More Money, Fewer Problems?
The Effect of Foster Care Payments on Children's Quality of Care *

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Abstract

Payments to foster parents are among the largest per capita support payments targeted toward disadvantaged children in the United States. These payments vary considerably by state and have been the subject of longstanding policy debates, but the overall effect of payments on children's quality of care is theoretically ambiguous. We study the effect of foster care payments on caregiver labor supply, children's foster care experiences, and children's health using two sources of variation: natural variation in increases to state statutory payment rates and age-specific payment discontinuities that vary by state. To measure short-term outcomes, we assemble an extensive 13-year, 39-state panel of payment rates combined with microdata from Medicaid enrollment, claims, the Adoption and Foster Care Analysis and Reporting System (AFCARS), and the American Community Survey. In contrast to the prior literature, we find that increasing foster care payments has only a modest effect on whether a child is placed with a family versus in group-based care: less than a one percent increase in family home placement per $1,000 increase in a state's annual payment rate. Further, we find little evidence of benefits along multiple dimensions of child well-being. Our findings highlight the limitations of payments to caregivers as a cost-effective tool for improving children's quality of care.

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1 Introduction

Six percent of children in the United States, including up to 12 and 15 percent of Black and Native American children, respectively, are removed from their families by child protective services and placed in foster care before age 18 (Wildeman and Emanuel, 2014).[1] These children are a particularly vulnerable population, often coming from low-income and single-parent households and having suffered abuse or neglect as well as the trauma of removal. Former foster youth are disproportionately more likely to become homeless, incarcerated, victims of human trafficking, experience teen pregnancy, and suffer from poor physical and mental health compared to the general population (Courtney et al., 2011; Turney and Wildeman, 2016).[2]

One way state foster care systems can improve the life trajectory of severely maltreated children is through monetary support for foster families who provide homes for victims of abuse and neglect. Under Title IV-E of the Social Security Act, states are required to financially compensate non-kin foster families to offset the costs of essential services and incidentals for children in their care.[3] Payments to care providers, known as foster care maintenance payments, amounted to approximately $6 billion in 2017 and are among the largest per capita cash transfers directed toward disadvantaged children in the United States.[4]

Given the high later-life social costs for children in out-of-home placement, foster care maintenance payments could potentially generate substantial returns from increased human capital investment in a significant fraction of the U.S. child population and address longstanding shortages in available foster homes. Payments, however, are relatively unregulated and vary widely across states, ranging from $3,600 annually for a four-year-old in Missouri to more than $9,000 for a comparable child in neighboring Tennessee in 2017 (Figure 2). These disparities, accompanied by periodic complaints from foster parent organizations, highlight the relevance of payments for child welfare policy and, more broadly, for understanding the impacts of income transfers on child well-being. Despite their possible benefits, maintenance payments have several distinguishing features from other sources of monetary support: they are transitory, may be spent differently by foster parents than biological parents, and may even affect the type and quality of foster parenting a child receives by affecting caregiver recruitment, selection, and prosocial motivation. These considerations render the sign, magnitude, and overall cost-effectiveness of foster care payments theoretical ambiguous.

The goal of our paper is to estimate the effects of foster care payment rates on caregiver labor supply, children's foster care experiences, and children's health. To accomplish this, we leverage natural variation in the timing of increases to state statutory minimum payment rates using event study and dynamic triple-difference designs. In response to a lack of centralized data on child welfare policy, we assemble a novel 13-year, 39-state panel of historical payment rates and use microdata from Medicaid claims and the Adoption and Foster Care Analysis and Reporting System (AFCARS) to measure child health, caregiver characteristics, and foster care experiences. This paper is among the first to use Medicaid claims across multiple states to estimate the effect of a policy on the health of children in foster care.

[1] Foster care is a temporary living arrangement for children and youth who are removed from their homes due to elevated risk of abuse or neglect or, in a smaller number of cases, child behavior problems. Foster care providers include state-licensed family homes (kin and non-kin) and congregate care facilities (group homes, residential facilities). Children and youth who leave foster care may be reunified with their biological parents, live with kin, live with an non-kin adoptive family, or age out of the system.

[2] Among 26-year-old adults who were in foster care at age 17, over 50 percent report being unemployed or out of the labor force, 40 percent of men report being in jail or prison in the past 30 months, and 32 percent of women experience pregnancy before age 18 (Courtney et al., 2011). Many children and youth in foster care also have poor health outcomes. Compared to children not removed from their homes, children who have been in foster care are three times more likely to have been diagnosed with ADD/ADHD, more than twice as likely to have asthma or a BMI above 30, more than five times as likely to have a behavioral problem, and are seven times more likely to suffer from depression (Turney and Wildeman, 2016). The prevalence of post-traumatic stress disorder (PTSD) for young adults formerly in family foster care is 25.2 percent in a given year, higher than the rate for U.S. war veterans (Pecora et al., 2005).

[3] https://www.ssa.gov/OP_Home/ssact/title04/0470.htm

[4] Authors' calculation using AFCARS reported payments from federal, state, county, municipal, tribal, and private sources. See Figure A2 for more information on calculation and trends. See Hoynes and Schanzenbach (2018) for figures on social safety-net investments in children.

We estimate that a $1,000 increase in the annualized basic statutory rate is associated with a roughly $740 increase in the actual payment a caregiver receives per child. Surprisingly, however, and in sharp contrast to the prior literature, we find that increases to foster care payment rates have only a modest effect on whether a child is placed with a family or in congregate (group-based) care: a $1,000 increase in a state's annual payment rate is associated with a precisely estimated 0.6 percentage point (0.75 percent) increase in the likelihood of family home placement just over two years after the policy is implemented. Our results also reveal few significant effects of payments on placement stability, exit settings, neighborhood quality, health care utilization, and child health, although health outcomes are less precisely estimated. These results are robust to a variety of subsamples and specifications, with supporting evidence from age-based discontinuities in payment rates. The mean payment increase in our sample is approximately $2,000, comparable in magnitude to changes in other income-increasing policies such as the EITC.

Overall, our findings suggest that, along the indicators we observe, raising foster care payments may not be a cost-effective strategy for improving children's quality of care. Exploring mechanisms with additional data from the American Community Survey, our findings suggest that increases in payments are not associated with measurable reductions in caregiver socioeconomic status or increases in children per household, but leave open other possible explanations for lack of improvement in quality of care metrics.

Our findings provide nuance to a growing literature studying the causal effect of income on children's human capital, health, and well-being. Prior work has estimated modest to substantial effects of income from tax benefits on child development (Milligan and Stabile, 2012; Dahl and Lochner, 2012; Barr et al., 2022). This paper focuses on support payments targeted at a particularly vulnerable population of children in out-of-home care, which could potentially yield high returns on investment. Beyond providing an important source of family income,[5] however, a unique feature of our context is that foster care payments may also affect the type of family a child receives. Our setting provides a relevant empirical context for understanding wage incentives, labor supply, altruism, and selection in the context of informal, monopsony, and nonprofit markets (Ashraf et al., 2020; Carpenter and Myers, 2010; Frey and Goette, 1999).

Finally, our work advances a longstanding child welfare policy debate on the effectiveness of maintenance payments. Although we are not the first to estimate the effect of foster care payments on placements or child outcomes (Doyle and Peters, 2007; Duncan and Argys, 2007; Doyle, 2008), our study uses increasingly comprehensive and contemporary sources of administrative data made available since the 1990s (2000-2012; 2000-2017 for some samples) and considers payments to both kin and non-kin caregivers.

The paper proceeds as follows. Section 2 presents background about the foster care system and provides comparisons with past studies. Section 3 describes the different data sources used in this paper. Section 4 shows the empirical strategy used to estimate the effects of payments on outcomes. Section 5 presents results. Finally, Section 6 concludes.

2 Background and Related Literature

From 2000-2012, the United States foster care system arranged for the home placement of four million child victims of abuse and neglect. Foster care is a temporary living arrangement for children and youth who are removed from their homes due to elevated risk of abuse or neglect or, in a smaller number of cases, child behavior problems. Removal of a child to foster care typically occurs after an investigation from Child Protective Services. Once a child has been

[5]Using data from the Current Population Survey, Pac et al. (2017) find that foster care payments reduce the poverty rate among foster parents by roughly 24 percent.

removed from the home, they remain under state custody until they are reunified with a parent or otherwise exit the foster care system. Children are placed in a given foster care setting based on the child's level of need, proximity to family and school, the available number of beds, and a host of other factors. Foster care providers range from state-licensed family homes, similar to an ordinary home with a kin or non-kin caregiver, to more professionalized, group-based residences known as congregate care. A child's time in foster care may last several years and involve a number of different placements. Children and youth who leave foster care may be reunified with their biological parents, live with kin, live with an non-kin adoptive family, or age out of the system without a family.

Foster care maintenance payments are legally required under Title IV-E of the Social Security Act, under which states are mandated to compensate non-kin foster families to offset the costs of essential services and incidentals for children in their care.[6] States have considerable discretion over reimbursement guidelines, however, and basic payment rates generally fall below the estimated cost of childcare in a given state (DeVooght and Blazey, 2013). Foster care payment rates are usually posted as per diem (daily) or monthly rates, and caregivers are reimbursed at the end of the month by check for the duration of a child's placement in that home.[7] Although payments are intended to be spent on children in care, expenditures are not rigorously regulated in practice. The lack of standardization and widespread variation in foster care payments provide a valuable opportunity to study the effect of payments on children's well-being.

2.1 Possible Mechanisms for Payments to Affect Quality of Care

There are several channels by which foster care maintenance payments may influence the quality of care for children in foster care. First, payments may have a direct positive income effect on child well-being through increased household investment in child needs and reduced household stress. Milligan and Stabile (2012) document positive effects of Canadian income supplements on children and youth's socio-emotional outcomes, finding a $1,000 increase in simulated benefits in families where the mother has no postsecondary education improves boys' test scores by nearly 20 percent of a standard deviation, reduces girls' physical aggression score by more than 10 percent of a standard deviation, and improves maternal mental health by 12 percent of a standard deviation, altogether suggesting these payments may improve outcomes through a "family process" caregiver emotional well-being channel. Likewise, Dahl and Lochner (2012; 2017) find that a $1,000 increase in family income through increased EITC generosity improves children and youth's math and reading test scores by approximately four percent of a standard deviation.

Second, a consideration unique to this setting is that foster care payments may influence the types of parents children receive. Increases to payments may influence the marginal caregivers' level of altruism or socioeconomic status, each of which contribute to child development. Foster parenting is sometimes perceived as a selfless public service, invoking comparisons between the market for foster care and the market for blood donation, where an extensive literature has found mixed evidence for whether payments crowding out blood donation quality (Tung, Niza, and Marteau 2013; Titmuss 1970). The negative association between extrinsic rewards and worker effort in certain settings has been justified theoretically (Bénabou and Tirole 2003; 2006) and documented empirically (Ashraf et al. 2020 for health care workers in Zambia; Carpenter and Myers 2010 for firefighters in Vermont; Frey and Göette 1999 for volunteers in Switzerland), although Ashraf et al. (2020) show this tradeoff need not occur when applicants can be sorted based on talent. In our setting, given the perceived shortage of foster parents and frictions involved in placing and removing children from foster families, agencies are likely limited in their ability to discriminate among prospective foster parents. Indeed, anecdotal evidence suggest the possibility of negative selection for some caregivers on altruism or

[6] c.f. https://www.ssa.gov/OP_Home/ssact/title04/0470.htm. Kin families also receive payments in most states.

[7] Most states require a stable source of employment income to register as a foster parent, but it is not clear how well this standard is enforced or monitored over time, especially given a perceived shortage of homes.

socioeconomic status.[8]

Third, income supplements may be spent differently by foster parents than by biological parents. For example, Case et al. (1999; 2000) find evidence of lower food expenditures from parents toward non-biological children, including children in foster care. Case and Paxson (2001) find reduced health investments for step-children, although they are unable to reject similar spending levels between biological and foster parents. Compared to parental spending on biological children, whether foster parents are more or less generous in spending additional payments on the children they are fostering could blunt or amplify the effect of foster care payments on foster children compared to the effect other income supplements for biological children.

Past empirical studies have found a strong relationship between foster care maintenance payments and child placement. Duncan and Argys (2007), exploiting cross-sectional age variation in payment rates for a 1998 sample of children entering foster care for the first time, find that a $100 increase in the monthly rate is associated with a 28.7 percent reduction in the fraction of children in congregate care relative to family homes. Doyle and Peters (2007) examine the relationship between foster care payment rates and number of children in family homes per capita using an unbalanced panel of 32 states from 1987-1995 with a rich set of state-level controls, finding that a ten percent increase in payments is associated with a three percent increase in children in family homes up to a rate of $600/month, beyond which the relationship is negative. Finally, Doyle (2008) exploits a reduction in the kinship payment rate in Illinois, finding that a 30 percent reduction in payments is associated with a 15 percent decline in the fraction of kin caregivers but no significant reduction in child placement stability, health care utilization, or school test scores. Our paper, in contrast to Duncan and Argys (2007) and Doyle and Peters (2007), leverages known exogenous variation in payment rates from across 39 states from 2000-2012, focuses on the fraction of children in family homes instead of a count, and considers additional quality of care, neighborhood, and health outcomes available in AFCARS, Medicaid enrollment and claims, and ACS data. In contrast to Doyle (2008), we consider payment reforms across multiple states for kin and non-kin caregivers. Although our findings on quality of care outcomes are highly consistent with Doyle (2008), we find smaller effects on family home labor supply than in prior work, possibly due to acute shortages in home availability and rising foster care caseloads in the 1990s following the crack epidemic.

3 Data

The lack of administrative data availability has historically been a challenge for understanding the experiences of the sizable population of children in foster care. In this paper, we combine three detailed data sources to overcome this issue: historical state archives of foster care payment rates, child-level microdata from the Adoption and Foster Care Analysis and Reporting System (AFCARS), and child-level Medicaid records. We supplement primary data with the household and neighborhood-level data from the American Community Survey (ACS).

[8] 'A caseworker at a large foster agency confirms Murray's economic analysis. "For people on public assistance, $500 a month [a typical per-child foster care payment] is a lot of money," she says. "They're not using it totally on the kids. If Section 8 pays for housing, and you're getting public assistance—which is not taxed—you can't spend $500 a month on food. They don't pay for the children's clothing or their medical needs, and we reimburse transportation." If the children are disabled or emotionally disturbed, monthly payments can reach $800 a month. The caseworker recalls a grandmother with five grandchildren who collected $3,000 a month for three years, while living in a "disgusting apartment in a scary building." Thereafter, she bought a beautiful town house, cash down. Another caseworker tells of foster parents under her supervision who have never had a job but who have a Jeep Cherokee and a house in the South. "It's an industry for quite poor people," she concludes.' https://www.city-journal.org/html/foster-care%E2%80%99s-underworld-12149.html

3.1 Foster Care Payments

In the absence of comprehensive data on state foster care payment schedules, we have created a panel of foster care maintenance payment rates by state, year, and child's age from 2000-2012. To do so, we used digitally archived state-level child welfare reports; digitally archived news articles documenting increases in payments; publications from the National Association of Public Child Welfare Administrators (2007), the National Resource Center for Family-Centered Practice and Permanency Planning (2008), and Child Trends (2009; DeVooght et al. 2013); federal reports (US House of Representatives Ways and Means Committee 2000); interviews and correspondence with state agencies and foster parents; and Wayback Machine internet archives of state-level payment rates compiled by the Department of Child and Family Services for Los Angeles County. We cross-validated the resulting data set with the mode of actual maintenance payment amounts reportedly received by foster care families in AFCARS data. AFCARS caregiver-level foster care payments data are known to suffer from some reporting error. However, on the aggregate, the mode of reported payments received for non-disabled children of a given age group cross-checks favorably with the statutory minimum rate in a given state and year that we compiled.

States set a minimum rate of compensation for each age group, usually increasing by age, that can be supplemented if a child has additional special needs or disability.[9] The minimum rate applies to non-kin family foster homes and often also applies to pre-adoptive homes, kin family foster homes, and supervised independent living arrangements. Congregate care reimbursements typical exceed payments to family homes, reflecting a higher level of need (Figure A3). Given minimal variation in age-related payment disparities within states across time, and the intractability of documenting special needs rates, we use the nine-year-old statutory basic rate as a representative measure of payment generosity in a given state and year. It corresponds to the mean age in our sample is roughly nine years old (Table 1). The nine-year-old rate is highly correlated with the statutory basic rate across all age groups (Figure B1) and actual reported payments received (Table 3).

Our panel includes 39 states with complete rate histories, covering more than 60 percent of the national foster care population during our sample period. Eight states and Washington, D.C. are omitted due to multiple years of inconsistent or incomplete payment histories.[10] Our main sample excludes three additional states with changes near the beginning or end of the sample period (AL, CA, and RI), but the results are robust to their inclusion. Figure 2 shows the wide distribution of payment rates by state and year. The complete histories of state maintenance payment rates are shown in Figure B1.

3.2 Adoption and Foster Care Analysis and Reporting System: Foster Care Experiences

AFCARS is a reporting system that collects case-level information from state and tribal title IV-E agencies on all children in foster care and those who have been adopted with title IV-E agency involvement. These data include the entire population of children in foster care as of September 30^{th} of each year and biannual information on children who exited the system by September 30^{st} or March 31^{st}. Our sample includes all children and youth ages 18 and under at the end of the reporting period between 2000 and 2012. As long as the child remains in the foster care system, we observe her yearly and for a large subset of our sample, a unique child ID can be traced longitudinally across years. After we exclude a small number of observations with missing placement or basic demographic information, we have

[9] State and county agencies may contract services to private and non-profit entities. The state statutory rate is a lower bound for these entities' payments. Posted rates may or may not account for small allowances such as one-time payments for new clothing, transportation, and child birthdays. To the extent possible, we have coded rates to be consistent within a state across time.

[10] Several states have county-administered payment rates, including Colorado, Indiana, Ohio, New York, and Pennsylvania. When possible, we include large municipalities in our analysis (e.g., New York, NY and Marion County, IN).

3,715,800 child-year observations for a sample of current foster care children and 2,047,515 child-year observations for a sample of children who have an exit record.

Table 1 describes the demographic characteristics of children in these two samples. About half of the children are female; Black children are disproportionately more likely to be in foster care (32 percent) than White children (44 percent). A large fraction of children is reported to having a disability (27 percent). Table 1 also summarizes experiences of children in foster care in a given year. Most children (82 percent) reside in a family home setting, a kin or non-kin caregiver in an ordinary residential home; and 16 percent of children reside in congregate, group-based settings that cater to children with greater needs. A small fraction of remaining children have a supervised independent living arrangement or are reported as temporary runaways. Of children living in family homes, only half reside with a foster family that is a couple (married or unmarried), and approximately 69 percent of children have a primary caregiver of the same race.

While in care, children on average move between three different foster homes and spend 800 days in the system since their latest removal to foster care. The lack of placement stability has been shown to have adverse behavioral consequences for children (Rubin et al., 2007) and is a particularly relevant indicator of foster care quality.

Table 1 also shows descriptive statistics for children at the time of foster care system exit. Approximately 90 percent of children exit to permanency, which includes reunification with the child's original biological parent or guardian (52 percent), adoption (21 percent), and other forms of guardianship and informal kin placement (17 percent). The remaining 10 percent of children either age out from foster care without a stable family, are transferred to another foster care agency in a different municipality, are declared permanent runaways, or exit due to death in care. Approximately 0.2 percent of exits (3,500 observations) in our sample are due to child death, allowing us to estimate the effect of payments on extreme, fatal events with some precision. More broadly, the association between instability, aging out of foster care, and homelessness (Dworsky et al., 2013) leads us to interpret higher rates of permanency as a positive outcome for children.

Finally, Table 1 also reports the average annualized statutory minimum rate that we collected and children's outcomes by state payment generosity. The statutory basic payment is $7,200/year. The AFCARS-reported actual payment for the child, which includes additional bonuses for special needs and widespread reporting error, is on average $9,100/year. These averages conceal significant heterogeneity across states. Comparing columns for high-payment and low-payment rate states, states with higher payment rates do not have systematically better outcomes for children in terms of family home placement, runaways, or placement duration, motivating a causal inference into the effect of payments on these outcomes.

3.3 Medicaid records: Health and Placement

Under Title IV-E, state Medicaid programs are required to cover current and former foster care children and youth at no cost to caregivers. Children who are eligible for Medicaid based on their family income, foster care, or disability status face neither cost-sharing (e.g. deductibles or copays) nor premiums. This makes Medicaid program records a unique detailed source of health care utilization information for children in foster care, free of price effect related concerns. States differ in their data collection and reporting procedures. Virtually all states report high quality enrollment data to the Centers for Medicare and Medicaid Services (CMS). We identified 18 states that have both consistently reliable program enrollment and health care utilization records throughout our sample period. They are AL, GA, IL, MD, IN, MO, NC, OK, VA, VT, IA, KY, LA, MS, NY, TN, WV, and WY (Figure 3). During our sample period, most states, including selected states, provided Medicaid benefits to children in foster care and children with disabilities through

a single fee-for-service (FFS) "plan", explicitly "carving-out" services to these populations from Medicaid managed care (MMC) plans, when they were available.

We use a 40 percent random sample of children under 18 years old enrolled in Medicaid at any point between 2000 and 2012 who live in one of these states. Health care utilization data include outpatient, inpatient, and pharmacy claims. Enrollment records contain dates of eligibility, qualifying category (low income, disability, or foster care), demographic characteristics of the child, and a zip-code of her place of residence. We identify children in foster care using Medicaid Analytic Extract uniform eligibility code (monthly) that harmonizes state-specific eligibility codes into uniform categories, such as"foster care child". One limitation of these categories is that former foster youth is also coded as "foster care child". To alleviate the problem of including children who are currently not placed in a foster home, we form our sample using only the first year of records for each child who is newly coded as a child in foster care.

Table 2 describes our sample of children in foster care, alongside never-foster children enrolled in Medicaid based on disability or low family income. For the latter group, which is by far the largest category of children on Medicaid, we use a seven percent random subsample to be able to run our empirical models. Similar to children in our AFCARS sample, approximately half of Medicaid-enrolled children in foster care are female, half are white, and one third are Black.

