32.43%	0.00%
15	364	174	143	0
	53.45%	25.55%	21.00%	0.00%
16	458	173	147	6
	58.42%	22.07%	18.75%	0.77%
17	476	169	124	329
	43.35%	15.39%	11.29%	29.96%
18	18	1	7	3728
	0.48%	0.03%	0.19%	99.31%
19	0	0	0	345
•	0.00%	0.00%	0.00%	100.00%
Total	5411	3733	5039	4414
_ 5 444	29.10%	20.07%	27.10%	23.74%

Source: Author's calculations using 2016 AFCARS data.

Table 4 presents the proportion of exits to permanency and emancipation for each age of entry into Virginia's foster care system.

Table 4: Proportion of age at entry by exit reason in Virginia, 2010-2016

Age at	Table 4. Froportion of age a		8,	
entry	Reunification with family	Living with relatives	Adoption	Emancipation
0	597	712	1411	26
	21.74%	25.93%	51.38%	0.95%
1	348	367	581	29
	26.26%	27.70%	43.85%	2.19%
2	359	276	434	20
	32.97%	25.34%	39.85%	1.84%
3	310	263	367	21
	32.26%	27.37%	38.19%	2.19%
4	287	217	348	45
	32.00%	24.19%	38.80%	5.02%
5	293	205	319	46
	33.95%	23.75%	36.96%	5.33%
6	280	201	310	67
	32.63%	23.43%	36.13%	7.81%
7	243	179	247	101
	31.56%	23.25%	32.08%	13.12%
8	234	158	219	106
	32.64%	22.04%	30.54%	14.78%
9	251	140	190	119
	35.86%	20.00%	27.14%	17.00%
10	238	159	179	159
	32.38%	21.63%	24.35%	21.63%
11	246	125	129	188
	35.76%	18.17%	18.75%	27.33%
12	271	126	112	287
	34.05%	15.83%	14.07%	36.06%
13	311	136	77	428
	32.67%	14.29%	8.09%	44.96%
14	353	158	63	513
	32.47%	14.54%	5.80%	47.19%
15	385	164	34	643
	31.40%	13.38%	2.77%	52.45%
16	285	102	18	866
-	22.42%	8.03%	1.42%	68.14%
17	119	44	1	750
•	13.02%	4.81%	0.11%	82.06%
Total	5,411	3,733	5,039	4,414
	29.10%	20.08%	27.10%	23.74%

Source: Author's calculations using 2016 AFCARS data.

Table 5 presents a comparison of average foster care age-at-entry with foster care entry rates for each state.

Table 5: Comparison of average age at entry into foster care system and foster care entry rates, 2010-2015

Table 5: Com		010)11		012		013		014		015
	Avg.	Entry										
State	age	rate										
Alabama	6.0	3	6.1	3	6.0	2	6.0	3	6.1	3	6.1	3
Alaska	5.2	5	5.2	5	5.2	5	5.1	5	5.2	6	5.0	8
Arizona	5.8	5	5.7	5	5.7	7	5.6	7	5.6	8	5.5	8
Arkansas	5.9	6	5.7	5	5.6	5	5.4	5	5.3	5	5.2	6
California	5.7	4	5.6	3	5.6	3	5.7	4	5.6	4	5.6	3
Colorado	7.7	5	7.6	4	7.6	4	7.5	4	7.2	4	7.0	4
Connecticut	5.9	3	5.7	3	5.8	2	5.9	2	6.1	2	5.9	2
Delaware	7.1	2	7.0	3	6.6	2	6.9	2	6.9	2	6.7	2
D.C.	6.2	7	6.2	5	6.0	4	5.8	4	6.0	3	6.1	4
Florida	4.9	4	4.9	4	4.8	4	4.7	4	4.7	4	4.7	4
Georgia	6.0	2	6.0	3	6.0	3	5.9	2	5.9	3	5.9	3
Hawaii	5.3	3	5.3	3	5.2	4	4.9	3	4.8	3	4.7	4
Idaho	6.1	3	6.1	3	5.8	3	5.6	3	5.6	3	5.6	3
Illinois	4.5	2	4.3	2	4.2	2	4.4	2	4.6	2	4.8	2
Indiana	5.6	6	5.4	5	5.6	5	5.3	5	5.2	6	5.1	7
Iowa	7.4	6	7.3	6	7.2	6	7.1	6	7.0	5	6.9	5
Kansas	6.8	5	6.6	5	6.4	5	6.2	5	5.9	5	5.9	6
Kentucky	7.1	5	6.9	5	6.7	6	6.5	5	6.4	6	6.3	5
Louisiana	5.6	3	5.6	3	5.6	3	5.5	3	5.4	4	5.4	4
Maine	5.1	3	5.0	2	4.6	3	4.5	4	4.3	4	4.3	4
Maryland	5.5	2	5.7	2	5.8	2	5.8	2	5.8	2	5.9	2
Massachusetts	7.0	4	6.9	4	6.8	4	6.7	4	6.4	5	6.1	5
Michigan	7.1	4	6.8	3	6.9	3	6.9	3	6.8	3	5.9	3
Minnesota	7.2	4	7.2	5	7.0	5	6.7	5	6.4	5	6.2	5
Mississippi	6.6	3	6.6	3	6.6	3	6.5	3	6.3	4	6.0	4
Missouri	5.8	4	5.8	4	5.7	4	5.7	5	5.8	5	5.7	5
Montana	4.6	4	4.5	5	4.4	6	4.4	6	4.4	6	4.4	9
Nebraska	7.8	7	7.6	7	7.4	6	7.1	6	6.4	5	5.6	5
Nevada	4.9	4	4.9	4	4.8	5	4.8	5	4.7	5	4.7	5
New Hampshire	6.5	2	6.3	2	6.4	2	6.5	2	8.5	2	8.6	2
New Jersey	5.2	2	5.1	2	4.9	3	4.9	3	4.8	3	4.7	2
New Mexico	5.3	3	5.2	3	5.0	3	5.1	4	5.1	4	5.0	4
New York	6.4	3	6.2	3	6.0	2	6.0	2	5.9	2	5.9	2
North Carolina	6.2	2	6.1	2	6.0	2	6.0	2	6.1	2	6.0	2
North Dakota	7.9	5	7.6	5	7.5	6	7.2	6	6.8	6	6.9	6
Ohio	5.8	3	5.8	4	5.9	4	5.9	4	5.9	4	5.9	4

Oklahoma	4.3	5	4.3	5	4.4	6	4.4	6	4.4	6	4.4	6
Oregon	5.0	6	4.9	5	4.8	5	4.7	4	4.5	4	4.6	4
Pennsylvania	7.6	4	7.5	4	7.4	4	7.3	4	7.3	4	7.1	4
Rhode Island	7.7	6	7.4	6	7.1	6	7.0	6	6.9	6	6.3	6
South Carolina	6.1	3	5.9	3	6.0	3	6.1	3	6.1	3	6.2	3
South Dakota	5.0	7	4.8	7	4.8	6	4.7	4	4.5	5	4.6	5
Tennessee	8.5	4	8.2	4	7.9	4	7.6	5	7.6	4	7.7	4
Texas	5.0	2	4.9	2	4.9	2	5.0	2	5.0	2	5.0	2
Utah	7.7	3	7.7	2	7.6	2	7.7	2	7.4	3	7.3	2
Vermont	8.0	4	7.9	5	7.7	5	7.5	5	7.0	6	6.6	8
Virginia	7.7	2	7.7	1	7.6	1	7.6	1	7.5	2	7.5	2
Washington	4.8	4	4.8	4	4.8	3	4.8	4	4.8	4	4.8	4
West Virginia	8.0	8	8.1	9	7.4	9	7.4	9	7.3	10	7.3	10
Wisconsin	6.5	3	6.4	3	6.2	3	6.1	4	6.0	4	5.9	4
Wyoming	7.8	7	7.6	7	7.5	7	7.5	7	7.2	7	6.9	8

Source: Author's calculations using 2016 AFCARS data. Avg. age = Average age at entry into foster care system; Entry rate = annual rate of entry into foster care system per 1,000 youth.

