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Anthony Bald Joseph J. Doyle Jr. Max Gross Brian Jacob

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ABSTRACT

Foster care provides substitute living arrangements to protect maltreated children. The practice is remarkably common: it is estimated that 5 percent of children in the United States are placed in foster care at some point during childhood. These children exhibit poor outcomes as children and adults, and economists have begun to estimate the causal relationship between foster care and life outcomes. This paper describes tradeoffs in child welfare policy and provides background on the latest trends in foster care practice to highlight areas most in need of rigorous evidence. These trends include efforts to prevent foster care on the demand side and to improve foster home recruitment on the supply side. With increasing data availability and a growing interest in evidence-based practices, there are opportunities for economic research to inform policies that protect vulnerable children.

Anthony Bald Harvard Kennedy School 79 John F. Kennedy St Cambridge, MA 02138 abald@g.harvard.edu

Joseph J. Doyle Jr. MIT Sloan School of Management 100 Main Street, E62-516 Cambridge, MA 02142 and NBER jjdoyle@mit.edu Max Gross Mathematica 600 Alexander Park Dr Princeton, NJ 08540 mgross@mathematica-mpr.com

Brian Jacob Gerald R. Ford School of Public Policy University of Michigan 735 South State Street Ann Arbor, MI 48109 and NBER bajacob@umich.edu

A online appendix is available at http://www.nber.org/data-appendix/w29906

I Introduction

When authorities believe children have been abused or neglected, child protective services (CPS) may remove them from their home and place them temporarily into substitute care. This practice, commonly known as foster care placement, involves a difficult tradeoff: protecting children versus preserving families. This tension has a long history in the US child welfare system. At the turn of the last century, "orphan trains" transported thousands of neglected children from cities to live and work on farms. Largely in response, early cash welfare programs, such as Mothers' Pensions and Aid to Dependent Children, were implemented with the expressed intent of keeping children with their biological families (Aizer et al. 2016; Testa and Kelly 2020). The foster care system has changed over time, but the core debate over protecting children and preserving families remains. Today, foster care placement is common around the world: 5 percent of US children are placed in foster care at some point during childhood, and similar rates are found in other countries (Rouland and Vaithianathan 2018; Yi et al. 2020).

Children who spend time in foster care are particularly vulnerable. In comparison to similar children who did not spend time in foster care, foster children have rates of depression and anxiety that are seven times higher (Turney and Wildeman 2016) and exhibit worse educational outcomes, such as lower test scores and graduation rates (Barrat and Berliner 2013). These disadvantages continue into adulthood. For example, close to 20 percent of the United States prison population were in foster care as a youth (US Bureau of Justice Statistics 2021). Those who turn 18 in foster care report 50 percent lower earnings and employment rates that are 20 percentage points lower by age 26 compared to a sample of young adults with similar levels of education (Okpych and Courtney 2014); as many as one-third experience homelessness (Dworsky et al. 2013).

Economic theory can clarify the determinants of the demand and supply of foster care, including incentives to provide high-quality care. Econometric analysis can estimate the causal effects of foster care and related interventions on child wellbeing, and there is a growing body of empirical work on the topic. Federal and state policies now encourage the evaluation of foster care interventions and subsidize the implementation of evidence-based programs. These policies, along with increased data availability and an openness to testing new digital tools, have heightened the demand for rigorous research in the field.

In this paper, we provide an overview of the foster care system in the US and highlight key considerations in child welfare policy. We begin by discussing how the system works and show several prominent trends in foster care placement. We also highlight that states operate their child welfare systems quite differently, and the conditions states face and approaches they adopt have changed over time. Given this heterogeneity, we look within states and ask whether foster care placement improves outcomes for maltreated children.

We then turn to factors influencing the demand and supply of foster care. On the demand side, we discuss recent drivers of foster care, as well as prevention efforts through in-home family services and diversion from formal placement to less formal living arrangements with relatives. On the supply side,

we describe the way the supervision of foster care is organized, efforts to increase the recruitment of foster homes, and the quality of care provided by different forms of foster care placement. We conclude by highlighting opportunities for future research.

II The Landscape of Child Protection

Modern child welfare in the US began with the establishment of the Children's Bureau in 1912, followed by federal funding in the Social Security Act in 1935. Indeed, Title IV of the Social Security Act is titled "Grants to States for Aid and Services to Needy Families with Children and for Child-Welfare Services." A series of federal and state laws addressing child maltreatment have been enacted since, and the competing goals of family preservation and child protection can be seen through the combination of federal funding of foster care placements along with cash welfare and family unification initiatives (see Haskins 2020). Child welfare agencies currently spend over \$30 billion each year on child protection, with approximately half of their funding provided by the federal government. Most recently, the Family First Prevention Services Act of 2019—commonly referred to as Family First—for the first time allows states to use federal funding on services designed to prevent foster care placement.

The path of a child into foster care most often starts with a phone call to report suspected child maltreatment. States typically classify child maltreatment into three categories: neglect, physical abuse, and sexual abuse. Neglect is the inability of caregivers to supply a child with adequate housing, food, clothing, or other basic needs; physical abuse is "any nonaccidental physical injury to the child"; and sexual abuse involves direct sexual contact or exploitation of children (Child Welfare Information Gateway, 2019b). Roughly 54 percent of initial referrals are deemed to warrant further investigation. The remaining referrals are screened out because they do not fall under the state-specific definition of maltreatment, although such definitions often leave room for interpretation (Font and Maguire-Jack 2020).

Certain occupations such as educators, police officers, physicians, and social workers are mandated by law to report suspected maltreatment to local authorities, though reporting requirements vary by state. The majority of screened-in reports come from mandated reporters. Educators make up 21 percent of reports, as they are frequently in close proximity with school-aged children and can observe signs of maltreatment. Law enforcement personnel are second at 19 percent, as they may request support from CPS when responding to domestic disputes or reports of unsupervised children. Medical personnel and social workers are also common reporters (at 11 and 10 percent of reports respectively), as they may observe injuries that raise suspicion or signs of neglect in the home. The remainder of reports come from relatives, friends, and other miscellaneous sources (US Department of Health and Human Services 2021).

II.A The Prevalence of Child Maltreatment and Foster Care Placement

In 2019, CPS investigated nearly 3.5 million children for maltreatment (nearly 5 percent of all children), and classified about 652,000 children as victims (nearly 1 percent of all children, see Table 1).¹

Yearly incidence of CPS-reported maltreatment dramatically understates the cumulative rate of maltreatment experienced by children. Over the course of childhood, a remarkable 37 percent of all children experience a child welfare investigation, and 12 percent of children are identified as maltreatment victims, including 18 percent of Black children and 16 percent of Native American children (Kim et al. 2017; Yi et al. 2020).² These numbers only capture child maltreatment reported to authorities; self-reported victimization rates in survey data reach as high as 38 percent (Finkelhor et al. 2015).

Children identified as maltreatment victims typically remain with their family. Many of these children's families are provided with services, such as family therapy, parenting programs, or substance abuse treatment. The remaining maltreatment victims are removed from their families and placed in foster care.

Table 1 shows that there were over 400,000 children in foster care at the end of 2019, or 0.6 percent of the child population down from 0.7 percent in 2004. The share of children in care has fluctuated over time, rising from 300,000 in the 1980s to over 550,000 by the early 2000s (Testa and Kelly 2020). Trends in child maltreatment and foster care placement have been somewhat more stable from 2004-2019. Panel B of Table 1 shows that the allegations associated with child removals have shifted substantially toward neglect (64 percent of children in 2019) and away from abuse (17 percent of children in 2019). Moreover, Wulczyn (2020) documents demographic shifts in the types of children who are entering foster care, with greater proportions entering as infants and smaller shares from large urban centers since 2000. As we explain discuss below, there are several potential explanations for this shift, including the opioid epidemic.