Utilization data include all hospital, emergency room, and outpatient visits, and all pharmacy claims. Since many foster care Medicaid services come at no cost, the choice of treatments (drugs vs. behavioral therapy; novel vs. older medications) in part reflect foster parent and provider preferences rather than income-motivated choices. With claims data, we identify routine care visits, including well-child visits and on-time vaccinations, medication and non-pharmacological treatments and adherence, incidence of adverse events including preventable hospitalizations and injuries, and adolescent risky behaviors such as teenage pregnancy, incidence and testing for STD conditions, and substance use and abuse.[11] For consistency, we rely on reported diagnosis codes (ICD-9) and prescription drug claims to identify specific visits, medical conditions, and adverse events.[12]

Table 2 describes health care utilization and outcomes for children in Medicaid. We see that foster-eligible children are at elevated risk of adverse experiences compared to income-eligible children. In a given year, more than 20 percent of children in foster care have a mental health condition, more than 21 percent have an injury claim, and 1.4 percent suffer a hospitalization for an avoidable injury. These rates are more comparable to the disability enrollment group, which we use as a comparison group for state-level trends in some analyses.

The Medicaid enrollment file includes a child's zip code of residence at enrollment. We use the American Community Survey to characterize the socioeconomic status of a caregiver's neighborhood of residence.[13,14] Children in our sample are placed in neighborhoods where on average 19 percent of people fall below the federal poverty line (Table 2). Despite anecdotal evidence that many foster parents live in low-income neighborhoods, children in foster

[11] ICD-9 codes are detailed enough for us to separate injuries into the following categories: burns, crushing injury, dislocation, foreign body, fracture, internal injury, late effects of injuries, open wound, poisoning, or a superficial injury. We also separately identify injuries that led to an ER and/or hospital admission, injuries occurring on a weekday or weekend, and injuries occurring during the school year or in the summer to better understand the incidence of injuries.

[12] In principle, we could also use procedure codes, but the completeness of these data vary across the states. Furthermore, some states use less standard coding systems for reporting procedures.

[13] We use a ZCTA to zip crosswalk from the John Snow Institute, following Chetty et al. (2014), to match ZCTA socioeconomic status to foster parent zip code. Most ZCTAs have considerable overlap with zip codes, and we achieve roughly a 99 percent match rate.

[14] We additionally include an upward mobility index as a summary statistic of neighborhood opportunity. This measure is computed using the mean 2014-2015 household income percentile for children born 1978-1983 with parents at the mean of the national income distribution, from the Opportunity Atlas (Chetty, Friedman, Hendren, Jones, and Porter, 2020). We crosswalk Census tracts to zip codes and create zip-code level mobility measures by taking a population-weighted average of tracts. We refer to our zip-code mobility index as our "Chetty mobility score."

care do not seem to reside in systematically lower socioeconomic status neighborhoods compared to other types of Medicaid-eligible children.

3.4 American Community Survey: Caregivers

We use supplemental survey data from the ACS to identify the effect of payments on caregiver characteristics. Table A1 describes the household characteristics of approximately 23,000 children said to be enrolled in foster care in our 39-state sample from 2000-2012. Compared to children living with biological parents, children in foster care reside in larger and lower-income households on average, but are more likely to live in households above the poverty line.

4 Empirical Strategy

Our identification strategy leverages variation in the timing of changes to state statutory foster care minimum payment rates. The identifying assumption is that, in the absence of an increase in payment, the outcomes of children in treated states would have remained on the same trend as the outcomes of children in untreated states. This section first describes our event study research design. We then proceed to present evidence that supports the underlying assumption that the precise timing of rate changes is exogenous to other determinants of child outcomes. Additionally, we present a supporting empirical strategy that uses age-level discontinuities in payment rates.

4.1 Research Design

To estimate the short-term effects of changes in payments on our outcomes of interest we rely on an event study specification using substantive increases in state payment rates. The event is defined as "substantive" if the statutory payment per child changes by more than $1 a day ($400 per year) in nominal terms. To account for the rate increases phased in over multiple years, we calculate the overall payment increase for state s as the difference in the rate two years after and one year before the initial payment adjustment. Specifically, $\delta_s = rate_{s,k=2} - rate_{s,k=-1}$, where δ_s is the amount of a state's payment increase in thousands of dollars and $k = 0$ is the index year of the initial payment increase.

Figure 1 shows four sample states to illustrate the timing of rate changes. In our sample, West Virginia is recorded as having an increase in 2003, Maryland in 2007, and Kentucky in 2008, while no substantive change is recorded in South Carolina. Figure 4 presents the timing of rate changes throughout the sample period, and Table **??** presents additional details. Because the vast majority of states experienced a single substantive payment increase during our sample period, we implement a single-treatment event study specification. We scale the coefficients by the amount of the payment increase, in real dollars, to aid the discussion of cost effectiveness. The mean payment increase in our sample is approximately $2,000.

We use the following event study specification to estimate the causal effect of foster care payments on child outcomes:

$$Y_{ist} = \sum_{k=-3}^{2} \gamma_k \mathbb{1}\{K_{st} = k\}\delta_s + \gamma_{-4}\mathbb{1}\{K_{st} \leq -4\}\delta_s + \gamma_3 \mathbb{1}\{K_{st} \geq 3\}\delta_s + \beta X_{ist} + \lambda_s + \lambda_t + \varepsilon_{ist}, \tag{1}$$

where Y_{ist} is the outcome of interest for child i in state s in year t, γ_k are the event time coefficients (γ_{-4} and γ_3 represent the long-run past and future, respectively), and δ_s is the amount of a state's payment increase in thousands

of dollars. Given the scaling parameter δ_s, coefficient γ_k can be interpreted as the increase in child-level outcome Y_{ist} resulting from a \$1,000 increase in a state's maintenance payment rate, k years after the increase. X_{ist} is a vector of basic child-level characteristics including age fixed effects, gender, and race/ethnicity. We include state fixed effects, λ_s, to control for unobserved, time-invariant differences between states that are associated with children's quality of care. We include year and reporting period fixed effects, λ_t, to control for changes in nationwide conditions that affect foster care outcomes, such as attitudes toward congregate care. ε_{ist} is the random error term accounting for additional variation in the outcome. We cluster standard errors at the state level because outcomes might be autocorrelated within states across time. Our primary results estimate equation 3 on a sample balanced three periods before and after the change in payment rate, from $t \in [-3, +2]$.

Our data on children's health outcomes and neighborhoods allow us an additional comparison group for a difference-in-differences event study design. As discussed in section 3.3, children who qualify for Medicaid based on a disability have broadly comparable health outcomes and health care utilization to children in foster care. This control group helps us accomplish two things. First, we are able to control for many unobserved state-level conditions. Second, it also helps to mitigate potential imprecision from idiosyncratic changes in state reporting of Medicaid records, as state collection and reporting procedures may differ over time. Under the identifying assumption of similar trends between foster and non-foster disabled children (Figure A9), we estimate the effect of foster care payments on health and neighborhood outcomes using the following specification:

$$\begin{aligned} Y_{ist} = \alpha + \sum_{k=-3}^{2} (\theta_k + \gamma_k Fost_i)\mathbb{1}\{K_{st} = k\}\delta_s + (\theta_{-4} + \gamma_{-4} Fost_i)\mathbb{1}\{K_{st} \leq -4\}\delta_s \\ + (\theta_3 + \gamma_3 Fost_i)\mathbb{1}\{K_{st} \geq 3\}\delta_s + \tau Fost_i + X_{ist}(\beta_1 + \beta_2 Fost_i) + \lambda_s^1 + \lambda_s^2 Fost_i + \lambda_t^1 + \lambda_t^2 Fost_i + \varepsilon_{ist}, \end{aligned} \tag{2}$$

where Y_{ist} is an outcome of interest for child i in state s in year t, θ_k are event time coefficients for non-foster children with disability (control group), γ_k are event time coefficients for children in foster care relative to the control group, δ_s is the payment increase amount, λ_s and λ_t are state and year fixed effects, respectively, and ε_{ist} is the error term. We interact all covariates with a treatment group indicator for foster care, $Fost_i$. Under our identifying assumptions, γ_k can be interpreted as the increase in child-level outcome Y_{ist} for children in foster care relative to the control group resulting from a \$1,000 increase in a state's maintenance payment rate, k years after the increase.

Finally, we leverage an alternative source of variation, age-based variation in payment rates, to provide supporting evidence for the effect of payment increases on quality of care. Whereas some states have two or more discontinuous jumps in age-specific maintenance payment rates to address greater costs of care for older children (e.g., ages 6 and 13 in North Carolina), others have only one jump or none at all. The effect of payment increases on outcomes for children in foster care is therefore estimated, for example, by comparing outcomes for a 13-year-old in North Carolina relative to a 12-year-old in the same state, compared to the difference between a 13-year-old and 12-year-old in another state that does not have a payment discontinuity at age 13. States also vary in the ages at which the payment schedule adjusts and the amounts by which payments adjust. Age-specific discontinuities are smaller on average than across-the-board increases to statutory rates, but still sizable, typically in the range of \$500-1,000 per year. The age-rate schedule generally does not change within a state over time, providing supporting evidence for natural, arbitrary variation in the exact ages for these jumps. We estimate the effect of age discontinuities in payments on child outcomes using the following specification:

$$Y_{ias} = \sum_{k=-3}^{2} \gamma_k \mathbb{1}\{K_{as} = k\}\delta_s + \gamma_{-4}\mathbb{1}\{K_{as} \leq -4\}\delta_s + \gamma_3 \mathbb{1}\{K_{as} \geq 3\}\delta_s + \beta X_{ias} + \lambda_{st} + \lambda_{at} + \varepsilon_{ias}, \quad (3)$$

where Y_{ist} is an outcome of interest for child i of age a in state s, γ_k are event age coefficients, δ_s is the payment increase amount at the age discontinuity, λ_{st} and λ_{at} are state-by-year and age-by-year fixed effects, respectively, and ε_{ist} is the error term. Event-time coefficients are in terms of age in this design, so γ_k can be interpreted as the increase in child-level outcome Y_{ias} from a \$1,000 increase in a state's statutory maintenance payment rate, k age-years after the increase.

4.2 Variation in Payment Rates

Prior literature suggests that the timing of changes in maintenance payments is largely idiosyncratic. Goldhaber-Fiebert et al. (2014) assemble a state-by-year dataset of foster care maintenance rates between 1990 and 2008 to study the determinants of variation in payments. They find little evidence that foster care payment rates respond to economic conditions, federal programs, or legal reviews. Furthermore, although the authors collected a comprehensive set of potentially relevant covariates, including demographic, economic, political, and legal characteristics of each state, most of the variation in payments still stemmed from unobserved state-level differences. Similarly, Doyle and Peters (2007) investigate whether states respond to market conditions when setting foster care payment rates. They find that the payments are unrelated to most economic characteristics and family risk factors, although they do report a likely mechanical association between foster care payments and payments from one federal assistance program, Aid to Families with Dependent Children (AFDC) (see Doyle and Peters (2007) for detailed discussion). The authors conclude that the near-random signs of demand-side coefficients suggest that states do not systematically set rates in response to market or child welfare conditions.

We also perform a number of checks to ascertain that changes in payment rates in our more recently collected data are independent of state-year market conditions. Figure A4 presents trends in state-level economic activity, political activity, and welfare program generosity relative to the timing of foster care payment increases within our event study framework. Figure A5 presents trends with respect to child welfare conditions. The underlying data come from two sources. First, Child Files from the National Data Archive on Child Abuse and Neglect (NDACAN) contain the information on the incidence of maltreatment and rough information on services provided to families investigated for maltreatment. Second, we use data from the University of Kentucky Center for Poverty Research (UKCPR) for state-level information on economic, political, and federal program participation data. These data include information such as a governor's political affiliation, state minimum wage, and unemployment in a given year.

Figure A4 shows that changes in rates appear orthogonal to local economic conditions and agency policies. One exception is a positive correlation between foster care maintenance rates and adoption subsidy payments, which is expected as negotiated adoption subsidies are by law bounded above by the foster care maintenance payment rate (Figure A7 panel (a)). Our analysis focuses on the pre-adoption effects of foster care payments, and fewer than 20 percent of children in our sample exit to adoption. In contrast with prior literature that has considered trade-offs between adoption subsidies and foster care payments (e.g., Argys and Duncan, 2013), we regard changes in adoption subsidies to be part of the total effect of increasing statutory maintenance payment rates. To the extent that increases in foster care payments coincide with other, unobserved improvements in public benefits or services for low-income families and children, our estimates should be interpreted as an upper bound on the true effect of maintenance payments on child well-being.

Additionally, we assemble a comprehensive list of state-specific reasons and regulations for changes in foster care

payments. These reasons come from a variety of sources, including recorded interviews of state child welfare agencies (DeVooght and Blazey, 2013), personal interviews of child welfare experts and foster parents, and archived digital news articles. We find that a substantial number of payment increases have natural variation in their timing: for example following a lagged, unpredictable period of time after an initial lawsuit and/or court ruling, occurring on the whim of a prominent public official, or are re-evaluated on a fixed (2-year or 5-year) legislative review cycle. The list of explanations for changes in rates can be found Table B2. Finally, we subject our results to a variety of robustness checks discussed in the Results section.

5 Results

In this section, we discuss the estimated impact of increases to foster care payments on children's quality of care. We first report estimates of the effect of payments on children's foster care placements and experiences, followed by children's health, and finally household socioeconomic status. We confirm the robustness of our findings with a variety of supplemental specifications, for example using age-based payment discontinuities and regressions that control for time-varying state conditions.

5.1 Reported Payments

We first verify that increasing a state's statutory minimum payment rate increased the amount of financial support for foster families. Figure 5 presents the relationship between statutory basic rates and reported payments made to caregivers. Panel (a) shows the average increase in annualized statutory rates per child per rate increase, approximately $2,000 in the sample period. Panel (b) shows the actual increase in AFCARS-reported payments to family home caregivers per $1,000 increase in the statutory rate. Caregivers received on average just under $9,000 per child in the year before the increase and $740 additional dollars for every $1,000 increase in the statutory minimum rate (Table 3). This result verifies that increases to statutory rates improved compensation for foster parents on a scale comparable to changes in other large cash benefit programs such as the EITC (Dahl and Lochner, 2012). Due to known reporting errors in the AFCARS payment variable, the result lacks precision and should be taken as approximate.[15]

We proceed to provide further interpretation for panel (b) and similar event study figures that follow. The y-axis value for the omitted period ($t = -1$) coefficient is the mean of the dependent variable in the year before a payment increase. Throughout, event study coefficients represent a change in the dependent variable per one thousand dollar increase in the statutory rate. We commonly denote the coefficient two years after an increase ($t = 2$) as the short-term effect of a change in payments. The coefficients ≤ -4 and ≥ 3 show the long-term past and future but the sample is not balanced for these periods. Finally, to provide an appropriate sense of magnitude for changes in outcomes, the y-axis is labelled in terms of half standard deviations of the dependent variable. All microdata are weighted to give equal weight to each state-year cell.

5.2 Foster Care Placement and Experiences

Figure 6 presents the impact of statutory payment rates children's foster care placements and experiences. Panel (a) illustrates the relationship between foster care payments and the share of children residing with a family as opposed to a larger, congregate setting. Given the longstanding shortage of suitable foster families, increasing payments has often

[15] We restrict our reported payments variable to children in non-congregate settings and exclude reported payments outside of [$1,200, $36,000]. This finding is also notable for child welfare researchers, as it shows AFCARS payment information can be informative of aggregate trends when censored to a reasonable range.

been proposed as a possible means to increase the supply of caregivers. We find that a $1,000 increase in the statutory payment rate is associated with a marginally significant 0.6 percentage point (0.75 percent) increase in the likelihood of family home placement just over two years after the policy is implemented. Given the precision of our estimates, we can rule out increases in the share of family homes of greater than one percent with high confidence. Our estimate of the effect of payments on family home placement is comparatively modest relative to past associations (Duncan and Argys, 2007).[16] Putting this figure into perspective, assuming that increases to the statutory minimum rate apply across all family homes and given an approximately $7,200 mean payment rate during the sample period, a state would need to increase payments by approximately 23 percent to achieve just a one percentage point increase in family home placement.[17] Table 3 provides more detail on the short-run coefficients for foster care experiences.[18]

Even in the absence of a strong family home labor supply response, payments may still be cost-effective if they improve children's quality of care within a given placement setting or improve a family's ability to keep a child in the same home for a sustained period of time. Figure 6 panels (b)-(d) provide detailed evidence of the effect on a variety of salient indicators of foster care experience quality. Surprisingly, we find that increases in payments have no detectable benefit on AFCARS indicators including placement stability, length of stay in foster care, and running away from a foster home. The lack of measurable improvement in placement stability (number of placements since latest removal) is a particularly relevant outcome, as children in our sample average more than three homes per foster care episode, and child welfare experts consider frequent moving between homes to be harmful for child development. These results are in sharp contrast with prior literature, in particular Pac (2017), who finds a one percent increase in payment received is associated with a 27 percent decrease in placement disruption using within-agency variation in payments for a sample of children and youth in the National Survey of Child and Adolescent Well-Being (NSCAW II). Finally, Figure 6 panels (e) and (f) show no statistically detectable effect of payment increases on exits to permanency or on deaths in foster care. The lack of an effect on exit settings is true despite evidence of a short-term increase in adoption subsidies mechanically tied to the increase in maintenance payments.[19]

Table presents the robustness of our primary results to a variety of subsamples and specifications including child fixed effects, an expanded sample through 2017, and distinguishing among states that had relatively high or low payment rates prior to an increase. Although the effects of payment increases are consistently modest across multiple dimensions of heterogeneity, improvements in family home placement are somewhat larger for children who are non-white, male, and are being placed in foster care for the first time.

Finally, we evaluate the effect of payments on placement experiences using an alternative empirical strategy leveraging age-based discontinuities in payment rates. Figure illustrates the effect of payments on foster care experiences for children aged just below and above a discontinuity in a state's age-based payment schedule. We find, again, that for every $1,000 additional increase in the statutory basic, families are reported to receive more than $700 in payments.

[16] Duncan and Argys (2007) find that a $1,200 increase in payment rate is associated with a roughly 29 percent decline in congregate care placement. Our results, by contrast, suggest a less than five percent decline in congregate care placement per $1,200 increase. Doyle and Peters (2007) find a 10 percent increase in payment rate is associated with a three percent increase in the number of children in family homes for states with lower payment rates. We find a 0.4 percent increase in the fraction of kids in family homes per 10 percent increase in payment rate, robust to restricting to low payment states, and a 2.5 percent increase in the total number (level) of children in family homes that is partially explained by a small rising pre-trend in foster care entry. The reasons for differences in results may include differences in foster care over time – the 1990s had higher caseloads and potentially greater shortages of family homes – differences in methodology, or data quality.

[17] This is approximately consistent with the Scaled by Percent Increase row of Table , which shows that a one hundred percent increase in payment rates is associated with an imprecise 3.5 percentage point increase in family home placement.

[18] A related question is whether foster care payments change an agency's likelihood of placing a child in foster care to begin with. Figure A6 examines the total number of placements in a state in the years before and after a payment increase. We find a small but statistically insignificant increase in the number of children in foster care after a payment increase. However, there is no break relative to a small rising pre-trend in total statewide foster care placements in the years prior to payment increase.

[19] Figure A7 shows the relationship between payments, adoption subsidies, and adoptions. For more on this relationship, see, for example: https://affcny.org/what-we-know-and-dont-know-about-adoption-subsidies/.

Although less precise than our primary estimates, we also find no economically significant improvements in placement stability, length of stay, runaways, or permanency. We also find a marginally significant increase in deaths of more than 25 percent at the age of payment increase, which could be rationalized by negative selection of caregivers into taking children with higher payment compensation. Overall, these additional estimates support the conclusion that increasing payments does not lead to measurable improvements in children's foster care trajectories.[20]

5.3 Health Care Utilization and Outcomes

Foster care payments may improve children's quality of care on a number of dimensions not detectable from child welfare administrative data. For example, payments may improve children's well-being through reduced household stress or better attentiveness of caregivers whom the state approves as foster parents. We use Medicaid claims data from a national sample of 17 states to study the effect of payments on utilization and adverse health events. Our preferred specification for Medicaid claims outcomes is a difference-in-differences event study with never-foster disabled children as a comparison group to control for unobserved state-level trends in Medicaid records. Results are relatively robust to using a foster-only sample (Table A4). Because of the relatively small magnitude of our estimates of payments on placement type, we can more confidently attribute changes in child health outcomes to be the result of changes in family home characteristics on the intensive margin, as opposed to changes on the margin of family home placement versus congregate care.

Figure 7 and Table 4 presents the effect of payments on health care utilization. We find no effect of payments on SSRI, Asthma, and ADHD drug utilization for children in foster care.[21] We find suggestive evidence of marginal gains in well-child visits and vaccinations, two important measures of utilization and caregiver attentiveness for this population, but these estimates are confounded by rising pre-trends in both outcomes. We are unable to conclude that payments increase children's health care utilization.

Figure 8 and Table 4 present the effect of payments on children's health outcomes, in particular adverse events that could result from inadequate care. We find no strong evidence of reductions in total injuries and other adverse events including fractures and ED visits. We find no reduction in emergency department visits for asthma, which are often avoidable and could signal caregiver neglect.[22] Overall, our Medicaid claims results suggest that increases to foster care payments do not improve children's health.

5.4 Placement Neighborhood and Caregiver Characteristics

As discussed in Section 2, negative selection of caregivers along observable and unobservable dimensions such as socioeconomic status and altruism, respectively, may be one mechanism for why increases to maintenance payment rates could fail to improve children's quality of care. Given the importance of neighborhood environment on later-life outcomes (Chetty and Hendren, 2018), caregiver socioeconomic status may play a role in the development and outcomes of children in foster care. We evaluate changes in caregiver neighborhoods, family structure, and characteristics using Medicaid enrollment files, AFCARS caregiver demographic data, and survey data from foster parents in the American Community Survey.

[20] Although subject to missing years of data in the NCANDS Child Files, we also do not find evidence of reductions in maltreatment experienced in foster care (Table A3).

[21] SSRI prescriptions are considered an important outcome given child welfare advocates' concerns about potential overprescribing of anti-psychotic medications for children in foster care (Zito et al. 2005, 2008).

[22] Health and utilization results are robust to looking at longer-term (three-year) pooled outcomes for our sample of first-time foster care enrollees (available upon request).