Table 6 presents each state's average foster care age-at-entry and the emancipation rate.

Table 6: Comparison of average age at entry into foster care system with state emancipation rates, 2010-2016

	20	010	20	11	20	12	20	13	20	14	20)15	20	016
	Avg.	Em.	Avg.	Em.	Avg.	Em.	Avg.	Em.	Avg.	Em.	Avg.	Em.	Avg.	Em.
State	age	rate	age	rate	age	rate	age	rate	age	rate	age	rate	age	rate
Alabama	6.0	10%	6.1	14%	6.0	11%	6.0	13%	6.1	10%	6.1	9%	6.1	10%
Alaska	5.2	9%	5.2	9%	5.2	8%	5.1	7%	5.2	7%	5.0	7%	5.1	7%
Arizona	5.8	9%	5.7	9%	5.7	10%	5.6	8%	5.6	9%	5.5	8%	5.5	8%
Arkansas	5.9	8%	5.7	6%	5.6	6%	5.4	6%	5.3	6%	5.2	6%	5.3	6%
California	5.7	13%	5.6	11%	5.6	11%	5.7	14%	5.6	14%	5.6	13%	5.5	13%
Colorado	7.7	9%	7.6	10%	7.6	10%	7.5	9%	7.2	7%	7.0	7%	6.9	5%
Connecticut	5.9	14%	5.7	8%	5.8	4%	5.9	6%	6.1	8%	5.9	8%	6.0	7%
Delaware	7.1	21%	7.0	23%	6.6	16%	6.9	21%	6.9	21%	6.7	27%	6.3	14%
D.C.	6.2	24%	6.2	18%	6.0	22%	5.8	23%	6.0	20%	6.1	23%	6.1	16%
Florida	4.9	9%	4.9	9%	4.8	8%	4.7	6%	4.7	7%	4.7	7%	4.7	6%
Georgia	6.0	9%	6.0	9%	6.0	8%	5.9	7%	5.9	7%	5.9	8%	5.7	7%
Hawaii	5.3	9%	5.3	8%	5.2	7%	4.9	5%	4.8	7%	4.7	4%	4.9	6%
Idaho	6.1	7%	6.1	7%	5.8	6%	5.6	6%	5.6	5%	5.6	7%	5.5	5%
Illinois	4.5	19%	4.3	7%	4.2	8%	4.4	8%	4.6	7%	4.8	7%	5.2	8%
Indiana	5.6	6%	5.4	7%	5.6	5%	5.3	4%	5.2	4%	5.1	3%	5.2	3%
Iowa	7.4	11%	7.3	10%	7.2	10%	7.1	10%	7.0	8%	6.9	9%	6.7	11%
Kansas	6.8	14%	6.6	13%	6.4	11%	6.2	12%	5.9	11%	5.9	10%	5.9	10%
Kentucky	7.1	15%	6.9	13%	6.7	11%	6.5	13%	6.4	12%	6.3	11%	6.2	12%
Louisiana	5.6	6%	5.6	6%	5.6	7%	5.5	5%	5.4	4%	5.4	4%	5.3	4%
Maine	5.1	15%	5.0	10%	4.6	11%	4.5	11%	4.3	8%	4.3	9%	4.3	8%
Maryland	5.5	21%	5.7	20%	5.8	18%	5.8	17%	5.8	17%	5.9	19%	5.8	17%
Massachusetts	7.0	16%	6.9	17%	6.8	16%	6.7	16%	6.4	17%	6.1	16%	5.9	15%
Michigan	7.1	9%	6.8	10%	6.9	10%	6.9	11%	6.8	8%	5.9	7%	5.4	10%
Minnesota	7.2	10%	7.2	10%	7.0	9%	6.7	7%	6.4	6%	6.2	7%	6.0	7%
Mississippi	6.6	4%	6.6	3%	6.6	4%	6.5	4%	6.3	4%	6.0	3%	5.8	3%
Missouri	5.8	11%	5.8	11%	5.7	10%	5.7	9%	5.8	10%	5.7	9%	5.6	8%
Montana	4.6	10%	4.5	8%	4.4	6%	4.4	4%	4.4	4%	4.4	4%	4.5	4%
Nebraska	7.8	9%	7.6	9%	7.4	9%	7.1	8%	6.4	7%	5.6	5%	5.6	6%
Nevada	4.9	9%	4.9	8%	4.8	7%	4.8	7%	4.7	6%	4.7	5%	4.3	6%
New Hampshire	6.5	9%	6.3	11%	6.4	7%	6.5	13%	8.5	12%	8.6	15%	8.1	20%
New Jersey	5.2	10%	5.1	10%	4.9	9%	4.9	8%	4.8	7%	4.7	7%	4.7	7%
New Mexico	5.3	5%	5.2	5%	5.0	5%	5.1	3%	5.1	4%	5.0	4%	5.0	4%
New York	6.4	11%	6.2	11%	6.0	12%	6.0	13%	5.9	13%	5.9	5%	6.1	5%
North Carolina	6.2	12%	6.1	11%	6.0	11%	6.0	10%	6.1	10%	6.0	10%	5.9	10%
North Dakota	7.9	6%	7.6	10%	7.5	8%	7.2	8%	6.8	9%	6.9	7%	6.6	6%
Ohio	5.8	14%	5.8	14%	5.9	15%	5.9	13%	5.9	11%	5.9	10%	5.9	10%
Oklahoma	4.3	8%	4.3	8%	4.4	7%	4.4	7%	4.4	6%	4.4	6%	4.3	5%
Oregon	5.0	6%	4.9	6%	4.8	8%	4.7	6%	4.5	8%	4.6	10%	4.6	10%
Pennsylvania	7.6	8%	7.5	8%	7.4	9%	7.3	9%	7.3	9%	7.1	8%	6.9	8%
Rhode Island	7.7	9%	7.4	10%	7.1	9%	7.0	8%	6.9	19%	6.3	13%	6.0	12%
South Carolina	6.1	10%	5.9	10%	6.0	7%	6.1	8%	6.1	7%	6.2	5%	6.1	7%
South Dakota	5.0	6%	4.8	5%	4.8	6%	4.7	5%	4.5	5%	4.6	5%	4.6	7%
Tennessee	8.5	9%	8.2	9%	7.9	8%	7.6	7%	7.6	9%	7.7	9%	7.8	10%
	5.5	2,0	J. <u></u>	2,0		5,0	,	. , 0	5.0	2,0	/	2,0	,	10/0

Utah	7.7	10%	7.7	10%	7.6	9%	7.7	9%	7.4	9%	7.3	8%	7.3	9%
Vermont	8.0	15%	7.9	13%	7.7	11%	7.5	10%	7.0	11%	6.6	9%	6.2	8%
Virginia	7.7	26%	7.7	24%	7.6	24%	7.6	20%	7.5	18%	7.5	18%	7.3	19%
Washington	4.8	8%	4.8	8%	4.8	7%	4.8	6%	4.8	6%	4.8	4%	4.8	3%
West Virginia	8.0	2%	8.1	2%	7.4	1%	7.4	1%	7.3	1%	7.3	2%	7.3	2%
Wisconsin	6.5	10%	6.4	10%	6.2	10%	6.1	8%	6.0	8%	5.9	7%	5.8	9%
Wyoming	7.8	2%	7.6	1%	7.5	1%	7.5	1%	7.2	2%	6.9	1%	6.7	1%
Puerto Rico	7.4	14%	5.9	0%	5.8	1%	5.7	1%	5.8	1%	7.0	1%	7.5	13%

Source: Author's calculations using 2016 AFCARS data. Avg. age = Average age at entry into foster care system; Em. rate = state's emancipation rate.

Table 7 presents a comparison of states' foster care entry rates, emancipation rates, and entry rates.