II.B Placement Types and Time Spent in Foster Care

Children who are removed from home can be placed in several different types of foster care. Placement with an unrelated foster family is most common, comprising about half of children in foster care at the end of 2019 (Panel C of Table 1). One of the major developments in foster care

¹To characterize foster care practice across states and over time in this paper, we use data from the Adoption and Foster Care Analysis and Reporting System (AFCARS): https://www.acf.hhs.gov/cb/data-research/adoption-fostercare/ (US Department of Health and Human Services 2020a). For child maltreatment statistics, we use the National Child Abuse and Neglect Data System (NCANDS), a centralized system for states to submit maltreatment reports to the federal government: https://www.acf.hhs.gov/cb/research-data-technology/reporting-systems/ncands/. In particular, we use NCANDS data that have been processed and combined with population data from the US Census by the Annie E. Casey Foundation (AECF): https://datacenter.kidscount.org/ (Annie E. Casey Foundation 2022).

²While the lack of comparable data makes it difficult to compare child maltreatment across countries, some evidence suggests that the United States ranks toward the top of more objective indicators of child maltreatment, such as child fatality due to intentional injury (OECD 2013, Chart PF1.9.A).

over the past few decades is the increased use of kinship care, a practice whereby children are placed with a nearby relative such as a grandparent. As shown in Table 1, the share of foster children in kinship care was 32 percent at the end of 2019, an increase of 9 percentage points since 2004. Just over 10 percent of foster children were placed in congregate care settings such as group homes and institutions, a rate that typically varies from 5 to 20 percent across states. As evidence has mounted showing poor outcomes for children placed in congregate care, its use has fallen out of favor (Lee et al. 2011). For instance, under Family First, federal funding only covers the first two weeks of placement into congregate care.

The typical goal for a foster child is a return home, although for some the goal is placement in an adoptive home. In 2019, 48 percent of all children who exited foster care were reunified with their families, a 6 percentage-point decrease from 2004 (Panel D of Table 1). The next most common exit types are adoption (27 percent), living with relatives or guardians (17 percent), and emancipation as a legal adult (6 percent).³ Adoption in particular has become more common in recent years, following legislation in the 1990s to incentivize shorter stays (Haskins 2020).

In terms of the foster care experience, among children who entered foster care in 2015, the median length of stay was 15 months, although some children stay much longer. 10 percent of children entering in 2015 were still in foster care four years later, but in three states this fraction exceeded 20 percent. With longer stays often comes multiple foster homes, and placement stability is often considered a quality metric for child welfare systems due to its strong correlation with behavioral outcomes (Rubin et al., 2004). At the end of the 2019 fiscal year, 35 percent of children in foster care had lived in three or more different settings.

II.C Racial Disparities in the Child Welfare System

Racial disparities exist at every decision point in the child welfare system, resulting in large differences in CPS involvement by the time children reach age 18. For instance, Black children are reported to child protective services more frequently than White children, and reports involving Black children are more likely to be confirmed as maltreatment (Putnam-Hornstein et al. 2013). Furthermore, an estimated 10-12 percent of Black children and 11-15 percent of American Indian/Alaska Native children will experience a foster care placement over the course of their childhood compared to 5 percent of White children (Wildeman and Emanuel 2014). Understanding the causes and consequences of disparities, and what policies can be enacted to reduce them, is an active area of research (for overviews, see Barth et al. 2020 and Dettlaff and Boyd 2020).

³The AFCARS data used in Table 1 is not the ideal data set for measuring high frequency entry and exit dynamics. The underlying state-level data is collected in semi-annual reporting windows, and states report information from a child's most recent removal event in a given window.

II.D Heterogeneity across Child Welfare Systems

Child welfare systems are administered at the state or local level, therefore the emphasis on child protection versus family preservation can fluctuate over time and across jurisdictions. For example, there are prominent examples of a community experiencing a tragedy, such as a case of severe abuse or a child fatality, that led to policy changes emphasizing child protection followed by a steep rise in placement rates. Years later, the higher cost of maintaining a larger share of children in foster care may be met with reforms to speed reunification and reduce placement rates through family preservation programs.⁴

Partially as a result of local policies, foster care placement rates vary substantially across states. Figure 1a shows the distribution of placement rates across states in 2019, which range from under 3 per 1,000 children in New Jersey, Utah, and Virginia to over 15 per 1,000 children in West Virginia, Montana, and Alaska. Even within states there have been considerable changes over time. Between 2004 and 2019, the rate per 1,000 of children in foster care nearly doubled in West Virginia (10 to 20.2) and Montana (9.1 to 16.1), but fell substantially in Nebraska (14 to 7.1) and the District of Columbia (21.6 to 5.2). Such heterogeneity may also reflect demand-side factors, although they are not well explained by differences in official rates of maltreatment.⁵

Similarly, while kinship care typically receives priority when placements are considered, states vary widely in their reliance on kin. Figure 1(b) shows kin placement rates range from less than 10 percent to nearly 50 percent across states. This variation in kinship placement stems in large part from differences in policy emphasis of recruiting and certifying kin, which mirrors the ongoing tradeoff between child protection and family preservation. Given the variation in child removal rates and placement types across child welfare systems, more evidence on the types of interventions that promote child wellbeing is needed.

For more information on these trends and heterogeneity across states, the Appendix provides a series of figures. These include trends in child maltreatment, foster care placement, reasons for placement, and placement types over time and across states.

II.E Family Preservation vs. Child Protection

When deciding on the stringency of child welfare policy, a central question is whether foster care placement improves child welfare on the margin. In other words, what is the impact of foster care placement for a child who was removed under one regime, but would not have been removed under an alternative regime? Although a well-documented correlation exists between foster care

⁴The State Child Abuse & Neglect Policies Database (https://www.scanpoliciesdatabase.com/), which provides detailed state-level information on maltreatment definition and policy context, is a useful resource to understand the varying policy landscapes.

⁵Reported maltreatment rates explain about 15 to 28 percent of the variation in the percentage of children entering foster care across states. In a state-level regression of the percentage of children entering foster care in 2019 on the percentage of children subject to an investigated maltreatment report in 2019, the R-squared is 0.28. Using the percentage of children confirmed as victims of maltreatment gives an R-squared of 0.15.

and poor outcomes for children even after controlling for observable differences across cases (see, for example, Berger et al. 2015), it is challenging to identify causal effects because foster children differ in unobserved ways from children who were not placed. For example, foster children may have been more severely abused or neglected.

In the economics literature, the main empirical approach to overcome these confounding factors has been to consider the quasi-random assignment of child protective investigators to cases. When a report of maltreatment is made to a local child welfare office, a case worker is sent to investigate the report and determine if there is sufficient evidence of abuse or neglect. Many localities use a rotation process to assign cases to investigators working in the same field office to smooth the workload and often out of concern for fairness. In addition, despite assignment to similar cases, some investigators are more likely to recommend foster care placement compared to their colleagues. It is therefore possible that two children with very similar backgrounds will face different likelihoods of placement by virtue of receiving different (as-if randomly assigned) investigators. Such comparisons offered by this approach recover the causal effects of foster care for marginal children: those for whom the investigator assignment matters for the foster care placement decision. As a result, an important limitation of this approach is that it cannot determine effects for cases when all investigators would remove the child, nor for cases when no investigator would remove the child. Even so, understanding outcomes for marginal children provides insight into the effects of more- or less-stringent child welfare policies.