Figure 9 and Table 5 show the effect of payments on indicators of neighborhood quality such as intergenerational mobility (Chetty et al. 2020), poverty, and high school completion. We find no systematic evidence of improvements or reductions in zip code socioeconomic status. We also do not find noticeable changes in foster family demographics, such as whether the caregiver is single or a couple, and whether either caregiver is the same race/ethnicity as the child, although these results are less precisely estimated. These results are robust when restricting to states for which Medicaid claims are available (Table A5).

Figures A10 and A11 present supplemental evidence on the effect of payments on caregiver characteristics. Although less precise due to sampling variability in the American Community Survey, Figure A10 presents no noticeable improvements in household income, household head's education, children's school enrollment, nor sharp changes in the number of children, total or foster, per home. Figure A11, presenting alternative results from an age-based discontinuity design that ameliorates some sampling issues, suggests that an increase in payments does increase household income. While this result implies that foster care payments may have marginal anti-poverty effects or that higher income caregivers select into fostering children beyond at the age discontinuity, overall we do not find evidence of other meaningful changes of payment increases on the socioeconomic status of foster homes nor on the extensive margin of children per caregiver. On the whole, our results suggest that negative caregiver selection along observable dimensions is not a primary mechanism behind the lack of improvement in quality-of-care indicators.

5.5 Back-of-Envelope Cost-Benefit Analysis

Having considered the effects of maintenance payment rates on foster care placements, experiences, health and health care utilization, and caregiver characteristics, we now provide a rough back-of-the-envelope assessment of the costs and benefits associated with increasing payment rates. Our results reveal no clear, direct benefits of increasing payments in terms of placement stability, exit setting, health, or caregiver socioeconomic status. We do, however, find a modest increase in family home placement that may reduce costs by reallocating children away from more expensive congregate care placements. Using data from AFCARS, we estimate an annual savings of $50,000 per child moved from congregate care to a family home in our sample (Figure A3). Assuming a $1,000 increase in the basic rate leads to an increase in payments for all family homes, for a representative sample of 100 children a $1,000 increase would reallocate 0.6 children to family homes, generate $30,000 ($0.6\times 50{,}000$) in congregate care cost savings and require $79,400 (($78.8+.6)\times 1{,}000$) in additional expenditures to family homes, yielding a net expense of $49,400, or $494 per child. Expressed differently, the net annual cost associated with reallocating one child from congregate care to a family home by raising payment rates is roughly $82,000 per year.

To put this number into perspective, assuming a relatively extreme case where five percent of children in family homes commit one lifetime crime of aggravated assault (c.f. Berger et al. 2016 for prison rates; social cost of $55,000-$85,000 from Cohen and Piquero 2009), where one additional year in congregate care increases this rate to 12.5 percent (generously extrapolating from associations from Ryan et al. 2009), and where we double-count the additional cost to recruit and retain a family home in the absence of payments ($6,000),[23] the total annual benefit from reallocating one child to a family home would be roughly $12,400 compared to an estimated $82,000 in additional maintenance payment expenditures. Our back-of-the-envelope calculation suggests, therefore, that increasing payments is not a panacea to improving social welfare. Given the high social costs associated with a life of crime, however, more evidence on the causal effect of congregate care placement on future crime would be valuable for improving the accuracy of these estimates.

[23] https://fostercare.team/foster-parent-turnover

Our results must be interpreted in light of several limitations. First, we cannot observe the benefits accrued to caregivers and non-foster children from receiving foster care payments. We focus primarily on the efficacy of payments for their intended beneficiaries, children in foster care. Second, our empirical strategy allows us to address the short-run but not longer-run effects of payments. Finally, although we have a battery of outcomes measuring children's quality of care, there are still other unobserved dimensions that could improve with payments such as academic performance or food security. In light of these limitations, important areas for future research include using state administrative data to study how frictions in foster home registrations may dampen the labor supply response to payment increases, and studying the long-run effect of payments on outcomes for children.

6 Conclusion

In response to an influx of children being removed to out-of-home care during the opioid crisis, many states have considered raising foster care payments to attract caregivers and improve children's quality of care. Despite significantly reducing the poverty rate among foster homes (Pac et al. 2017), however, a number of frictions and selection concerns render the overall effect of payments on children's quality of care theoretically ambiguous.

Using variation in the timing in changes to state statutory maintenance payment rates, and exploiting unique features of Medicaid claims data that allow for identification of children in foster care, we find that increases to foster care payment rates produce small increases in family home labor supply but have little to no effect on other child foster care experiences, exit settings, neighborhood quality, or health outcomes. We find only limited evidence of heterogeneous effects by child gender or age. Our results paint a more modest picture of the efficacy of foster care payments compared to prior studies that have compared high- and low-payment households within an agency or state, or studied changes to rates during the 1990s. Given that raising foster care payments for children on the margin of family home placement often entails raising minimum benefits to every inframarginal home, our findings suggest that across-the-board increases to payments may not be a cost-effective means to improve the quality of care of children in out-of-home placements unless the developmental and economic costs of congregate care placement are very large. Our findings, therefore, motivate further research on the causal effect of congregate care placement on youth outcomes.

We find little evidence of negative selection of family home caregivers as measured by neighborhood socioeconomic status, home income, and caregiver education. Our findings invite more exploration of mechanisms that may dampen the impact of foster care payments. Possible explanations for our lack of positive effects include known bottlenecks in the foster parent recruitment process, marginal payments not being spent exclusively on foster children (foster parents may allocate income supplements differently than biological parents; increased payments to foster caregivers are transitory and may shift expenditure differently than permanent expected increases to family income under the EITC, for example), changes in the unobserved characteristics of family homes, and unobserved channels by which payments improve children's well-being. It is also possible that children with significant needs require more intensive investments than the typical payment increase in our sample. Our findings invite further investigation on the effects of foster care payments on caregiver turnover, effort, and altruism.

Although these findings suggest caution in relying on foster care payments to improve children's quality of care, an additional implication is for child welfare agencies to explore alternative investments to improve services for children and retain high-quality foster parents. Possible investments include reducing average caseworker caseloads to promote greater engagement with foster families, increasing recruitment initiatives for prospective foster families, and improving preservation services for children at risk of home removal. These alternative interventions remain promising areas for future research.

References

S. H. Andersen and P. Fallesen. Family matters? the effect of kinship care on foster care disruption rates. *Child abuse & neglect*, 48:68–79, 2015.

L. Argys and B. Duncan. Economic incentives and foster child adoption. *Demography*, 50(3):933–954, 2013.

N. Ashraf, O. Bandiera, E. Davenport, and S. Lee. Losing prosociality in the quest for talent? sorting, selection, and productivity in the delivery of public services. *American Economic Review*, 2020.

A. Barr, J. Eggleston, and A. A. Smith. Investing in infants: The lasting effects of cash transfers to new families. *The Quarterly Journal of Economics*, 137(4):2539–2583, 2022.

T. Bell and E. Romano. Permanency and safety among children in foster family and kinship care: A scoping review. *Trauma, Violence, & Abuse*, 18(3):268–286, 2017.

R. Bénabou and J. Tirole. Intrinsic and extrinsic motivation. *The review of economic studies*, 70(3):489–520, 2003.

R. Bénabou and J. Tirole. Incentives and prosocial behavior. *American economic review*, 96(5):1652–1678, 2006.

L. M. Berger, S. A. Font, K. S. Slack, and J. Waldfogel. Income and child maltreatment: Evidence from the earned income tax credit. In *presentation at the 2013 Annual Meeting of the Association of Public Policy Analysis and Management*, 2013.

L. M. Berger, M. Cancian, L. Cuesta, and J. L. Noyes. Families at the intersection of the criminal justice and child protective services systems. *The ANNALS of the American Academy of Political and Social Science*, 665(1):171–194, 2016.

R. J. Bonnie, C. E. Fulco, C. T. Liverman, et al. *Reducing the burden of injury: advancing prevention and treatment*. National Academies Press, 1999.

K. S. Buckles. Adoption subsidies and placement outcomes for children in foster care. *Journal of Human Resources*, 48(3):596–627, 2013.

C. Campbell and S. W. Downs. The impact of economic incentives on foster parents. *Social Service Review*, 61(4): 599–609, 1987.

M. Cancian, M.-Y. Yang, and K. S. Slack. The effect of additional child support income on the risk of child maltreatment. *Social Service Review*, 87(3):417–437, 2013.

J. Carpenter and C. K. Myers. Why volunteer? evidence on the role of altruism, image, and incentives. *Journal of Public Economics*, 94(11-12):911–920, 2010.

A. Case and C. Paxson. Mothers and others: who invests in children's health? *Journal of health economics*, 20(3): 301–328, 2001.

A. Case, I.-F. Lin, and S. McLanahan. Household resource allocation in stepfamilies: Darwin reflects on the plight of cinderella. *American Economic Review*, 89(2):234–238, 1999.

A. Case, I.-F. Lin, and S. McLanahan. How hungry is the selfish gene? *The Economic Journal*, 110(466):781–804, 2000.

R. Chetty and N. Hendren. The impacts of neighborhoods on intergenerational mobility i: Childhood exposure effects. *The Quarterly Journal of Economics*, 133(3):1107–1162, 2018.

R. Chetty, N. Hendren, P. Kline, and E. Saez. Where is the land of opportunity? the geography of intergenerational mobility in the united states. *The Quarterly Journal of Economics*, 129(4):1553–1623, 2014.

M. A. Cohen and A. R. Piquero. New evidence on the monetary value of saving a high risk youth. *Journal of Quantitative Criminology*, 25(1):25–49, 2009.

P. S. Corso, V. J. Edwards, X. Fang, and J. A. Mercy. Health-related quality of life among adults who experienced maltreatment during childhood. *American journal of public health*, 98(6):1094–1100, 2008.

M. E. Courtney, A. L. Dworsky, G. R. Cusick, J. Havlicek, A. Perez, and T. E. Keller. Midwest evaluation of the adult functioning of former foster youth: Outcomes at age 21. 2011.

P. M. Crittenden, A. H. Claussen, and D. B. Sugarman. Physical and psychological maltreatment in middle childhood and adolescence. *Development and psychopathology*, 6(1):145–164, 1994.

J. Currie and C. Spatz Widom. Long-term consequences of child abuse and neglect on adult economic well-being. *Child maltreatment*, 15(2):111–120, 2010.

J. Currie and E. Tekin. Understanding the cycle childhood maltreatment and future crime. *Journal of Human Resources*, 47(2):509–549, 2012.

G. B. Dahl and L. Lochner. The impact of family income on child achievement: Evidence from the earned income tax credit. *American Economic Review*, 102(5):1927–56, 2012.

G. B. Dahl and L. Lochner. The impact of family income on child achievement: Evidence from the earned income tax credit: Reply. *American Economic Review*, 107(2):629–31, 2017.

K. DeVooght and D. Blazey. *Family foster care reimbursement rates in the US: A Report from a 2012 National Survey on Family Foster Care Provider Classifications and Rates*. Child Trends, 2013.

J. J. Doyle. Can't buy me love? subsidizing the care of related children. *Journal of Public Economics*, 91(1-2): 281–304, 2007.

J. J. Doyle and H. E. Peters. The market for foster care: an empirical study of the impact of foster care subsidies. *Review of Economics of the Household*, 5(4):329, 2007.

J. J. Doyle Jr. Child protection and child outcomes: Measuring the effects of foster care. *American Economic Review*, 97(5):1583–1610, 2007.

J. J. Doyle Jr. Child protection and adult crime: Using investigator assignment to estimate causal effects of foster care. *Journal of political Economy*, 116(4):746–770, 2008.

B. Duncan and L. Argys. Economic incentives and foster care placement. *Southern Economic Journal*, pages 114–142, 2007.

A. Dworsky, L. Napolitano, and M. Courtney. Homelessness during the transition from foster care to adulthood. *American journal of public health*, 103(S2):S318–S323, 2013.

J. Eckenrode, E. Rowe, M. Laird, and J. Brathwaite. Mobility as a mediator of the effects of child maltreatment on academic performance. *Child development*, 66(4):1130–1142, 1995.

D. J. Fein and W. S. Lee. The impacts of welfare reform on child maltreatment in delaware. *Children and Youth Services Review*, 2003.

V. J. Felitti, R. F. Anda, D. Nordenberg, D. F. Williamson, A. M. Spitz, V. Edwards, M. P. Koss, and J. S. Marks. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The adverse childhood experiences (ace) study. *American journal of preventive medicine*, 14(4):245–258, 1998.

B. S. Frey and L. Goette. Does pay motivate volunteers? *Working paper/Institute for Empirical Research in Economics*, 7, 1999.

J. M. Geiger, M. J. Hayes, and C. A. Lietz. Should i stay or should i go? a mixed methods study examining the factors influencing foster parents' decisions to continue or discontinue providing foster care. *Children and Youth Services Review*, 35(9):1356–1365, 2013.

R. Gilbert, C. S. Widom, K. Browne, D. Fergusson, E. Webb, and S. Janson. Burden and consequences of child maltreatment in high-income countries. *The lancet*, 373(9657):68–81, 2009.

J. D. Goldhaber-Fiebert, K. S. Babiarz, R. L. Garfield, F. Wulczyn, J. Landsverk, and S. M. Horwitz. 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, 2014.

J. S. Harman, G. E. Childs, and K. J. Kelleher. Mental health care utilization and expenditures by children in foster care. *Archives of pediatrics & adolescent medicine*, 154(11):1114–1117, 2000.

I. Hayduk. The effect of kinship placement laws on foster children's well-being. *The BE Journal of Economic Analysis & Policy*, 17(1), 2017.

H. W. Hoynes and D. W. Schanzenbach. Safety net investments in children. *Brookings Papers on Economic Activity*, 2018.

M. Jonson-Reid, P. L. Kohl, and B. Drake. Child and adult outcomes of chronic child maltreatment. *Pediatrics*, 129 (5):839–845, 2012.

A. B. Krueger. The determinants of queues for federal jobs. *ILR Review*, 41(4):567–581, 1988.

R. J. LaLonde. Evaluating the econometric evaluations of training programs with experimental data. *The American economic review*, pages 604–620, 1986.

D. R. Levinson and I. General. Not all children in foster care who were enrolled in medicaid received required health screenings. Technical report, OEI-07-13-00460). Washington, DC: Department of Health and Human Services . . . , 2015.

C. Mellström and M. Johannesson. Crowding out in blood donation: was titmuss right? *Journal of the European Economic Association*, 6(4):845–863, 2008.

J. Mersky, J. Topitzes, and A. Reynolds. Impacts of adverse childhood experiences on health, mental health, and substance use in early adulthood: a cohort study of an urban, minority sample in the us. *Child abuse & neglect*, 37 (11):917–925, 2013.

J. P. Mersky and J. Topitzes. Comparing early adult outcomes of maltreated and non-maltreated children: A prospective longitudinal investigation. *Children and Youth Services Review*, 32(8):1086–1096, 2010.

K. Milligan and M. Stabile. Do child tax benefits affect the well-being of children? evidence from canadian child benefit expansions. *American Economic Journal: Economic Policy*, 3(3):175–205, 2011.

C. Niza, B. Tung, and T. M. Marteau. Incentivizing blood donation: Systematic review and meta-analysis to test titmuss' hypotheses. *Health Psychology*, 32(9):941, 2013.

W. O'Hare. Census bureau plans to eliminate 'foster child' category. 2007. URL https://www.prb.org/censusbureaufosterchildcategory/.

D. L. Olds, C. R. Henderson Jr, H. J. Kitzman, J. J. Eckenrode, R. E. Cole, and R. C. Tatelbaum. Prenatal and infancy home visitation by nurses: Recent findings. *The future of Children*, pages 44–65, 1999.

J. Pac. The effect of monthly stipend on the placement instability of youths in out-of-home care. *Children and Youth Services Review*, 72:111–123, 2017.

J. Pac, J. Waldfogel, and C. Wimer. Poverty among foster children: Estimates using the supplemental poverty measure. *Social Service Review*, 91(1):8–40, 2017.

P. J. Pecora. *Improving family foster care: Findings from the northwest foster care alumni study*. Casey Family Programs, 2005.

M. Randle, L. Miller, S. Dolnicar, and J. Ciarrochi. The science of attracting foster carers. *Child & Family Social Work*, 19(1):65–75, 2014.

D. M. Rubin, A. L. O'Reilly, X. Luan, and A. R. Localio. The impact of placement stability on behavioral well-being for children in foster care. *Pediatrics*, 119(2):336–344, 2007.

J. P. Ryan, J. M. Marshall, D. Herz, and P. M. Hernandez. Juvenile delinquency in child welfare: Investigating group home effects. *Children and Youth Services Review*, 30(9):1088–1099, 2008.

J. L. Simon. The effect of foster-care payment levels on the number of foster children given homes. *Social Service Review*, 49(3):405–411, 1975.

J. Thornton and L. Cave. The effects of organizational form in the mixed market for foster care. *Annals of Public and Cooperative Economics*, 81(2):211–245, 2010.

R. M. Titmuss. The gift relationship: from human blood to social. *Policy, London*, 1970.

K. Turney and C. Wildeman. Mental and physical health of children in foster care. *Pediatrics*, 138(5), 2016.

M. W. Veltman and K. D. Browne. Three decades of child maltreatment research: Implications for the school years. *Trauma, Violence, & Abuse*, 2(3):215–239, 2001.

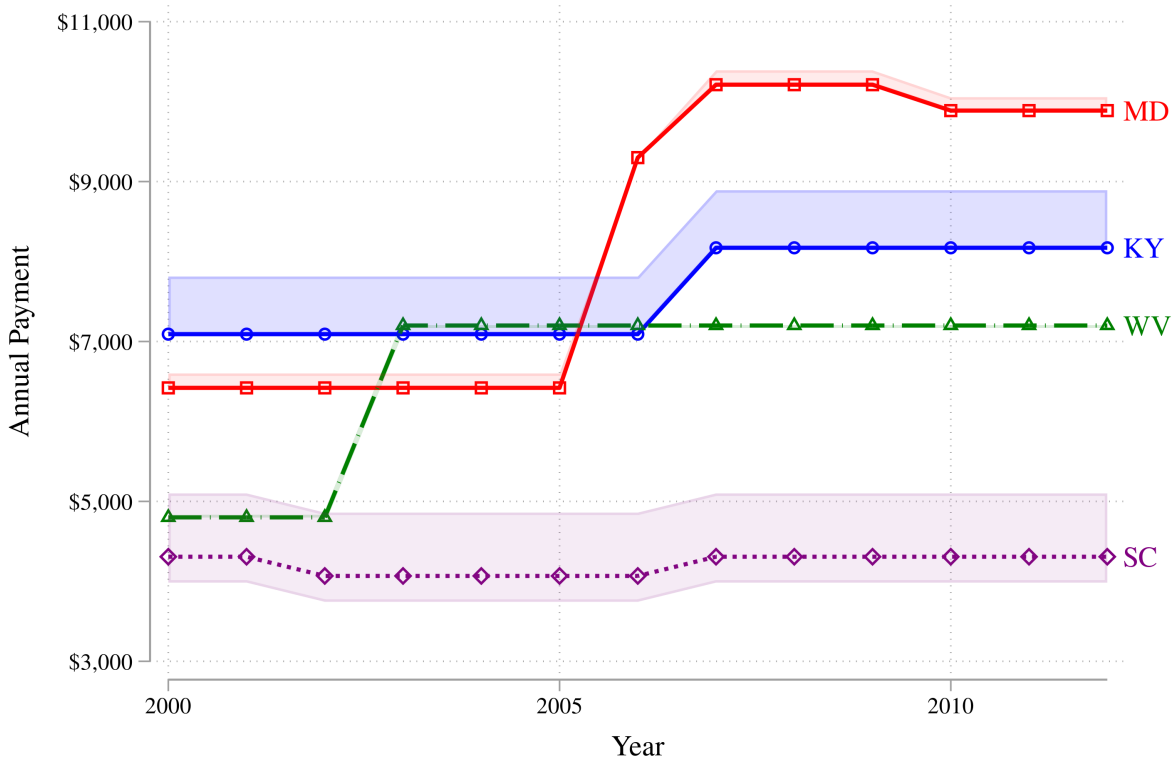
C. S. Widom. *Childhood victimization and adolescent problem behaviors.* Lawrence Erlbaum Associates, Inc, 1994.

C. Wildeman and N. Emanuel. Cumulative risks of foster care placement by age 18 for us children, 2000–2011. *PloS one*, 9(3), 2014.

J. M. Zito, D. J. Safer, I. H. Zuckerman, J. F. Gardner, and K. Soeken. Effect of medicaid eligibility category on racial disparities in the use of psychotropic medications among youths. *Psychiatric Services*, 56(2):157–163, 2005.

J. M. Zito, D. J. Safer, D. Sai, J. F. Gardner, D. Thomas, P. Coombes, M. Dubowski, and M. Mendez-Lewis. Psychotropic medication patterns among youth in foster care. *Pediatrics*, 121(1):e157–e163, 2008.

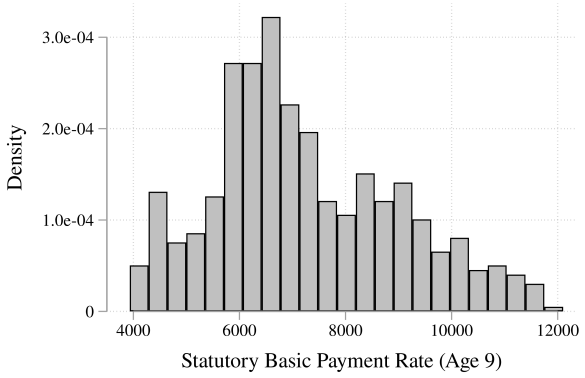
Figure 1: Illustration of Nominal Foster Care Maintenance Payment Rate Trends, 2000-2012



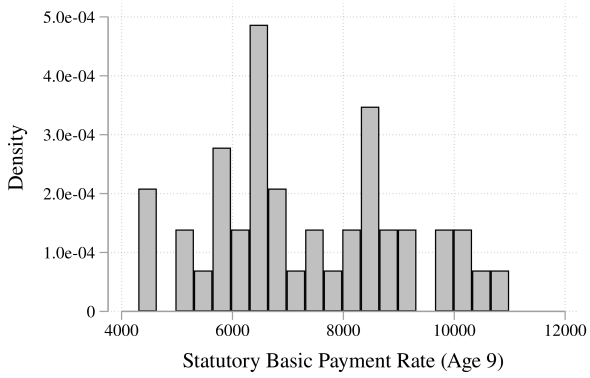
Notes: Trend lines indicate nominal annualized statutory foster care payment rates for 9-year-olds. Shaded areas indicate the range of payment rates from ages 0-17.