Table 7: Comparison of average age at entry into foster care system, state emancipation rates, and foster care entry rates, 2010-2015

		2010			2011			2012			2013			201	4		2015	
	Avg.	Em.	Entry	Avg.	Em.	Entry	Avg.	Em.	Entry	Avg.	Em.	Entry	Avg.	Em.				
State	age	rate	rate	age	rate	rate	age	rate	rate	age	rate	rate	age	rate	Entry rate	Avg. age	Em. rate	Entry rate
Alabama	6.0	10%	3	6.1	14%	3	6.0	11%	2	6.0	13%	3	6.1	10%	3	6.1	9%	3
Alaska	5.2	9%	5	5.2	9%	5	5.2	8%	5	5.1	7%	5	5.2	7%	6	5.0	7%	8
Arizona	5.8	9%	5	5.7	9%	5	5.7	10%	7	5.6	8%	7	5.6	9%	8	5.5	8%	8
Arkansas	5.9	8%	6	5.7	6%	5	5.6	6%	5	5.4	6%	5	5.3	6%	5	5.2	6%	6
California	5.7	13%	4	5.6	11%	3	5.6	11%	3	5.7	14%	4	5.6	14%	4	5.6	13%	3
Colorado	7.7	9%	5	7.6	10%	4	7.6	10%	4	7.5	9%	4	7.2	7%	4	7.0	7%	4
Connecticut	5.9	14%	3	5.7	8%	3	5.8	4%	2	5.9	6%	2	6.1	8%	2	5.9	8%	2
Delaware	7.1	21%	2	7.0	23%	3	6.6	16%	2	6.9	21%	2	6.9	21%	2	6.7	27%	2
D.C.	6.2	24%	7	6.2	18%	5	6.0	22%	4	5.8	23%	4	6.0	20%	3	6.1	23%	4
Florida	4.9	9%	4	4.9	9%	4	4.8	8%	4	4.7	6%	4	4.7	7%	4	4.7	7%	4
Georgia	6.0	9%	2	6.0	9%	3	6.0	8%	3	5.9	7%	2	5.9	7%	3	5.9	8%	3
Hawaii	5.3	9%	3	5.3	8%	3	5.2	7%	4	4.9	5%	3	4.8	7%	3	4.7	4%	4
Idaho	6.1	7%	3	6.1	7%	3	5.8	6%	3	5.6	6%	3	5.6	5%	3	5.6	7%	3
Illinois	4.5	19%	2	4.3	7%	2	4.2	8%	2	4.4	8%	2	4.6	7%	2	4.8	7%	2
Indiana	5.6	6%	6	5.4	7%	5	5.6	5%	5	5.3	4%	5	5.2	4%	6	5.1	3%	7
Iowa	7.4	11%	6	7.3	10%	6	7.2	10%	6	7.1	10%	6	7.0	8%	5	6.9	9%	5
Kansas	6.8	14%	5	6.6	13%	5	6.4	11%	5	6.2	12%	5	5.9	11%	5	5.9	10%	6
Kentucky	7.1	15%	5	6.9	13%	5	6.7	11%	6	6.5	13%	5	6.4	12%	6	6.3	11%	5
Louisiana	5.6	6%	3	5.6	6%	3	5.6	7%	3	5.5	5%	3	5.4	4%	4	5.4	4%	4
Maine	5.1	15%	3	5.0	10%	2	4.6	11%	3	4.5	11%	4	4.3	8%	4	4.3	9%	4
Maryland	5.5	21%	2	5.7	20%	2	5.8	18%	2	5.8	17%	2	5.8	17%	2	5.9	19%	2
Massachusetts	7.0	16%	4	6.9	17%	4	6.8	16%	4	6.7	16%	4	6.4	17%	5	6.1	16%	5
Michigan	7.1	9%	4	6.8	10%	3	6.9	10%	3	6.9	11%	3	6.8	8%	3	5.9	7%	3
Minnesota	7.2	10%	4	7.2	10%	5	7.0	9%	5	6.7	7%	5	6.4	6%	5	6.2	7%	5
Mississippi	6.6	4%	3	6.6	3%	3	6.6	$4^{0}/_{0}$	3	6.5	4%	3	6.3	4%	4	6.0	3%	4
Missouri	5.8	11%	4	5.8	11%	4	5.7	10%	4	5.7	9%	5	5.8	10%	5	5.7	9%	5
Montana	4.6	10%	4	4.5	8%	5	4.4	6%	6	4.4	4%	6	4.4	4%	6	4.4	4%	9
Nebraska	7.8	9%	7	7.6	9%	7	7.4	9%	6	7.1	8%	6	6.4	7%	5	5.6	5%	5
Nevada	4.9	9%	4	4.9	8%	4	4.8	7%	5	4.8	7%	5	4.7	6%	5	4.7	5%	5

New																		
Hampshire	6.5	9%	2	6.3	11%	2	6.4	7%	2	6.5	13%	2	8.5	12%	2	8.6	15%	2
New Jersey	5.2	10%	2	5.1	10%	2	4.9	9%	3	4.9	8%	3	4.8	7%	3	4.7	7%	2
New Mexico	5.3	5%	3	5.2	5%	3	5.0	5%	3	5.1	3%	4	5.1	4%	4	5.0	4%	4
New York	6.4	11%	3	6.2	11%	3	6.0	12%	2	6.0	13%	2	5.9	13%	2	5.9	5%	2
North Carolina	6.2	120/	2	<i>(</i> 1	110/	2	(0	110/	2	6.0	100/	2	<i>(</i> 1	10%	2	()	10%	2
		12%	2	6.1	11%	2	6.0	11%	2		10%	2	6.1			6.0		2
North Dakota	7.9	6%	5	7.6	10%	5	7.5	8%	6	7.2	8%	6	6.8	9%	6	6.9	7%	6
Ohio	5.8	14%	3	5.8	14%	4	5.9	15%	4	5.9	13%	4	5.9	11%	4	5.9	10%	4
Oklahoma	4.3	8%	5	4.3	8%	5	4.4	7%	6	4.4	7%	6	4.4	6%	6	4.4	6%	6
Oregon	5.0	6%	6	4.9	6%	5	4.8	8%	5	4.7	6%	4	4.5	8%	4	4.6	10%	4
Pennsylvania	7.6	8%	4	7.5	8%	4	7.4	9%	4	7.3	9%	4	7.3	9%	4	7.1	8%	4
Rhode Island	7.7	9%	6	7.4	10%	6	7.1	9%	6	7.0	8%	6	6.9	19%	6	6.3	13%	6
South																		
Carolina	6.1	10%	3	5.9	10%	3	6.0	7%	3	6.1	8%	3	6.1	7%	3	6.2	5%	3
South Dakota	5.0	6%	7	4.8	5%	7	4.8	6%	6	4.7	5%	4	4.5	5%	5	4.6	5%	5
Tennessee	8.5	9%	4	8.2	9%	4	7.9	8%	4	7.6	7%	5	7.6	9%	4	7.7	9%	4
Texas	5.0	11%	2	4.9	9%	2	4.9	8%	2	5.0	8%	2	5.0	8%	2	5.0	7%	2
Utah	7.7	10%	3	7.7	10%	2	7.6	9%	2	7.7	9%	2	7.4	9%	3	7.3	8%	2
Vermont	8.0	15%	4	7.9	13%	5	7.7	11%	5	7.5	10%	5	7.0	11%	6	6.6	9%	8
Virginia	7.7	26%	2	7.7	24%	1	7.6	24%	1	7.6	20%	1	7.5	18%	2	7.5	18%	2
Washington	4.8	8%	4	4.8	8%	4	4.8	7%	3	4.8	6%	4	4.8	6%	4	4.8	4%	4
West Virginia	8.0	2%	8	8.1	2%	9	7.4	1%	9	7.4	1%	9	7.3	1%	10	7.3	2%	10
Wisconsin	6.5	10%	3	6.4	10%	3	6.2	10%	3	6.1	8%	4	6.0	8%	4	5.9	7%	4
Wyoming	7.8	2%	7	7.6	1%	7	7.5	1%	7	7.5	1%	7	7.2	2%	7	6.9	1%	8

Source: Author's calculations using 2016 AFCARS data. Avg. age = Average age at entry into foster care system; Em. rate = state's emancipation rate.