Doyle (2007a) used this approach to study children placed into foster care in Illinois during the 1990s. The study linked maltreatment and foster care data to state administrative data to measure a wide range of longer-term outcomes. The sample included children who were receiving welfare benefits (which facilitated matching across the outcomes) and who were aged 5-15 at the time of the initial investigation. The results imply large negative effects of foster care placement on the margin, including substantially lower earnings and large increases in teen motherhood, delinquency, and unemployment. In later work, Doyle (2008; 2013) shows that foster care placement also increased the likelihood of both emergency medical care within a year of placement and criminal justice system involvement in adulthood. In similar work using the investigator strategy in South Carolina, Roberts (2019) finds that foster care placement roughly doubles the likelihood of juvenile delinquency over the five years following an investigation (an 11 percentage-point increase).

In contrast, positive effects have been found in other contexts. Gross and Baron (forthcoming) studied school-aged children in Michigan subject to investigations from 2008 to 2016. The study finds that removal causes a significant reduction in the likelihood of subsequent maltreatment, as well as improvements in math test scores and school attendance. In related work, Baron and Gross (2022) find that removal significantly reduces adult criminality. In South Carolina, Roberts (2019) finds that foster care placement reduces the likelihood of repeating a grade by 13 percent within three years.

In addition, there is evidence that the effects of foster care placement vary across child subgroups, with younger children tending to benefit more. Bald et al. (forthcoming) used linked administrative data from Rhode Island and found a positive impact of removal on measures of school achievement concentrated among girls removed before age six (they do not find such impacts for boys). Gross and Baron (forthcoming) also find improved educational outcomes for younger children, while others find worse outcomes for older children in multiple settings (Doyle 2007a; Doyle 2008; Warburton et al. 2014).

A possible reason for the contrasting findings across states and time periods is their different institutional contexts, as effects of foster care may vary with the threshold for placement and the quality of the foster care system. For example, foster care placements in Illinois in the 1990s were substantially longer and less stable than recent placements in Michigan.

Within a given context, studies have estimated the effects of foster care at different margins determined by different types of investigators. For example, among a subset of investigators with relatively low removal rates (more-"lenient" investigators), the marginal child likely has relatively more severe maltreatment characteristics, as these investigators have a higher threshold before they recommend placement. Doyle (2007a) finds that the negative effects of foster care in terms of teen motherhood are larger among children assigned to investigators with low removal rates and, consequently, marginal cases that have relatively severe maltreatment compared to cases investigated by higher-removal-rate investigators. Meanwhile, negative effects on labor market outcomes are found to be similar across investigator types, suggesting that the placement decision resulted in worse employment outcomes across the severity spectrum. In contrast to Doyle (2007a), Bald et al. (forthcoming) find evidence of effects on achievement that are especially positive for young girls with higher unobserved maltreatment. This suggests that young girls with high risk levels experienced the highest gains.

One potential mechanism for the way CPS involvement affects children is how such involvement affects their family members, some of whom may be identified as "perpetrators" of maltreatment. CPS authorities provide a variety of services to families with the goal of preventing the need for removal, or in cases where removal is unavoidable, to support family reunification and decrease risk levels (Merritt 2020). Gross and Baron (forthcoming) find that in Michigan, children's gains from foster care placement occurred after most were reunified with their birth parents, which is consistent with the rehabilitation of birth parents while their children were in foster care. Similarly, using data from Allegheny County, Pennsylvania, Grimon (2021) finds that mothers were substantially more likely to enter drug treatment and receive mental health services not only at the time of the investigation, but for many years afterward.

Given the mixed evidence on the effects of placement for different margins and contexts, understanding the types of cases and child welfare interventions that promote child wellbeing is an important area for future research. One way to characterize the sets of issues involved is to focus on the demand and supply of foster care services.

III Foster Care Demand

Demand for foster care comes from both the extent of child maltreatment in an area and policies that dictate how CPS responds to it. As shown in Table 1, victimization rates have been relatively steady over the past twenty years, but the nature of maltreatment has moved away from child abuse toward child neglect. Partly as a result, the ways in which states respond has changed over time as well, tending toward policies that aim to prevent the need for foster care.

III.A Risk Factors

Poverty is strongly associated with child maltreatment (see Bullinger et al. (forthcoming) for a survey of the literature). For example, numerous studies have shown that foreclosure, eviction, and other forms of housing insecurity, as well as food insecurity, increase reported child maltreatment. Less directly, financial resources can also influence parental stress, which could in turn lead to abuse or neglect.

Given these associations, efforts to reduce poverty, or ameliorate its effects, can reduce demand for foster care. Experimental studies of welfare reforms suggest a causal relationship between family income and child maltreatment (Fein and Lee 2003; Cancian et al. 2013). These studies sometimes capture multiple policies (for example, changes in benefit levels as well as work incentives) and might not extend to different contexts. Quasi-experimental analyses of earned income tax credits across states find higher benefit levels are associated with a reduction in maltreatment rates, particularly for child neglect (Berger et al. 2017). Other studies find lower rates of maltreatment associated with investments in the social safety net.

Another leading driver of neglect is parental substance abuse, which has increased substantially over time as a fraction of maltreatment reports (Table 1). Studies show that the ongoing opioid epidemic in particular has contributed to child maltreatment and foster care. Although it is challenging to measure the effects of the opioid epidemic, studies have leveraged changes in the features of the crisis, such as shocks to illicit drug prices, treatment, or opioid supply, and conclude that the opioid epidemic has increased foster care caseloads (for example, Hou 2021). Taken together, the evidence indicates that policies outside of child welfare can influence the extent of child maltreatment and the demand for foster care.

The way CPS evaluates risk factors can influence demand as well. Historically, CPS has used relatively rudimentary risk-modeling software to help caseworkers assess the potential harm a child faces by remaining at home. More recently, data analytics are showing promise in improving risk stratification, although concerns about accuracy, equity, and fairness are prominent. In Allegheny County, Pennsylvania, the use of more sophisticated software to predict the likelihood of future out-of-home placement has been incorporated into the workflow of screening-in alleged maltreatment for further review. Promisingly, efforts in Douglas County, Colorado to display this kind of risk information to investigators are being studied with randomized controlled trials (Vaithianathan 2019). As with other diagnostic tools, equity concerns are important to consider. In Allegheny, the introduction decision support was associated with a reduction in the black-white gap in screen-in rates-primarily as a result of increasing the percentage of white children that were referred for investigation (Goldhaber-Fiebert and Prince 2019). Research will be needed to determine not only the efficacy of these tools, but also the potential existence of biases built into them (Drake et al. 2020).⁶

III.B Family Preservation

Child welfare agencies employ various strategies to reduce the demand for foster care by stabilizing at-risk families. The 2019 Family First legislation allows states to accept federal funds that were previously earmarked for foster care services and use them for prevention services. Over time, the goal is that such funding will become restricted to prevention services that have empirical support in one of three areas: in-home parent skill-based programs, mental health, and substance abuse. The Title IV-E Prevention Services Clearinghouse contains a list of approved programs (available at https://preventionservices.abtsites.com/). States also apply for federal waivers to experiment with new approaches (James Bell Associates 2019).

Family First calls for each state to submit a five-year plan with proposed interventions for funding eligibility, which provides a glimpse of the types of programs that are popular to prevent foster care placement. For example, a common in-home parenting skills intervention is Parents as Teachers, an education program that aims to increase school readiness and reduce child maltreatment. The Nurse Family Partnership, a home visiting program that educates and supports new mothers, is common in part because experimental evidence shows the program results in a reduction of child neglect (Olds et al. 1997). For the other two categories of interventions, mental health and substance use, there are several trauma-informed, therapy-based interventions available. A common program is Functional Family Therapy, which includes weekly therapy sessions to build skills in youth and in the family as a whole.