Figure 2: Distribution of Payment Rates Across States and Time

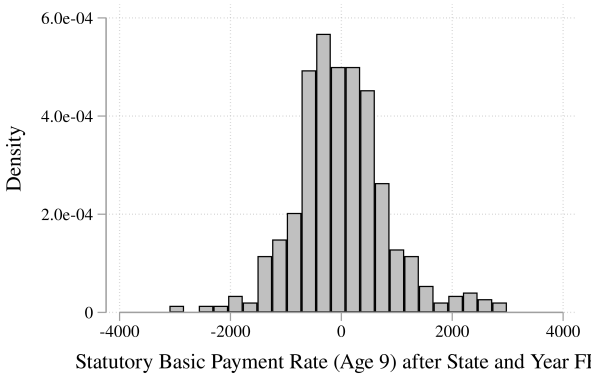
(a) 2000-2012



(b) 2012 Only

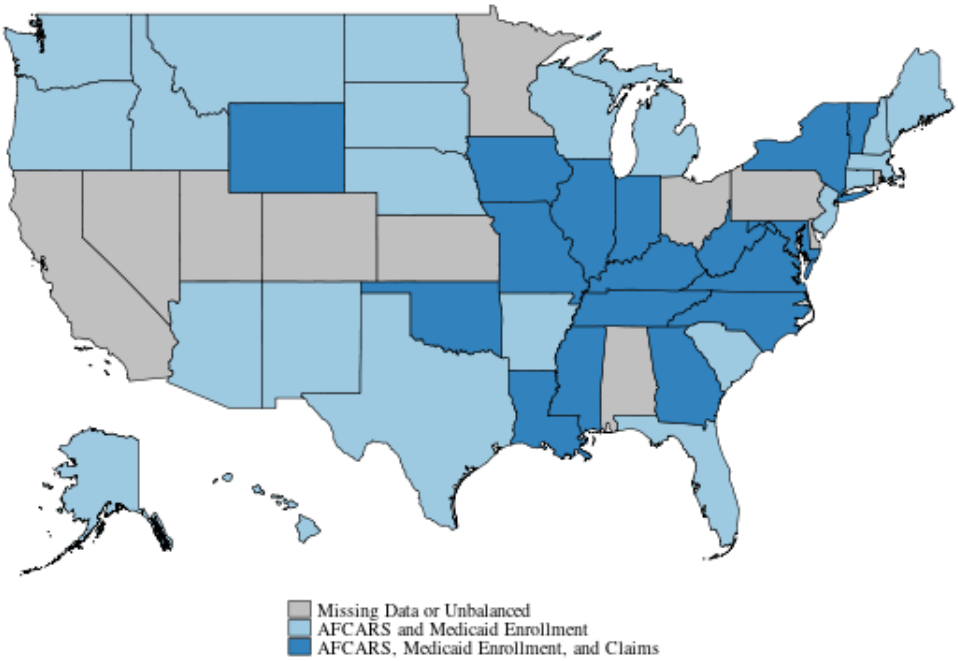


(c) Residualized, 2000-2012



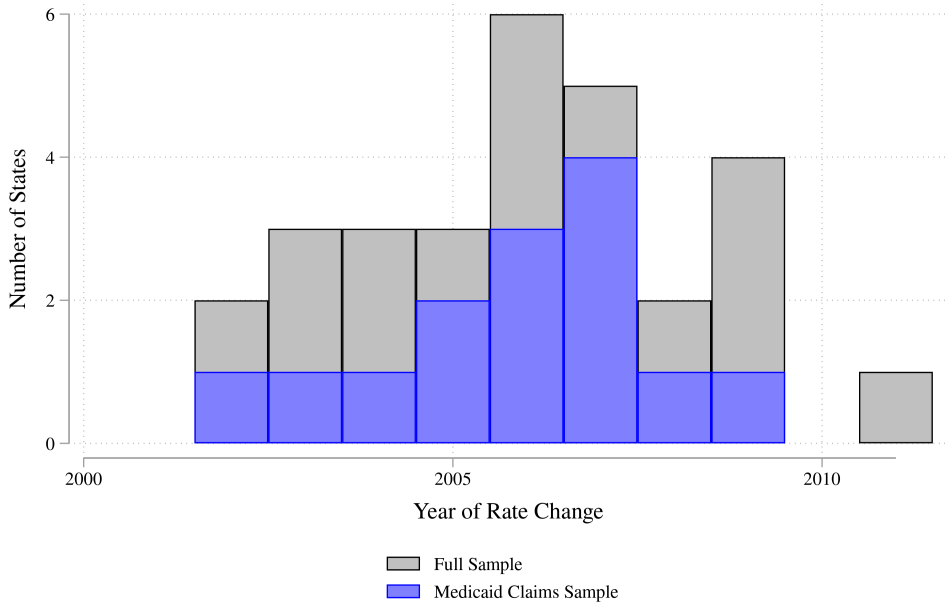
Notes: Foster payment rates are annualized and in 2017 dollars. Panel (a) shows variation in payments across states and time. Panel (b) shows an example of variation in payments across states, for 2012. Panel (c) captures the variation in payments after controlling for state and year fixed effects.

Figure 3: Sample Coverage



Notes: Our data cover New York City only in the state of New York and Marion county (Indianapolis) only in the state of Indiana. The following states with early or late increases are omitted from the primary, balanced specification: AL (2001), CA (2011), and RI (2002).

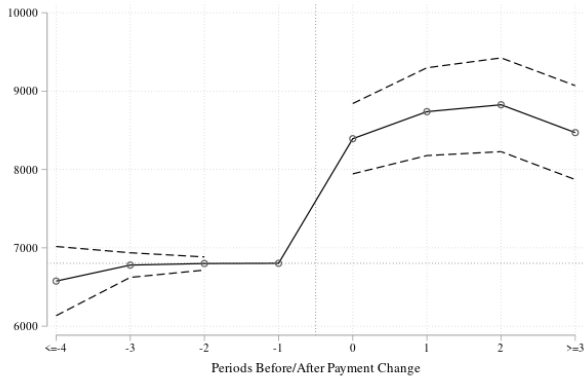
Figure 4: Timing of Payment Increase between 2000-2012



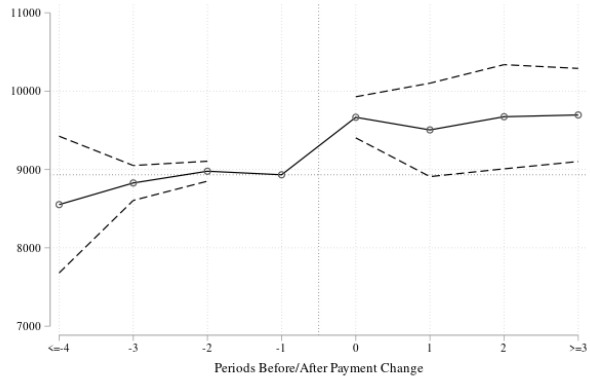
Notes: States with no or minor changes between 2000 and 2011 are included as a control group.

Figure 5: Impact of Payment Rate on Reported Payments

(a) Statutory Payment Rate



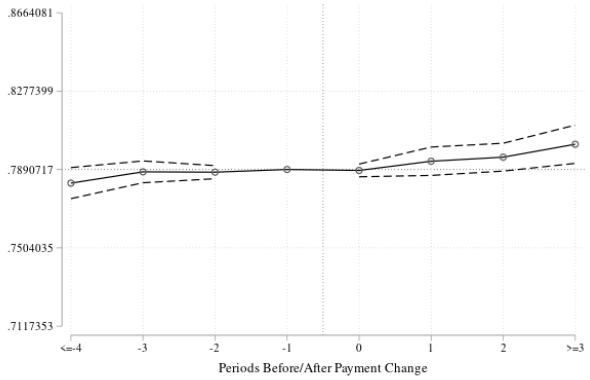
(b) Reported Amount Received per $1,000 Increase



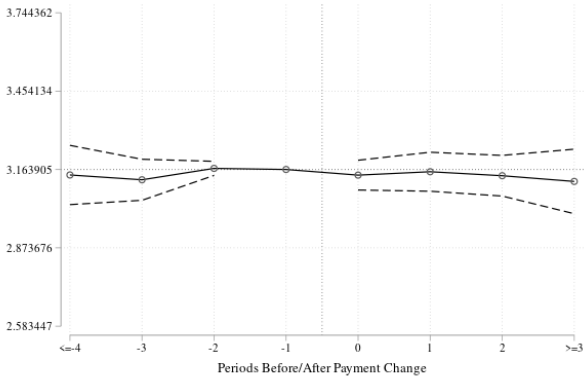
Notes: Figure on right corresponds to change per one thousand dollar increase in the statutory rate. Reported payments are restricted to children in non-congregate settings and truncated to an annualized payment of [$1,200, $36,000]. Both event study plots include demographic controls for age, race-ethnicity, and gender, and state and year fixed effects. Standard errors are clustered by state.

Figure 6: Impact of Payment Rate on Foster Care Experiences

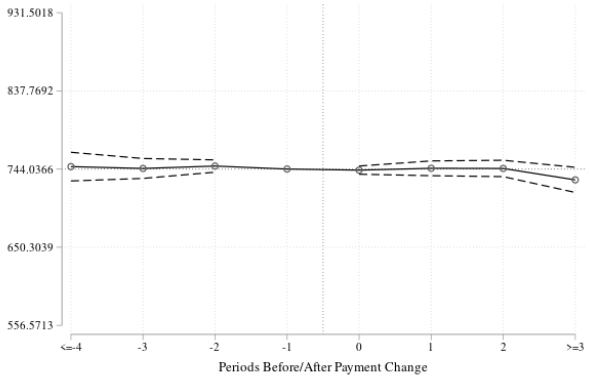
(a) Fraction of Children in Family Home



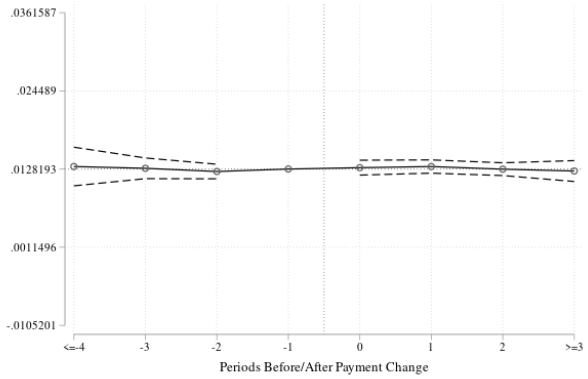
(b) Number of Placements since Latest Removal



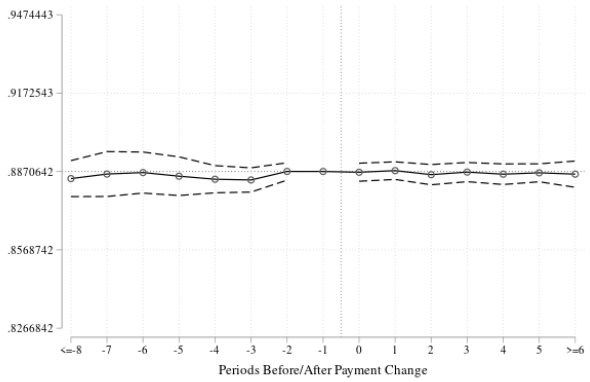
(c) Length of Stay since Latest Removal



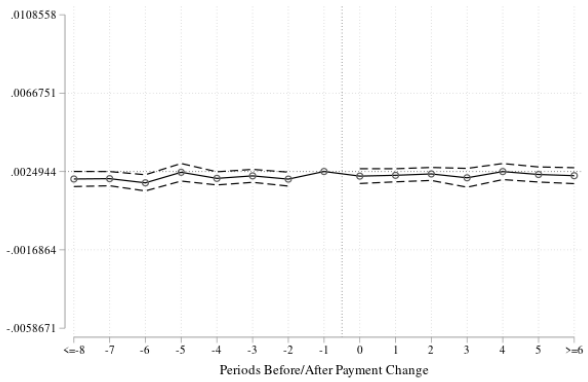
(d) Child Temporary Runaways



(e) Share of Exits to Permanency



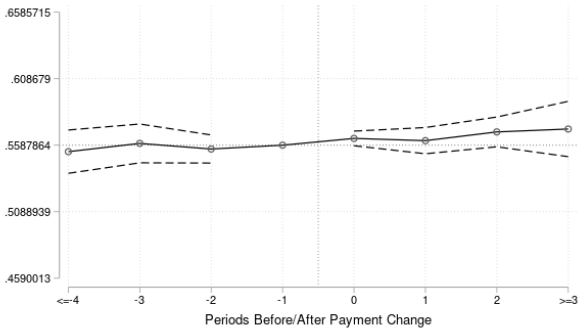
(f) Share of Exits Due to Child Death



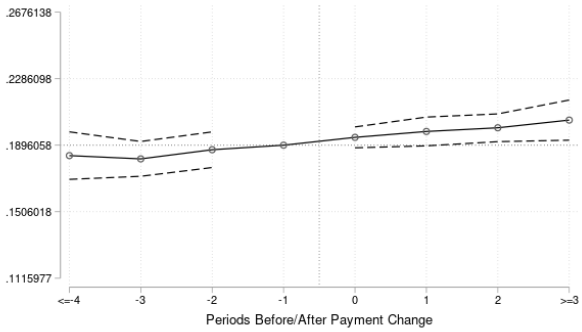
Notes: Event study plots include demographic controls for age, race-ethnicity, and gender, and state and year fixed effects. Standard errors are clustered by state. Labels for the y-axis are in terms of half standard deviations of the dependent variable.

Figure 7: Impact of Payment Rate on Health Care Utilization

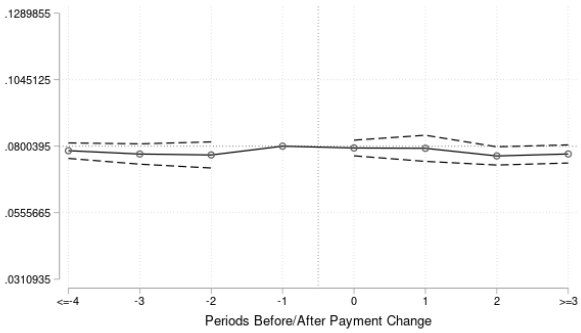
(a) Well-Child Visit



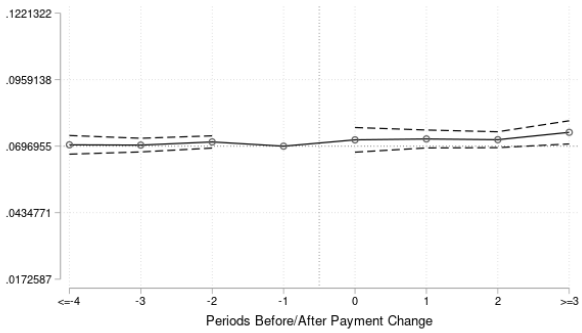
(b) Vaccination



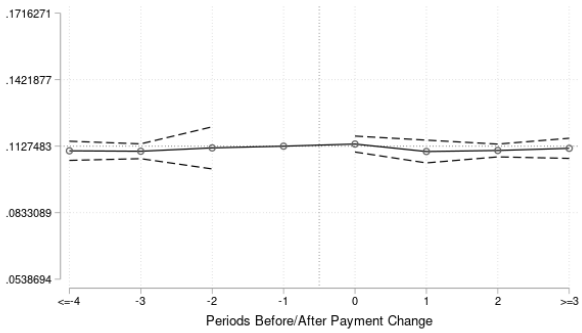
(c) Rx: SSRI



(d) Rx: Asthma



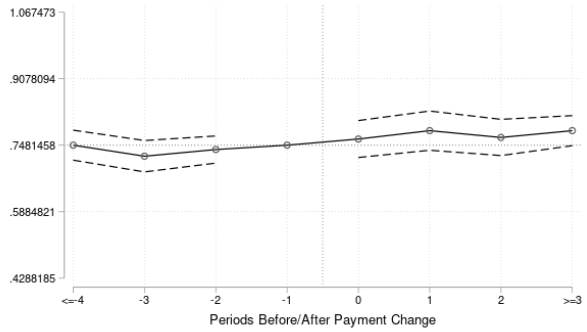
(e) Rx: ADHD



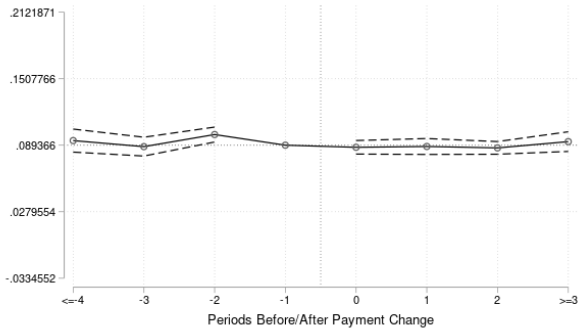
Notes: Event study plots include demographic controls for age, race-ethnicity, and gender, and state and year fixed effects. Standard errors are clustered by state. Labels for the y-axis are in terms of half standard deviations of the dependent variable. Exit outcomes are reported twice per year.

Figure 8: Impact of Payment Rate on Health Outcomes

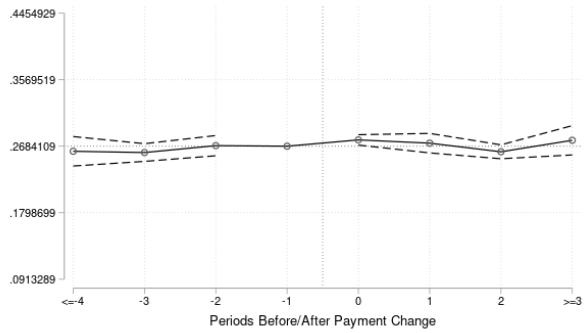
(a) Number of Total Injuries



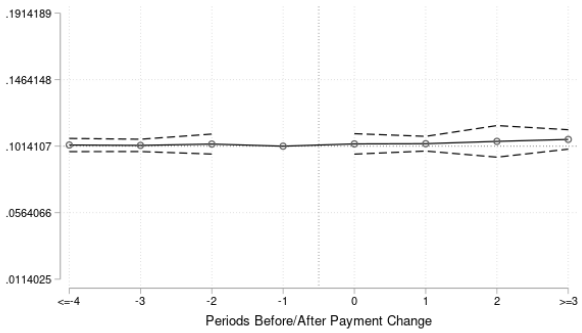
(b) Number of Fractures



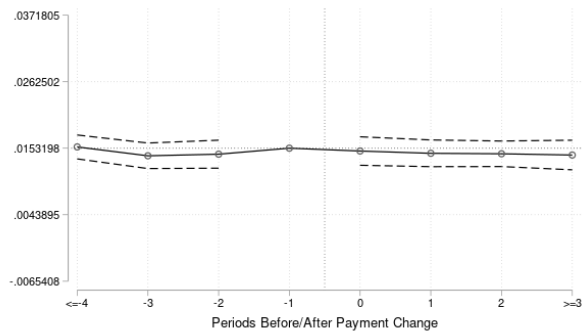
(c) Number of ED Injury Visits



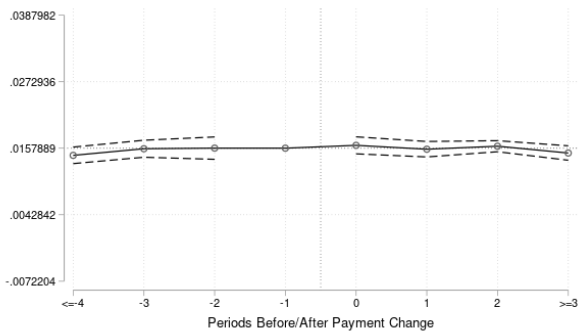
(d) Number of Weekend Injuries



(e) Asthma ED Visit



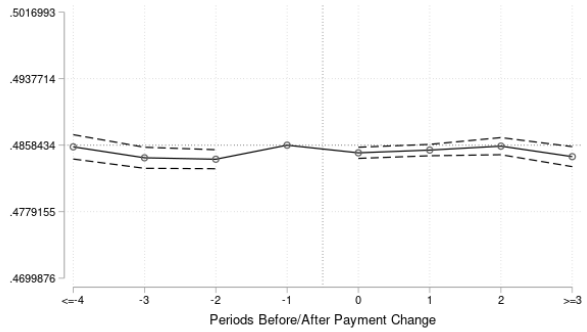
(f) Hospital Visit for Avoidable Condition



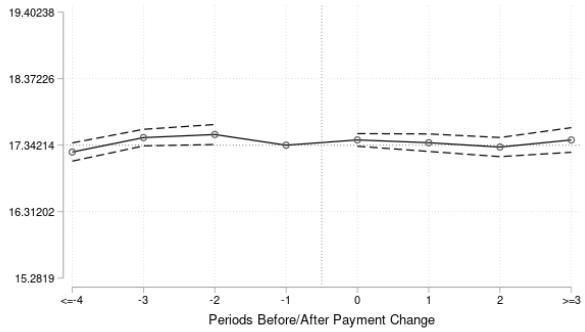
Notes: Event study plots include demographic controls for age, race-ethnicity, and gender, and state and year fixed effects. Standard errors are clustered by state. Labels for the y-axis are in terms of half standard deviations of the dependent variable.