Table 8 presents state emancipation rates and rates of entry into the system due to parental drug abuse.

	Table 8: Emancipation rates and parental drug abuse by state, 2010-2016													
	2	2010	2	2011	2	2012	2	2013	2	2014	2	2015	2	016
														Parental
	Em.	Parental	Em.	Parental	Em.	Parental	Em.	Parental	Em.	Parental	Em.	Parental	Em.	DA
	Rate	DA rate	Rate	DA rate	Rate	DA rate	Rate	DA rate	Rate	DA rate	Rate	DA rate	Rate	rate
Alabama	10%	32%	14%	31%	11%	32%	13%	33%	10%	35%	9%	40%	10%	42%
Alaska	9%	32%	9%	27%	8%	34%	7%	36%	7%	37%	7%	42%	7%	48%
Arizona	9%	46%	9%	42%	10%	33%	8%	6%	9%	7%	8%	18%	8%	29%
Arkansas	8%	37%	6%	38%	6%	36%	6%	44%	6%	46%	6%	46%	6%	48%
California	13%	7%	11%	8%	11%	9%	14%	9%	14%	9%	13%	9%	13%	9%
Colorado	9%	25%	10%	25%	10%	27%	9%	32%	7%	33%	7%	36%	5%	38%
Connecticut	14%	29%	8%	31%	4%	35%	6%	31%	8%	31%	8%	38%	7%	37%
D.C.	24%	13%	18%	15%	22%	14%	23%	11%	20%	14%	23%	12%	16%	10%
Delaware	21%	6%	23%	9%	16%	9%	21%	6%	21%	4%	27%	8%	14%	13%
Florida	9%	41%	9%	41%	8%	42%	6%	41%	7%	39%	7%	41%	6%	44%
Georgia	9%	27%	9%	26%	8%	25%	7%	26%	7%	26%	8%	31%	7%	37%
Hawaii	9%	16%	8%	22%	7%	25%	5%	23%	7%	19%	4%	26%	6%	23%
Idaho	7%	28%	7%	32%	6%	35%	6%	34%	5%	29%	7%	37%	5%	42%
Illinois	19%	0%	7%	4%	8%	5%	8%	8%	7%	10%	7%	7%	8%	9%
Indiana	6%	27%	7%	27%	5%	30%	4%	45%	4%	48%	3%	54%	3%	58%
Iowa	11%	27%	10%	30%	10%	33%	10%	38%	8%	36%	9%	42%	11%	43%
Kansas	14%	30%	13%	28%	11%	34%	12%	33%	11%	37%	10%	39%	10%	40%
Kentucky	15%	25%	13%	26%	11%	25%	13%	26%	12%	28%	11%	25%	12%	32%
Louisiana	6%	4%	6%	5%	7%	2%	5%	5%	4%	4%	4%	4%	4%	3%
Maine	15%	37%	10%	38%	11%	46%	11%	43%	8%	49%	9%	49%	8%	49%
Maryland	21%	24%	20%	24%	18%	25%	17%	23%	17%	23%	19%	24%	17%	24%
Massachusetts	16%	16%	17%	16%	16%	18%	16%	18%	17%	22%	16%	23%	15%	22%
Michigan	9%	30%	10%	30%	10%	32%	11%	32%	8%	32%	7%	34%	10%	33%
Minnesota	10%	15%	10%	18%	9%	19%	7%	24%	6%	28%	7%	31%	7%	38%
Mississippi	4%	33%	3%	27%	4%	29%	4%	27%	4%	32%	3%	39%	3%	45%
Missouri	11%	34%	11%	35%	10%	40%	9%	41%	10%	43%	9%	45%	8%	48%
Montana	10%	16%	8%	18%	6%	21%	4%	30%	4%	31%	4%	33%	4%	39%
Nebraska	9%	14%	9%	14%	9%	12%	8%	16%	7%	29%	5%	33%	6%	35%
Nevada	9%	18%	8%	18%	7%	17%	7%	14%	6%	16%	5%	14%	6%	12%

New Hampshire	9%	3%	11%	4%	7%	5%	13%	6%	12%	3%	15%	4%	20%	4%
New Jersey	10%	27%	10%	31%	9%	32%	8%	31%	7%	34%	7%	35%	7%	36%
New Mexico	5%	28%	5%	27%	5%	30%	3%	33%	4%	34%	4%	35%	4%	36%
New York	11%	3%	11%	4%	12%	6%	13%	13%	13%	14%	5%	15%	5%	14%
North Carolina	12%	28%	11%	30%	11%	30%	10%	30%	10%	33%	10%	36%	10%	37%
North Dakota	6%	9%	10%	8%	8%	16%	8%	18%	9%	28%	7%	31%	6%	34%
Ohio	14%	18%	14%	21%	15%	23%	13%	24%	11%	26%	10%	25%	10%	26%
Oklahoma	8%	28%	8%	30%	7%	31%	7%	38%	6%	43%	6%	42%	5%	46%
Oregon	6%	62%	6%	33%	8%	44%	6%	50%	8%	50%	10%	56%	10%	54%
Pennsylvania	8%	25%	8%	42%	9%	40%	9%	44%	9%	45%	8%	48%	8%	38%
Puerto Rico	14%	13%	0%	22%	1%	32%	1%	27%	1%	18%	1%	12%	13%	13%
Rhode Island	9%	18%	10%	19%	9%	20%	8%	20%	19%	20%	13%	21%	12%	25%
South Carolina	10%	12%	10%	12%	7%	20%	8%	17%	7%	17%	5%	16%	7%	17%
South Dakota	6%	14%	5%	11%	6%	16%	5%	20%	5%	22%	5%	30%	7%	28%
Tennessee	9%	19%	9%	20%	8%	26%	7%	32%	9%	32%	9%	29%	10%	30%
Texas	11%	56%	9%	57%	8%	60%	8%	61%	8%	63%	7%	61%	8%	63%
Utah	10%	47%	10%	46%	9%	44%	9%	49%	9%	50%	8%	53%	9%	56%
Vermont	15%	8%	13%	10%	11%	14%	10%	17%	11%	22%	9%	27%	8%	25%
Virginia	26%	19%	24%	17%	24%	20%	20%	22%	18%	21%	18%	24%	19%	28%
Washington	8%	30%	8%	30%	7%	34%	6%	35%	6%	35%	4%	35%	3%	34%
West Virginia	2%	20%	2%	26%	1%	26%	1%	27%	1%	33%	2%	34%	2%	41%
Wisconsin	10%	11%	10%	11%	10%	15%	8%	15%	8%	18%	7%	20%	9%	23%
Wyoming	2%	3%	1%	16%	1%	19%	1%	22%	2%	26%	1%	31%	1%	32%

Source: Author's calculations using 2016 AFCARS data. This table presents the rate of entry due to drug abuse for each year compared to the emancipation rate for each year. Em. Rate = Emancipation Rate; Parental DA Rate = Proportion of removals due to parental drug abuse.

Appendix B: Methodology, Regression Results, and Survival Analysis

Methodology

The OLS multivariate regression and logistic regression models used the following equation (reproduced from Figure 7):

$$Y = \alpha + \sum_{t=13}^{17} \beta(X_t) + \gamma(D) + \delta(R) + \eta(S) + \varepsilon$$

Where Y is the change in probability of emancipation;

 α is a constant representing a baseline reference (in this case, a 13-year-old white female who did not enter foster care due to parental drug abuse);

 β represents the effect of each additional year of age at entry (Where X = ages 13 to 17) on the probability of emancipation;

y represents the effect of parental drug abuse (D) on the likelihood of emancipation;

δ represents the effect of a child's race (R) on the likelihood of emancipation;

 η represents the effect of a child's gender (S) on the likelihood of emancipation; and ϵ represents an error term.

