A Online Appendix for Who Gets a Family? The Consequences of Family and Congregate Care Allocation for Child Outcomes Author: Cameron Taylor

A.1 Institutional Details Appendix

This paper uses exits of children from non-kin foster families as an instrumental variable for other children's placement with a non-kin family. Cherry and Orme (2013) document that in foster care there are two types of foster parents. There is a set of "vital few" foster mothers: foster mothers that account for a small proportion of foster parents in the system, and provide a disproportionate amount of care for children. Their analysis finds that 21% of foster mothers cared for 73% of foster children. In their sample, these foster parents fostered on average 104 children over almost 16 years of care. They adopt only 1.6 children on average. Other foster parents foster less but are more likely to adopt, caring for 11 children on average and adopting 0.8 children. It is thus conceivable that the availability of these foster parents that foster over many years could drastically impact a foster child's chances of being placed with a foster family, and that foster children's exits could affect availability of these foster parents. Foster parents that serially foster may differ in important ways from other families, and these differences may be correlated with differences in treatment effects at the family level. Cherry and Orme (2013) show that these serial fosterers are less likely to work outside the home and have more time to foster, along with more professional support for fostering.

A.2 Data Appendix

Important outcome variables in the NYTD survey:

- Incarceration: A youth is considered to have been incarcerated if the youth was confined in a jail, prison, correctional facility, or juvenile or community detention facility in connection with allegedly committing a crime (misdemeanor or felony).
  - For a 17-year-old youth in the baseline population, the data element relates to a youth's lifetime experience.
  - For a 19- or 21-year-old youth in the followup population, the data element relates to the youth's experience in the past two years.
- Homeless: A youth is considered to have experienced homelessness if the youth had no regular or adequate place to live. This definition includes situations where the youth is living in a car or on the street, or staying in a homeless or other temporary shelter.

  - For a 17-year-old youth in the baseline population, the data element relates to a youth's lifetime experience.
  - For a 19- or 21-year-old youth in the followup population, the data element relates to the youth's experience in the past two years.

- Substance abuse: A youth has received a substance abuse referral if the youth was referred for an alcohol or drug abuse assessment or counseling. This definition includes either a self-referral or referral by a social worker, school staff, physician, mental health worker, foster parent, or other adult. Alcohol or drug abuse assessment is a process designed to determine if someone has a problem with alcohol or drug use.

  - For a 17-year-old youth in the baseline population, the data element relates to a youth's lifetime experience.
  - For a 19- or 21-year-old youth in the followup population, the data element relates to the youth's experience in the past two years.

- Current enrollment and attendance: "Yes" means the youth is enrolled in and attending high school, GED classes, or postsecondary vocational training or college, as of the date of the outcome data collection. A youth is still considered enrolled in and attending school if the youth would otherwise be enrolled in and attending a school that is currently out of session.

- Current full time employment: A youth is employed full-time if employed at least 35 hours per week, in one or multiple jobs, as of the date of the outcome data collection.

- Current part time employment: A youth is employed part-time if employed between one and 34 hours per week, in one or multiple jobs, as of the date of the outcome data collection.

- Employment or enrollment (created variable): An indicator variable if current enrollment and attendance is 1 or current full time employment is 1 or current part time employment is 1.

Children with outcomes in the NYTD data at age 21 may have multiple entries and exits into and out of foster care before age 21. If a child has multiple entries, I take only their latest entry. In my main sample I only consider children whose latest entry occurred at age 14 or older. This makes the sample more representative of "older" foster children and removes children that enter very young but linger in foster care for a long time. Those children may be substantially different on unobservables than other older children in the sample. Robustness of the main results to different age cutoffs (ages 12, 13, and 15) are included in the Appendix and show that the choice of the cutoff is immaterial to the main results. Finally, because the instrumental variable strategy used in the analysis in this paper requires knowing a child's county of removal, children without an identified county of

removal are dropped. Some small counties are not included in AFCARS because of privacy concerns (too few children are removed from their families).

NDACAN states the following in regards to how surveys are filled out:

> *Under NYTD rules, states have the discretion to choose the methods used to administer the Outcomes Survey to youth (e.g., in person, online, or over the phone) provided that the survey is administered to the person directly. No one can answer for the youth, nor can data from other sources be used to answer questions. Participation in the survey is completely voluntary on the part of the youth.*

Since the NYTD states that *The eligible baseline population consists of all youth in foster care at any point during the 45-day period beginning on their 17th birthday.* so placement changes for children in non-kin family homes or congregate care should not affect survey eligibility. Note that this eligibility criteria could exclude children who are in foster care for less than 45 days. To get a sense of how restrictive this condition is I looked in the AFCARS 6 month file at the percent of children exiting who had a stay of 45 days or less. It is 13.5%.

I supplement the main AFCARS and NYTD data with NYTD services data which provides information on the services provided to foster children such as academic support, career preparation services and room and board financial assistance, and also measures their education at different points in time.

A.3 Foster Care Placement Process

This section describes more about how the foster care placement process works as described to me by Santa Clara foster care officials. Children enter into foster care through a court process and are assigned a social worker that is responsible for placing them in one of the 3 major placement types: non-kin family, kin family or congregate care. The decision of whether a child enters foster care is related mainly to the direct harm or danger they are in in their current living situation and not the availability of certain placements. When children enter into foster care they must be placed somewhere. If there are no families they are generally placed in congregate care homes or other institutional settings. There are examples where children even sleep in social worker's offices (https://www.latimes.com/archives/la-xpm-2005-may-07-me-foster7-story.html). This paper treats congregate care placements as an infinite capacity placement that social workers generally try to avoid. See the discussion on Limitations in the model for more evidence on how the laws guide social workers to prioritize placing children in families. Social workers may be able to convince families to take extra children when there are not technically slots available, but there are legal limits to how many children a family can take and also legal limits related to housing size and the number of bedrooms that constrain this type of behavior (https://adoption.org/children-fostering-need-room).

A.4 LATE and OLS

Table 7 shows that the estimated LATE is larger than OLS. Angrist and Pischke (2008) show that the OLS estimator is an average treatment effect on the treated and a selection bias term while the LATE is the average treatment effect on compliers.[58] Thus the discrepancy between the OLS and LATE in Table 7 could come from a difference between the ATT and LATE, or a negative selection bias.

Section 2.5 provides a discussion on how treatment effect heterogeneity, complier children, and complier families may affect the interpretation of the LATE and the LATE-OLS discrepancy.

An alternative but not mutually exclusive reason for the LATE-OLS discrepancy is measurement error in placements causing attenuation in OLS. Placements are reported every 6 months and children may change placements between the time of entry and the report time. To test for this possibility I look at OLS estimates in the subsample of children whose entries occur in the same month as the reporting period. Table A31 shows that the OLS estimate increases by almost 50% and can explain about 36% of the difference between OLS and IV difference.

A.5 Other Reduced Form Results: Mechanisms

Why do families make children better off relative to congregate care? One potential pathway suggested in the literature is a meaningful sense of connection to an adult or family. This has been hypothesized to be an important component of a foster child's successful transition to adulthood (Freundlich and Avery, 2006).[59] However, achieving these connections can be challenging in practice, and little causal evidence has been found to suggest that foster children more easily develop these support systems and connections through family placements.

Table A32 Panel A columns (1) and (2) includes IV and OLS estimates of placement with a family on connections with an adult at age 21.[60] The IV estimate suggests a statisti-

[58] Consider using the potential outcome framework for outcomes $Y_i(1)$ and $Y_i(0)$. Letting $P_i(E_i)$ be the placement treatment variable and E_i be a binary version of the instrument, following Angrist and Pischke (2008) one can write OLS and LATE as

$$OLS = \mathbb{E}[Y_i|P_i = 1] - \mathbb{E}[Y_i|P_i = 0] = \mathbb{E}[Y_i(1) - Y_i(0)|P_i = 1] + \mathbb{E}[Y_i(0)|P_i = 1] - \mathbb{E}[Y_i(0)|P_i = 0]$$
$$LATE = \mathbb{E}[Y_i(1) - Y_i(0)|P_i(1) > P_i(0)]$$

The OLS estimate measures an average treatment effect on the treated (ATT) $\mathbb{E}[Y_i(1) - Y_i(0)|P_i = 1]$ and a selection bias $\mathbb{E}[Y_i(0)|P_i = 1] - \mathbb{E}[Y_i(0)|P_i = 0]$ whereas the LATE measures an average treatment effect on compliers $P_i(1) > P_i(0)$.

[59] Biehal (2014) also studies what belonging means in substitute foster families.

[60] The wording of the question involves that the adult is someone "who he or she can go to for advice or guidance when there is a decision to make or a problem solve, or for companionship when celebrating personal achievements. The adult must be easily accessible to the youth, either by telephone or in person. This can include, but is not limited to adult relatives, parents or foster parents." (NYTD Outcomes Codebook p. 37).

cally significant 49 percentage point increase in the probability of developing a connection, or 57 percent on the mean outcome of 0.896. While methods to more formally test whether connection to an adult is an important mediator of the economic and social outcomes considered above are not appropriate in this setting (Dippel, Gold, Heblich and Pinto, 2020), the evidence is consistent with this connection to adult being correlated with these outcomes and potentially being an important mediator.[61]

The other results in Panel A of Table A32 show that the IV estimates do not estimate precise strong effects for other outcomes such as having children or receiving payments. The IV estimates do suggest that placement with a family leads to a large decrease in the probability of participating in an apprenticeship or on-the-job training during age 20. This could be consistent with families shifting children into more enrollment as opposed to employment to invest in human capital to increase lifetime earnings, but I lack the power to precisely test this hypothesis.

One important question about how children achieve better outcomes through placement with families is whether they rely on social services to achieve these gains. If so, this might dampen the overall monetary benefit of family placement, as this benefit comes with a social cost of welfare take-up. Panel B of Table A32 hows OLS and IV estimates of the effect of family placement on take-up of social services. It includes a measure of total public aid, which sums the social security, food stamps, housing vouchers and other cash welfare measures. The IV estimate suggests that placement in families leads children to take-up less public aid, with the results seeming especially strong (and marginally statistically significant) for food stamps and housing vouchers. The point estimate for educational aid take-up is negative though with wide confidence intervals.

Another set of results in this subsection look at potential mechanisms and mediators in intermediate outcomes in foster care including placement stability and permanency. These are closely studied in the literature (Becker, Jordan and Larsen, 2007; Koh and Testa, 2008; Andersen and Fallesen, 2015) but focus more on the differences in achieving stability and permanency in kin and non-kin placements. These outcomes are of first order importance to foster care policy makers as short-term markers of how well the foster care system is working. I contribute to this literature by looking at differences contributed by congregate care and foster family placements. These could also be important mediators for the effects on social and economic outcomes estimated.