Figure 9: Impact of Payment Rate on Neighborhood and Household Characteristics

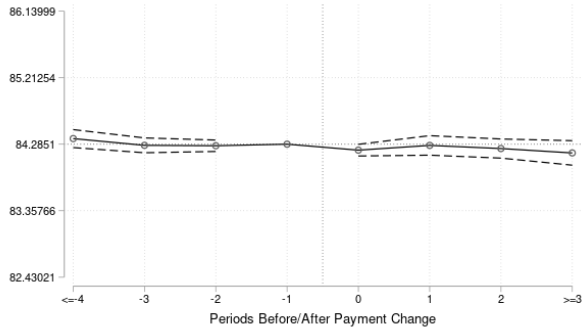
(a) Chetty Mobility Score



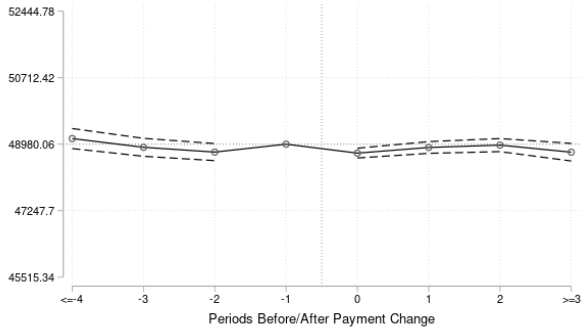
(b) Poverty Rate



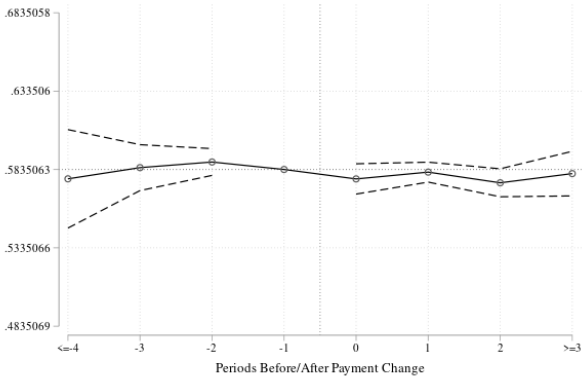
(c) High School Completion



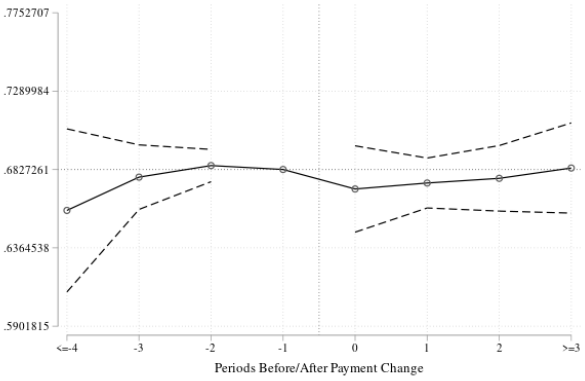
(d) Median Household Income



(e) Couple Caregiver (AFCARS)



(f) Foster Family Same Race (AFCARS)



Notes: Event study plots include demographic controls for age, race-ethnicity, and gender, and state and year fixed effects. Standard errors are clustered by state. Labels for the y-axis are in terms of half standard deviations of the dependent variable. Outcomes for subfigures (a)-(d) are measured at the zip code level.

Table 1: Summary Statistics: AFCARS Microdata, 2000-2012

Characteristics	All states	High Payment States	Low Payment States
Statutory basic payment	7,206	8,450	6,051
Family-reported payment (real)	9,137	10,117	8,544
Child Characteristics (currently in care)			
Age	8.81	9.02	8.62
Gender: Female	0.48	0.48	0.49
Race: Black	0.32	0.30	0.34
White	0.44	0.39	0.48
Hispanic	0.13	0.19	0.08
Native American	0.03	0.02	0.03
Any Disability	0.27	0.31	0.23
Foster Care Experiences (currently in care)			
Placement: All home settings	0.82	0.79	0.84
Congregate care	0.16	0.19	0.14
Ran away (temporarily)	0.01	0.02	0.01
Caregiver: Couple	0.50	0.46	0.54
Same race as child	0.69	0.62	0.75
Placement stability			
N placements after latest removal	3.10	2.99	3.20
Days since removal	804.3x	816.7x	792.7x
Days in foster care, ever	865.9x	883.6x	849.2x
Exits (Exit Sample Only)			
Permanence	0.90	0.89	0.91
Reunification	0.52	0.52	0.53
Adoption	0.21	0.21	0.21
Living with kin	0.11	0.12	0.10
Child Death	0.002	0.002	0.002
N states	**39**	**20**	**19**
N children	**5,763,315**	**2,776,717**	**2,986,598**
N children in care, no exit event	**3,715,800**	**1,798,032**	**1,917,768**
N children, with exit event	**2,047,515**	**978,685**	**1,068,830**

Notes: AFCARS sample includes both, children currently in foster care (without exit event as of September 30^{th} of a given year) and children who exited the sample in the current year (with an exit event). The states are split into high and low payment states by basic statutory rate in 2006. All dollar amounts are in 2012 dollars. [specify here what is annual and what is biannual if anything.]

Table 2: Summary Statistics: Medicaid Claims Sample, 2000-2012

	Foster	Disability	Income
Child demographic characteristics			
Age	7.92	10.53	7.74
Gender: Female	0.48	0.36	0.50
Race: Black	0.33	0.36	0.34
White	0.50	0.30	0.44
Hispanic	0.03	0.07	0.14
Native American	0.02	0.01	0.01
More than 1 race or unknown	0.12	0.26	0.05
Health outcomes			
Asthma Rx	0.074	0.160	0.081
Injuries			
Probability of any injury	0.216	0.205	0.145
Probability of fracture	0.028	0.029	0.019
Mental health			
Mental health condition	0.202	0.250	0.041
Mental health Rx	0.105	0.184	0.017
ADHD Rx	0.098	0.191	0.033
SSRI Rx	0.064	0.060	0.010
ED visits and hospitalizations			
Injury-related ED visit	0.139	0.140	0.093
Asthma-related ED visit	0.027	0.060	0.023
Asthma-related hospitalizations	0.007	0.018	0.004
Avoidable hospitalizations	0.014	0.028	0.009
Unavoidable hospitalizations	0.090	0.067	0.058
Preventive healthcare utilization			
Well-child visits	0.505	0.330	0.385
Vaccinations	0.188	0.141	0.159
Neighborhood characteristics (zipcode level)			
Household Median Income ($2012)	48,208.14	45,696.06	46,508.56
Population below poverty line	0.19	0.21	0.20
Chetty's mobility score	0.48	0.47	0.47
Education: Adults with bachelor's degree+	0.24	0.21	0.21
Adults with high school diploma+	0.82	0.80	0.79
N children	**419,133**	**2,595,698**	**534,430**
N states	**18**	**18**	**18**

Notes: Medicaid enrollees are split into categories based on standard Medicaid eligibility criteria: low income or a special status such a child in foster care or a child with a disability. Foster children and children with disabilities categories include all foster children in our original sample, while children who qualified under the baseline, income-based criterion are a random subsample of 5%, due to this group's size.

Table 3: Impact of Payment Rate on Foster Care Experiences

	(1)	(2)	(3)	(4)	(5)	(6)
	Reported Payment (Real)	Family Home	Placements in Latest Episode	Ran Away	Exits to Permanence	Exits to Death
Payment Rate (Thousands)	740.8**	0.0061*	-0.023	-0.000020	-0.0010	-0.0000035
	(339.1)	(0.0035)	(0.038)	(0.00049)	(0.0020)	(0.00022)
Mean of Dep. Variable	8,932.626	0.789	3.164	0.013	0.894	0.002
Observations	1,434,185	3,714,997	3,714,997	3,714,997	2,046,865	2,046,865

Notes: Reported payment received restricted to children in non-congregate settings and truncated to an annualized payment of [$1,200, $36,000]. Coefficients are event study coefficients representing the change in outcome two years after a payment increase ($t+2$) compared to the year prior to the increase ($t-1$). All regressions include demographic controls for age, race-ethnicity, and gender, and state and year fixed effects. Standard errors are clustered by state. Significance reported as: * $p<0.10$; ** $p<0.05$; *** $p<0.01$.

Table 4: Impact of Payment Rate on Health Care Utilization and Outcomes

	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Health Care Utilization						
	Well-Child Visit	Vaccination	SSRI Script	Asthma Script	ADHD Script	
Payment Rate (Thousands)	0.0099	0.0102**	–0.0036*	0.0026	–0.0019	
	(0.0057)	(0.0041)	(0.0017)	(0.0016)	(0.0014)	
Mean of Dep. Variable	0.5588	0.1896	0.0800	0.0697	0.1127	
Observations	2,144,742	2,431,276	2,431,276	2,431,276	2,431,276	
Panel B: Health Outcomes						
	N Total Injuries	N Broken Bone	N ED Injuries	N Weekend Injuries	Hosp Avoidable	Asthma ED Visit
Payment Rate (Thousands)	0.0185	–0.0025	–0.0074	0.0033	0.0003	–0.0009
	(0.0222)	(0.0030)	(0.0047)	(0.0055)	(0.0005)	(0.0011)
Mean of Dep. Variable	0.7481	0.0894	0.2684	0.1014	0.0158	0.0153
Observations	2,431,276	2,431,276	2,431,276	2,431,276	2,431,276	2,431,276

Notes: Coefficients are event study coefficients representing the change in outcome two years after a payment increase ($t+2$) compared to the year prior to the increase ($t-1$). All regressions include demographic controls for age, race-ethnicity, and gender, and state and year fixed effects. Standard errors are clustered by state. Significance reported as: * $p<0.10$; ** $p<0.05$; *** $p<0.01$.

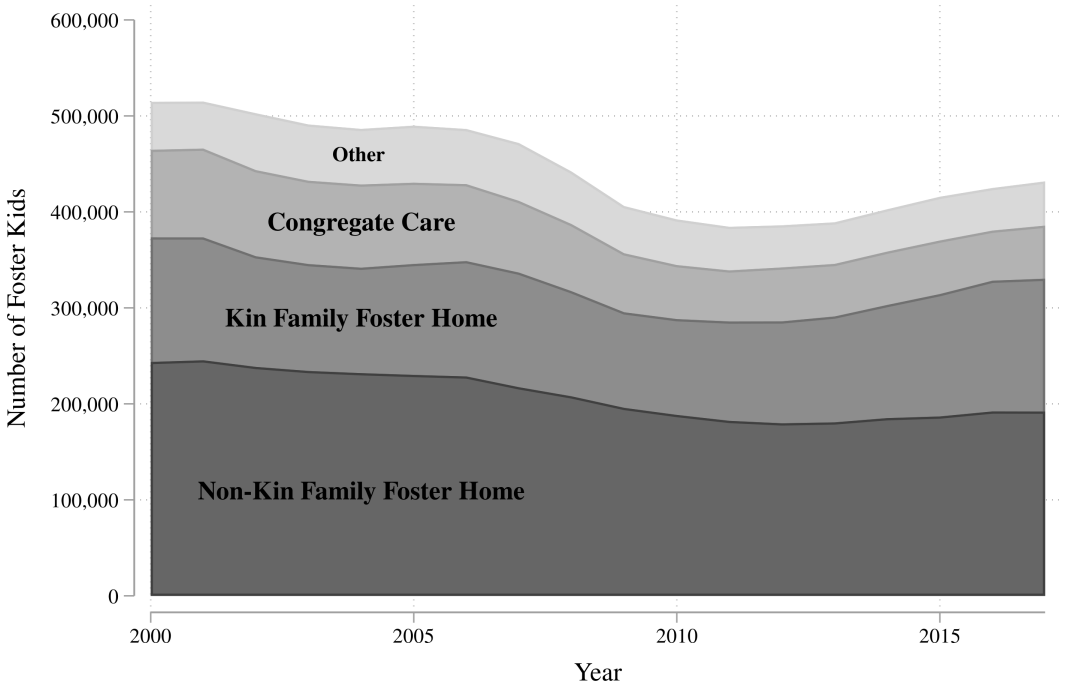
Table 5: Impact of Payment Rate on Neighborhood and Caregiver Characteristics

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Chetty Score	Poverty Rate	HS Completion	Bachelor's Degree	HH Med Income	Caregiver Couple	Cargiver Same Race
Payment Rate (Thousands)	–0.0001	–0.0292	–0.0607	–0.2054***	–23.6211	–0.0085*	–0.0052
	(0.0005)	(0.0755)	(0.0680)	(0.0710)	(86.7881)	(0.0046)	(0.0099)
Mean of Dep. Variable	0.4858	17.3421	84.2851	23.4989	48,980.0625	0.5835	0.6827
Observations	5,569,792	5,614,209	5,614,395	5,614,395	5,610,352	2,790,046	2,580,369

Notes: Coefficients are event study coefficients representing the change in outcome two years after a payment increase ($t+2$) compared to the year prior to the increase ($t-1$). All regressions include demographic controls for age, race-ethnicity, and gender, and state and year fixed effects. Standard errors are clustered by state. Significance reported as: * $p<0.10$; ** $p<0.05$; *** $p<0.01$.

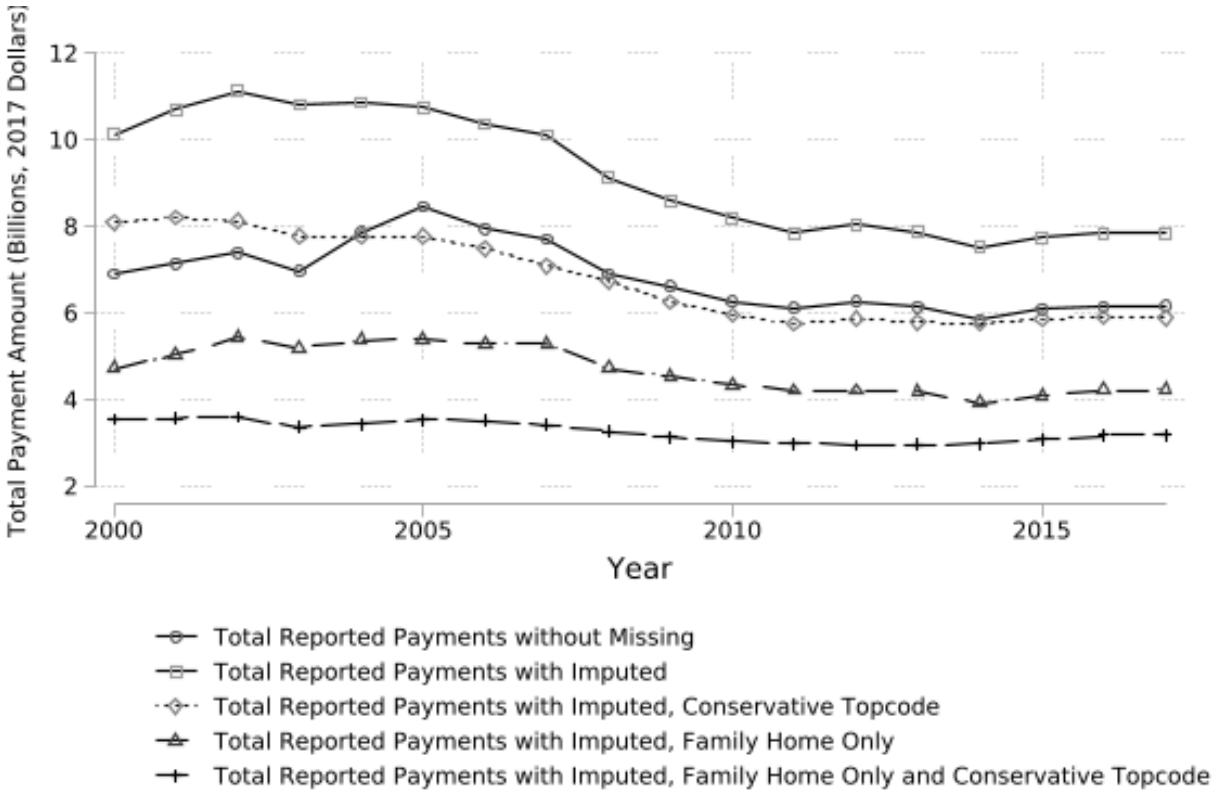
Appendix A

Figure A1: Number of Children in Foster Care on September 30th, 2000-2017



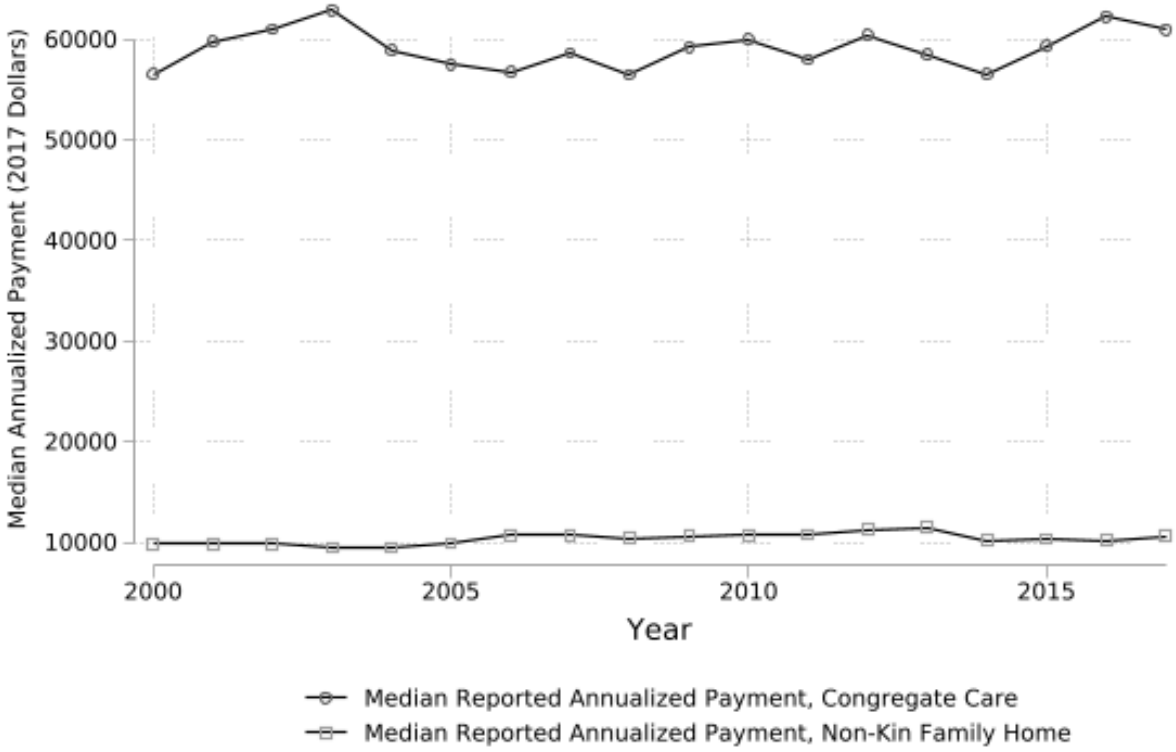
Notes: Counts reported by AFCARS. The "Other" category includes preadoptive homes, trial home visits, youth in supervised independent living arrangements, and temporary runaways. The former two categories are included among family homes in this paper. The number of children in foster care on September 30th captures roughly two-thirds of children who have an out-of-home placement at any point during the year.

Figure A2: Estimates of Total Amount of Foster Care Maintenance Payments



Notes: Aggregate reported payments calculated by annualizing the monthly amount received from federal, state, county, municipal, tribal, and private sources by all children ages 0-18 with a listed foster care placement setting on September 30th. AFCARS recodes payment as zero if a child has changed placements within the past month. Imputed rates substitute zeros with the year-placement setting average of non-zero payments received for settings where payments are regular (non-kin, congregate, pre-adoptive, supervised independent living). Regular (conservative) topcodes are $12,000/month ($6,000/month) for congregate care placements and $6,000/month ($2,000/month) for all other placements, respectively. Payments are adjusted for inflation using the 2017 Consumer Price Index. Given known reporting errors in AFCARS, trends should be interpreted as approximate.

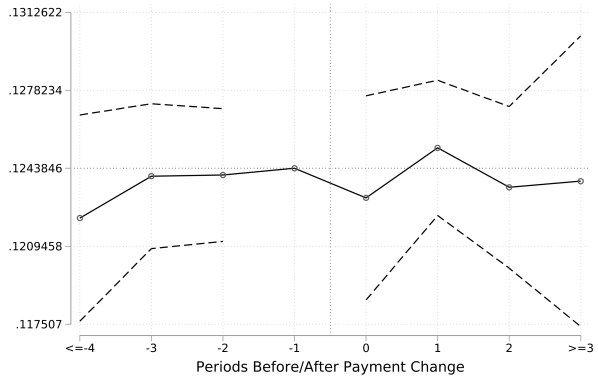
Figure A3: Median Foster Care Maintenance Payment by Type of Setting



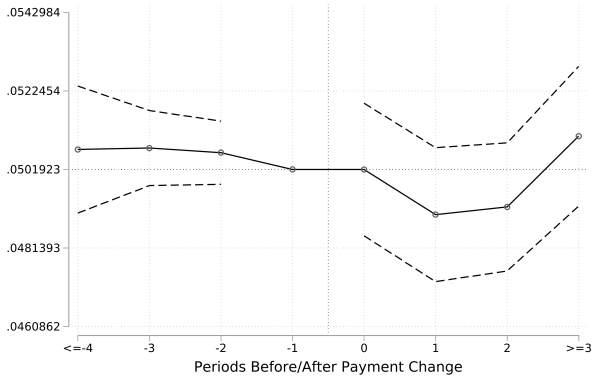
Notes: Median reported payments calculated by annualizing the monthly amount received from federal, state, county, municipal, tribal, and private sources by all children ages 0-18 with a listed foster care placement setting on September 30th. Topcodes are $12,000/month for congregate care placements and $6,000/month for all other placements, respectively. Payments are adjusted for inflation using the 2017 Consumer Price Index. Given known reporting errors in AFCARS, trends should be interpreted as approximate.