Note that (D) and (S) are indicator variables (which take a value of 1 for parental drug abuse/male respectively), while (R) is a categorical variable. This model was produced with advice from JLARC's Chief Methodologist, Dr. Erik Beecroft.

Important variables excluded from this analysis include total time spent in foster care, as well as total number of removals. These variables are endogenous, and total time spent in foster care could not be accurately calculated for children with over two removals based on available data (although these are a relatively-small proportion of Virginia's system.

The logistic regression marginal results matched the marginal results of the OLS regression (see Table 1 of this appendix). A logistic regression was chosen due to the dichotomous outcome variable (i.e. whether a child emancipated). The "Margins" column thus reports average predicted probabilities of emancipation if everyone in the data were treated as a specific category of independent variable (all others held constant). For example, 13.7% would be the average probability of emancipation if everyone in the data were treated as if they entered Virginia's foster care system at age 13, all other covariates held constant.

Table 1: OLS and Logistic regression results of the effect on probability of emancipation in Virginia, 2010-2016

Variable	OLS Results	Margins	Logistic results	Margins
Age at entry				
13		0.137**		0.137**
		(0.005)		(0.005)
14	0.0182**	0.156**	0.148**	0.156**
	(0.00729)	(0.005)	(0.0588)	(0.005)
15	0.0571***	0.194**	0.419***	0.194**
	(0.00742)	(0.005)	(0.0554)	(0.005)
16	0.171***	0.308**	1.030***	0.307**
	(0.00804)	(0.006)	(0.0523)	(0.006)
17	0.392***	0.529**	1.960***	0.529**
	(0.0116)	(0.010)	(0.0605)	(0.010)
Parental drug abuse				
Yes	-0.0319***	0.200**	-0.217***	0.198**
	(0.00908)	(0.009)	(0.0649)	(0.009)
No		0.232**		0.232**
		(0.003)		(0.003)
Race/Ethnicity				
White		0.216**		0.216**
		(0.004)		(0.004)
Black	0.0310***	0.247**	0.189***	0.247**
	(0.00608)	(0.005)	(0.0368)	(0.005)
American Indian	0.0286	0.244**	0.173	0.244**
	(0.125)	(0.125)	(0.672)	(0.114)
Asian	0.00895	0.225**	0.0576	0.225**
	(0.0306)	(0.030)	(0.186)	(0.030)
Hawaiian/Pac. Islander	-0.126**	0.090	-1.111	0.089**
	(0.0578)	(0.058)	(0.912)	(0.070)
Two or more races	0.00677	0.223**	0.0420	0.222**
	(0.0119)	(0.011)	(0.0768)	(0.012)
Hispanic (any race)	0.0217**	0.238**	0.135**	0.237**
, ,	(0.00906)	(0.008)	(0.0550)	(0.008)
Male	-0.00441	0.227**	-0.0290	0.226**
	(0.00535)	(0.004)	(0.0330)	(0.004)
Female	,	0.231**	. ,	0.231**
		(0.004)		(0.004)
Constant	0.129***		-1.892***	
	(0.00640)		(0.0498)	
Observations	13,932	13,932	13,932	13,932

Notes: Author's calculations using 2016 AFCARS data. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

The numbers presented in the "Margins column" are average values of the probability of emancipation based on an OLS regression. For example, the average probability of emancipation if a youth enters foster care at age 13 is about 14%, while at age 17, it is about 53%.

OLS coefficients represent the marginal effect on emancipation in Virginia above the constant probability (the last row in the "OLS results" column).

Survival analysis is used to calculate the time to an event for observations. Its main point is to follow subjects over a period of time and observe at which point they experience a certain event of interest (in this case, emancipation). Hazard rates, or hazard ratios, are the probability that an individual will experience an event at the time t when that individual is at risk for having an event (in this case, at age 18). It is most useful for measuring individuals who entered before a study begins (in this case before 2010) or exit after the study ends (in this case, were still in foster care in 2016).

Table 2: Survival analysis coefficients for age at entry into Virginia's foster care system, 2010-2016

Age at entry	Hazard Ratio	Standard Errors
14	1.08	0.07
15	1.23	0.08
16	1.81	0.11
17	2.39	0.15

Notes: Author's calculations using 2016 AFCARS data. Hazard ratios (also called relative risks) indicate the changes in the probability of emancipation, where the probability is (hr-1), and hr = hazard ratio.

Table 2 illustrates the relative risk ("hazard ratio") of emancipation for each age at entry (using age 13 as a reference point). These risks are measured as (p-1), where p = the hazard ratio. For example, the relative risk of emancipating after entering the system at age 15 is (1.23-1)*100 = 23%. The discrepancy between these relative risks and the OLS/logistic regression results are likely due to difficulties satisfying the goodness of fit and proportionality assumptions of survival analysis (for more on survival analysis, see IDRE Stats, 2018).

Appendix C: Cost Calculations

The "Assumptions" table below details the major cost assumptions used in this analysis. For complete calculations, including automatic time discounts, the attached workbook "Teeling_Costs_APP" has full cost calculations for each option. Costs presented in this analysis are given over a five-year period. The attached excel workbook also outlines projected costs over a 12-year period, based on these estimates. Cost categories for each option are given below:

Option 1

Cost Categories	Value
Timeframe (years)	5
Discount Rate (percent)	7.00%
Total youth served	60
Total yearly cost of first year's rental assistance	\$9,100
Cost of rent assistance/year	\$8,400
Avg. yearly per-youth cost of enrollment in workforce development	\$430

Option 2*

Cost Categories	Value
Timeframe (years)	5
Discount Rate (percent)	7.00%
Number of children served per house	20
Annual salary of house advisor	\$40,000
Annual cost of additional therapy/counseling services per youth	\$240
Up-front cost of building	\$150,000
Avg. yearly cost of building maintenance	\$2,000

^{*}Note that the housing and yearly building maintenance costs are half of total estimates (See "Assumptions" table).

		ASSUMPTIONS
General	Value	Justification/Source
Timeframe (years)	5	Length of Pilot Program
Discount Rate (percent)	7.00%	OMB A-4 federal standard discount rate (https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/circulars/A4/a-4.pdf)
No. of emancipated foster youth	547	Number of emancipated youth in VA in 2016 (AFCARS, 2016)
Effectiveness of policy option (youth served)	varies	
Administrative		
Annual salary of house advisor	\$40,000	Median of multiple job listing sites (e.g. Indeed, Payscale) - range from \$20,000 to \$60,000
Annual cost of additional therapy/counseling services per youth	\$240	VDSS Finance Guidelines Manual (http://townhall.virginia.gov/L/GetFile.cfm?File=C:%5CTownHall%5Cdocroot%5CGuidanceDocs%5C765%5CGDoc_DSS_1024_v30.pdf); JLARC (http://jlarc.virginia.gov/pdfs/reports/Rpt372.pdf); National Institute on Drug Abuse (https://www.drugabuse.gov/publications/principles-drug-addiction-treatment-research-based-guide-third-edition/frequently-asked-questions/drug-addiction-treatment-worth-its-cost)
Operational		
Up-front cost of building	\$300,000	Real estate website estimates (e.g. Zillow) for Charlottesville. This represents a high estimate. (Also depends on real estate values in specific locales.)
Avg. yearly cost of building maintenance	\$4,000	\$1 per est. square foot, per year. (https://www.thebalance.com/home-maintenance-budget-453820)
Total yearly cost of first year's rental assistance	\$9,100	Yearly estimate for housing assistance per youth (Evans, 2018) plus security deposit
Cost of rent assistance/year	\$8,400	Current housing assistance from Fostering Futures (Evans, 2018)
Avg. yearly per-youth cost of enrollment in workforce development	\$430	Low estimates (http://www.elevatevirginia.org/wp-content/uploads/2014/04/2016-Workforce-System-Budget-Review.pdf) and high estimates (http://www.cit.org/assets/1/7/E_1ROI-Harper-Anderson.pdf)

Appendix D: JLARC Mandate and Prior Reports

JLARC foster care project mandate

This project complements a General Assembly mandate that directs JLARC to "review the administration of the state's adoption and foster care programs and the provision of those programs' services to youth and their families. In conducting its study, staff shall (i) summarize changes and trends in foster care caseloads over time and identify the reasons for any recent increases, either statewide or regionally; (ii) examine the current and future capacity of local departments of social services and other government agencies to provide foster care, foster care prevention, and adoption services, including effective case management services for children and families with the most complex needs, such as those served through the Children's Services Act; (iii) evaluate the effectiveness of state and local efforts to recruit and retain foster care and adoptive families and place foster youth in permanent homes through successful adoptions; (iv) evaluate how well government agencies are measuring the effectiveness of services provided to foster care youth; (v) determine whether agencies currently maximize the availability of federal funds and coordinate the various funding streams involved in foster care and adoption service delivery; (vi) propose options or make recommendations to improve the administration and delivery of foster care and adoption services to the state's youth and increase the rate of successful adoptions; and (vii) review other issues as appropriate."