A possible concern is that federal funding for family preservation programs could increase the surveillance of families. Monitoring families whose children remain in the home can induce fear that their children will be removed (Fong 2020). Increased surveillance may also create challenges for studies that use maltreatment reports as an outcome by artificially increasing reports. As a result, evaluations of prevention programs should focus on a wide range of wellbeing measures, including health, education, and criminal justice involvement outcomes.

A more controversial approach to preventing foster care is known as diversion, in which CPS encourages the informal placement of children with substitute caregivers, often kin, rather than entering the formal foster care system (Berrick and Hernandez 2016). Opponents argue that diversion limits a family's access to services because non-licensed relatives do not qualify for the same monthly

⁶There are ongoing efforts to blind child welfare investigations to race by removing racial indicators and correlates from investigation reports (Baron et al. 2021). But some caution is warranted in taking this step, because blinding algorithms to indicators of race may increase inequity (Rambachan et al. 2020).

payments or family rehabilitation services as licensed foster parents. Advocates of diversion claim that the practice helps to keep families intact by allowing relatives, who may not meet restrictive licensing requirements, to care for children. A 2007 survey found that 39 states engaged in diversion (29 states actively promoted the practice), while 12 states prohibited it (Annie E. Casey Foundation 2013). Recently, Family First provided funding for Kinship Navigator programs, which vary in implementation but aim to provide a middle ground between diversion and formal placement.

Understanding the effect of diversion can help inform the tradeoff between family preservation and child protection. Unfortunately, scant evidence exists on the effects of diversion. Chen et al. (2020) evaluated Safe Families for Children, a program that placed children with foster families supervised by a nonprofit agency, but without formal placement in the foster care system. Using a randomized encouragement design across cases, they found this program increased the share of children who had been returned home at one year, while not leading to greater subsequent reports of abuse.

III.C Extending Care to Older Ages

One way that demand for foster care can increase is by extending the age of eligibility. Some 20,000 foster youth aged out of foster care in 2019 (AFCARS), and such youth may have few lifelines as they enter their twenties. Courtney et al. (2020) find that, among "emancipated" former foster youth in California, one in five previously dropped out of high school, one in four experienced homelessness, and nearly a third were incarcerated, all by the age of 23. One estimate suggests that the United States would save over \$4 billion in lifetime costs if these youth had outcomes comparable to the general population (Annie E. Casey Foundation 2019). The Fostering Connections Act of 2008 aimed to provide additional support for these youth by permitting states to use federal funds for foster youth beyond age 18.

A small body of descriptive and quasi-experimental research suggests that the push for extended eligibility provided a wide range of benefits to affected youth. Using nationwide data, Prettyman (2020) leverages the staggered roll-out of extended foster care across states. Using variation within states over time, the study finds that extended foster care reduces the likelihood of homelessness and incarceration, and increases high school graduation and employment. The California Youth Transitions to Adulthood Study (CalYOUTH) shows similar improvements in outcomes (Courtney et al. 2018). Increasing demand for foster care services by expanding the eligible population to include vulnerable youth over the age of 18 appears to have been a wide-ranging policy success.

IV Foster Care Supply

The impacts of foster care also depend on the functioning of the child welfare system on the supply side. Considerations include the public or private supervision of foster care, ways of recruiting, licensing, and assigning foster homes, and reliance on different types of foster care.

IV.A Public and Private Supervision

Once children are placed in foster care, they are supervised by a separate set of case workers who specialize in recruiting and monitoring foster homes, reunifying families, and finding adoptive homes. These tasks are often provided by private organizations (such as religious organizations). In the last few decades, several states have privatized some or all of their child welfare services. States award contracts to private non-profits and for-profit firms to assume responsibilities such as monitoring the safety of children in care.

Privatization can come with potential challenges, including stakeholder buy-in and accurate cost estimates (US Department of Health and Human Services 2007). Hubel et al. (2013) studied Nebraska's effort to privatize its child welfare system, which involved replacing the traditional fee-for-service model with a capitation amount based on an expected cost of service delivery.⁷ The authors find that initial payment rates were too low, leading to substantial problems – namely, reductions in quality and availability of services along with a 27 percent increase in costs.

Performance-based contracts in state foster care systems show some promise, however. Such initiatives often include incentive payments (for instance, linking some portion of provider payment or future placements to measurable child outcomes). In addition, agency officials and providers review performance data, discuss client outcomes, and attempt to identify and institutionalize effective strategies for serving clients. Reilly et al. (2021) find that 25 states currently use performance-based contracting for at least one child welfare service. Several decades ago in New York, a randomized evaluation of a family reunification program, administered by private agencies on a capitation basis, found mixed results (Westat 1998). Although we are not aware of any recent experimental evaluations of performance-based contracting in the field of foster care, descriptive studies suggest that such initiatives may be effective. Garstka et al. (2012) report on demonstration projects that implemented performance-based contracting in Florida, Missouri, and Illinois between 2007 and 2010. They identify several metrics that improved after implementation, including increased child safety and successful discharge from care. Similarly, case studies of Tennessee and Rhode Island describe their experiences with performance-based contracting as successful (Lawler and Foster 2013, Government Performance Lab 2019).

Regardless of the payment model, a better understanding of heterogeneity in value-added created by foster care agencies would inform improvements to the system. Quality dimensions are considered at the state level by federal reviews called Children and Family Services Reviews (CSFRs), which provide a blueprint for outcomes that might be considered. These include measures of safety (preventing foster care reentry), permanency (returning children home or providing placement stability), and child and family wellbeing. The wellbeing measures consider the receipt of needed services, although a wider set of outcomes could be included, such as educational outcomes and criminal justice involvement.

⁷Fee-for-service models in child welfare are structured so that the provider receives payments based on the specific services provided to foster children. A capitation model, in contract, uses cost estimates to provide a fixed payment to the provider per child served, shifting more of the financial risk onto providers.

IV.B Foster Home Recruitment

Perhaps the simplest way to affect the supply of foster homes is to recruit more foster homes. Having a large number of willing foster homes can result in better matching of foster children to homes (Hansen and Hansen 2006). Modeling match quality using administrative data from Los Angeles, Robinson-Cortes (2019) shows that enlarging the pool of foster homes available to children would likely improve child outcomes. Recruiting more foster homes may also reduce the need for congregate care, which is seen as a last resort for children who cannot or should not be placed in a family setting (Chapin Hall & Chadwick Center 2016).

The Children's Bureau recently assessed states on their foster home recruitment practices and rated 34 states as needing improvement (US Department of Health and Human Services 2020b). While there is no national dataset that measures foster home capacity, the number of foster homes available in some states outnumbers the number of foster placements (Wulczyn et al., 2018). This suggests that there is not a shortage of homes everywhere, although child welfare agencies note that it can be difficult to find homes for subgroups like older children and children with special needs (Annie E. Casey Foundation 2018). Agencies often rely on recruitment events at places of worship and advertising in partnership with other private organizations. Recently, digital and data-driven tools have been adopted to support recruitment efforts.⁸ A better understanding of the methods available to modernize foster home recruitment may yield substantial gains in match quality.