Table A33 shows IV and OLS estimates of adoption and guardianship by age 18 and the total number of placements after entry. Because these outcomes are observed in the AFCARS data, I examine the results in all three analysis samples, but the preferred specifications in columns (5) and (6) use the larger older children sample. The IV and OLS estimates in columns (5) and (6) both suggest that adoption and guardianship is shifted by a large and statistically significant percentage. The number of placement estimates are consistent but the IV is less precise and cannot reject 0 effects or even positive effects.

[61] Interestingly the OLS coefficient estimates a precise 0 on connection to an adult for children. This is quite drastic and different, but consistent with the treatment effect heterogeneity found elsewhere, where family effects are amplified for the complier population.

These results show that placement with a foster family significantly boosts the probability of adoption or guardianship and they are consistent with placement increasing placement stability, though there is less precision for this result.

The final set of results in this section examine whether changes in outcomes of children by placement status are detectable by age 19 or if they require waiting until age 21 to be detected. Table 5 shows strong correlations between the instrument and the outcome index at age 19. These results suggest family placement improves the outcomes of older foster children by age 19.

A.6 Comparison to Doyle (2008)

This section makes an explicit comparison to the literature looking at the causal effects of entry into foster care on subsequent outcomes. This paper provides one way to think about heterogeneity in the treatment of entry into foster care and shows that there can be substantial heterogeneity in foster care impacts on subsequent outcomes through placement types. Quantitatively, I compare the estimates in this paper to those found in the literature and perform some back-of-the-envelope calculations.

Doyle (2008) estimates the causal effect of foster care placement for children of average age 11 on incarceration at ages 18 or older in Cook County. He finds that placement into foster care causes a 22.5 percentage point increase in the probability of incarceration (Table 4, Panel C, Column 4) on a mean of 0.066 (Table 4, Panel C, Column 1). This paper shows that it is possible that placement into foster care *and* placement in congregate care could be an important part of these negative effects, which are also found for other outcomes in Doyle (2007b).[62]

This paper estimates that the effect of placement with a family relative to congregate care for children in foster care causes a 24.9 percentage point decrease in the probability of incarceration. Moreover, between 2005 and 2015, the placement rate of children into families (kin and non-kin) in Cook County for children entering between ages 14 and 17 is 0.264. For simplicity I assume that treatment effects are the same for kin families as for non-kin families relative to congregate care.

Now suppose that the causal effect of placement into foster care estimated in Doyle (2008) can be written as

$$\beta_{overall} = \beta_0 + \beta_{family} F + e \tag{10}$$

where e is some random noise, so that the treatment effect is now a random coefficient that also depends on family placement. Using this setup and the numbers above, the expected treatment effect as a function of average family placement in Cook County can be written as

$$\mathbb{E}[\beta_{overall}] = 0.291 - 0.249\mathbb{E}[F]. \tag{11}$$

Equation (11) gives a rough and simple way to understand the implications of family

[62] However, some recent studies have found positive effects on children. These include (Bald et al., 2022; Gross and Baron, 2022).

placement for the overall effect of foster care. If all children were placed in families in Cook County, this method would estimate that the probability increase in incarceration would be reduced to 4.2 percentage points, and that if no children were placed with families, the probability increase would jump up to 29.1 percentage points. This suggests a large role for family placements and placement types in understanding the overall effects of foster care. However, this example shows that even with full placement policy, there is an expected increase in incarceration. This result might suggest future research on studying how foster care shapes child outcomes through channels other than family placement or institutionalization, such as the trauma of being separated from a birth family.

A.7 Control Function Method

The condition for a child being placed with a family $Place_{it} = 1$ is:

$$u_{it} \geq \lambda Exits_t + \eta_{c(t)} + \eta_{m(t)} \tag{12}$$

which can be rewritten as

$$\xi_{it} \geq -X_{it}\alpha + (\lambda Exits_t + \eta_{c(t)} + \eta_{m(t)}) \tag{13}$$

Because $\xi_{it} \sim N(0,1)$ one can use properties of the truncated normal distribution which state that if a variable $z \sim N(0,1)$ then

$$\mathbb{E}[z|z > a] = \frac{\phi(a)}{1 - \Phi(a)} \tag{14}$$

where $\phi(\cdot)$ is the standard normal pdf and $\Phi(\cdot)$ is the standard normal cdf.

Applying (14) to this case

$$\mathbb{E}[\xi_{it}|X_{it}, Place_{it} = 1, Exits_t, c(t), m(t)] = \frac{\phi(-X_{it}\alpha + (\lambda Exits_t + \eta_{c(t)} + \eta_{m(t)}))}{1 - \Phi(-X_{it}\alpha + (\lambda Exits_t + \eta_{c(t)} + \eta_{m(t)}))} \tag{15}$$

and I form plug in estimates of this by replacing parameters by those estimated in the first stage.

The computation is similar if $Place_{it} = 0$ using the fact that

$$\mathbb{E}[z|z < a] = \frac{-\phi(a)}{\Phi(a)} \tag{16}$$

A.8 Treatment Effect Method

To compute the LATE one needs to characterize the distribution of X_{it} for compliers and the ξ_{it} of compliers. Suppose the instrument is transformed into a binary version $Z_t =$

$\mathbf{1}\{Exits_t \geq \bar{Exits}_{c(t)}\}$ where $\bar{Exits}_{c(t)}$ is the mean exits in county $c(t)$. Let $\bar{u}_t(Z_t)$ be a function of the binary instrument and let $\bar{v}_t = -\bar{u}_t$. Then a complier satisfies

$$-\bar{v}_t(0) \geq u_{it} \geq -\bar{v}_t(1)$$

or

$$-(\eta_{c(t)} + \eta_{m(t)}) \geq X_{it}\alpha + \xi_{it} \geq -(\lambda + \eta_{c(t)} + \eta_{m(t)})$$

or

$$-(X_{it}\alpha + \eta_{c(t)} + \eta_{m(t)}) \geq \xi_{it} \geq -(X_{it}\alpha + \lambda + \eta_{c(t)} + \eta_{m(t)})$$

Thus the mean outcome for a complier child when placed is predicted to be

$$\begin{aligned}&\mathbb{E}[Y_{it}(1)|X_{it}, -(X_{it}\alpha + \eta_{c(t)} + \eta_{m(t)}) \geq \xi_{it} \geq -(X_{it}\alpha + \lambda + \eta_{c(t)} + \eta_{m(t)})] \\ &\quad = X_{it}\beta_1 + \gamma_1 \mathbb{E}[\xi_{it}| - (X_{it}\alpha + \eta_{c(t)} + \eta_{m(t)}) \geq \xi_{it} \geq -(X_{it}\alpha + \lambda + \eta_{c(t)} + \eta_{m(t)})]\end{aligned}$$

and similar for predicting the mean potential outcome when a complier is not placed.

To get the treatment effect I compute this $\hat{\mu}_i^c(1)(X_{it}) - \hat{\mu}_i^c(0)(X_{it})$ for each individual i. Then I compute the probability of being a complier conditional on observables as

$$p_i^c = Pr\Big(- (X_{it}\alpha + \eta_{c(t)} + \eta_{m(t)}) \geq \xi_{it} \geq -(X_{it}\alpha + \lambda + \eta_{c(t)} + \eta_{m(t)})\Big)$$

using the normal distribution assumption.

Finally I take a weighted average of these treatment effects, weighting by the probability each child i is a complier to get the implied LATE

$$\hat{LATE} = \sum_i (\frac{p_i^c}{\sum_j p_j^c})(\hat{\mu}_i^c(1)(X_{it}) - \hat{\mu}_i^c(0)(X_{it}))$$

To compute the ATT and ATNT similar methods are used. In particular, to compute the ATT I use the fact that a treated child satisfies

$$u_{it} \geq -\bar{v}_t$$

or

$$X_{it}\alpha + \xi_{it} \geq -(\lambda Exits_t + \eta_{c(t)} + \eta_{m(t)})$$

or

$$\xi_{it} \geq -(X_{it}\alpha + \lambda Exits_t + \eta_{c(t)} + \eta_{m(t)})$$

and then get the probability of each child i being treated according to the model.

To compute the ATNT I use the fact that a non-treated child satisfies

$$u_{it} \leq -\bar{v}_t$$

or

$$\xi_{it} \leq -(X_{it}\alpha + \lambda Exits_t + \eta_{c(t)} + \eta_{m(t)})$$

and then get the probability of each child i not being treated according to the model.

A.9 Appendix Figures and Tables

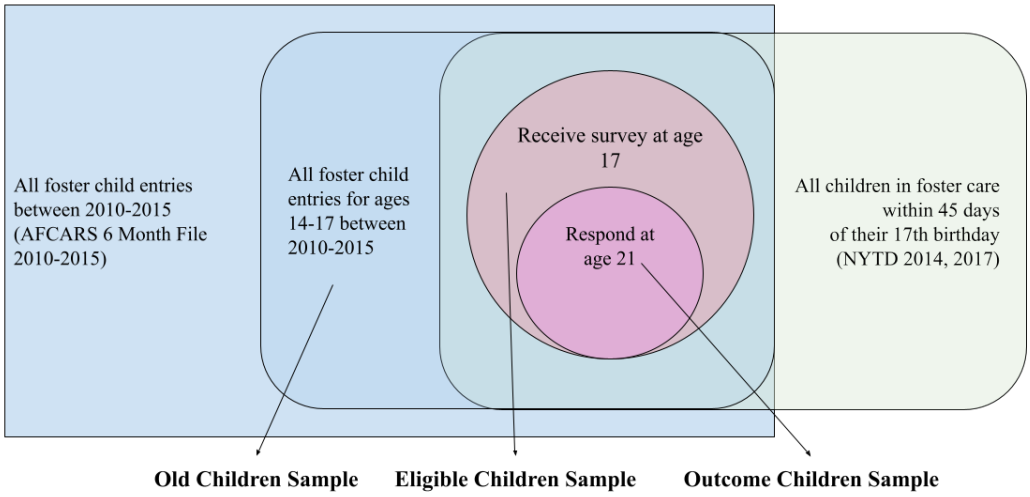

Figure A1: Diagram of Sample Definitions

Notes: This figure provides a diagram of the different sample definitions for children in the paper based on the main data sources (AFCARS and NYTD).