Prior JLARC reports on foster care

JLARC has not produced a holistic evaluation of Virginia's foster care system. In 1998 and 2007, the Commission evaluated services provided under the CSA. VDSS contributes Title IV-E funds to supplement CSA programs. According to JLARC, "Local CSA programs can also use Title IV-E funding for foster care services as another federal resource for CSA children. Title IV-E is a federal entitlement program for children placed in State custody and is used to assist with the costs of maintaining children in foster care" (JLARC 2007, 8). CSA funds are primarily used when a foster child is ineligible for state funding (CSA, n.d.).

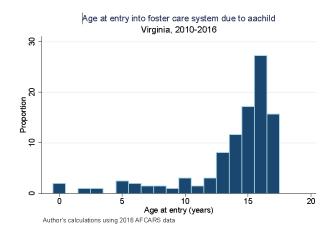
JLARC also referenced foster care in its report on Virginia's Child Protective Services (CPS), noting that only three percent of CPS cases resulted in a child being placed in foster care (Greer et al., 2003, 46). However, it explicitly excluded foster care from the scope of its study, focusing exclusively on CPS. It also mentioned foster care once in its 2000 report on Child Support Enforcement (Rotz et al., 2000). In their first evaluation of the services provided by the CSA, JLARC found that the CSA allowed local-level agencies to successfully serve more children but noted failures to use take advantage of collaborative planning (i.e. to fully integrate separate services in localities, as was intended), and inadequate program assessments (Turnage et al., 1998, ii). Although some programs let to positive behavioral outcomes, the expanding size of Virginia's "at-risk" youth population and limited program oversight led JLARC to recommend several changes to the Office of Comprehensive Services that could improve efficiency. JLARC's follow-up CSA study in 2007 reported similar mixed results (Molliet-Ribet et al., 2007). In particular, they identified regional disparities in the quality of services provided. These resulted from failures in licensing and enforcing compliance with a minimum level of care, some providers over-charging for their services, and a lack of State resources and oversight (i). Local CSA programs rated a lack of family-based foster care

as one of the top ten service gaps in communities, along with gaps in other services such as family support and treatment for outpatient substance abuse (vii-viii). The report noted that incentivizing both regular and therapeutic foster care families could alleviate the stress placed on some CSA programs. It also outlined several incentives aimed at increasing the number of foster families, for example, by introducing a tiering stipend model based on children's needs (107-17).

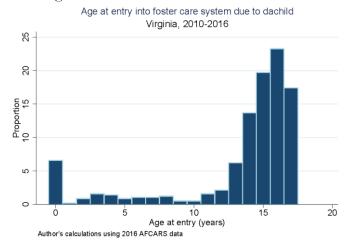
Appendix E: Additional Tables and Figures

Panel A: Distributions of age at entry by removal reason

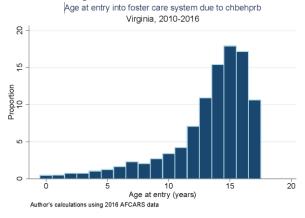
Child alcohol abuse



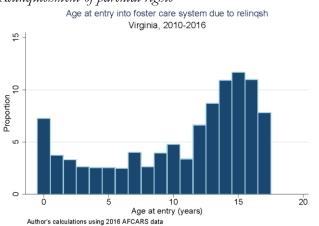
Child drug abuse



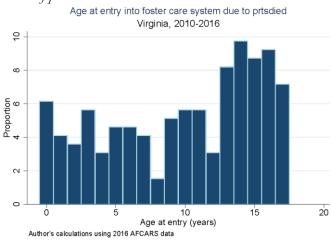
Child behavior problems



Relinquishment of parental rights



Death of parents



Sexual abuse of child

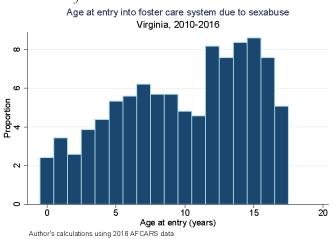


Table 1: Monthly foster care payments by state and exit reason, 2010-2016

State	Exit reason	P25	Median	P75	Mean
Alabama	Reunification with family	\$254.00	\$432.00	\$432.00	\$2,856.00
	Living with relatives	\$266.00	\$432.00	\$432.00	\$1,890.00
	Adoption	\$432.00	\$432.00	\$266.00	\$2,012.00
	Emancipation	\$266.00	\$266.00	\$445.00	\$757.00
Alaska	Reunification with family	\$225.00	\$494.00	\$762.00	\$527.61
	Living with relatives	\$299.00	\$542.00	\$877.00	\$608.86
	Adoption	\$738.00	\$767.00	\$858.00	\$809.12
	Emancipation	\$847.00	\$901.00	\$931.00	\$884.78
Arizona	Reunification with family	\$44.00	\$624.00	\$703.00	\$953.33
	Living with relatives	\$44.00	\$629.00	\$982.00	\$1,242.43
	Adoption	\$45.00	\$629.00	\$655.00	\$477.76
	Emancipation	\$608.50	\$727.00	\$3,618.00	\$1,991.16
Arkansas	Reunification with family	\$410.00	\$410.00	\$440.00	\$511.37
	Living with relatives	\$410.00	\$410.00	\$440.00	\$499.12
	Adoption	\$410.00	\$410.00	\$440.00	\$460.70
	Emancipation	\$274.00	\$500.00	\$750.00	\$840.28
California	Reunification with family	\$657.00	\$1,430.00	\$1,789.00	\$1,865.56
	Living with relatives	\$462.00	\$525.00	\$666.00	\$0.00
	Adoption	\$550.00	\$688.00	\$1,527.00	\$1,176.97
	Emancipation	\$799.00	\$1,189.00	\$2,933.00	\$2,382.43
Colorado	Reunification with family	\$726.00	\$1,551.00	\$4,161.00	\$2,415.51
	Living with relatives	\$354.00	\$815.00	\$1,551.00	\$1,313.48
	Adoption	\$276.00	\$387.00	\$706.00	\$542.66
	Emancipation	\$580.00	\$1,560.00	\$3,209.00	\$2,224.31
Connecticut	Reunification with family	\$789.00	\$807.00	\$1,460.00	\$2,450.45
	Living with relatives	\$798.00	\$875.00	\$3,473.00	\$2,521.84
	Adoption	\$787.00	\$806.00	\$1,399.00	\$1,227.60
	Emancipation	\$875.00	\$2,747.00	\$6,980.00	\$4,277.35
Delaware	Reunification with family	\$115.00	\$336.50	\$993.50	\$751.63
	Living with relatives	\$43.00	\$117.50	\$379.00	\$215.75
	Adoption	\$188.00	\$358.00	\$525.00	\$492.15
	Emancipation	\$390.00	\$980.00	\$2,672.00	\$1,675.88
D.C.	Reunification with family	\$375.00	\$950.00	\$2,304.00	\$1,663.27
	Living with relatives	\$205.00	\$750.50	\$2,407.00	\$1,942.37
	Adoption	\$889.00	\$1,044.00	\$3,018.00	\$1,945.81
	Emancipation	\$1,176.00	\$3,445.50	\$5,627.00	\$4,020.07
Florida	Reunification with family	\$268.00	\$545.00	\$2,706.00	\$1,482.00
	Living with relatives	\$182.00	\$851.50	\$2,950.00	\$1,670.92
	Adoption	\$347.00	\$416.00	\$428.00	\$575.76
	Emancipation	\$974.00	\$2,739.50	\$3,720.00	\$2,849.36
Georgia	Reunification with family	\$219.00	\$457.00	\$1,392.00	\$1,083.96
	Living with relatives	\$355.00	\$392.00	\$457.00	\$597.43
	Adoption	\$441.00	\$463.00	\$775.00	\$803.19
	Emancipation	\$1,477.00	\$3,146.00	\$4,118.00	\$3,123.37
Hawaii	Reunification with family	\$144.00	\$529.00	\$563.00	\$432.26
	Living with relatives	\$58.00	\$355.00	\$392.00	\$0.00
	Adoption	\$529.00	\$576.00	\$960.00	\$702.00