IV.C Foster Home Licensure

A key issue that affects the supply of foster homes is the set of requirements to obtain a foster home license. All states require prospective foster families to undergo criminal background checks, but important details of licensing vary across states. For instance, Table 2 shows that as of 2018, 9 states disqualify applicants for any drug-related crime, 14 require citizenship, 18 have minimum square footage requirements, 18 require training in first aid, and 26 require a non-smoking environment. Further, foster parents undergo 23 hours of initial training on average, which varies substantially across states (the standard deviation of initial required training is 8 hours). They also complete 12 hours of annual retraining (with a standard deviation of 4).⁹ For kinship placements, relatives can be unlicensed in some states as long as basic safety standards, such as passing background checks, are met.

States do not receive federal subsidies for unlicensed homes, so they have incentives to encourage licensure. They may also have an incentive to lower licensure requirements, so the US Administration for Children and Families recently released a set of minimum quality standards for licensing foster homes, which includes six hours of pre-licensure parenting training, a written evacuation plan in case

⁸For example, see a description of New York's recruitment efforts here: https://ocfs.ny.gov/programs/fostercare/recruitment/.

⁹Authors' calculations (see Table 2 notes). Statistics on references, initial training hours, and annual training hours could be calculated for 44 states, 42 states, and 42 states, respectively. The remainder of statistics in Table 2 are derived from Child Welfare Information Gateway (2018) and Child Welfare Information Gateway (2019a).

of an emergency, and assurance that the foster parents will not smoke in the presence of the child. Although the recommended standards are not binding, states are required to submit plans with a discussion of how and why their licensing standards deviate from the national standards (Children's Defense Fund 2020).

It is not clear from economic theory how licensing requirements affect the wellbeing of foster children. On one hand, they establish minimum quality standards for specific aspects of care. On the other hand, licensing requirements may limit the supply of foster homes, which could increase placement in congregate care settings and reduce the quality of matches among those placed with families. In part because of the many requirements, it can take months for homes to obtain a license. Digital aids to complete and submit paperwork should increase the efficiency of the process. Regardless, further research on the effects of different licensing requirements is needed.

IV.D Monthly Maintenance Payments

Financial incentives can also affect the number of families willing to take in foster children. Foster families receive monthly subsidies to support the children staying with them, as well as one-time payments for specific needs. The average monthly foster care payment was just over \$500, which is twice the amount of the average Temporary Assistance for Needy Families benefit (US GAO 2011). Payments vary widely across states, as well as by the age of the child, relative status, and other factors.

In theory, subsidies could act as a price mechanism to clear the market, but in practice, they reflect rules of thumb tied to the average cost of hosting one child. For instance, foster care subsidies often do not vary by location within a state or by placement setting, are not adjusted for inflation, and are revised infrequently (Goldhaber-Fiebert et al. 2014).

Some evidence suggests that these subsidies could be used as a policy lever. Doyle and Peters (2007) studied foster care supply and demand in the early 1990s. The study estimates that the monthly subsidy has a supply elasticity of 0.3 in states with low initial subsidy levels. In a related paper, Doyle (2007b) finds that when Illinois reduced the monthly subsidy to relatives by 30 percent, relatives were 15 percent less likely to offer care. The finding that foster homes respond to financial incentives is echoed in work on adoption subsidies, which finds that raising adoption subsidies increase adoptions relative to long-term foster care (for example, see Brehm (2021) and the references therein).

IV.E Effects of Different Types of Placements

One supply-side policy that can affect child wellbeing is the type of placements that are employed. Foster care placements can vary in a number of ways: for example, kin or non-kin families, or residential vs. family care. Non-kin families typically receive more training and vetting, and they are volunteering their services, which may lead to higher quality care. Meanwhile, kinship foster parents are typically offered fewer supports from child welfare agencies (Sakai et al. 2011), though kinship care may benefit children by retaining family connections. Similarly, residential care may provide specialized mental or physical health services.

Evidence on the effects of foster placement type is limited, but some quasi-experimental studies shed light on the relative benefits of placement types. Doyle's (2007b) examination of the reduction of monthly payments made to kin found that measures of quality of care, including wellness visits and placement stability, were not affected. This suggests that marginal kinship providers are similar to non-kin providers in terms of these quality measures. Hayduk (2017) studied state policy changes and found that children exposed to laws favoring kinship care experience more stable placements and shorter foster care episodes, but mental and physical health outcomes appear unaffected in the short run.

IV.F Independent Living Programs

When children transition out of foster homes or congregate care as young adults, independent living programs aim to help prepare them for adulthood. All youth ages 14 to 23 currently or formerly in foster care are eligible for independent living programs (Children's Defense Fund 2020). Such programs include assistance in completing a high school diploma or GED, job training, or postsecondary education. Young adults exiting the foster care system who are at risk of homelessness are also eligible for housing vouchers provided by the U.S. Department of Housing and Urban Development.

The federal government funded four experimental evaluations as part of the creation of the Chafee Foster Care Independence program enacted in 1999. Just one out of the four studies found positive impacts on key indicators of a successful transition to adulthood. The lone success story was from the Massachusetts Adolescent Outreach Program for Youths in Intensive Foster Care, which paired youths with a caseworker who met with young people once a week for 16 months to offer individualized services in areas such as job search. The program improved college enrollment and persistence but did not have impacts on other outcomes that it sought to influence like employment and housing (Courtney et al. 2011). More recent evaluations of independent living programs show modest promise (see, for example, Skemer and Valentine 2016).

V Conclusion

Foster care is a far-reaching intervention in the lives of particularly vulnerable children. With substantial variation in how child welfare systems use the practice, and emerging evidence of heterogenous effects across systems, more evidence is needed to inform policy challenges and improve child and family wellbeing.

On the demand side, a better understanding of the drivers of child maltreatment, and interventions that ameliorate them, could prevent the need for foster care in the first place. This suggests that poverty alleviation programs, as well as programs aimed to improve the human capital of parents, should consider child maltreatment and foster care placement as outcomes in their evaluations. Further, targeted family preservation initiatives now receive federal subsidies, and there is an appetite for more evidence on the effectiveness of such programs. There is also a need for better evidence on diversion programs that circumvent the formal foster care system, which are not only controversial but also understudied.

On the supply side, efforts to improve the quality of foster care through modernizing the recruitment and matching of foster homes are gaining some popularity and are in need of rigorous evaluation. Better measures of the supply of foster homes and signs of shortages such as placement distance-from-home and time in emergency shelters would help to evaluate the extent of any shortage problem and to gauge the effectiveness of efforts to solve it. For example, returns to different forms of targeted advertising, including appeals to child wellbeing, monthly subsidies, or information about the licensure process should be estimated to inform future recruitment strategies.

A key question about the best type of placement (non-kin, kin, and congregate care) for different types of children remains unanswered. For example, children currently residing in congregate care could have their placements revisited through more-intense case management, to test whether time in congregate care can be reduced and whether subsequent outcomes improve. In addition, the services provided to children already in foster care deserve more attention. Counseling, mentorship initiatives, and jobs programs should all be studied. At the agency level, much more could be learned about the impacts of private provision of services and performance contracting.

As agencies work to advance equity in child welfare and foster care, studying the effects of programs and policies are crucial next steps. For example, several jurisdictions have considered removing racial indicators and correlates from investigation reports when determining whether to place a child in foster care, yet research suggests caution is warranted in taking this step (Baron et al. 2021).

More generally, understanding the mechanisms driving heterogeneous effects of foster care is an important next step in addressing the underlying tradeoff between child protection and family preservation. The current patchwork of state and local foster care systems provides an opportunity for well-identified studies to understand the benefits and costs of such systems. Meanwhile, linked administrative data and foster care program data, after two decades of federal subsidies to modernize state child welfare data systems, are providing new opportunities to study the long-term impact of interventions. Coupled with a willingness among policymakers to generate and employ evidence on best practices, foster care research is poised to inform policy and improve the welfare of children.