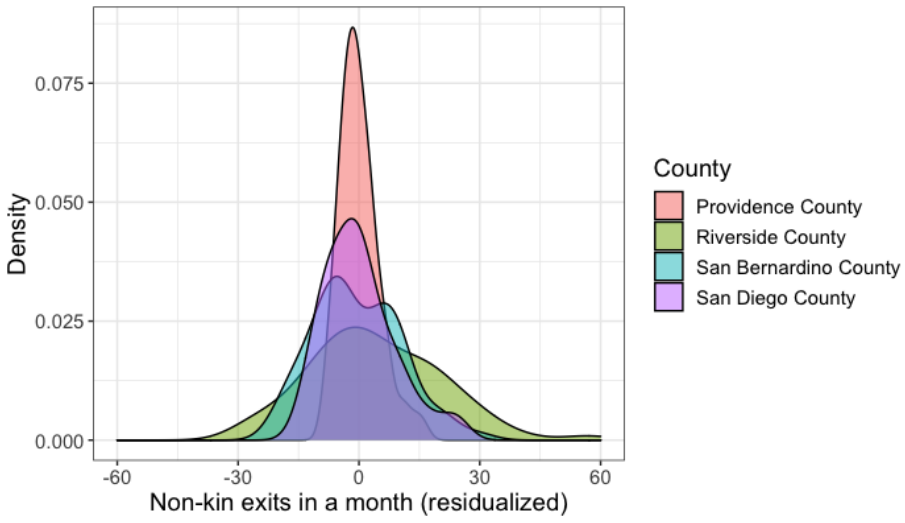

Figure A2: Raw Residualized Instrument Variation

Notes: This figure plots the residual of the exits instrument $\widetilde{\text{Exits}}_m$ on county and month-by-year fixed effects defined in the text across 4 different counties. Each observation contributing to the density plot for each county is a month-year.

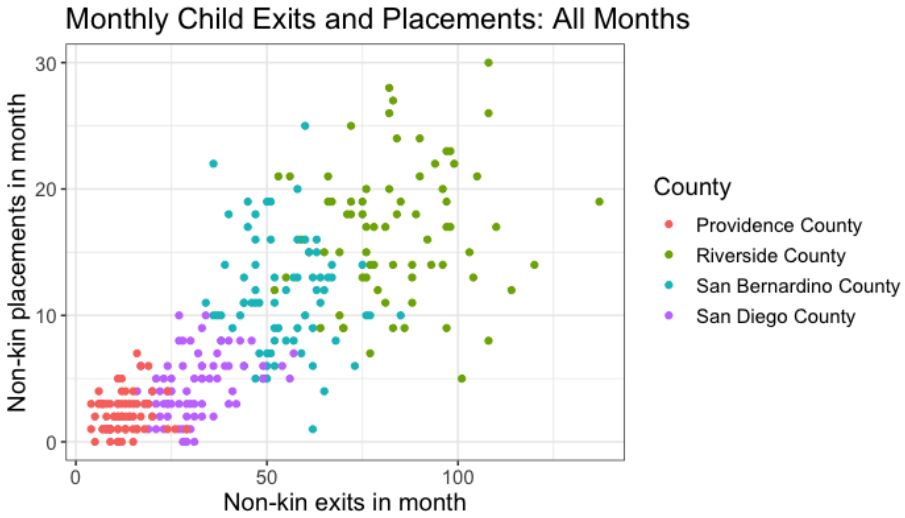

Figure A3: Raw Correlations for IV

Notes: These figures plot the instrument Exits_t at the county-month-year level against total non-kin placements at the same level for four counties in the data.

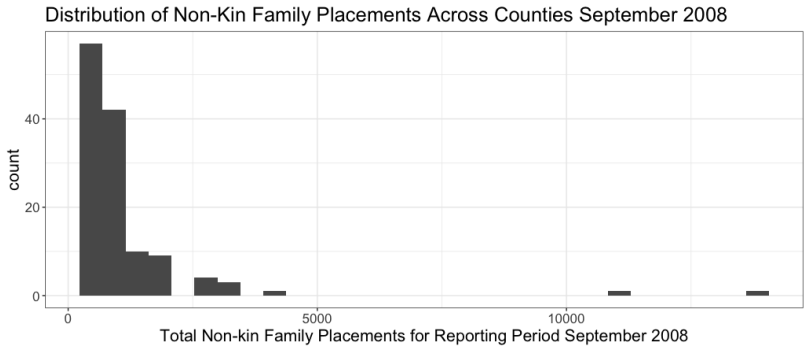

Figure A4: Distribution of County-Level Non-Kin Family Placements in Reporting Period September 2008

Notes: This figure shows a histogram of the number of non-kin family placements in a county for the reporting period of September 2008.

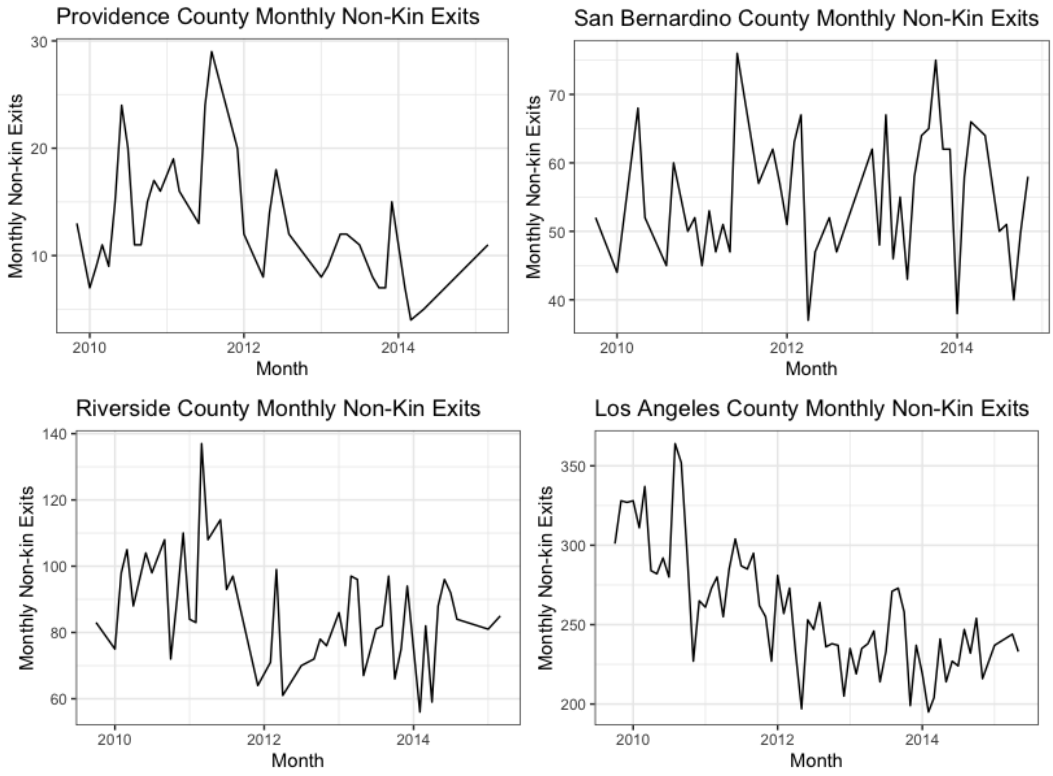

Figure A5: Raw Variation of the Instrument Across the 4 Largest Counties in the Outcome Sample

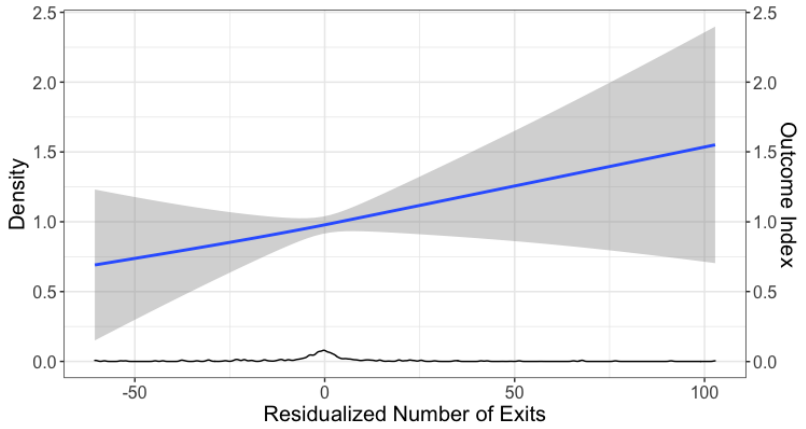

Figure A6: Reduced Form Variation

Notes: This figure shows the reduced form of the outcome index on exits from non-kin families on the aggregated county-month-year sample (4,129 total observations). The x-axis plots the residualized number of exits, residualized on county and month by year fixed effects. The y-axis on the right gives the outcome index. A generalized additive model with penalized regression splines is plotted along with 95% confidence bands. The density plot with y-axis on the left is a weighted density of the residualized number of exits, where weights are given by the number of children in the corresponding county.

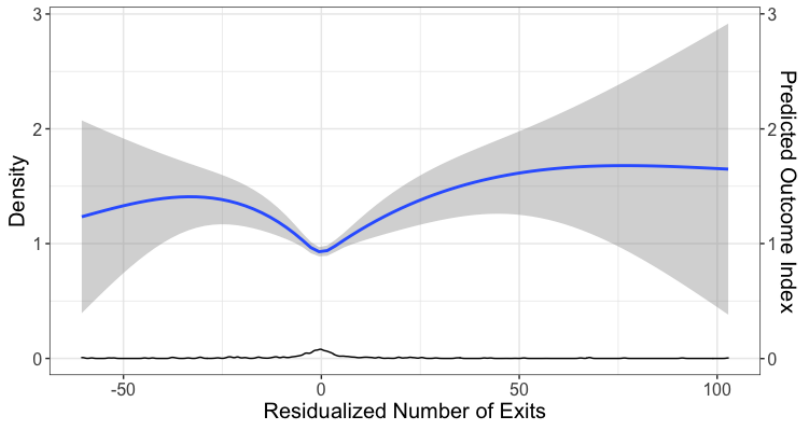

Figure A7: Predicted Outcome Index Variation

Notes: This figure shows the reduced form of the predicted outcome index on exits from non-kin families on the aggregated county-month-year sample (4,129 total observations). The x-axis plots the residualized number of exits, residualized on county and month by year fixed effects. The y-axis on the right gives the predicted outcome index, predicted on all child demographic and entry reasons. A generalized additive model with penalized regression splines is plotted along with 95% confidence bands. The density plot with y-axis on the left is a weighted density of the residualized number of exits divided by log population, where weights are given by the number of children in the corresponding county.