Figure A4: State Trends in Economic Conditions and Policies

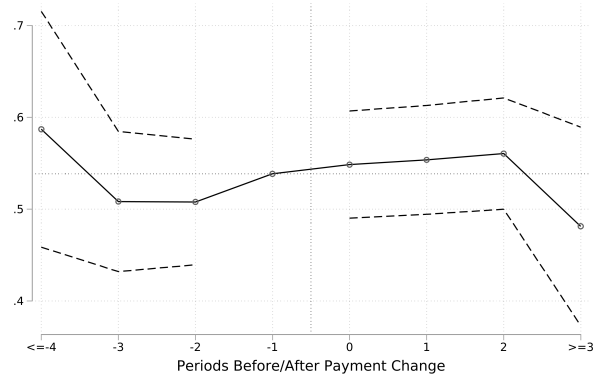
(a) Poverty Rate



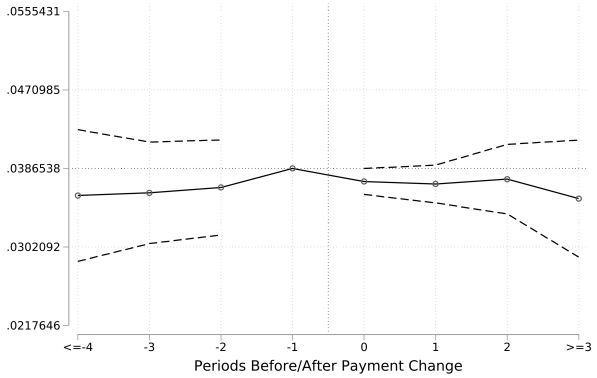
(b) Unemployment Rate



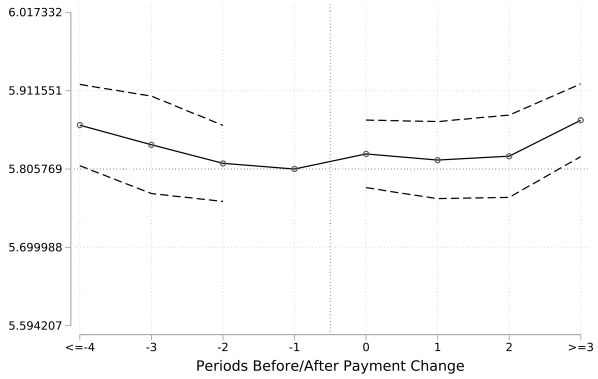
(c) Democratic Party Governor



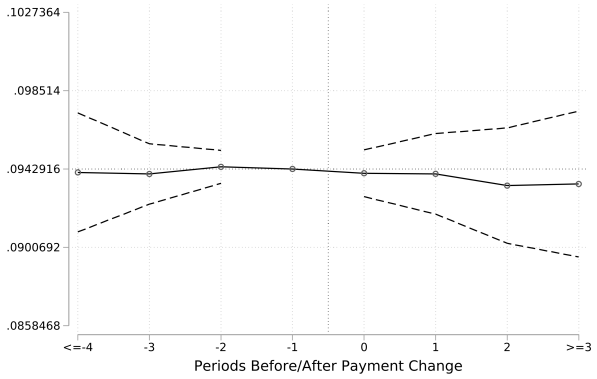
(d) State EITC Rate as Percent of Federal Credit



(e) Minimum Wage



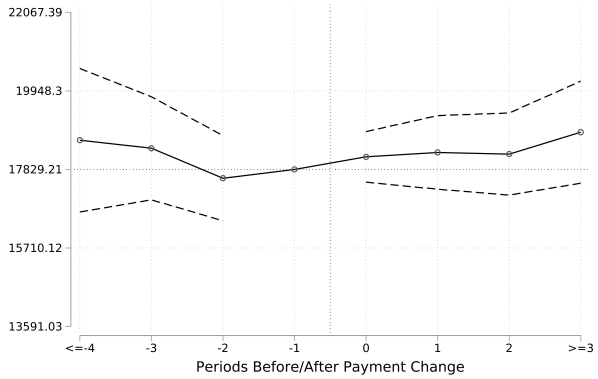
(f) SNAP/Food Stamp Recipients Per Capita



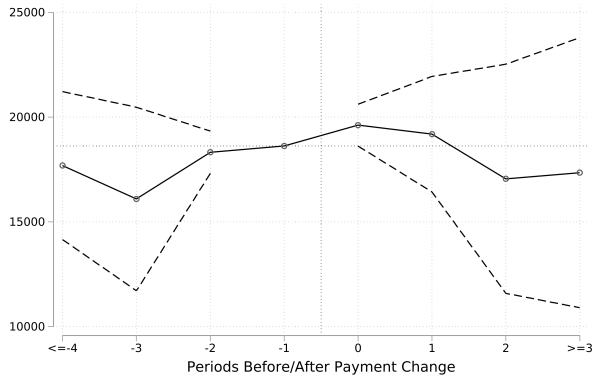
Notes: Event study plots control for state and year fixed effects. Standard errors are clustered by state. Labels for the y-axis are in terms of half standard deviations of the dependent variable.

Figure A5: State Trends in Child Welfare Conditions and Policies

(a) Number of Substantiated Maltreatment



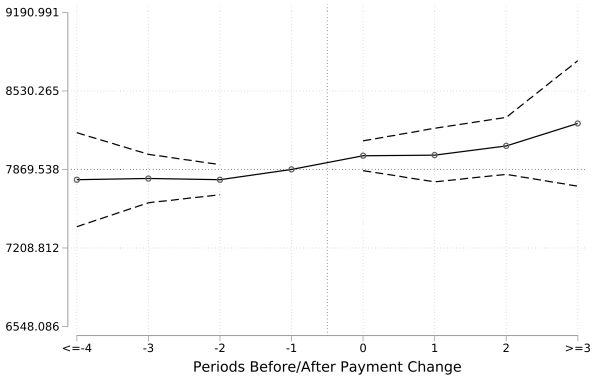
(b) Maltreatment Investigation – Any Services Provided



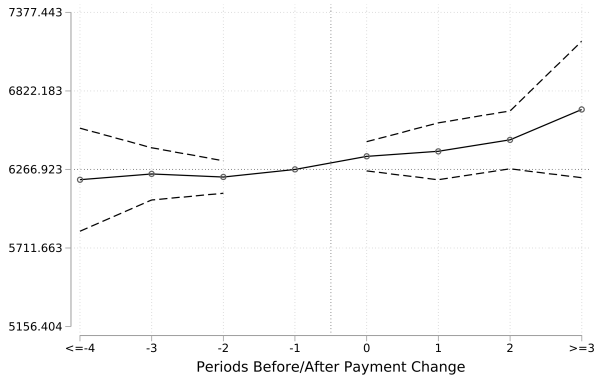
Notes: Event study plots control for state and year fixed effects. Standard errors are clustered by state. Labels for the y-axis are in terms of half standard deviations of the dependent variable.

Figure A6: State Foster Care Aggregate Trends

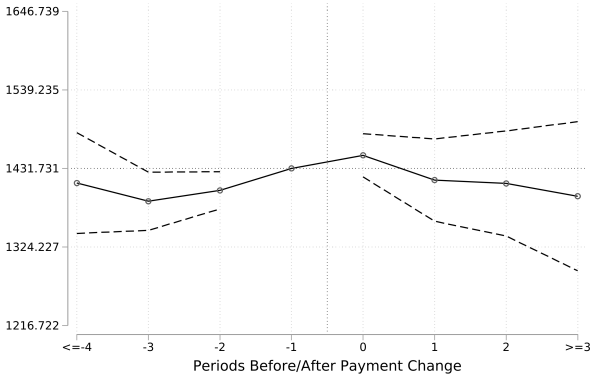
(a) Total Kids in Foster Care on Sept 30



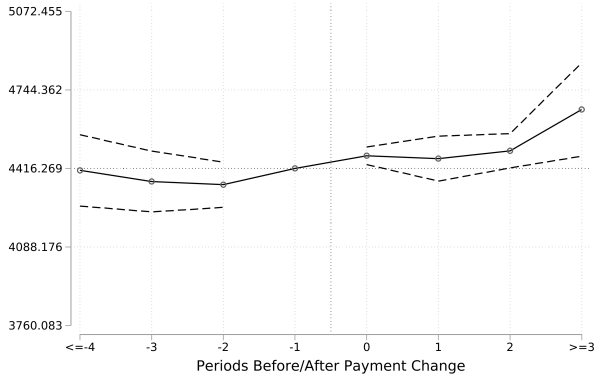
(b) Total Kids in Family Home on Sept 30



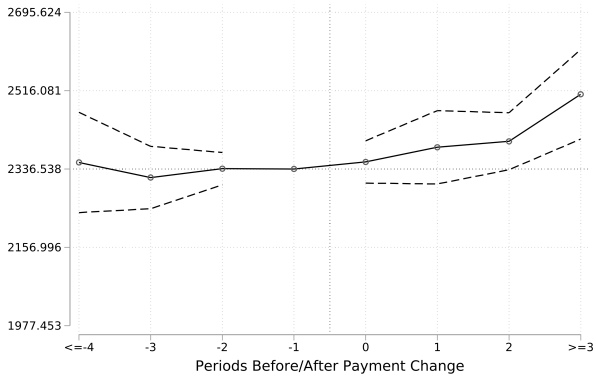
(c) Total Kids in Congregate Care on Sept 30



(d) Total Entrants in Year



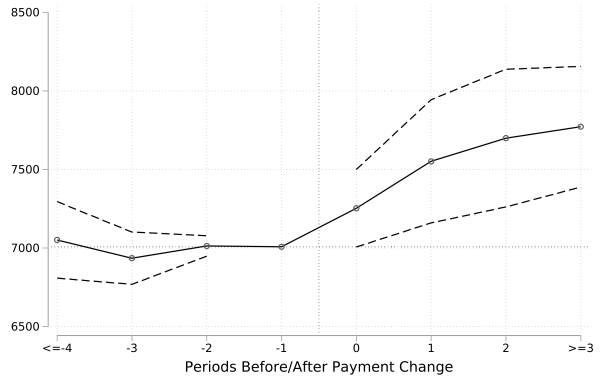
(e) Total Exits in Year



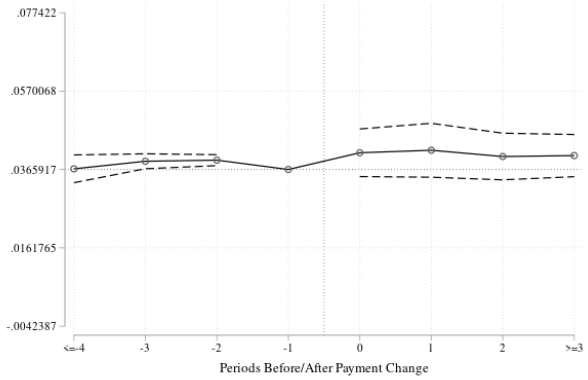
Notes: Event study plots control for state and year fixed effects. Standard errors are clustered by state. Labels for the y-axis are in terms of half standard deviations of the dependent variable.

Figure A7: Impact of Payment Rate on Adoption Subsidies and Family Placement Types

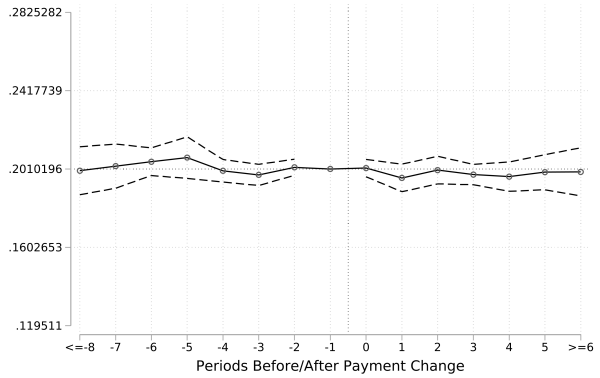
(a) State Median Adoption Subsidy Payment



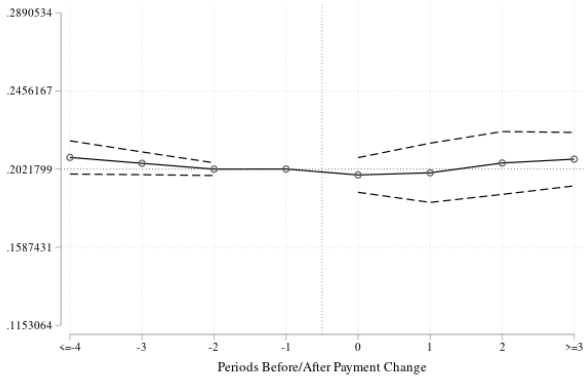
(b) Share of Placements in Preadoptive Home



(c) Share of Exits to Adoption



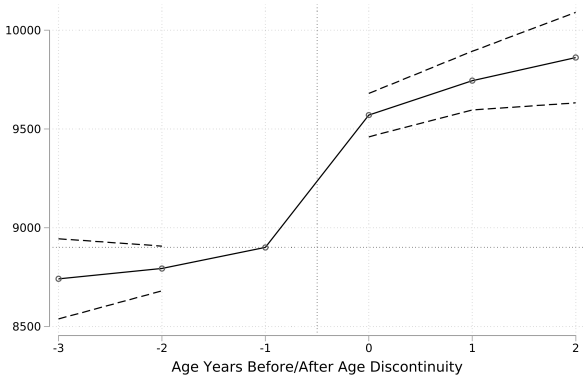
(d) Share of Placements with Kin



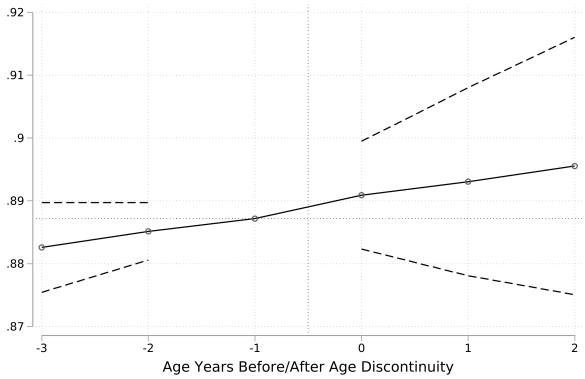
Notes: Event study plots include state and year fixed effects. Plots (b)-(d) are at the child level and include demographic controls for age, race-ethnicity, and gender. Standard errors are clustered by state. Labels for the y-axis are in terms of half standard deviations of the dependent variable. Adoption subsidies are expected to mechanically increase with foster care payments, as adoption subsidies are bounded above by the foster care maintenance payment rate.

Figure A8: Impact of Age Discontinuities in Payments on Foster Care Experiences

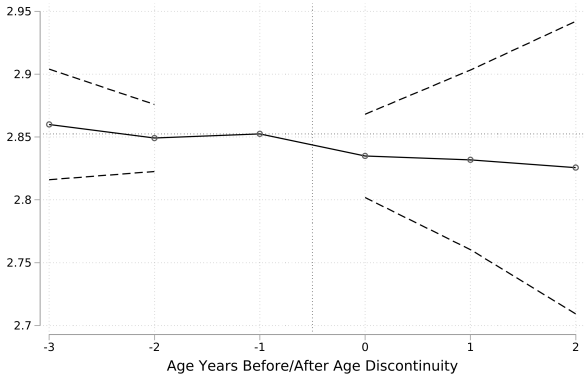
(a) Reported Payment Received



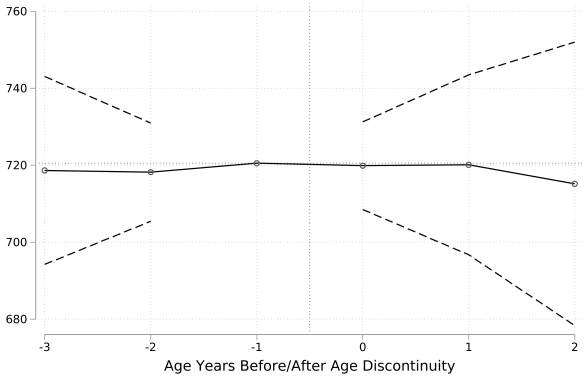
(b) Fraction of Children in Family Home



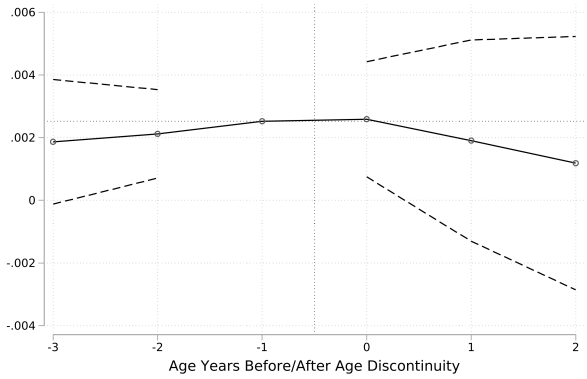
(c) Number of Placements since Latest Removal



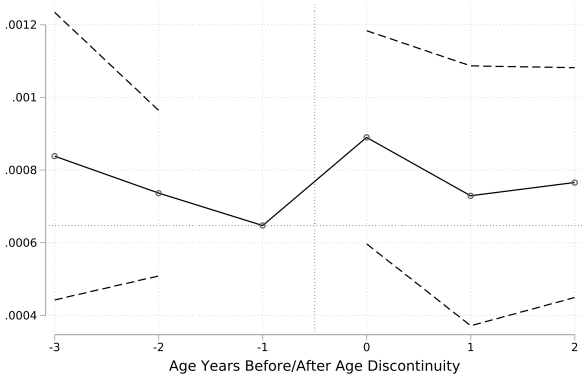
(d) Length of Stay since Latest Removal



(e) Child Temporary Runaways



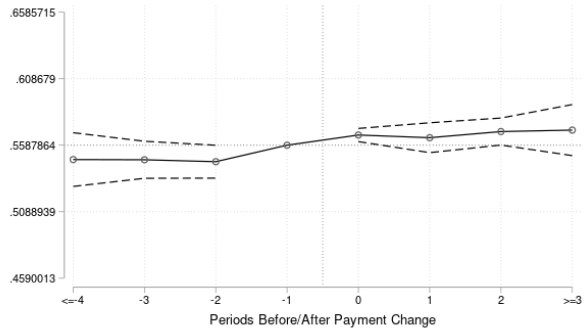
(f) Share of Exits Due to Child Death



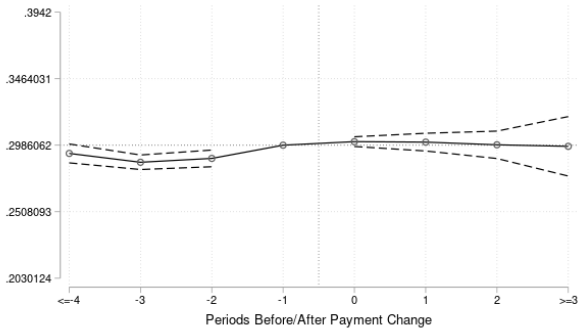
Notes: Event study plots include demographic controls for age, race-ethnicity, and gender, and state and year fixed effects. Standard errors are clustered by state. Labels for the y-axis are in terms of half standard deviations of the dependent variable.

Figure A9: Comparison of Trends: Foster vs. Disabled

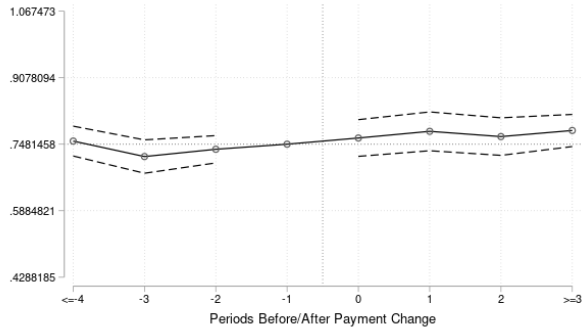
(a) Well-Child Visit, Foster



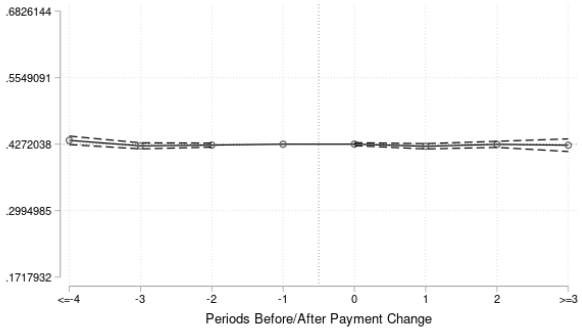
(b) Well-Child Visit, Disabled



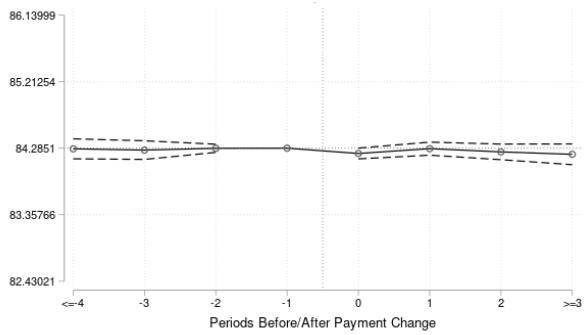
(c) Number of Total Injuries, Foster



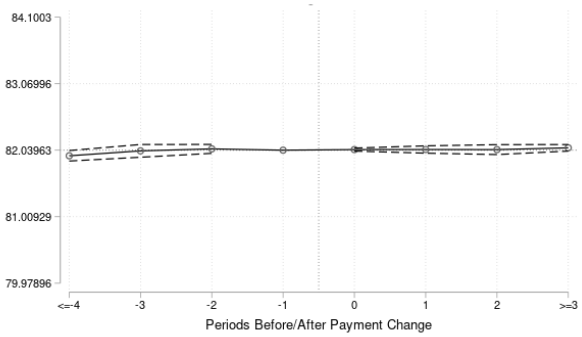
(d) Number of Total Injuries, Disabled



(e) Zip High School Completion, Foster



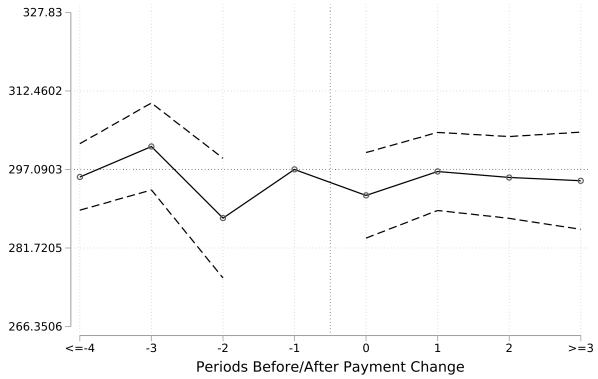
(f) Zip High School Completion, Disabled



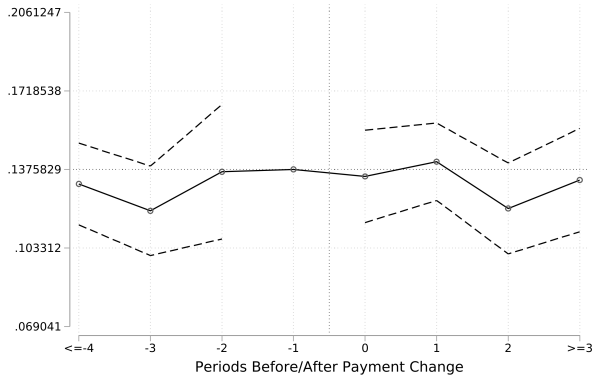
Notes: Event study plots include demographic controls for age, race-ethnicity, and gender, and state and year fixed effects. Standard errors are clustered by state.