References

- Aizer, Anna, Shari Eli, Joseph Ferrie, and Adriana Lleras-Muney. 2016. "The Long-Run Impact of Cash Transfers to Poor Families." *American Economic Review*, 106(4): 935–971.
- Annie E. Casey Foundation. 2013. "The Kinship Diversion Debate: Policy and Practice Implications for Children, Families, and Child Welfare Agencies." Annie E. Casey Foundation, Baltimore.
- Annie E. Casey Foundation. 2018. "What Impacts Placement Stability?" Annie E. Casey Foundation, Baltimore.
- Annie E. Casey Foundation. 2019. "Future Savings: The Economic Potential of Successful Transitions from Foster Care to Adulthood." Annie E. Casey Foundation, Baltimore.
- Annie E. Casey Foundation. 2022. "KIDS COUNT Data Center." Annie E. Casey Foundation. https://datacenter.kidscount.org/.
- Bald, Anthony, Eric Chyn, Justine S. Hastings, and Margarita Machelett. Forthcoming. "The Causal Impact of Removing Children From Abusive and Neglectful Homes." *Journal of Political Economy.*
- Bald, Anthony, Joseph J. Doyle Jr., Max Gross, and Brian A. Jacob. 2022. "Data and Code for: Economics of Foster Care." American Economic Association [publisher], Inter-university Consortium for Political and Social Research [distributor]. http://doi.org/10.3886/E150422V1.
- Baron, E. Jason, and Max Gross. 2022. "Is There a Foster Care-to-Prison Pipeline? Evidence from Quasi-Randomly Assigned Investigators." *Unpublished*.
- Baron, E. Jason, Ezra G. Goldstein, and Joseph P. Ryan. 2021. "The Push for Racial Equity in Child Welfare: Can Blind Removals Reduce Disproportionality?" *Unpublished*.
- Barrat, Vanessa X., and BethAnn Berliner. 2013. "The Invisible Achievement Gap, Part I: Education Outcomes of Students in Foster Care in California's Public Schools." WestEd, San Francisco.
- Barth, Richard P., Melissa Jonson-Reid, Johanna K. P. Greeson, Brett Drake, Jill Duerr Berrick, Antonio R. Garcia, Terry V. Shaw, and John R. Gyourko. 2020. "Outcomes Following Child Welfare Services: What Are They and Do They Differ for Black Children?" Journal of Public Child Welfare, 14(5): 477–499.
- Berger, Lawrence M., Maria Cancian, Eunhee Han, Jennifer Noyes, and Vanessa Rios-Salas. 2014. "Children's Academic Achievement and Foster Care." *Pediatrics*, 135(1): 110–6.
- Berger, Lawrence M., Sarah A. Font, Kristen S. Slack, and Jane Waldfogel. 2017. "Income and Child Maltreatment in Unmarried Families: Evidence from the Earned Income Tax Credit." *Review of Economics of the Household*, 15(4): 1345–1372.
- Berrick, Jill D., and Julia Hernandez. 2016. "Developing Consistent and Transparent Kinship Care Policy and Practice: State Mandated, Mediated, and Independent Care." *Children and Youth Services Review*, 68: 24–33.
- Brehm, Margaret E. 2021. "Taxes and Adoptions from Foster Care: Evidence from The Federal Adoption Tax Credit." *Journal of Human Resources*, 56(4): 1031–1072.
- Bullinger, Lindsey R., Jason M. Lindo, and Jessamyn Schaller. Forthcoming. "Economic Determinants of Child Maltreatment." In *Encyclopedia of Law and Economics*. Vol. 2nd, , ed. Alain Marciano and Giovanni B. Ramello.
- Cancian, Maria, Mi-Youn Yang, and Kristen Shook Slack. 2013. "The Effect of Additional Child Support Income on the Risk of Child Maltreatment." Social Service Review, 87(3): 417–437.
- Chadwick Center, and Chapin Hall. 2016. "Using Evidence to Accelerate the Safe and Effective Reduction of Congregate Care for Youth Involved with Child Welfare." Chadwick Center and Chapin Hall, Chicago and San Diego.

- Chen, Ding-Geng, Mark F. Testa, David Ansong, and Kanisha C. Brevard. 2020. "Evidence Building and Information Accumulation: Using the Bayesian Paradigm to Advance Child Welfare Intervention Research." *Journal* of the Society for Social Work and Research, 11(3): 483–98.
- Children's Defense Fund. 2020. "Implementing the Family First Prevention Services Act: A Technical Guide for Agencies, Policymakers, and Other Stakeholders." Children's Defense Fund, Washington, DC.
- Child Welfare Information Gateway. 2018. "Home Study Requirements for Prospective Foster Parents." US Department of Health and Human Services, Children's Bureau, Washington, DC.
- Child Welfare Information Gateway. 2019a. "Background Checks for Prospective Foster, Adoptive, and Kinship Caregivers." US Department of Health and Human Services, Children's Bureau, Washington, DC.
- Child Welfare Information Gateway. 2019b. "What Is Child Abuse and Neglect? Recognizing the Signs and Symptoms." Children's Bureau, Administration for Children and Families, Washington, DC.
- Courtney, Mark E., Andrew Zinn, Heidi Johnson, and Karin E. Malm. 2011. "Evaluation of the Massachusetts Adolescent Outreach Program for Youths in Intensive Foster Care: Final Report." Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services, Washington, DC.
- Courtney, Mark E., Nathanael J. Okpych, and Sunggeun Park. 2018. "Report from CalYOUTH: Findings on the Relationship between Extended Foster Care and Youth's Outcomes at Age 21." Chapin Hall at the University of Chicago, Chicago.
- Courtney, Mark E., Nathanael J. Okpych, Justin Harty, Huiling Feng, Sunggeun Park, Jenna Powers, Melanie Nadon, Dale J. Ditto, and Keunhye Park. 2020. "Findings from the California Youth Transitions to Adulthood Study (CalYOUTH): Conditions of Youth at Age 23." Chapin Hall at the University of Chicago, Chicago.
- **Dettlaff, Alan J., and Reiko Boyd.** 2020. "Racial Disproportionality and Disparities in the Child Welfare System: Why Do They Exist, and What Can Be Done to Address Them?" *The ANNALS of the American Academy of Political and Social Science*, 692(1): 253–274.
- **Doyle, Joseph J.** 2007a. "Child Protection and Child Outcomes: Measuring the Effects of Foster Care." American Economic Review, 97(5): 1583–610.
- **Doyle, Joseph J.** 2007b. "Can't Buy Me Love? Subsidizing the Care of Related Children." Journal of Public Economics, 91: 281–304.
- **Doyle, Joseph J.** 2008. "Child Protection and Adult Crime: Using Investigator Assignment to Estimate Causal Effects of Foster Care." *Journal of Political Economy*, 116(4): 746–70.
- Doyle, Joseph J. 2013. "Causal Effects of Foster Care: An Instrumental-Variables Approach." Children and Youth Services Review, 35: 1143–51.
- Doyle, Joseph J., and H. Elizabeth Peters. 2007. "The Market for Foster Care: An Empirical Study of the Impact of Foster Care Subsidies." *Review of Economics of the Household*, 5: 329–51.
- Drake, Brett, Melissa Jonson-Reid, María Gandarilla Ocampo, Maria Morrison, and Darejan (Daji) Dvalishvili. 2020. "A Practical Framework for Considering the Use of Predictive Risk Modeling in Child Welfare." The ANNALS of the American Academy of Political and Social Science, 692(1): 162–181.
- **Dworsky, Amy, Laura Napolitano, and Mark Courtney.** 2013. "Homelessness During the Transition From Foster Care to Adulthood." *American Journal of Public Health*, 103(2): 318–23.
- Fein, David J., and Wang S. Lee. 2003. "The Impacts of Welfare Reform on Child Maltreatment in Delaware." *Children and Youth Services Review*, 25(1-2): 83–111.
- Finkelhor, David, Heather A. Turner, Anne Shattuck, and Sherry L. Hamby. 2015. "Prevalence of Childhood Exposure to Violence, Crime, and Abuse: Results from the National Survey of Children's Exposure to Violence." JAMA Pediatrics, 169(8): 746–754.