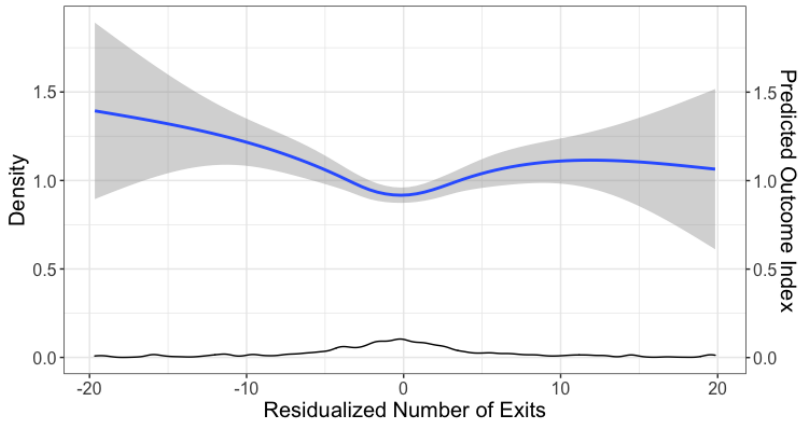

Figure A8: Predicted Outcome Index Variation: Zoomed

Notes: This Figure is a zoomed in version of the above figure. This figure shows the reduced form of the predicted outcome index on exits from non-kin families on the aggregated county-month-year sample (4,129 total observations). The x-axis plots the residualized number of exits, residualized on county and month by year fixed effects. The y-axis on the right gives the predicted outcome index, predicted on all child demographic and entry reasons. A generalized additive model with penalized regression splines is plotted along with 95% confidence bands. The density plot with y-axis on the left is a weighted density of the residualized number of exits divided by log population, where weights are given by the number of children in the corresponding county.

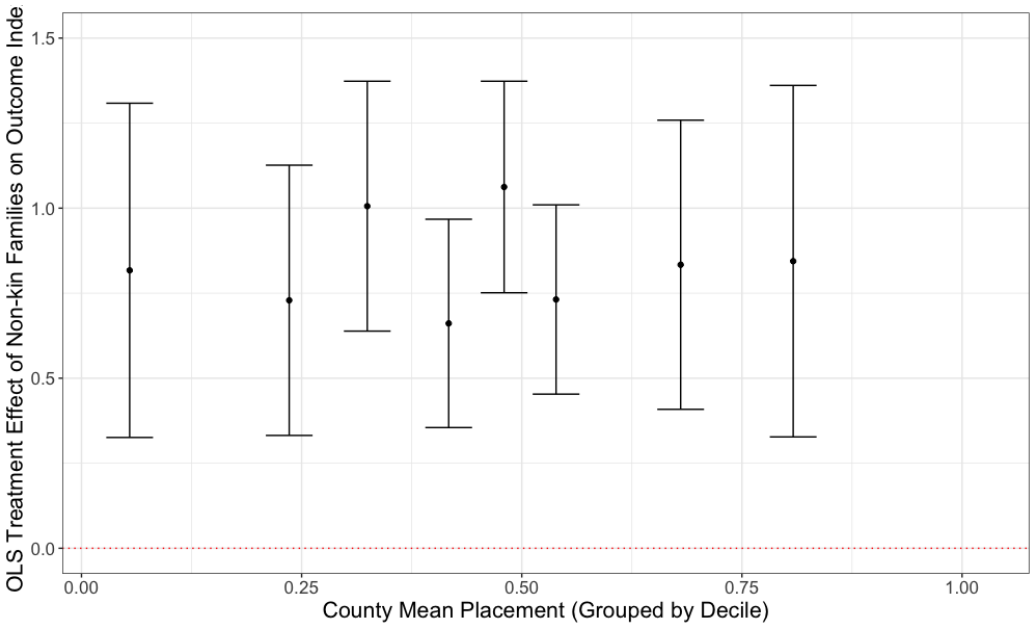

Figure A9: OLS Treatment Effects of Non-Kin Families by Mean Placement Rate in County

Notes: This Figure shows OLS-based treatment effects for different groupings of countys. OLS treatment effects are based on the same method described in Table 7 using the outcome index. This exercise groups county's into deciles based on the average amount of children placed in non-kin families in that county and computes OLS-based treatment effects within those groups, and then plots the treatment effects and 95% confidence bands inn this figure here. Two of the deciles are missing due to incomplete data in those counties.

Foster Family Agency (FFA) Age Based Rates

Age	0-4	5-8	9-11	12-14	15-20
Certified Home Rate	$1087	$1159	$1212	$1260	$1311
Total Rate	$2403	$2475	$2528	$2576	$2627

Figure A10: Foster Family Agency Home Rates: Los Angeles County January 2023

Notes: Source: http://policy.dcfs.lacounty.gov/content/AFDC_FC_GRI_FC_Rates.htm

Table A1: Summary Statistics on the Broader Foster Child Population from AFCARS 2010-2015

	All Foster Children Entries 2010-2015	All NYTD Children with Entries 2010-2015	All NYTD Children Entering Age 14 or Older 2010-2015
	(1)	(2)	(3)
Initial placement with non-kin family	0.462	0.348	0.335
Initial placement with kin family	0.332	0.135	0.134
Sex: male	0.514	0.493	0.494
Race: black	0.267	0.320	0.319
Race: white	0.431	0.415	0.416
Race/ethnicity: hispanic	0.219	0.213	0.213
Age at entry: 0-5	0.489	0	0
Age at entry: 6-11	0.237	0	0
Age at entry: 12-17	0.274	1	1
Entry reason: neglect	0.596	0.399	0.390
Entry reason: child behavioral problem	0.117	0.420	0.431
Entry reason: parents drug or alcohol abuse	0.352	0.161	0.158
Entry reason: parents died	0.0081	0.0131	0.0129
Entry reason: parents jail	0.075	0.0363	0.0356
Number observations	1,413,551	25,699	23,753

Notes: This table provides means of variables across three different samples. Column (1) gives sample means for all entering children that have a non-missing entry date and a non-missing reason for entry in the AFCARS 6 month file dataset from 2010-2015. This sample differs from the "Old Children Sample" in that it does not filter by entry age (it includes child entries of all ages) and it also includes children placed with kin families. The data is cleaned so that an observation is a unique child and their latest entry into foster care in the 2010-2015 dataset. Column (2) gives sample means for all entering children in the AFCARS 6 month file dataset from 2010-2015 that have a non-missing entry date and non-missing reason for entry, and are also in the baseline population for the NYTD survey. This differs from the "Eligible Sample" in two ways: it includes children with kin placements, and it does not restrict to children that enter at age 14 or later. Due to using the AFCARS 6 month file from 2010-2015, all children are older than 12 that are in the NYTD. The data is cleaned so that an observation is a unique child and their latest entry into foster care in the 2010-2015 dataset. Column (3) gives sample means for all entering children in the AFCARS 6 month file dataset from 2010-2015 that have a non-missing entry date and non-missing reason for entry, are in the baseline population for the NYTD survey, and also entered at age 14 or later. The data is cleaned so that an observation is a unique child and their latest entry into foster care in the 2010-2015 dataset.

Table A2: First Stage

	Outcome Sample (1)	Eligible Sample (2)	Eligible Weighted (3)	Old Children Sample (4)	Old Children Weighted (5)
Panel A: *Instrument: Non-kin exits*					
First stage coefficient and s.e.	0.00206 (0.00032)	0.00128 (0.00019)	0.00091 (0.00018)	0.00083 (0.00025)	0.00088 (0.00015)
Cluster robust F-statistic	41.7	43.5	23.7	10.7	33.2
Panel B: *Instrument: Non-kin exits / log(county pop)*					
First stage coefficient and s.e.	0.0319 (0.0049)	0.0195 (0.0032)	0.0146 (0.0029)	0.0125 (0.0042)	0.0137 (0.0026)
Cluster robust F-statistic	43.0	36.8	25.1	9.0	27.8
Panel C: *Instrument: Non-kin exits w/ total entry control*					
First stage coefficient and s.e.	0.00191 (0.00038)	0.00131 (0.00022)	0.00087 (0.00020)	0.00097 (0.00024)	0.00088 (0.00016)
Cluster robust F-statistic	24.7	35.4	19.1	16.9	29.6
Panel D: *Instrument: log(1+ non-kin exits)*					
First stage coefficient and s.e.	0.0234 (0.0142)	0.0064 (0.0084)	0.0465 (0.0171)	0.0202 (0.0035)	0.0314 (0.0119)
Cluster robust F-statistic	2.7	0.6	7.4	33.2	7.0
County, month x year fixed effects	Y	Y	Y	Y	Y
Child demographic, entry controls	Y	Y	Y	Y	Y
Weighted by county representation in outcome sample	N	N	Y	N	Y
Number observations (children)	5,113	18,461	18,461	209,075	209,075

Notes: This table reports OLS first stage coefficients and cluster robust F-statistics where standard errors and F-statistics are computed with county-clustered robust standard errors. Column (1) shows results in the outcome sample, column (2) shows results in the eligible sample, column (3) shows results in the eligible sample where observations are weighted by county representation in the outcome sample (observation weight = percent of observations in outcome sample with same county as observation), column (3) shows results in the old children sample and column (4) shows results in the old children sample where observations are weighted by county representation in the outcome sample. Panel A presents specifications with the raw instrument and no county normalization. These coefficients can be interpreted as the probability increase in placement with a family for one more exit of a child from a non-kin family in the same county-month-year in which the child exits through reunification or emancipation. Panel B presents specifications with instrument divided by log county population. Panel C presents specifications where the instrument is divided by log county population with an additional covariate of total entries in that same county-month-year. Panel D presents specifications where the instrument is log(1+exits) where exits is defined as in Panel A. Population numbers for a county are fixed in all regressions and taken from https://www.census.gov/geographies/reference-files/2020/demo/popest/2020-fips.html.

Table A3: First Stage and Main Treatment Effects with County Size Normalized by Stock of Non-Kin Families in 2008

	First Stage		IV	
	Outcome: Initial Placement with Non-Kin Family		Outcome: Outcome Index	
	(1)	(2)	(3)	(4)
Non-kin exits / total non-kin placements in single reporting period in 2008	3.39	2.99		
	(1.71)	(1.38)		
Initial Placement with Non-Kin Family			4.38	4.86
			(2.62)	(2.99)
Number observations (children)	2,497	2,497	2,497	2,497
First stage: F-statistic	3.12	4.69	-	-
Child demographic, entry controls	N	Y	N	Y
County, month x year fes	Y	Y	Y	Y

Notes: This table shows first stage and IV regression results from utilizing a different form for the instrument compared to the main tables of interest (Tables 7 and 2). The difference is that the instrument, non-kin exits in a county-month-year is now normalized by the total number of non-kin family placements in that county in the reporting period of September 2008 (before any initial placements occur in the outcome sample). The distribution of this variable can be found in Figure A3. Child demographic and entry reason controls are added where specified following 7. County and month-year fixed effects are included throughout. Standard errors are clustered at the county level.