Figure A10: Impact of Payment Rate on Additional Home Characteristics (American Community Survey)

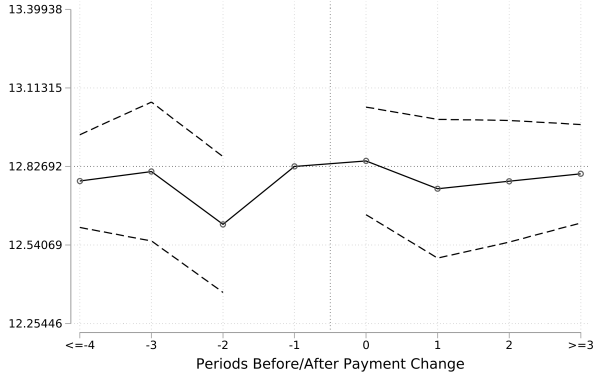
(a) Household Income as Percent of Poverty Line



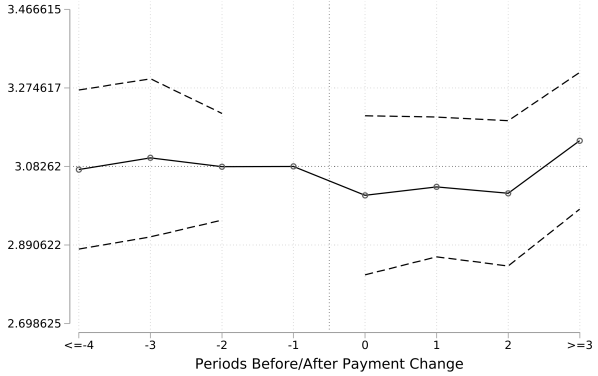
(b) Household in Poverty



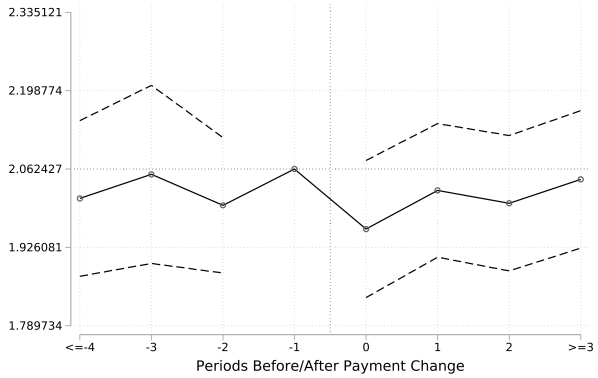
(c) Household Head Years of Schooling



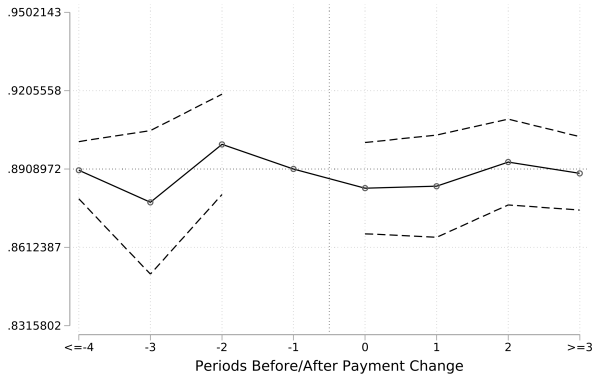
(d) Total Number of Children in Household



(e) Number of Foster Children in Household



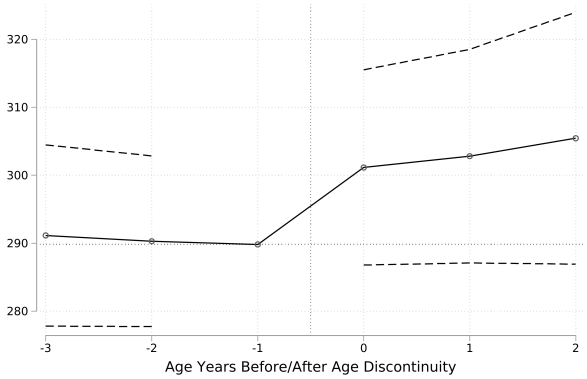
(f) Child in School



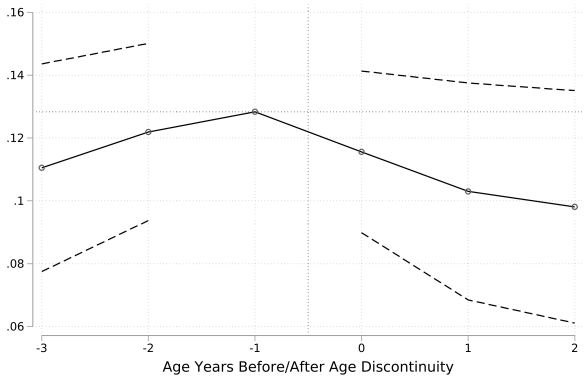
Notes: Event study plots include demographic controls for age, race-ethnicity, and gender, and state and year fixed effects. Standard errors are clustered by state. Labels for the y-axis are in terms of half standard deviations of the dependent variable.

Figure A11: Impact of Age Discontinuities in Payments on Home Characteristics

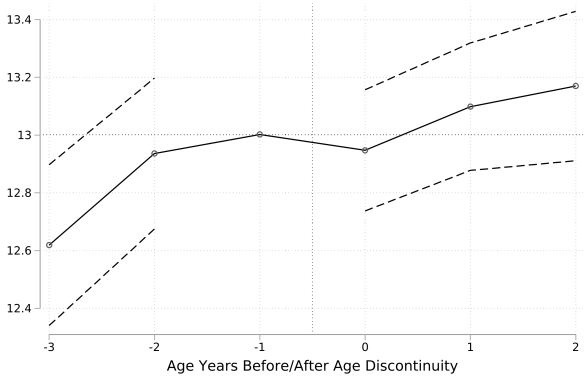
(a) Household Income as Percent of Poverty Line



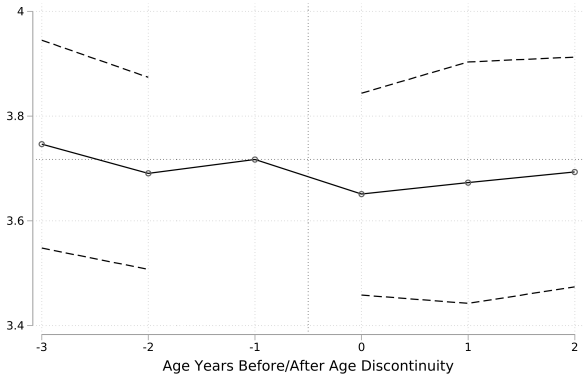
(b) Household in Poverty



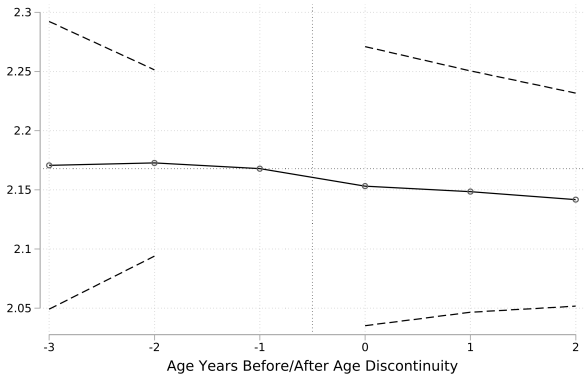
(c) Household Head Years of Schooling



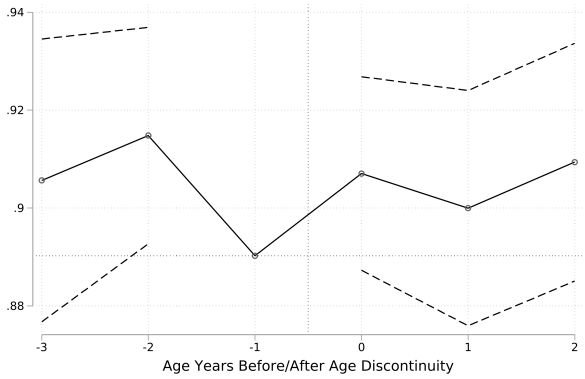
(d) Total Number of Children in Household



(e) Number of Foster Children in Household



(f) Child in School



Notes: Event study plots include demographic controls for age, race-ethnicity, and gender, and state and year fixed effects. Standard errors are clustered by state. Labels for the y-axis are in terms of half standard deviations of the dependent variable. We observe no immediate discontinuities in the number of reported children by state-age-year cell in the ACS.

Table A1: Household Characteristics for Foster and Biological Children

	Kids Living with Foster Parents	Kids Living with Biological Parents
N Adults in Household	2.84	2.74
N Foster Kids in Household	2.16	0.0041
Total N Kids in Household	3.34	2.49
Total Household Pre-Tax Income	58594.3	72712.9
HH Miscellaneous Income	4053.7	1872.6
HH in Poverty	0.13	0.18
Head of Household		
Head Married	0.63	0.68
Head White	0.55	0.58
Head Black	0.24	0.14
Head Age	47.1	39.5
Head High School Completion	0.83	0.83
Number of Children	22,616	5,702,313

Notes: Statistics from the American Community Survey for the analysis states, 2000-2012. Statistics for children with biological parents are weighted using person-level weights from the American Community Survey. Miscellaneous income includes income from foster care payments but is widely underreported.

Table A2: Foster Care Experiences, Robustness to Alternative Samples and Controls

	(1)	(2)	(3)	(4)	(5)
	Family Home	Placements in Latest Episode	Ran Away	Exits to Permanence	Exits to Death
Baseline	0.0061*	–0.0231	–0.0000	–0.0010	–0.0000
	(0.0035)	(0.0384)	(0.0005)	(0.0020)	(0.0002)
	[N=3,714,997]	[N=3,714,997]	[N=3,714,997]	[N=2,046,865]	[N=2,046,865]
Most Confidently Exogenous States	0.0014	0.1367*	0.0009	0.0045	0.0008***
	(0.0056)	(0.0782)	(0.0007)	(0.0036)	(0.0001)
	[N=1,617,906]	[N=1,617,906]	[N=1,617,906]	[N=844,793]	[N=844,793]
Child Fixed Effects	0.0083	–0.0184	0.0008	0.0013	0.0002
	(0.0072)	(0.0910)	(0.0018)	(0.0140)	(0.0016)
	[N=3,683,669]	[N=3,683,669]	[N=3,683,669]	[N=2,035,929]	[N=2,035,929]
Medicaid Claims Sample	0.0001	0.0432	–0.0003	–0.0034	–0.0003*
	(0.0037)	(0.0719)	(0.0007)	(0.0036)	(0.0002)
	[N=1,695,869]	[N=1,695,869]	[N=1,695,869]	[N=887,479]	[N=887,479]
Expanded Sample (2000–2017)	0.0052	–0.0208	–0.0006	–0.0007	–0.0000
	(0.0033)	(0.0358)	(0.0008)	(0.0019)	(0.0002)
	[N=6,318,990]	[N=6,318,990]	[N=6,318,990]	[N=3,347,051]	[N=3,347,051]
Additional State-Year Controls	0.0063*	–0.0300	–0.0002	–0.0012	–0.0000
	(0.0035)	(0.0364)	(0.0006)	(0.0020)	(0.0002)
	[N=3,714,997]	[N=3,714,997]	[N=3,714,997]	[N=2,046,865]	[N=2,046,865]
Two Years After Increase (Unscaled)	0.0173*	0.0105	–0.0005	–0.0065	–0.0000
	(0.0086)	(0.0936)	(0.0018)	(0.0051)	(0.0005)
	[N=3,714,997]	[N=3,714,997]	[N=3,714,997]	[N=2,046,865]	[N=2,046,865]
Scaled by Pct Increase	0.0353	–0.1284	–0.0002	–0.0025	0.0001
	(0.0212)	(0.1955)	(0.0022)	(0.0097)	(0.0013)
	[N=3,714,997]	[N=3,714,997]	[N=3,714,997]	[N=2,046,865]	[N=2,046,865]
Non-White	0.0085**	–0.0142	0.0000	–0.0014	0.0001
	(0.0031)	(0.0398)	(0.0006)	(0.0022)	(0.0003)
	[N=2,149,366]	[N=2,149,366]	[N=2,149,366]	[N=1,082,126]	[N=1,082,126]
Female	0.0039	–0.0249	–0.0000	–0.0007	–0.0001
	(0.0037)	(0.0376)	(0.0005)	(0.0027)	(0.0003)
	[N=1,780,775]	[N=1,780,775]	[N=1,780,775]	[N=1,010,046]	[N=1,010,046]
Male	0.0081**	–0.0231	0.0000	–0.0010	0.0001
	(0.0035)	(0.0408)	(0.0006)	(0.0020)	(0.0004)
	[N=1,934,222]	[N=1,934,222]	[N=1,934,222]	[N=1,036,819]	[N=1,036,819]
Below Median Pre-Increase Rate	0.0059	–0.0252	–0.0002	0.0012	0.0001
	(0.0041)	(0.0310)	(0.0002)	(0.0017)	(0.0003)
	[N=2,464,095]	[N=2,464,095]	[N=2,464,095]	[N=1,397,012]	[N=1,397,012]
Above Median Pre-Increase Rate	0.0073	–0.0227	–0.0002	–0.0061	–0.0006
	(0.0056)	(0.1048)	(0.0017)	(0.0054)	(0.0004)
	[N=2,408,314]	[N=2,408,314]	[N=2,408,314]	[N=1,236,386]	[N=1,236,386]
Increase Less Than $2000	0.0141	0.0001	0.0018	–0.0091*	0.0003
	(0.0126)	(0.1172)	(0.0015)	(0.0052)	(0.0004)
	[N=3,000,167]	[N=3,000,167]	[N=3,000,167]	[N=1,641,010]	[N=1,641,010]
Increase Greater Than $2000	0.0064*	–0.0273	–0.0003	–0.0007	–0.0000
	(0.0033)	(0.0427)	(0.0005)	(0.0024)	(0.0002)
	[N=1,872,242]	[N=1,872,242]	[N=1,872,242]	[N=992,388]	[N=992,388]
First Time in Foster Care	0.0072**	–0.0125	0.0001	0.0003	0.0003
	(0.0036)	(0.0147)	(0.0004)	(0.0029)	(0.0005)
	[N=1,254,396]	[N=1,254,396]	[N=1,254,396]	[N=805,659]	[N=805,659]
Ages 0–9	0.0070**	–0.0133	–0.0000	0.0014	0.0003
	(0.0032)	(0.0205)	(0.0000)	(0.0012)	(0.0003)
	[N=1,961,396]	[N=1,961,396]	[N=1,961,396]	[N=1,141,371]	[N=1,141,371]
Ages 10–17	0.0063	–0.0550	0.0004	–0.0003	–0.0002
	(0.0048)	(0.0567)	(0.0009)	(0.0022)	(0.0004)
	[N=1,671,217]	[N=1,671,217]	[N=1,671,217]	[N=733,110]	[N=733,110]

Notes: Coefficients are event study coefficients representing the change in outcome two years after a payment increase ($t+2$) compared to the year prior to the increase ($t-1$). Controls for gender, age, and race are included in all regressions. Standard errors are clustered by state. Most plausibly exogenous treatment and control states include AR, CT, GA, HI, IA, KY, MO, ND, NH, SC, and WI. Unscaled specification is a standard event study coefficient denoting the change in outcome two years after increase independent of the amount of the payment increase. Additional controls

specification includes controls for state-year unemployment rate, state-year Democratic Party governor, state-year minimum wage, and state-year TANF recipients per capita. Significance reported as: * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

Table A3: Maltreatment Within and Outside of Foster Care

	(1)	(2)	(3)	(4)
	Mal Alleg Foster	Mal Alleg Non-Foster	Mal Substd Foster	Mal Substd Non-Foster
Payment Rate (Thousands)	3.1381	1,646.7813	2.7746	150.8486
	(6.5856)	(1,499.6928)	(6.6871)	(388.0336)
Mean of Dep. Variable	77.8636	59,397.9531	77.2273	12,526.2275
Observations	390	390	390	390

Notes: Coefficients are event study coefficients representing the change in outcome two years after a payment increase ($t+2$) compared to the year prior to the increase ($t-1$). All regressions include state and year fixed effects. Standard errors are clustered by state. Reported and substantiated maltreatment recorded at the state-year level using the NCANDS Child File. Significance reported as: * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

Table A4: Health and Neighborhood Outcomes, Foster Sample Only

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A: Health Care Utilization	Well-Child Visit	Vaccination	SSRI Script	Asthma Script	ADHD Script		
Payment Rate (Thousands)	0.0102*	0.0030	–0.0042**	0.0015	0.0012		
	(0.0052)	(0.0059)	(0.0019)	(0.0018)	(0.0013)		
Mean of Dep. Variable	0.5588	0.1896	0.0800	0.0697	0.1127		
Observations	328,466	366,807	366,807	366,807	366,807		
Panel B: Health Outcomes	N Total Injuries	N Broken Bone	N ED Injuries	N Weekend Injuries	Hosp Avoidable	Asthma ED Visit	
Payment Rate (Thousands)	0.0182	–0.0022	–0.0154***	0.0032	0.0005	–0.0026	
	(0.0230)	(0.0034)	(0.0047)	(0.0056)	(0.0004)	(0.0020)	
Mean of Dep. Variable	0.7481	0.0894	0.2684	0.1014	0.0158	0.0153	
Observations	366,807	366,807	366,807	366,807	366,807	366,807	
Panel C: Neighborhood and Caregiver Characteristics	Chetty Score	Poverty Rate	HS Completion	Bachelor's Degree	HH Med Income	Caregiver Couple	Cargiver Same Race
Payment Rate (Thousands)	–0.0008**	0.0481	–0.0517	–0.1040*	–40.1016	–0.0085*	–0.0052
	(0.0003)	(0.0525)	(0.0555)	(0.0549)	(120.3126)	(0.0046)	(0.0099)
Mean of Dep. Variable	0.4858	17.3421	84.2851	23.4989	48,980.0625	0.5835	0.6827
Observations	785,438	792,954	792,662	792,662	791,827	2,790,046	2,580,369

Notes: Coefficients are event study coefficients representing the change in outcome two years after a payment increase ($t+2$) compared to the year prior to the increase ($t-1$). All regressions include demographic controls for age, race-ethnicity, and gender, and state and year fixed effects. Standard errors are clustered by state. Significance reported as: * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

Table A5: Neighborhood and Caregiver Characteristics
Foster vs. Disabled, Medicaid Claims States

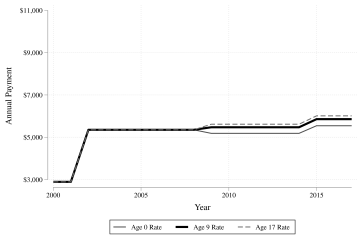
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Chetty Score	Poverty Rate	HS Completion	Bachelor's Degree	HH Med Income	Caregiver Couple	Cargiver Same Race
Payment Rate (Thousands)	–0.0010*	0.0900	–0.0622	–0.0145	–51.2305	0.0051	–0.0004
	(0.0006)	(0.0821)	(0.0888)	(0.1058)	(188.5844)	(0.0106)	(0.0213)
Mean of Dep. Variable	0.4674	19.1841	82.5602	21.4601	44,810.3281	0.5642	0.7217
Observations	2,406,886	2,427,575	2,426,962	2,426,962	2,425,079	1,273,537	1,125,419

Notes: Coefficients are event study coefficients representing the change in outcome two years after a payment increase ($t+2$) compared to the year prior to the increase ($t-1$). All regressions include demographic controls for age, race-ethnicity, and gender, and state and year fixed effects. Standard errors are clustered by state. Significance reported as: * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

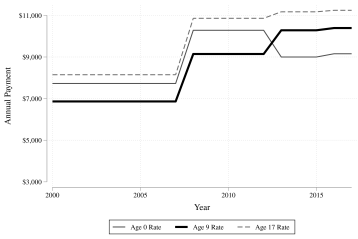
Appendix B

Figure B1: Foster Care Maintenance Payment Rates by State, Nominal, 2000-2017

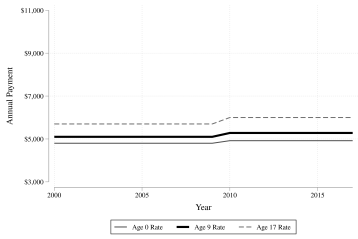
(1) Alabama



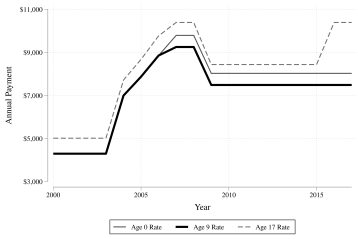
(2) Alaska



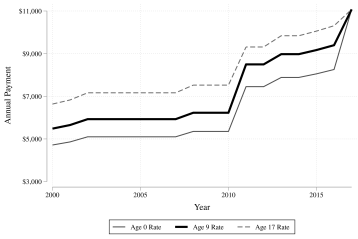
(3) Arkansas



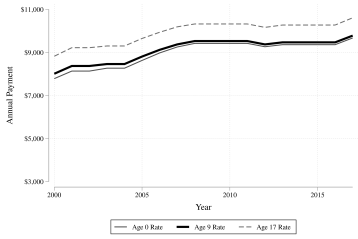
(4) Arizona



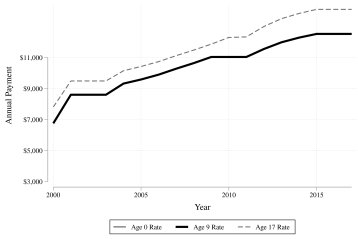
(5) California



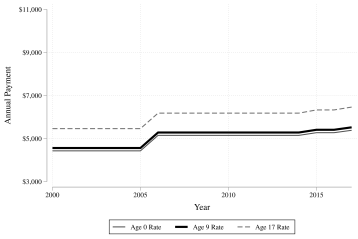
(6) Connecticut



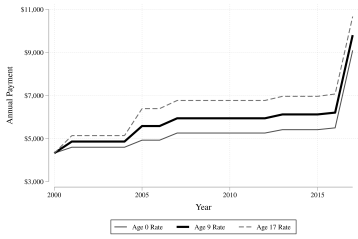
(7) District of Columbia



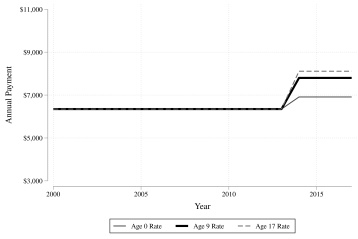
(8) Florida



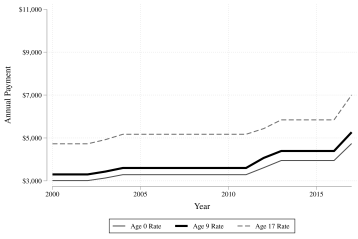
(9) Georgia



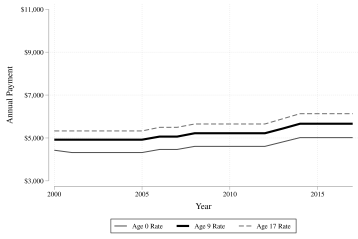
(10) Hawaii



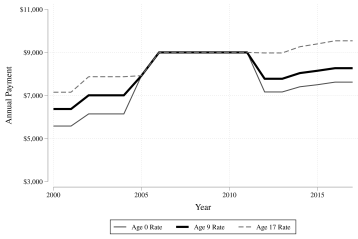
(11) Idaho



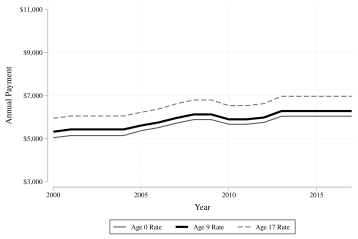
(12) Illinois



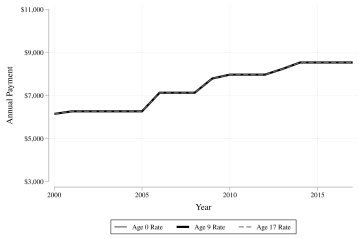
(13) Indiana (Marion County)