- Fong, Kelley. 2020. "Getting Eyes in the Home: Child Protective Services Investigations and State Surveillance of Family Life." American Sociological Review, 85(4): 610–38.
- Font, Sarah A., and Kathryn Maguire-Jack. 2020. "The Scope, Nature, and Causes of Child Abuse and Neglect." The ANNALS of the American Academy of Political and Social Science, 692(1): 26–49.
- Garstka, Teri A., Crystal Collins-Camargo, Jennifer G. Hall, Melissa Neal, and Karl Ensign. 2012. "Implementing Performance-Based Contracts and Quality Assurance Systems in Child Welfare Services: Results From a National Cross-Site Evaluation." Journal of Public Child Welfare, 6(1): 12–41.
- Goldhaber-Fiebert, Jeremy D, and Lea Prince. 2019. "Impact Evaluation of a Predictive Risk Modeling Tool for Allegheny County's Child Welfare Office."
- Goldhaber-Fiebert, Jeremy D., Kimberly S. Babiarz, Rachel L. Garfield, Fred Wulczyn, John Landsverk, and Sarah M. Horwitz. 2014. "Explaining Variations in State Foster Care Maintenance Rates and the Implications for Implementing New Evidence-Based Programs." *Children and Youth Services Review*, 39: 183–206.
- **Government Performance Lab.** 2019. "Transforming Service Delivery for Children, Youth, and Families in Rhode Island." Harvard Kennedy School Government Performance Lab, Providence.
- Grimon, Marie-Pascale. 2020. "Effects of the Child Protection System on Parents." Unpublished.
- Gross, Max, and E. Jason Baron. Forthcoming. "Temporary Stays and Persistent Gains: The Causal Effects of Foster Care." American Economic Journal: Applied Economics.
- Hansen, Mary E., and Bradley A Hansen. 2006. "The Economics of Adoption of Children from Foster Care." *Child Welfare*, 85(3): 559–83.
- Haskins, Ron. 2020. "Child Welfare Financing: What Do We Fund, How, and What Could Be Improved?" The ANNALS of the American Academy of Political and Social Science, 692(1): 50–67.
- Hayduk, Iryna. 2017. "The Effect of Kinship Placement Laws on Foster Children's Well-Being." The B.E. Journal of Economic Analysis & Policy, 17(1).
- Hou, Claire. 2021. "The Opioid Crisis and Foster Care Dynamics." Unpublished.
- Hubel, Grace S., Alayna Schreier, David J. Hansen, and Brian L. Wilcox. 2013. "A Case Study of the Effects of Privatization of Child Welfare on Services for Children and Families: The Nebraska Experience." *Children* and Youth Services Review, 35(12): 2049–2058.
- James Bell Associates. 2019. "Special Topic Paper Child Welfare Waiver Demonstrations and Evidence-Based Programs." Children's Bureau, Administration for Children and Families, U.S. Department of Health and Human Services, Washington, DC.
- Kim, Hyunil, Christopher Wildeman, Melissa Jonson-Reid, and Brett Drake. 2017. "Lifetime Prevalence of Investigating Child Maltreatment Among US Children." American Journal of Public Health, 107(2): 274–280.
- Lawler, Patrick, and Jessica Foster. 2013. "Making Performance-Based Contracting Work for Kids and Families." Community Development Innovation Review, 9(1).
- Lee, Bethany R., Charlotte L. Bright, Deborah V. Svoboda, Sunday Fakunmoju, and Richard P. Barth. 2011. "Outcomes of Group Care for Youth: A Review of Comparative Studies." *Research on Social Work Practice*, 21(2): 177–189.
- Merritt, Darcey H. 2020. "How Do Families Experience and Interact with CPS?" The ANNALS of the American Academy of Political and Social Science, 692(1): 203–226.
- OECD. 2013. "OECD Family Database." https://www.oecd.org/social/family/database.htm/.

- Okpych, Nathanael J., and Mark E. Courtney. 2014. "Does Education Pay for Youth Formerly in Foster Care? Comparison of Employment Outcomes with a National Sample." *Children and Youth Services Review*, 43: 18–28.
- Olds, D. L., J. Eckenrode, C. R. Henderson, H. Kitzman, J. Powers, R. Cole, K. Sidora, P. Morris, L. M. Pettitt, and D. Luckey. 1997. "Long-Term Effects of Home Visitation on Maternal Life Course and Child Abuse and Neglect. Fifteen-year Follow-up of a Randomized Trial." JAMA, 278(8): 637–643.
- Prettyman, Alexa. 2020. "Happy 18th Birthday, Now Leave: The Hardships of Aging Out of Foster Care." Unpublished.
- Putnam-Hornstein, Emily, Barbara Needell, Bryn King, and Michelle Johnson-Motoyama. 2013. "Racial and Ethnic Disparities: A Population-Based Examination of Risk Factors for Involvement with Child Protective Services." *Child Abuse & Neglect*, 37(1): 33–46.
- Rambachan, Ashesh, Jon Kleinberg, Sendhil Mullainathan, and Jens Ludwig. 2020. "An Economic Approach to Regulating Algorithms." National Bureau of Economic Research w27111.
- Reilly, Aaron, HeeJin Kim, Lawrence M. Berger, Jessica Pac, and Kristen S. Slack. 2021. "Performance-Based Contracts in Ongoing Work." Unpublished. Memorandum to WI Department of Children and Families.
- Roberts, Kelsey V. 2019. "Foster Care and Child Welfare." PhD diss. Clemson University.
- Robinson-Cortes, Alejandro. 2019. "Who Gets Placed Where and Why? An Empirical Framework for Foster Care Placement." Unpublished.
- Rouland, Bénédicte, and Rhema Vaithianathan. 2018. "Cumulative Prevalence of Maltreatment Among New Zealand Children, 1998-2015." American Journal of Public Health, 108(4): 511–513.
- Rubin, D. M., E. A. Alessandrini, C. Feudtner, D. S. Mandell, A. R. Localio, and T. Hadley. 2004. "Placement Stability and Mental Health Costs for Children in Foster Care." *Pediatrics*, 113(5): 1336–1341.
- Sakai, Christina, Hua Lin, and Glenn Flores. 2011. "Health Outcomes and Family Services in Kinship Care: Analysis of a National Sample of Children in the Child Welfare System." Archives of Pediatrics & Adolescent Medicine, 165(2).
- Skemer, Melanie, and Erin Jacobs Valentine. 2016. "Striving for Independence." MDRC, New York.
- Testa, Mark F., and David Kelly. 2020. "The Evolution of Federal Child Welfare Policy through the Family First Prevention Services Act of 2018: Opportunities, Barriers, and Unintended Consequences." The ANNALS of the American Academy of Political and Social Science, 692(1): 68–96.
- Turney, Kristin, and Christopher Wildeman. 2016. "Mental and Physical Health of Children in Foster Care." *Pediatrics*, 138(5).
- **US Bureau of Justice Statistics.** 2021. "Survey of Prison Inmates, United States, 2016." Inter-university Consortium for Political and Social Research [distributor], Ann Arbor.
- **US Department of Health and Human Services.** 2007. "Assessing Site Readiness: Considerations about Transitioning to a Privatized Child Welfare System." ASPE, Washington, DC.
- **US Department of Health and Human Services.** 2020*a.* "Adoption and Foster Care Analysis and Reporting System (AFCARS), Foster Care Files 1995-2019 [Dataset]." Administration for Children and Families, Administration on Children, Youth, and Families, Children's Bureau, Washington, DC.
- **US Department of Health and Human Services.** 2020b. "Systemic Factors Results from the CFSRs: 2015-2018." Administration for Children and Families, Children's Bureau.
- **US Department of Health and Human Services.** 2021. "Child Maltreatment 2019." Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau, Washington, DC.