Table A5: Instrument Correlation with Predicted Outcome Index and Outcome Index

	Predicted Outcome Index on All RHS Variables in Table 3	Outcome Index
	(1)	(2)
Instrument: Non-Kin	0.00172	0.00586
Exits Month	(0.00118)	(0.00136)
p-values	p-value: 0.146	p-value: $<$0.01
Number observations (children)	5,113	5,113
County, month x year fes	Y	Y

Notes: Columns (1)-(2) report OLS regression results from regression two different outcome variables demographics and entry reasons on the Outcome sample. See Table 1 and the text of the paper for descriptions of the different samples. The first outcome variable in column (1) is a predicted outcome index for each child using all child demographic and entry reason exogenous variables in a linear regression. The second outcome variable is the direct outcome index variable itself. The table also computes p-values on the coefficient on the instrument for both outcome variables. Standard errors are clustered at the county level and computed by block bootstrap in column (1) using 100 bootstrap replications.

Table A4: First Stage from Reunification, Emancipation, and Congregate Care Exits

	Dependent Var: Placement with Non-Kin Family								
	Outcome Sample			Eligible Sample			Old Children Sample Weighted		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Non-kin exits from reunification	0.0025			0.0015			0.0009		
	(0.0004)			(0.0003)			(0.0002)		
Non-kin exits from emancipation		0.0015			0.0013			0.0019	
		(0.0012)			(0.0007)			(0.0003)	
Exits from group homes			-0.0002			-0.0001			-0.00017
			(0.0009)			(0.0002)			(0.00012)
Child demographics and entry reason controls		Y			Y			Y	
County and month-by-year fes		Y			Y			Y	
Weighted by county representation in outcome sample		N			N			Y	
Number observations (children)		5,113			18,461			209,075	

Notes: This table reports OLS regression coefficients from three regression specifications on three samples. The first specification regresses the placement variable on non-kin exits due to reunification normalized by log population. The second specification regresses on non-kin exits due to emancipation from foster care. The third specification regresses on exits from congregate care. These are run on the outcome sample, the eligible sample, and the old children sample. The old children sample is further weighted by county representation in the outcome sample. All three specifications include demographic and entry reason controls and and county and month-by-year fixed effects. All standard errors are clustered at the county level.

Table A6: Correlation between Non-Kin Exits in a Month and County and State Unemployment Rates - Child-Level Regressions

	Instrument: Non-Kin Exits Month					
	(1)	(2)	(3)	(4)	(5)	(6)
	Outcome Sample	Eligible Sample	Old Children Sample	Outcome Sample	Eligible Sample	Old Children Sample
County Annual	2.38	1.29	1.10			
Unemployment	(1.41)	(1.40)	(1.21)			
State Month-Year				2.43	2.05	1.66
Unemployment				(1.87)	(1.88)	(1.52)
Number observations (children)	4,910	17,649	178,546	5,113	18,461	186,395
Child demographic, entry controls	N	N	N	N	N	N
County, month x year fes	Y	Y	Y	Y	Y	Y

Notes: This table shows OLS regressions of the primary instrument, the number of non-kin exits from the county in a month-year (at the level of the individual child) to make this comparable to other regressions. State monthly unemployment and county annual unemployment rates come from the BLS. Sample sizes in these regressions are smaller than in other tables due to missing unemployment data for county x month x year cells. Standard errors are clustered at the county-level.

Table A7: Main Treatment Effects with Unemployment and State-Month-Year Fixed Effects

	Outcome Index		
	(1)	(2)	(3)
Initial Placement with Non-Kin Family	2.176	1.918	1.632
	(0.878)	(0.737)	(1.416)
Number observations (children)	4,910	5,113	5,113
Child demographic, entry controls	Y	Y	Y
County annual unemployment control	Y	N	N
State month-year unemployment control	N	Y	N
County, state x month x year fes	N	N	Y
County, month x year fes	Y	Y	Y
First Stage F-stat	20.8	26.8	10.5
Instrument	Non-kin exits in a month		

Notes: This table presents IV results for β, the coefficient on initial non-kin family placement, in equation (1) for different specifications that build on the specification in Column (4) in Table 7 addressing further county and state variation. Column (1) of this table adds county annual unemployment as a control variable to the IV regression. Column (2) adds state month-year unemployment as a control variable. Column (3) includes state x month x year fixed effects. The main set of controls used and described in Table 7 are used throughout the specifications here. The sample size in column (1) is smaller than in Table 7 due to missing unemployment data for some county x month x year cells. Standard errors are clustered at the county-level.

Table A8: Correlation between Foster Care Entries in a Month and County and State Unemployment Rates - County-Month-Year-Level Regressions

	Total Child Entries in Month					
	(1)	(2)	(3)	(4)	(5)	(6)
	Outcome Sample	Eligible Sample	Old Children Sample	Outcome Sample	Eligible Sample	Old Children Sample
County Annual	0.3296	-0.6431	0.8995			
Unemployment	(2.3685)	(3.5164)	(2.1353)			
State Month-Year				2.553	1.436	1.338
Unemployment				(2.357)	(3.000)	(2.090)
Number observations (children)	4,051	11,323	49,742	4,242	11,895	52,095
Child demographic, entry controls	N	N	N	N	N	N
County, month x year fes	Y	Y	Y	Y	Y	Y
County weights	Y	Y	Y	Y	Y	Y

Notes: This table shows OLS regressions of the number of total foster child entries (all ages) into a county in a month-year **at the level of county-month-year unit** on county annual unemployment rates and state month-year unemployment rates across the three main samples analyzed in this paper. State monthly unemployment and county annual unemployment rates come from the BLS. All regressions weight by the number of children in the respective sample in each county. There are less counties in the county annual regressions because of missing or unmatchable county unemployment data from the BLS. Standard errors are clustered at the county-level.

Table A9: Correlations between Instrument and Services Received at Entry

	Coefficient on instrument (1)	p-value (2)	Outcome mean (3)	Number observations (children) (4)
Special education services	-2.83e-04 (1.73e-04)	0.101	0.188	28,589
Independent living needs assessment	-1.36e-03 (8.09e-04)	0.093	0.487	28,589
Academic support services	-1.31e-03 (8.24e-04)	0.11	0.501	28,589
Career services	-1.81e-03 (1.33e-03)	0.174	0.295	28,589
Employment vocational services	-1.94e-03 (1.50e-03)	0.195	0.144	28,589
Financial management services	-1.79e-03 (1.18e-03)	0.130	0.283	28,589
Housing education and management	-1.76e-03 (1.45e-03)	0.225	0.329	28,589
Health education	-1.72e-03 (9.29e-04)	0.064	0.364	28,589
Mentor services	-2.01e-03 (1.14e-03)	0.077	0.168	28,589
Educational financial assistance	-3.00e-03 (1.91e-03)	0.116	0.0858	28.589
Other financial assistance	-2.856e-03 (2.03e-03)	0.158	0.167	28,589
Instrument	non-kin exits			
County, month x year fes	Y			
Child demographic, entry reason controls	Y			

Notes: Each row of this table is associated with a separate regression of a different service outcome on a child entry. Each of these regressions includes demographic, entry reason controls, and county and month by year fixed effects. The sample for each regression is all children entering between 14 and 17 years old receiving any services as defined in the NYTD services database.

Table A10: Correlations between Instrument and Number of Children in Family Placement

	Number Children in Family Placement (1)	Indicator for More Than 1 Child in Family Placement (2)
Non-kin exits	0.0086 (0.003)	0.0030 (0.0013)
County, month x year fes	Y	Y
Child demographic, entry reasons	Y	Y
Children placed with families only	Y	Y
Mean outcome	2.25	0.553
Number observations (children)	2,071	2,071

Notes: This table provides regression results from regressions of whether a child is placed out of state on the non-kin exits instrument. Column (1) performs this regression on the outcome sample, column (2) on the eligible sample and column (3) on the old children sample. Discrepancies in sample sizes with other tables using these samples (e.g. Table 7) are due to some children having a missing value for whether they are placed out of state. Standard errors are clustered at the county level.

Table A11: Correlations between Instrument and Placement Out of State

	Child placed out of state on entry		
	Outcome Sample	Eligible Sample	Old Children Sample
	(1)	(2)	(3)
Non-kin exits in a month	-3.1e-04	-5.8e-05	1.1e-07
	(2.0e-04)	(9.0e-05)	(3.7e-05)
Number observations (children)	5,111	18,446	208,755
Child entry, demographic controls	Y	Y	Y
County, month x year fes	Y	Y	Y
p-value on regression coefficient	0.0674	0.522	0.997

Notes: Column (1) provides the coefficient estimate on the instrument for a regression of number of children estimated in a child's initial placement for children from the outcome sample placed with a family who also have a valid measure of number of children in placement. A family has a valid number of children in their placement if, after accounting for the sequential arrival and exit of foster children in the AFCARS data, they have 8 or less children in their care. A family is identified by a unique sequence of county, family structure, age of primary caretaker, age of secondary caretaker, race of primary caretaker and secondary caretaker. Column (2) provides the coefficient estimate on the instrument for a regression of an indicator of having more than 1 child in a placement. Standard errors are clustered at the county level.

Table A12: OLS and IV with Demographic Controls Only

	Economic and Social Outcome Index	
	OLS	IV
	(1)	(2)
Initial placement with a non-kin family	0.790	1.879
	(0.065)	(0.505)
County, month x year fes		Y
Child demographic controls only		Y
Number children		5,113

Notes: This table shows OLS and IV results for the outcome index in the outcome sample in which the only controls are child demographic controls. No removal reason controls are used. Standard errors are clustered at the county level.

Table A13: First Stage: Lagged Exits

	Placement with Non-kin Family	
	(1)	(2)
Non-kin exits lagged by 1 month	0.00183	0.00153
	(0.00063)	(0.00057)
F-statistic	8.57	7.28
Number observations (children)	5,047	5,047
Child demographic, entry controls	N	Y
County, month x year fes	Y	Y

Notes: This table implements OLS regressions of the main independent variable, initial placement with a non-kin family, on county-month level non-kin exits measured 1 month *before* the child is placed (with a non-kin family or congregate care) in the same county the child is placed in. Column (1) does not include the standard demographic and entry controls while column (2) includes the standard demographic and entry controls. The lower number of observations in the lagged specification for the outcome sample is due to a lack of data on exits in the month before the first placement in the outcome sample (compared to other first stage tables with no lag implemented). Standard errors are clustered at the county level.