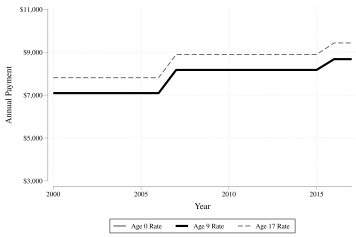
(14) Iowa



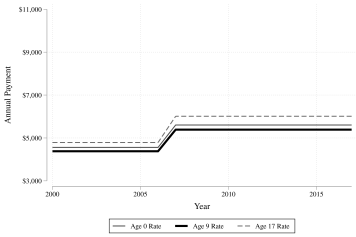
(15) Kansas



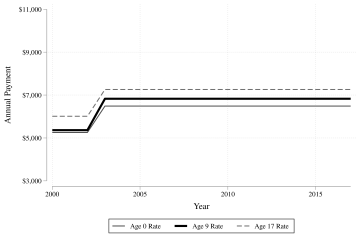
(16) Kentucky



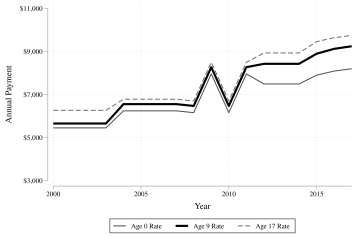
(17) Louisiana



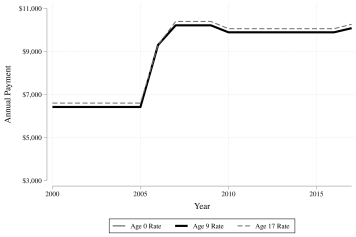
(18) Maine



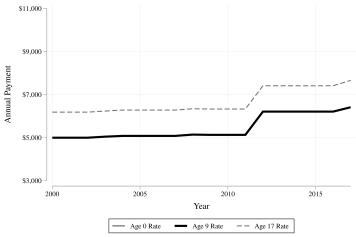
(19) Massachusetts



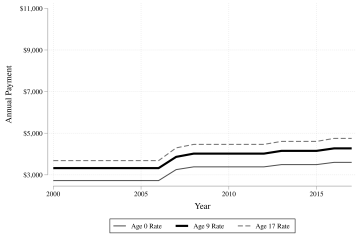
(20) Maryland



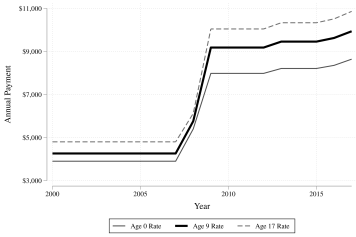
(21) Michigan



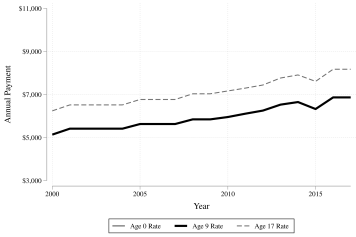
(22) Missouri



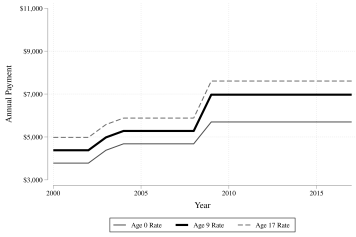
(23) Mississippi



(24) Montana



(25) North Carolina



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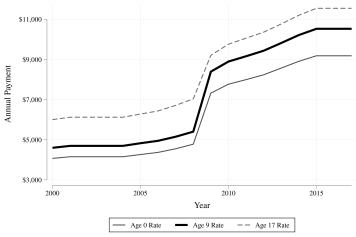

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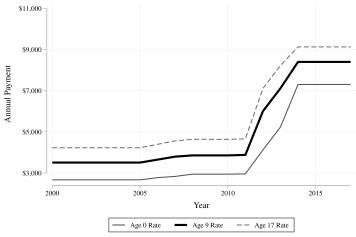

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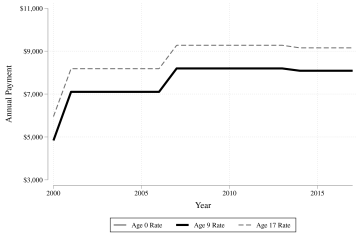

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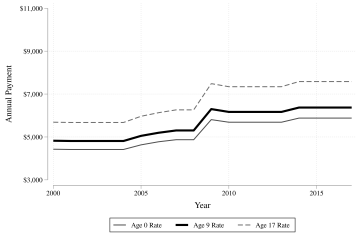

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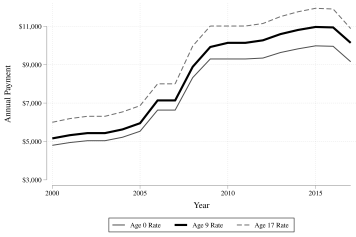

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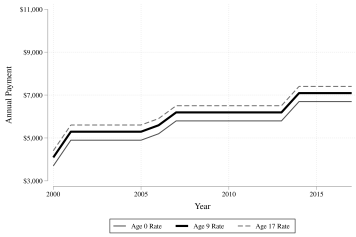

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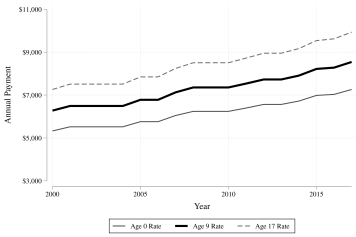

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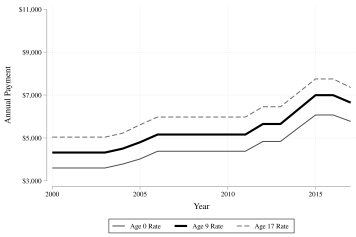

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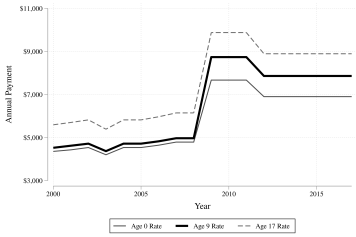

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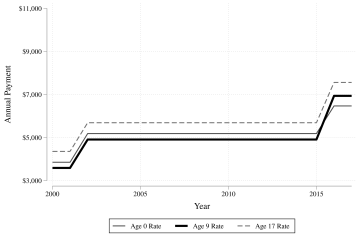

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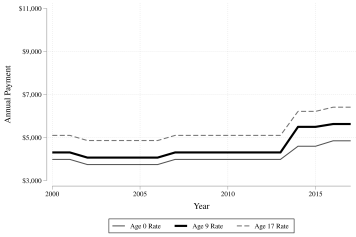

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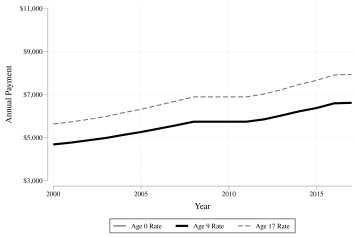

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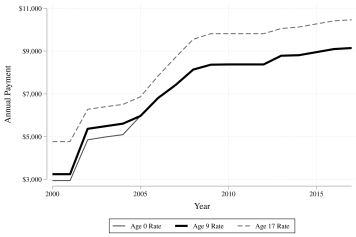

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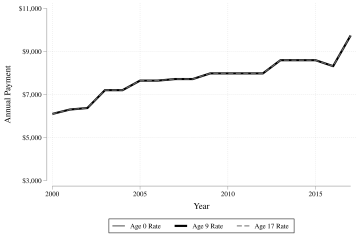

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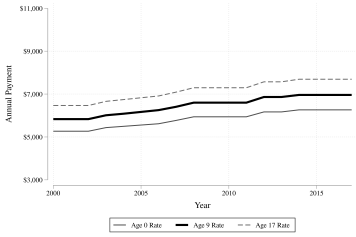

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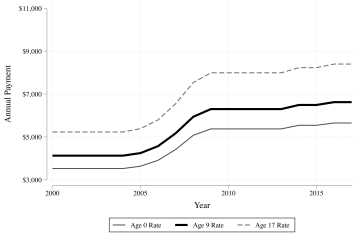

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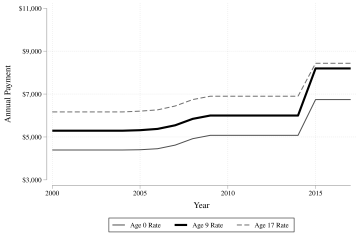

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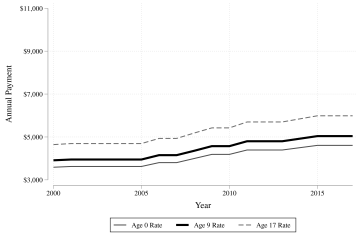

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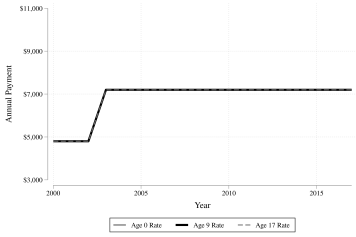

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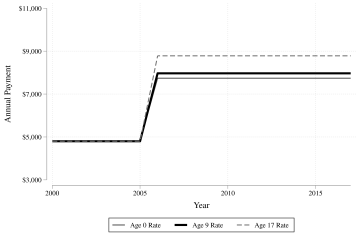

Table B1: Sample of Rate Increases for Event Study

State	Year	Rate $t-1$	Rate $t+2$	Amt Change	Pct Change
AL	2002	2892	5352	2460	85
RI	2002	3588	4908	1320	37
ME	2003	5364	6829	1465	27
TX	2003	6372	7644	1272	20
WV	2003	4800	7200	2400	50
AZ	2004	4296	8856	4560	106
MA	2004	5652	6552	900	16
OK	2004	4320	5160	840	19
CT	2005	8460	9372	912	11
GA	2005	4860	5940	1080	22
IN	2005	7008	9000	1992	28
FL	2006	4560	5280	720	16
MD	2006	6420	10212	3792	59
NJ	2006	5952	8892	2940	49
NM	2006	5292	6192	900	17
TN	2006	5964	8136	2172	36
WY	2006	4800	7968	3168	66
KY	2007	7092	8172	1080	15
LA	2007	4380	5388	1008	23
MO	2007	3324	4020	696	21
VA	2007	4572	6300	1728	38
WA	2007	5376	6000	624	12
AK	2008	6864	9144	2280	33
MS	2008	4260	9180	4920	115
NC	2009	5280	6972	1692	32
ND	2009	5400	9156	3756	70
NH	2009	5304	6168	864	16
OR	2009	4968	8736	3768	76
CA	2011	6228	8976	2748	44
AR	.	.	.	.	.
HI	.	.	.	.	.
IA	.	.	.	.	.
ID	.	.	.	.	.
IL	.	.	.	.	.
MI	.	.	.	.	.
MT	.	.	.	.	.
NE	.	.	.	.	.
NY	.	.	.	.	.
SC	.	.	.	.	.
SD	.	.	.	.	.
VT	.	.	.	.	.
WI	.	.	.	.	.

Notes: Listed rates in nominal dollars. Events selected using the largest sharp increase of at least $400 (nominal) for each state from 2000-2011. States with no sharp changes from 2000-2011 are included as a control group in the primary analysis.

Table B2: Summary of State Foster Care Payment Changes and Procedures

State	Reason for Payment Adjustment
Alabama	Changes in payments rates are triggered by legislator-proposed bills, generally in response to constituent-raised concerns or advocacy groups lobbying for an increase. [1]
Alaska[i]	All rate increases are subject to legislative appropriation of supplemental funds. The standard rate for the maintenance payment is the U.S. Federal Poverty Guideline for a household of one person for the State of Alaska.[1] In practice, rates have only been increased intermittently.
Arkansas*	State reviews the statutory rate every five years which aligns with the Child and Family Services Plan development. However, rates might not change every time they are reviewed. [1]
Arizona	The foster home rate schedule adjusts when the Division of Children Youth and Families receives an increased appropriation from the legislature for foster care rates. [1]
California[i],*	Basic payment rates are increased annually and revised to reflect inflation based on the CA Necessities Index. [1] In 2011, federal appeals court ruling increased maintenance payments effective immediately, following a suit brought in 2007.
Colorado	Rates vary by county.
Connecticut[i],*	Rates are revised every two years [biennial budget] as required by the consent decree under which the DCF operates. [2] Due to the financial crisis, there were no rate increases from FY2008-FY2012. [1]
District of Columbia	As of 2012, no set schedule for how often payment rates are revised. They are revised to reflect rates of inflation, with varying frequency. [1]
Florida**	Maintenance payment rates are raised across the board when specific legislative appropriation for this purpose is received. [1] 2006: The change in payment rate coincided with FL becoming the first state to implement a federal Title IV-E flexible funding waiver, with the objective of reducing number of children in foster care.
Georgia*	There is no defined frequency with which rates are set to change. [1] In 2003, GA federal court ruled that children in foster care have the legal right to have their needs met through adequate maintenance payments. [3]
Hawaii*	2014: Major foster parent lawsuit settlement increased rates for first time since 1990. Suit was partially motivated by California 2011 ruling. [4]
Iowa	The rate is set at 65 percent of the USDA estimated cost to raise a child in the Midwest. Actual reimbursement level is determined by the state legislature and the legislature and/or the Governor is the only authority that decreases or increases rates. Foster care rates are reviewed annually during the legislative session but are not necessarily revised. [1]
Idaho	Rates are changed if requested by the agency and approved by the legislature. It does not happen annually. [1]
Illinois[i]	The intent is annual rate increases based on a COLA (cost of living adjustment). However, IL state law requires a balanced budget and limits the appropriations to available funds, which restricts COLAs and rate increases. [1]
Indiana	The Department of Child Services has rate setting authority under Rule IAC 465 2-18. They are required to hold an annual public hearing and to review rates annually. [1]
Kentucky*	2002: The cabinet reviews rates paid to foster parents on a biennial basis and shall issue a report in each odd-numbered year to the Legislative Research Commission comparing the rates paid by KY to the figures presented in the Expenditures on Children by Families Annual Report prepared by the USDA and the rates paid to foster parents by other states. To the extent that funding is available, rates shall be increased on an annual basis to reflect cost of living increases. [5] No set timeframe for rate revisions. Rate changes need legislative approval. [1]
Louisiana*	Rates are based on USDA report on raising children in urban South. Rates do not change on a regular schedule. [1]
Massachusetts	DCF rate increases require legislative appropriation and explicit direction from the legislature. In 2008, legislation was passed that says if there is appropriation, the rates should be set to USDA recommended levels. Rates are reviewed every year and increases are sought. Intensive foster care rates are governed by Mass. General Laws Chapter 257 which requires rates be reviewed periodically. [1]
Maryland	Rates do not change on a schedule. There is no cost of living built in to allow regular increases to the rates. [1]
Maine	Legislatively driven rate changes. Recently, rate changes have only been made based on budgetary issues. To meet budgetary requirements rate changes to foster parents have been made twice from 2000-2012. [1]
Michigan*	The rates must be legislatively appropriated before they can be raised. An increase may make it to the budget process but the legislature does not always approve. [1]

Missouri*	Rate revision is completely contingent upon legislative actions. [1] In 2003, MO federal court ordered the state to develop a methodology for determining reimbursement rates as a result of a lawsuit brought by the MO Child Care Association. The court found that the state's method of setting payments (based on available funds in the state's budget rather than children's needs) violated federal law and ordered the state to develop a new one. The rate in question was for residential facilities and not for foster homes, but the court's analysis is instructive on the question of how the adequacy of rates can and cannot be determined. [3] 2008: A bill was signed to increase rates. There was increased foster parent lobbying after the 2007 publication of a cost of living report for children in foster care.
North Carolina	NC utilizes the USDA "cost to raise a child" report to inform the request to the NC General Assembly (GA). The GA sets the rates based on this request and availability of funds. Rates are reviewed annually, but might not actually change that frequently. [1]
North Dakota[i],*	The State budget is reviewed every two years, and the State receives legislative approval as to what, if any, provider increases are approved. They then go into effect annually. (For example, in 2011, the legislature gave an approval for a 3 percent increase for each of the two years in the upcoming biennium. Providers were notified of the increases/amounts prior to the beginning of each fiscal year.) [1]
Nebraska	No set schedule upon which rates are revised. [1]
New Hampshire*	Rates are reviewed biennially for cost of living increases, however they may not change each time they are reviewed; contingent upon the availability and continued appropriation of sufficient funds for this purpose. [1]
New Jersey**	Per the U.S. District Court for the District of NJ consent decree, DCF must ensure resource family support rates remain equal to the USDA estimated cost of raising a child in a two parent middle income family in the urban Northeast (published on an annual basis). DCF reviews these estimates annually and makes an adjustments to its foster care rates accordingly. The new rates become effective in January. Some adjustments made to the board rates and clothing due in response to changes in the USDA rates. [1] 2008: DCF formed, child welfare services reorganized, as result of consent decree.
New Mexico	Rates are revised upon request by the agency and approval by the legislature. [1]
Nevada	Rate revisions occur as needed based on state funding availability. Rate increases must be submitted and approved through a legislative process. [1]
New York[i]	Revisions require approval of the Division of the Budget (control agency). Rates are reviewed every year for a cost of living adjustment, but might not increase every year. [1] Note: NY counties set their own foster care rates that may be above or below the upstate/downstate minimum rate.
Oklahoma	No set schedule for revisions; more based on appropriations. [1]
Ohio[i]	88 counties' rates are based on their own county approved payment structure. Increases to payments are also county driven. The state establishes reasonableness thresholds for federal reimbursement purposes based on a provider's annual cost report. The established ceilings contain inflation factors using the CPI. [1]
Oregon*	Funding for maintenance payments is based on legislative appropriation. OR Legislative Session has been a biennial session which allocates State agency budget. The Department of Human Services then sets rates for a two year period based on any approval. In 2011, the OR Legislature started an annual session with even years limited to 35 days and the odd years to 6 months. Most budgets will continue to be projected as biennial. [1]
Pennsylvania[i]	County-based rates with guidance from state Office of Children, Youth, and Families.
Rhode Island	No set schedule on which rates are revised.
South Carolina*	2014: "It had been 30 years since there'd been [a significant] increase in the state of SC. Then we get some legislators involved, particularly [redacted]. He was the main person. His dad was the main person who did anything for the needs of foster children. So now we have it set up where each year they get a cost-of-living increase. You got to have one or two always in the legislature [who] stand for children" (Representative, SC Foster Parent Association). The rates are reviewed annually and recommendation sent to agency head to be shared with Governor and Legislature if budget request is needed. All basic rates are approved and authorized by the Legislature via the State's budget process. When the rate review was done in 2010, the rate paid was still within what it should be based on the USDA criteria as adjusted for SC. Staff had not done a rate review for 2008 and 2009 due to reductions in the state budget. Even though the agency had significant cuts, they kept the foster care board rates harmless for those two years. Rates are reviewed annually using the USDA Expenditures on Children and Families for the Southeast. [1]
South Dakota[i]	Rates are revised to reflect rates of inflation when the legislature appropriates an inflationary increase. [1]
Tennessee[i]	Assessed annually by USDA recommendations but rates may not change that frequently. [1]

Texas**	Determination of potential new rates occurs every two years before the biennial legislative session and is based on audited cost reports. Final determination of rates is dependent on funding from the Legislature and any other actions that they take. [1] 2005: Child Protective Services reform (more hires, public funding) prompted by 2003 comptroller report "Forgotten children" highlighting high-profile deaths and tragedies in TX foster care. [6]
Utah	Rates are technically reviewed each year, but are only adjusted based on legislative appropriation. [1]
Virginia**	No timeframe is set for increase of basic maintenance rates. Rate revisions occur when state staff receives a raise. As of 2013, there was an active "rate structuring committee" that was evaluating basic and enhanced maintenance rates and making additional recommendations for rates and guidance changes in the future. [1]
Vermont	"–"
Washington**	The rates are not changed on any regular schedule but by legislative mandate. [1] 2005: Rate increase following (not necessarily caused by) 2004 Braam settlement, a case that dated back to 1997. 2015: Rate increase coinciding with DHHS requesting $3.1M to comply with Braam settlement.
Wisconsin*	Basic rates are updated through the biennial legislative process. [1]
West Virginia	Basic maintenance rate was revised in 2003. Constant analysis and review is conducted with staff and advocates, increases are submitted when they are shown to be needed and must be passed by a Legislative ruling. [1]
Wyoming*	2006 rate increase set based on USDA cost of raising children in rural areas. Eliminated separate add-on payments for transportation and childcare in 2007. [1]

Notes: "DCF" stands for Department of Children and Families. A superscript *i* denotes states that regularly adjust rates for inflation. * denotes states where we can make the strongest argument for exogenous timing in changes to payment rates; ** denotes states where evidence of exogeneity is weaker due to concurrent changes. States missing where information not available. Sources: [1] Child Trends (2013). [2] Spigel (2001). [3] Hitting the M.A.R.C. (2007). [4] Hawaii Independent (2013). [5] Kentucky Revised Statutes 605.120 (3). [6] Katie Olse, Texas Alliance of Child and Family Services.