- **US Government Accountability Office.** 2011. "Increased Data Sharing Could Improve Access to Benefits and Services." US Government Accountability Office, Washington, DC.
- Vaithianathan, Rhema. 2019. "Implementing a Child Welfare Decision Aide in Douglas County: Methodology Report." Centre for Social Data Analytics, Auckland.
- Warburton, William P., Rebecca N. Warburton, Arthur Sweetman, and Clyde Hertzman. 2014. "The Impact of Placing Adolescent Males Into Foster Care on Education, Income Assistance, and Convictions." *Canadian Journal of Economics*, 47(1): 35–69.
- Westat, Chapin Hall Center for Children at the University of Chicago, and James Bell Associates. 1998. "Evaluation of The New York City Home Rebuilders Demonstration." ASPE, Washington, DC.
- Wildeman, Christopher, and Natalia Emanuel. 2014. "Cumulative Risks of Foster Care Placement by Age 18 for U.S. Children, 2000-2011." *PLoS ONE*, 9(3): e92785.
- Wulczyn, Fred. 2020. "Foster Care in a Life Course Perspective." The ANNALS of the American Academy of Political and Social Science, 692(1): 227–252.
- Wulczyn, Fred, Britany Orlebeke, Kristen Hislop, Florie Schmits, Jamie McClanahan, and Lilian Huang. 2018. "The Dynamics of Foster Home Recruitment and Retention." Chapin Hall at the University of Chicago, Chicago.
- Yi, Youngmin, Frank R. Edwards, and Christopher Wildeman. 2020. "Cumulative Prevalence of Confirmed Maltreatment and Foster Care Placement for US Children by Race/Ethnicity, 2011–2016." American Journal of Public Health, 110(5): 704–709.

	(1)	(2)	(3)	(4)
	Number in	Share in	Share in	Difference
	2019	2004	2019	(3) - (2)
Panel A: Children ages 0-17 ($N = 73,039$,	,150)			
Investigated for maltreatment	$3,\!449,\!674$	3.52	4.72	+1.19
Confirmed as victims	$652,\!253$	0.97	0.89	-0.08
Entered foster care	250,311	0.41	0.34	-0.06
In foster care at end of fiscal year	419,760	0.68	0.57	-0.11
Panel B: Removal reason for children ente	ering care (N	= 250,311)		
Removed due to neglect	U (51.43	63.87	+12.44
Removed due to parent substance use		23.34	38.15	+14.81
Removed due to physical abuse		16.88	12.94	-3.94
Removed due to sexual abuse		6.33	3.96	-2.37
Panel C: Placement setting for children at	t end of year (N = 418, 6	54)	
Unrelated foster family		47.40	46.62	-0.77
Kinship care		22.61	31.94	+9.33
Congregate care		18.05	10.56	-7.49
Other setting		11.95	10.88	-1.07
Panel D: Exit reason for children leaving	care ($N = 241$	(,796)		
Reunification with parents		54.20	48.32	-5.88
Adoption		18.90	26.63	+7.72
Transition to relatives or guardianship		16.91	17.20	+0.29
Emancipation		5.95	6.40	+0.45

Table 1: Foster Care Trends

Notes: Reported sample sizes are for 2019. Panel A reports statistics among children ages 0-17. Panel B reports the percentage of children removed for each reason among children entering foster care. Children can be removed for multiple reasons, which are not mutually exclusive. Panel C reports the most recently observed placement setting for children in care at the end of the fiscal year. This sample size is smaller than the total reported in Panel A due to missing data on placement setting. Panel D reports exit reasons for children leaving care. Exits from care are mutually exclusive, where the omitted category (1.45 percent) includes agency transfers, runaways, and child deaths. See text for sources.

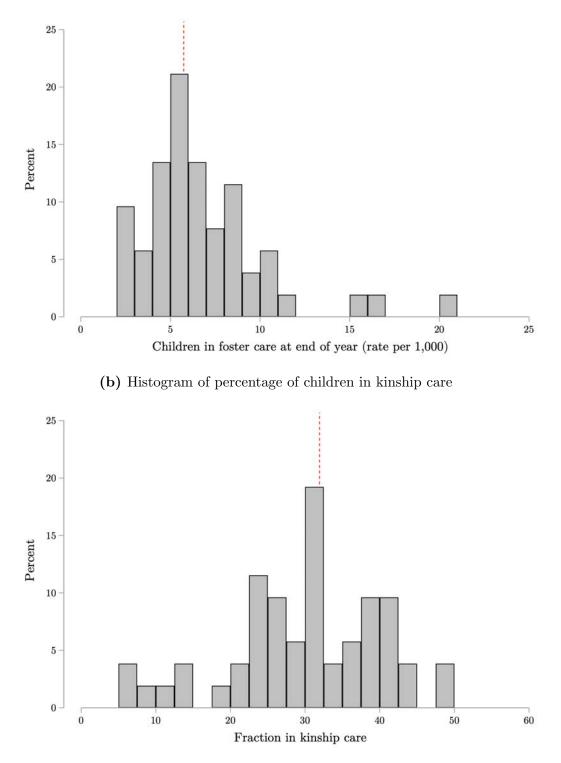
	States
Criminal history requirements:	
Background check and child abuse registry	
Child abuse registry check for previous state lived in	
Never convicted of assault or battery	13
Never convicted of a drug-related crime	
Juvenile court records check	7
Individual requirements:	
Aged 21 or older	36
U.S. citizen or legal resident	
Legally married if a couple	5
Ability to communicate in English	4
Training requirements:	
Initial licensing training	45
Annual training for license renewal	42
Training in First Aid/CPR	18
Home requirements:	
Separate bedrooms for opposite-sex children	37
Secure firearm storage	35
Non-smoking environment	26
Carbon monoxide detectors	20
Minimum square footage per child	18

Table 2: State Foster Home Licensing Requirements

Notes: State requirements come from the Child Welfare Information Gateway (CWIG 2018; CWIG 2019a). Criminal history requirements are current as of September 2018. Individual, training, and home requirements are current as of February 2018. Note that some state child welfare systems are managed at the county level and may have stricter or more lenient requirements.

Figure 1: State Variation in Foster Care Placement Rate and Percentage Kinship Care

(a) Histogram of children in foster care at end of year (rate per 1,000)



Notes: Panel (a) reports the foster care placement rate per 1,000 children (one observation for each state). We report placement rates among children ages 0 to 17 who were in foster care at the end of the 2019 fiscal year. The vertical line represents the nationwide placement rate. Panel (b) reports the percentage of foster children in kinship care (one observation for each state). We report the percentage of children ages 0 to 17 who were in foster care at the end of the 2019 fiscal year and who were placed in kinship care. The vertical line represents the nationwide percentage in kinship care. See text for sources.