Table A14: Main Treatment Effects Measured with Lagged Instrument

	Outcome Index	
	(1)	(2)
Initial non-kin family placement	1.546	1.657
	(0.750)	(0.958)
Instrument	Non-kin exits lagged by 1 month	
Number observations (children)	5,047	5,047
Child demographic, entry controls	N	Y
County, month x year fes	Y	Y

Notes: This table reproduces columns (3) and (4) in Table 7 utilizing the lagged non-kin exits variable as the instrument. Column (2) includes demographic and entry reason controls in these regressions. The set of controls include demographics with age of entry categories, sex (male or female), and race (white, black, hispanic, other). The set of controls also includes a set of 15 indicator variables indicating the reasons a child was removed from their family. Standard errors are clustered at the county level.

Table A15: Correlation between Non-Kin Placement and Exits in the Month After Placement

	Placement with Non-kin Family	
	(1)	(2)
Non-kin exits month forward by 1 month	0.00295	0.00229
	(0.00038)	(0.00034)
F-statistic	61.3	44.8
Number observations (children)	5,113	5,113
Child demographic, entry controls	N	Y
County, month x year fes	Y	Y

Notes: This table implements OLS regressions of the main independent variable, initial placement with a non-kin family, on county-month level non-kin exits measured 1 month *after* the child is placed (with a non-kin family or congregate care) in the same county the child is placed in. Column (1) does not include the standard demographic and entry controls while column (2) includes the standard demographic and entry controls. Standard errors are clustered at the county level.

Table A16: Placebo Instruments: Congregate Care Exits in Same Month and 1 Month Before

	Placement with Non-Kin Family					
	(1)	(2)	(3)	(4)	(5)	(6)
	Outcome Sample	Eligible Sample	Old Children Sample	Outcome Sample	Eligible Sample	Old Children Sample
Congregate care exits in same month	0.00084	0.00019	-0.000005			
	(0.0006)	(0.0004)	(0.0003)			
Congregate care exits 1 month before				0.00065	-0.00011	-0.000017
				(0.0006)	(0.0003)	(0.0003)
F-statistic	2.32	0.218	0.00041	1.31	0.166	0.00434
Number observations (children)	5,113	18,461	209,075	5,047	18,461	209,075
Child demographic, entry controls	Y	Y	Y	Y	Y	Y
County, month x year fes	Y	Y	Y	Y	Y	Y

Notes: This table shows OLS regressions of the endogenous variable, initial placement with a non-kin family, on congregate care exits occurring in the same month in the same county where the placement is occurring, and congregate care exits 1 month before in the same county where the placement is occurring. It shows results for these regressions across the 3 main samples considered in the paper (see the text for more details and description). The lower number of observations in the lagged specification for the outcome sample is due to a lack of data on exits in the month before the first placement in the outcome sample. Standard errors are clustered at the county-level throughout.

Table A17: Instrument and Endogenous Variable Correlation with Observables - Including Total Removals

	Outcome Sample	Eligible Sample	Old Children Sample
	(1)	(2)	(3)
Sex: male	−0.339	−0.211	−0.173
	(0.260)	(0.167)	(0.110)
Race: hispanic	−0.224	−0.171	0.222
	(0.274)	(0.131)	(0.608)
Race: other	0.520	−0.451	2.264
	(0.472)	(0.349)	(2.654)
Race: white	−0.319	−0.068	0.169
	(0.384)	(0.108)	(0.347)
Age: 15	−0.801	−0.381	−0.026
	(0.776)	(0.238)	(0.052)
Age: 16	−1.070	−0.090	−0.070
	(0.777)	(0.282)	(0.051)
Age: 17	−0.045	−0.503	−0.154*
	(0.565)	(0.326)	(0.080)
Physical abuse	0.047	0.470	0.242
	(0.429)	(0.604)	(0.209)
Sexual abuse	1.034	0.084	−0.009
	(0.714)	(0.478)	(0.238)
Neglect	1.082	0.560	0.467
	(0.729)	(0.602)	(0.383)
Parent alcohol abuse	0.549	−0.033	−0.435*
	(0.655)	(0.364)	(0.253)
Parent drug abuse	−0.242	−0.540**	−0.446*
	(0.381)	(0.231)	(0.256)
Child alcohol abuse	−0.641	0.054	−0.548*
	(0.679)	(0.375)	(0.322)
Child drug abuse	0.563	0.148	−0.112
	(0.540)	(0.415)	(0.330)
Child disability	−0.256	−0.182	−0.496
	(0.660)	(0.386)	(0.366)
Child behavior problem	−0.855	−0.822*	−0.714*
	(0.717)	(0.452)	(0.408)
Parent(s) died	−1.751	−1.204*	−0.142
	(1.325)	(0.626)	(0.166)
Parent(s) jail	−1.028	−0.171	−0.003
	(0.781)	(0.267)	(0.138)
Inability to cope	0.176	−0.263	0.068
	(0.336)	(0.269)	(0.173)
Abandonment	−0.001	0.152	−0.043
	(0.348)	(0.280)	(0.147)
Relinquished	0.625	0.950	0.236
	(0.680)	(0.600)	(0.281)
Housing problem	−0.239	−0.021	−0.230
	(0.748)	(0.317)	(0.423)
Total Foster Care Removals	−0.006	0.095	0.085
	(0.105)	(0.081)	(0.076)
Number observations (children)	5,226	18,457	208,994
R^2	0.977	0.971	0.959
F-statistic (p-value)	0.70 (0.850)	1.08 (0.363)	1.38 (0.110)
County, month x year fes	Y	Y	Y

Notes: Columns (1)-(3) report OLS regression results from regressing the instrument, on all child demographics and entry reasons. F-statistics are for statistical tests where the null hypothesis is that all coefficients on observables are 0. See Table 1 and the text of the paper for descriptions of the different samples. The instrument is not defined for some very small counties in the old children sample, explaining the discrepancy between the number of observations in columns (3) and (6). Standard errors are clustered at the county level. *p<0.1; **p<0.05; ***p<0.01 *p<0.1; **p<0.05; ***p<0.01

Table A18: Impact of Non-kin Family Placement on Outcomes - With Total Removals Control

	Outcome Index	Incarceration	Homeless	Substance Abuse	Employment and Enrollment
	(1)	(2)	(3)	(4)	(5)
Initial Placement with Non-Kin Family	2.016	-0.246	-0.376	-0.252	0.0829
	(0.669)	(0.136)	(0.165)	(0.103)	(0.176)
Number observations (children)	5,112	5,038	5,035	5,010	5,112
Child demographic, entry control	Y	Y	Y	Y	Y
Total removal from foster care control	Y	Y	Y	Y	Y
County, month x year fes	Y	Y	Y	Y	Y
First Stage F-Stat	41.82	34.16	34.20	38.06	41.82
Instrument	Non-kin exits in a month				

Notes: This table presents IV results for β, the coefficient on initial non-kin family placement, in equation (1) for different outcome variables and with different specifications. It recreates the IV results with controls in Table 7 while adding total removal from foster care controls. Total removal from foster care is defined as: the number of times the child was removed from home, including the current removal. Standard errors are clustered at the county-level.

Table A19: IV Treatment Effects: Instrument based on Different Ages of Exiting Children

	Outcome Index		
Instrument:	Non-kin exits month	Non-kin exits of 10 year olds or older month	Non-kin exits of 14 year olds or older month
	(1)	(2)	(3)
Initial placement with non-kin family	2.021	2.608	3.450
	(0.675)	(0.850)	(0.863)
Numbers observations (children)	5,113	5,113	5,113
First-stage F-statistic	41.74	25.82	20.38
County, month x year fes	Y	Y	Y
Child entry, demographic controls	Y	Y	Y

Notes: This table shows IV results for the main outcome index defined in Table 7 for different instrument specifications. Column (1) reproduces results in Table 7. Column (2) modifies the instrument to only measure non-kin exits when the foster child exiting is exiting at an age of 10 years of age or older. Column (3) modifies the instrument to only measure non-kin exits when the foster child existing is exiting at an age of 14 years of age or older. All regressions include county and month x year fixed effects, and the list of child demographic and entry controls listed in Table 7. Standard errors are clustered at the county-level.

Table A20: Heterogeneous Effects: Gender and Race

	First Stage	Reduced Form	IV	OLS	First Stage Eligible Sample
	(1)	(2)	(3)	(4)	(5)
Subgroup: Female					
Coefficient and s.e.	0.0028	0.0032	1.143	0.682	0.0018
	(0.0006)	(0.0019)	(0.637)	(0.079)	(0.0004)
Cluster robust F-statistic	23.56	-	-	-	24.42
Number of children		2,967			
Instrument		Non-kin exits			
Subgroup: Male					
Coefficient and s.e.	0.0025	0.0098	3.901	0.943	0.00173
	(0.0006)	(0.0022)	(1.119)	(0.124)	(0.00035)
Cluster robust F-statistic	20.14	-	-	-	24.88
Number of children		2,146			
Instrument		Non-kin exits			
Subgroup: Black					
Coefficient and s.e.	0.0016	0.0039	2.461	0.731	0.00133
	(0.0007)	(0.0042)	(3.119)	(0.121)	(0.00043)
Cluster robust F-statistic	5.04	-	-	-	9.66
Number of children		1,532			
Instrument		Non-kin exits			
Subgroup: Hispanic					
Coefficient and s.e.	0.0034	0.0105	3.092	1.127	0.0028
	(0.0008)	(0.0027)	(0.872)	(0.151)	(0.0003)
Cluster robust F-statistic	17.72	-	-	-	89.18
Number of children		1,051			
Instrument		Non-kin exits			
Subgroup: White					
Coefficient and s.e.	0.0030	0.0018	0.584	0.979	0.00153
	(0.00091)	(0.0047)	(1.566)	(0.12)	(0.00078)
Cluster robust F-statistic	11.11	-	-	-	3.82
Number of children		2,265			
Instrument		Non-kin exits			

Notes: This table shows OLS results for the first stage (initial placement with family indicator on instrument), reduced form (outcome index on instrument), IV treatment effects and OLS treatment effects in the outcome sample, and the first stage in the eligible sample in different subgroups of the data based on child observables. All models do not include child demographic and entry reason controls. All models include county and month-by-year fixed effects, and standard errors are clustered at the county level. Blank entries in the table indicate that the sample size is too small to provide informative estimates.