	Emancipation	\$529.00	\$529.00	\$878.00	\$672.74
Idaho	Reunification with family	\$301.00	\$339.00	\$445.00	\$741.09
	Living with relatives	\$0.00	\$0.00	\$666.00	\$0.00
	Adoption	\$300.00	\$329.00	\$366.00	\$367.45
	Emancipation	\$431.00	\$487.00	\$2,945.00	\$1,543.42
Illinois	Reunification with family	\$384.00	\$444.00	\$1,294.50	\$1,843.42
	Living with relatives	\$286.00	\$310.00	\$472.00	\$3,330.76
	Adoption	\$150.00	\$10,500.00	\$274.00	\$0.00
	Emancipation	\$435.00	\$1,823.00	\$4,671.00	\$2,851.73
Indiana	Reunification with family	\$657.00	\$775.00	\$1,390.00	\$1,441.01
	Living with relatives	\$656.00	\$775.00	\$1,013.00	\$1,352.23
	Adoption	\$656.00	\$750.00	\$857.00	\$939.65
	Emancipation	\$775.00	\$1,335.00	\$2,790.00	\$2,478.49
Iowa	Reunification with family	\$147.00	\$277.00	\$798.00	\$608.51
	Living with relatives	\$131.00	\$332.50	\$553.00	\$561.39
	Adoption	\$464.00	\$515.00	\$690.00	\$552.42
	Emancipation	\$445.00	\$750.00	\$997.00	\$905.99
Kansas	Reunification with family	\$711.00	\$734.00	\$1,593.00	\$1,167.03
	Living with relatives	\$686.00	\$734.00	\$734.00	\$1,012.79
	Adoption	\$711.00	\$734.00	\$1,014.00	\$849.96
	Emancipation	\$734.00	\$1,593.00	\$2,850.00	\$1,755.64
Kentucky	Reunification with family	\$747.00	\$1,963.00	\$4,236.50	\$3,575.62
	Living with relatives	\$387.00	\$921.00	\$2,577.00	\$2,241.28
	Adoption	\$741.00	\$1,344.00	\$2,577.00	\$2,153.70
	Emancipation	\$2,577.00	\$5,831.00	\$14,111.00	\$8,955.87
Louisiana	Reunification with family	\$118.00	\$420.00	\$467.00	\$554.36
	Living with relatives	\$54.00	\$222.50	\$464.00	\$466.11
	Adoption	\$407.00	\$449.00	\$495.00	\$484.71
3.6.1	Emancipation	\$501.00	\$570.00	\$2,614.50	\$1,575.99
Maine	Reunification with family	\$280.00	\$350.00	\$524.00	\$477.57
	Living with relatives	\$349.00	\$525.00	\$574.00	\$594.33
	Adoption	\$475.00	\$735.00	\$735.00	\$736.92
36 1 1	Emancipation	\$383.00	\$838.00	\$1,693.00	\$1,171.08
Maryland	Reunification with family	\$851.00	\$3,606.00	\$4,659.00	\$3,441.59
	Living with relatives	\$838.00	\$851.00	\$866.00	\$1,361.99
	Adoption	\$851.00	\$851.00	\$968.00	\$1,482.12
Massachusetts	Emancipation Reunification with family	\$3,316.00 \$702.00	\$4,026.00 \$1,075.00	\$5,714.00	\$4,452.22
Massachusetts	Living with relatives		\$1,075.00	\$6,899.00 \$788.00	\$3,490.88 \$1,242.25
	· ·	\$644.00 \$658.00	\$689.00 \$697.00	\$788.00 \$945.00	\$1,242.25 \$884.41
	Adoption Emancipation	\$814.00		\$6,718.00	\$3,911.54
Michigan	Reunification with family	\$427.00	\$3,129.00 \$577.00	\$1,627.00	\$1,519.25
Michigan	Living with relatives	\$427.00	\$577.00	\$727.00	\$985.67
	Adoption	\$577.00	\$1,537.00	\$1,681.00	\$1,256.24
	Emancipation	\$548.00	\$1,337.00	\$1,818.00	\$1,230.24
Minnesota	Reunification with family	\$809.00	\$1,210.00	\$4,079.00	\$2,556.14
mmesoca	Living with relatives	\$775.00	\$1,210.00	\$1,806.50	\$1,824.93
	Adoption	\$783.00	\$979.00	\$1,278.00	\$1,024.00
	Emancipation	\$973.00	\$1,582.00	\$3,442.00	\$2,565.99
Mississippi	Reunification with family	\$684.00	\$707.00	\$791.00	\$843.14
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	Living with relatives	\$687.00	\$765.00	\$861.00	\$884.24
	Adoption	\$687.00	\$707.00	\$804.00	\$822.88
	Emancipation	\$861.00	\$864.00	\$2,160.00	\$1,265.61
Missouri	Reunification with family	\$223.00	\$341.00	\$349.00	\$442.95
	Living with relatives	\$232.00	\$283.00	\$313.00	\$320.76
	Adoption	\$232.00	\$283.00	\$313.00	\$319.99
	Emancipation	\$384.00	\$388.00	\$1,408.00	\$1,087.43
Montana	Reunification with family	\$198.00	\$496.00	\$572.00	\$619.07
	Living with relatives	\$239.00	\$522.50	\$641.00	\$559.17
	Adoption	\$524.00	\$554.00	\$591.00	\$598.97
	Emancipation	\$641.00	\$868.00	\$2,003.00	\$1,428.11
Nebraska	Reunification with family	\$250.00	\$620.00	\$1,294.00	\$1,118.44
	Living with relatives	\$249.00	\$320.76	\$174,628.37	\$0.00
	Adoption	\$310.00	\$735.00	\$1,290.00	\$978.41
	Emancipation	\$352.00	\$760.00	\$1,649.50	\$1,379.97
Nevada	Reunification with family	\$683.00	\$696.00	\$970.00	\$897.71
	Living with relatives	\$683.00	\$734.50	\$1,200.50	\$1,226.58
	Adoption	\$683.00	\$683.00	\$696.00	\$726.44
	Emancipation	\$773.00	\$788.00	\$1,306.00	\$1,011.83
New Hampshire	Reunification with family	\$490.00	\$632.00	\$1,932.00	\$1,324.52
	Living with relatives	\$542.00	\$833.00	\$1,848.00	\$1,361.46
	Adoption	\$490.00	\$514.00	\$531.00	\$555.95
	Emancipation	\$632.00	\$1,299.50	\$2,224.00	\$1,702.28
New Jersey	Reunification with family	\$781.00	\$847.00	\$947.00	\$1,153.85
	Living with relatives	\$771.00	\$838.00	\$980.00	\$1,144.70
	Adoption	\$803.00	\$832.00	\$921.00	\$954.76
	Emancipation	\$918.00	\$995.00	\$2,275.00	\$1,958.45
New Mexico	Reunification with family	\$499.00	\$533.00	\$591.00	\$563.44
	Living with relatives	\$533.00	\$560.00	\$617.00	\$571.13
	Adoption	\$499.00	\$577.00	\$695.00	\$665.09
	Emancipation	\$542.00	\$560.00	\$637.00	\$592.66
New York	Reunification with family	\$1,601.00	\$1,874.00	\$7,032.00	\$4,102.53
	Living with relatives	\$635.00	\$1,669.00	\$2,828.00	\$2,815.29