Table A21: Heterogeneous Effects: Age

	First Stage	Reduced Form	IV	OLS	First Stage Eligible Sample
	(1)	(2)	(3)	(4)	(5)
Subgroup: Age 14					
Coefficient and s.e.	-0.0006	0.0013	-	0.773	-0.0017
	(0.0014)	(0.0054)		(0.178)	(0.0015)
Cluster robust F-statistic	0.21	-	-	-	1.24
Number of children		615			1,809
Instrument		Non-kin exits			
Subgroup: Age 15					
Coefficient and s.e.	0.0041	0.0058	1.429	0.959	0.0028
	(0.00083)	(0.0032)	(0.738)	(0.131)	(0.00039)
Cluster robust F-statistic	23.95	-	-	-	54.21
Number of children		1,454			4,560
Instrument		Non-kin exits			
Subgroup: Age 16					
Coefficient and s.e.	0.0022	0.0037	1.671	0.949	0.0018
	(0.00045)	(0.0018)	(0.877)	(0.098)	(0.00021)
Cluster robust F-statistic	24.96	-	-	-	70.48
Number of children		2,722			10,272
Instrument		Non-kin exits			
Subgroup: Age 17					
Coefficient and s.e.	0.0041	0.0575	-	1.140	0.0015
	(0.0031)	(0.0120)	-	(0.592)	(0.0013)
Cluster robust F-statistic	1.76	-	-	-	1.28
Number of children		322			1,820
Instrument		Non-kin exits			

Notes: This table shows OLS results for the first stage (initial placement with family indicator on instrument), reduced form (outcome index on instrument), IV treatment effects and OLS treatment effects in the outcome sample, and the first stage in the eligible sample in different subgroups of the data based on child observables. All models do not include child demographic and entry reason controls. All models include county and month-by-year fixed effects, and standard errors are clustered at the county level. Blank entries in the table indicate that the sample size is too small to provide informative estimates.

Table A22: Heterogeneous Effects: Physical and Sexual Abuse

	First Stage (1)	Reduced Form (2)	IV (3)	OLS (4)	First Stage Eligible Sample (5)
Subgroup: No Physical Abuse					
Coefficient and s.e.	0.0032 (0.0003)	0.0051 (0.0015)	1.610 (0.469)	0.930 (0.071)	0.0019 (0.0002)
Cluster robust F-statistic	100.75	-	-	-	62.861
Number of children		4,550			16,666
Instrument		Non-kin exits			
Subgroup: Physical Abuse					
Coefficient and s.e.	0.0017 (0.0012)	0.0089 (0.0037)	5.160 (3.166)	0.664 (0.231)	0.0012 (0.0005)
Cluster robust F-statistic	2.23	-	-	-	5.44
Number of children		563			1,795
Instrument		Non-kin exits			
Subgroup: No Sexual Abuse					
Coefficient and s.e.	0.0030 (0.00036)	0.0057 (0.0014)	1.913 (0.477)	0.921 (0.070)	0.0019 (0.0002)
Cluster robust F-statistic	68.04	-	-	-	75.44
Number of children		4,670			17,241
Instrument		Non-kin exits			
Subgroup: Sexual Abuse					
Coefficient and s.e.	0.0018 (0.0027)	-0.0096 (0.0062)	-	0.156 (0.251)	0.0025 (0.0009)
Cluster robust F-statistic	0.44	-	-	-	7.96
Number of children		443			1,220
Instrument		Non-kin exits			

Notes: This table shows OLS results for the first stage (initial placement with family indicator on instrument), reduced form (outcome index on instrument), IV treatment effects and OLS treatment effects in the outcome sample, and the first stage in the eligible sample in different subgroups of the data based on child observables. All models do not include child demographic and entry reason controls. All models include county and month-by-year fixed effects, and standard errors are clustered at the county level. Blank entries in the table indicate that the sample size is too small to provide informative estimates.

Table A23: Heterogeneous Effects: Neglect and Inability to Cope

	First Stage (1)	Reduced Form (2)	IV (3)	OLS (4)	First Stage Eligible Sample (5)
Subgroup: No Neglect					
Coefficient and s.e.	0.0033	0.0092	2.837	0.891	0.0022
	(0.0006)	(0.0022)	(0.681)	(0.095)	(0.0003)
Cluster robust F-statistic	46.70	-	-	-	67.24
Number of children		3,109			11,688
Instrument		Non-kin exits			
Subgroup: Neglect					
Coefficient and s.e.	0.0016	-0.0002	-0.147	0.736	0.00036
	(0.00046)	(0.0021)	(1.320)	(0.113)	(0.00030)
Cluster robust F-statistic	12.11	-	-	-	1.39
Number of children		2,004			6,773
Instrument		Non-kin exits			
Subgroup: No Inability to Cope					
Coefficient and s.e.	0.0030	0.0092	3.075	0.840	0.0020
	(0.00036)	(0.0015)	(0.590)	(0.088)	(0.00034)
Cluster robust F-statistic	69.35	-	-	-	36.08
Number of children		3,964			14,681
Instrument		Non-kin exits			
Subgroup: Inability to Cope					
Coefficient and s.e.	0.0023	-0.00014	-0.0618	0.931	0.0019
	(0.00062)	(0.0029)	(1.2601)	(0.145)	(0.0004)
Cluster robust F-statistic	14.20	-	-	-	17.90
Number of children		1,149			
Instrument		Non-kin exits			

Notes: This table shows OLS results for the first stage (initial placement with family indicator on instrument), reduced form (outcome index on instrument), IV treatment effects and OLS treatment effects in the outcome sample, and the first stage in the eligible sample in different subgroups of the data based on child observables. All models do not include child demographic and entry reason controls. All models include county and month-by-year fixed effects, and standard errors are clustered at the county level. Blank entries in the table indicate that the sample size is too small to provide informative estimates.

Table A24: Heterogeneous Effects: Alcohol Abuse, Drug Abuse Parent

	First Stage (1)	Reduced Form (2)	IV (3)	OLS (4)	First Stage Eligible Sample (5)
Subgroup: No Alcohol Abuse Parent					
Coefficient and s.e.	0.0030 (0.0003)	0.0061 (0.0014)	2.039 (0.488)	0.889 (0.067)	0.0019 (0.0002)
Cluster robust F-statistic	68.82	-	-	-	76.38
Number of children		4,919			17,776
Instrument		Non-kin exits			
Subgroup: Alcohol Abuse Parent					
Coefficient and s.e.	-	-	-	-	-
Cluster robust F-statistic	-	-	-	-	-
Number of children		-			-
Instrument		Non-kin exits			
Subgroup: No Drug Abuse Parent					
Coefficient and s.e.	0.0030 (0.0003)	0.0057 (0.0015)	1.906 (0.528)	0.937 (0.068)	0.0020 (0.0002)
Cluster robust F-statistic	78.73	-	-	-	95.49
Number of children		4,672			16,607
Instrument		Non-kin exits			
Subgroup: Drug Abuse Parent					
Coefficient and s.e.	0.0038 (0.0029)	-0.0065 (0.0188)	-	0.389 (0.411)	0.0006 (0.001)
Cluster robust F-statistic	1.70	-	-	-	0.36
Number of children		441			1,854
Instrument		Non-kin exits			

Notes: This table shows OLS results for the first stage (initial placement with family indicator on instrument), reduced form (outcome index on instrument), IV treatment effects and OLS treatment effects in the outcome sample, and the first stage in the eligible sample in different subgroups of the data based on child observables. All models do not include child demographic and entry reason controls. All models include county and month-by-year fixed effects, and standard errors are clustered at the county level. Blank entries in the table indicate that the sample size is too small to provide informative estimates.

Table A25: Heterogeneous Effects: Alcohol Abuse, Drug Abuse Child

	First Stage	Reduced Form	IV	OLS	First Stage Eligible Sample
	(1)	(2)	(3)	(4)	(5)
Subgroup: No Alcohol Abuse Child					
Coefficient and s.e.	0.0030	0.0060	1.997	0.875	0.0020
	(0.0003)	(0.0014)	(0.472)	(0.068)	(0.0002)
Cluster robust F-statistic	77.41	-	-	-	74.54
Number of children		5,016			18,045
Instrument		Non-kin exits			
Subgroup: Alcohol Abuse Child	-	-	-	-	-
Coefficient and s.e.	-	-	-	-	-
Cluster robust F-statistic	-	-	-	-	-
Number of children		-			
Instrument		Non-kin exits			
Subgroup: No Drug Abuse Child					
Coefficient and s.e.	0.0030	0.0059	1.942	0.853	0.0019
	(0.0003)	(0.0013)	(0.438)	(0.071)	(0.0002)
Cluster robust F-statistic	76.18	-	-	-	65.01
Number of children		4,899			17,358
Instrument		Non-kin exits			
Subgroup: Drug Abuse Child					
Coefficient and s.e.	0.019	0.075	4.035	0.916	0.0041
	(0.0081)	(0.058)	(1.868)	(1.011)	(0.0012)
Cluster robust F-statistic	5.24	-	-	-	11.10
Number of children		214			1,103
Instrument		Non-kin exits			

Notes: This table shows OLS results for the first stage (initial placement with family indicator on instrument), reduced form (outcome index on instrument), IV treatment effects and OLS treatment effects in the outcome sample, and the first stage in the eligible sample in different subgroups of the data based on child observables. All models do not include child demographic and entry reason controls. All models include county and month-by-year fixed effects, and standard errors are clustered at the county level. Blank entries in the table indicate that the sample size is too small to provide informative estimates.

Table A26: Heterogeneous Effects: Child Disability, Behavioral Problem

	First Stage (1)	Reduced Form (2)	IV (3)	OLS (4)	First Stage Eligible Sample (5)
Subgroup: No Child Disability					
Coefficient and s.e.	0.0030 (0.0003)	0.0066 (0.0014)	2.205 (0.497)	0.925 (0.068)	0.0019 (0.0002)
Cluster robust F-statistic	75.89	-	-	-	77.69
Number of children		4,905			17,660
Instrument		Non-kin exits			
Subgroup: Child Disability					
Coefficient and s.e.	-0.017 (0.0156)	0.0392 (0.0839)	-	0.133 (0.486)	-0.0062 (0.0025)
Cluster robust F-statistic	1.216	-	-	-	6.051
Number of children		208			801
Instrument		Non-kin exits			
Subgroup: No Child Behavior Problem					
Coefficient and s.e.	0.0022 (0.0004)	0.0030 (0.0017)	1.346 (0.740)	0.795 (0.082)	0.0014 (0.00028)
Cluster robust F-statistic	36.98	-	-	-	23.42
Number of children		3,039			9,886
Instrument		Non-kin exits			
Subgroup: Child Behavior Problem					
Coefficient and s.e.	0.0012 (0.0008)	0.0052 (0.0030)	-	0.628 (0.133)	0.00049 (0.00029)
Cluster robust F-statistic	2.55	-	-	-	2.87
Number of children		2,074			8,575
Instrument		Non-kin exits			

Notes: This table shows OLS results for the first stage (initial placement with family indicator on instrument), reduced form (outcome index on instrument), IV treatment effects and OLS treatment effects in the outcome sample, and the first stage in the eligible sample in different subgroups of the data based on child observables. All models do not include child demographic and entry reason controls. All models include county and month-by-year fixed effects, and standard errors are clustered at the county level. Blank entries in the table indicate that the sample size is too small to provide informative estimates.