	Adoption	\$1,034.00	\$1,716.00	\$2,286.00	\$1,817.60
NI 1 C 1	Emancipation	\$1,815.00	\$2,596.00	\$4,772.00	\$3,846.55
North Carolina	Reunification with family	\$413.00 \$475.00	\$581.00 \$581.00	\$1,433.00 \$1,433.00	\$1,084.36
	Living with relatives	\$475.00 \$475.00	\$581.00 \$581.00	\$1,433.00 \$1,433.00	\$1,019.11
	Adoption Emancipation	\$475.00 \$634.00	\$581.00 \$634.00	\$1,433.00 \$1,638.00	\$814.07
North Dakota	Reunification with family	\$034.00 \$343.50	\$634.00 \$961.50	\$1,036.00	\$1,618.27 \$2,356.03
North Dakota	Living with relatives	\$343.30 \$114.00	\$420.00	\$2,070.00	\$2,356.03
	Adoption	\$747.50	\$923.00	\$1,251.50	\$1,580.28 \$1,135.02
	Emancipation Emancipation	\$658.00	\$1,464.00	\$3,550.00	\$2,631.02
Ohio	Reunification with family	\$720.00	\$1,404.00	\$3,082.00	\$2,332.84
Olilo	Living with relatives	\$553.00	\$891.00	\$1,481.00	\$1,607.10
	Adoption	\$450.00	\$750.50	\$1,089.00	\$886.76
	Emancipation	\$1,197.00	\$2,203.00	\$4,098.00	\$3,070.58
Oklahoma	Reunification with family	\$403.00	\$2,203.00 \$455.00	\$506.00	\$5,070.38 \$593.42
O MIGHTOTTIA	Living with relatives	\$403.00	\$471.00	\$527.00	\$627.01
	Adoption	\$364.00	\$430.00	\$506.00	\$456.69
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	Emancipation	\$498.00	\$592.00	\$2,684.00	\$1,634.76
Oregon	Reunification with family	\$170.00	\$418.00	\$655.00	\$519.02
	Living with relatives	\$126.00	\$409.00	\$655.00	\$566.81
	Adoption	\$575.00	\$639.00	\$728.00	\$677.38
	Emancipation	\$419.00	\$741.00	\$823.00	\$894.64
Pennsylvania	Reunification with family	\$659.00	\$1,682.00	\$4,526.00	\$2,724.52
•	Living with relatives	\$623.00	\$1,130.50	\$3,195.00	\$2,152.40
	Adoption	\$638.00	\$810.00	\$1,604.00	\$1,247.14
	Emancipation	\$1,064.00	\$2,498.00	\$4,384.00	\$3,255.80
Rhode Island	Reunification with family	\$455.00	\$2,635.00	\$6,600.00	\$3,587.84
	Living with relatives	\$489.00	\$3,224.00	\$6,820.00	\$4,044.10
	Adoption	\$446.00	\$489.00	\$640.00	\$959.32
	Emancipation	\$651.00	\$4,715.00	\$7,502.00	\$5,147.46
South Carolina	Reunification with family	\$332.00	\$383.00	\$458.00	\$420.45
	Living with relatives	\$332.00	\$383.00	\$458.00	\$411.96
	Adoption	\$250.00	\$300.00	\$383.00	\$379.27
	Emancipation	\$425.00	\$518.00	\$518.00	\$535.27
South Dakota	Reunification with family	\$74.00	\$154.00	\$370.00	\$345.82
	Living with relatives	\$47.00	\$97.00	\$260.00	\$446.90
	Adoption	\$478.00	\$487.00	\$518.00	\$496.95
	Emancipation	\$408.00	\$860.00	\$2,039.00	\$1,418.99
Tennessee	Reunification with family	\$419.00	\$1,071.00	\$2,756.00	\$1,784.49
	Living with relatives	\$191.00	\$489.00	\$1,152.00	\$1,010.81
	Adoption	\$349.00	\$600.00	\$900.00	\$896.50
	Emancipation	\$588.50	\$1,461.00	\$2,880.00	\$2,076.11
Texas	Reunification with family	\$306.00	\$593.00	\$1,049.00	\$825.03
	Living with relatives	\$266.00	\$443.00	\$889.00	\$681.21
	Adoption	\$487.00	\$769.00	\$1,151.00	\$876.13
	Emancipation	\$813.00	\$1,300.00	\$2,229.00	\$1,663.87
Utah	Reunification with family	\$468.00	\$528.00	\$1,470.00	\$1,195.55
	Living with relatives	\$465.00	\$515.00	\$1,470.00	\$1,202.87
	Adoption	\$450.00	\$484.00	\$540.00	\$547.65
	Emancipation	\$528.00	\$900.00	\$1,487.00	\$1,091.60
Vermont	Reunification with family	\$540.00	\$652.00	\$1,400.00	\$2,422.26
	Living with relatives	\$540.00	\$605.00	\$724.00	\$1,439.07
	Adoption	\$522.00	\$555.00	\$668.00	\$720.04
	Emancipation	\$641.00	\$815.00	\$3,486.00	\$2,697.15
Virginia	Reunification with family	\$462.00	\$541.00	\$686.00	\$1,310.06
	Living with relatives	\$462.00	\$525.00	\$666.00	\$899.27
	Adoption	\$462.00	\$541.00	\$1,050.00	\$903.04
	Emancipation	\$666.00	\$986.00	\$3,090.00	\$2,400.47
Washington	Reunification with family	\$423.00	\$500.00	\$575.00	\$615.75
	Living with relatives	\$469,895.87	\$685.49	\$2.17	\$0.00
	Adoption	\$423.00	\$423.00	\$523.00	\$475.06
TT7 T7 ' '	Emancipation	\$575.00	\$575.00	\$575.00	\$1,071.01
West Virginia	Reunification with family	\$414.00	\$1,210.00	\$2,977.50	\$1,923.35
	Living with relatives	\$315.00	\$843.00	\$2,284.00	\$1,557.60
	Adoption	\$600.00 \$512.00	\$1,370.00	\$1,611.00	\$1,155.87
	Emancipation	\$512.00	\$1,247.50	\$3,025.00	\$2,006.08
Wisconsin	Reunification with family	\$180.00	\$350.00	\$1,406.50	\$1,370.29

	Living with relatives	\$215.00	\$220.00	\$302.00	\$660.08
	Adoption	\$560.00	\$805.00	\$1,200.00	\$1,044.38
	Emancipation	\$392.00	\$1,212.00	\$3,275.00	\$2,268.48
Wyoming	Reunification with family	\$645.00	\$664.00	\$2,184.00	\$1,497.62
	Living with relatives	\$645.00	\$664.00	\$1,729.00	\$1,351.64
	Adoption	\$645.00	\$645.00	\$664.00	\$711.37
	Emancipation	\$732.00	\$732.00	\$2,535.00	\$1,595.03
Puerto Rico	Reunification with family	\$400.00	\$425.00	\$800.00	\$903.57
	Living with relatives	\$600.00	\$600.00	\$600.00	\$600.00
	Adoption	\$2,000.00	\$2,445.00	\$3,405.00	\$0.00
	Emancipation	\$5,840.00	\$8,250.00	\$14,947.00	\$0.00

Source: Author's calculations using 2016 AFCARS data. These data exclude cases which receive no payments.

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