Table A27: Heterogeneous Effects: Relinquishment, Abandonment, Housing Problems

	First Stage (1)	Reduced Form (2)	IV (3)	OLS (4)	First Stage Eligible Sample (5)
Subgroup: No Abandonment					
Coefficient and s.e.	0.0032 (0.0004)	0.0061 (0.0014)	4.210 (0.445)	0.887 (0.073)	0.0019 (0.0002)
Cluster robust F-statistic	71.02	-	-	-	72.34
Number of children		4,579			16,556
Instrument		Non-kin exits			
Subgroup: Abandonment					
Coefficient and s.e.	0.0024 (0.0038)	0.015 (0.0138)	-	0.508 (0.243)	0.0042 (0.0018)
Cluster robust F-statistic	0.40	-	-	-	5.37
Number of children		534			1,905
Instrument		Non-kin exits			
Subgroup: No Relinquishment					
Coefficient and s.e.	0.0029 (0.0004)	0.0059 (0.0014)	2.028 (0.4714)	0.888 (0.000224505)	0.0019 (0.0002)
Cluster robust F-statistic	66.971	-	-	-	70.55
Number of children		4,987			18,049
Instrument		Non-kin exits			
Subgroup: Relinquishment					
Coefficient and s.e.					
Cluster robust F-statistic		-	-	-	
Number of children		126			
Instrument		Non-kin exits			
Subgroup: No Housing Problems					
Coefficient and s.e.	0.0028 (0.0003)	0.0057 (0.0013)	1.995 (0.501)	0.889 (0.070)	0.0021 (0.0002)
Cluster robust F-statistic	73.63	-	-	-	99.19
Number of children		4,861			17,482
Instrument		Non-kin exits			
Subgroup: Housing Problems					
Coefficient and s.e.	0.0144 (0.00248)	0.0365 (0.0190)	2.536 (1.063)	2.234 (0.923)	-0.0032 (0.001)
Cluster robust F-statistic	33.56	-	-	-	10.99
Number of children		252			979
Instrument		Non-kin exits			

Notes: This table shows OLS results for the first stage (initial placement with family indicator on instrument), reduced form (outcome index on instrument), IV treatment effects and OLS treatment effects in the outcome sample, and the first stage in the eligible sample in different subgroups of the data based on child observables. All models do not include child demographic and entry reason controls. All models include county and month-by-year fixed effects, and standard errors are clustered at the county level. Blank entries in the table indicate that the sample size is too small to provide informative estimates.

Table A28: Instrument and Family Type

	Initial Black Primary Caretaker	Initial White Primary Caretaker	Initial Other Race Primary Caretaker	Initial Hispanic Primary Caretaker	Initial Primary Caretaker Age 50+	Initial Primary Caretaker Less than Age 50	Initial Couple	Initial Other Family Structure
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Non-kin Exits Month	0.001	0.0001	0.001	0.0002	0.001	0.001	0.0001	0.002
	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.001)	(0.0005)	(0.001)	(0.0004)
Number observations (children)	4,813	4,813	4,813	4,948	4,841	4,841	5,054	5,054
Mean of dependent variable	0.301	0.566	0.133	0.126	0.505	0.495	0.605	0.395
Child entry, demographic controls	Y	Y	Y	Y	Y	Y	Y	Y
County, month x year fes	Y	Y	Y	Y	Y	Y	Y	Y

Notes: This table shows OLS regressions of different non-kin family types on the main instrument, non-kin exits in a county-month-year. Column (1) regresses whether a child is placed with a family that has a Black primary caretaker on the instrument (group home and institutional placements are coded as a 0). Column (2) regresses whether a child is placed with a family that has a White primary caretaker on the instrument. Column (3) regresses whether a child is placed with a family that has a non-Black or non-White primary caretaker on the instrument. Column (4) regresses whether a child is placed with a Hispanic primary caretaker on the instrument. Column (5) regresses whether a child is placed with a primary caretaker that is 50 years or older on the instrument. Column (6) regresses whether a child is placed with a primary caretaker that is younger than 50 years on the instrument. Column (7) regresses whether a child is placed with caretakers that are a married couple or an unmarried couple on the instrument. Column (8) regresses whether a child is placed with caretaker that is a single male, single female, or unable to determine. All regressions include child entry and demographic controls used in the main regressions specifications and county and month-year fixed effects. Standard errors are clustered at the county-level.

Table A29: Characteristics of Compliers in the Outcome Sample

	Outcome Sample	
	(1)	(2)
	$Pr(X_i = 1)$	$Pr(X_i = 1\|complier)$
Sex: female	0.580	0.565
Sex: male	0.420	0.378
Race: black	0.300	0.245
Race: hispanic	0.206	0.269
Race: white	0.443	0.021
Age: 15	0.284	0.352
Age: 16	0.532	0.597
Entry reason: physical abuse	0.110	0.032
Entry reason: sexual abuse	0.087	0.138
Entry reason: neglect	0.392	0.209
Entry reason: child behavioral problem	0.406	0.234
Entry reason: inability to cope	0.225	0.168
Total Share of Compliers	0.384	

Notes: This table computes the share of compliers and complier characteristics in the outcome sample following the methodology of Bald et al. (2022).

Table A30: Complier Adjusted OLS Results

	OLS	OLS Weighted	OLS Housing Problem Subsample	IV
	(1)	(2)	(3)	(4)
Outcome: Economic and Social Outcome Index				
Non-kin family placement	0.886	0.903	2.234	1.989
	(0.067)	(0.126)	(0.923)	(0.473)
Outcome: Incarceration				
Non-kin family placement	-0.189	-0.187	-0.278	-0.345
	(0.013)	(0.135)	(0.137)	(0.093)
Outcome: Homeless				
Non-kin family placement	-0.087	-0.095	-0.396	-0.273
	(0.016)	(0.017)	(0.167)	(0.110)
Outcome: Substance Abuse				
Non-kin family placement	-0.068	-0.074	-0.528	-0.223
	(0.010)	(0.011)	(0.141)	(0.069)
Outcome: Employment or Enrollment				
Non-kin family placement	0.108	0.107	0.015	0.119
	(0.016)	(0.018)	(0.144)	(0.123)
County, month-year fixed effects	Y	Y	Y	Y
Child demographic, entry reason controls	N	N	N	N
Number observations (children)	5,113	5,113	252	5,113

Notes: This table presents various OLS specifications and IV results across the outcome index and the outcomes that make up the outcome index. Column (1) presents OLS results. Column (2) presents OLS results where the sample is weighted according to first stage coefficient of the housing subsample following Dahl, Kostol and Mogstad (2014) and Bhuller, Dahl, Løken and Mogstad (2020). Column (3) presents OLS results only looking at the subsample of children that enter at least partly due to inadequate housing or homelessness. Column (4) presents IV results. All specifications include county and month by year fixed effects, but do NOT include demographic or entry reason controls, following closely the procedure in Bhuller, Dahl, Løken and Mogstad (2020). Standard errors are clustered at the county level throughout.

Table A31: Measurement Error: OLS Results on More Precise Subsample

	Economic and Social Outcome Index			
	OLS	OLS Precise Measurement Subsample	IV	IV Precise Measurement Subsample
	(1)	(2)	(3)	(4)
Initial non-kin	0.886	1.281	1.989	3.521
family placement	(0.0673)	(0.234)	(0.473)	(6.736)
Number observations (children)	5,113	752	5,113	752
County, month-year fes	Y	Y	Y	Y
Child entry, demographics	N	N	N	N
% IV - OLS difference explained			35.8%	

Notes: This table presents results from OLS and IV regressions of the outcome index on an indicator for a child's initial placement being with a non-kin family estimated in different subsamples. All regressions include county and month-by-year fixed effects but do not include child-level controls. Column (1) gives OLS results for the full outcome sample. Column (2) gives OLS results for children that enter foster care in the same month as the reporting period for the data, or the precise measurement subsample. Column (3) gives IV results for the full outcome sample. Column (4) gives IC results for children that enter foster care in the same month as the reporting period for the data. Standard errors are clustered at the county level throughout.

Table A32: Connection to Adult, Public Welfare Outcomes and Other Economic and Social Outcomes

Panel A: Other Economic and Social Outcomes

	Connection to Adult		Had Children		Private Financial Payments: Family, Child Support, Legal		Apprenticeship, Internship, On-the-Job Training	
	OLS	IV	OLS	IV	OLS	IV	OLS	IV
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Initial non-kin	-0.006	0.473	-0.046	0.081	-0.002	-0.240	0.026	-0.558
family placement	(0.012)	(0.144)	(0.015)	(0.173)	(0.011)	(0.151)	(0.016)	(0.234)
Child demographic, entry controls					Y			
County, month x year fes					Y			
Mean outcome	0.896		0.275		0.115		0.315	
Number children	5,098		5,064		5,053		5,100	

Panel B: Social Services

	Total Public Aid		Social Security		Educational Aid		Food Stamps		Housing Vouchers		Other Cash Welfare	
	OLS	IV	OLS	IV	OLS	IV	OLS	IV	OLS	IV	OLS	IV
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Initial non-kin	-0.168	-1.081	-0.063	-0.022	0.091	-0.006	-0.056	-0.550	-0.017	-0.354	-0.029	-0.276
family placement	(0.034)	(0.442)	(0.012)	(0.149)	(0.014)	(0.225)	(0.020)	(0.315)	(0.010)	(0.173)	(0.011)	(0.173)
Child demographic, entry controls							Y					
County, month x year fes							Y					
Mean outcome	0.592 (sd = 0.831)		0.103		0.203		0.315		0.0752		0.0989	
Number children	4,123		5,065		5,049		4,242		4,229		4,229	

Notes: This table presents OLS and IV results from other economic and social outcomes and public welfare use outcomes. The other economic and social outcomes contained in the NYTD data include whether the child has a connection to an adult they feel comfortable going to for advice, they have mothered or fathered children in the past 2 years, they receive financial payments from a family, child support or other legal source. The public welfare use source includes an index of total public aid which adds together indicators for social security, food stamps, housing vouchers and other cash welfare. These are also broken out separately, with the addition of an outcome on whether the child receives financial aid. Each IV result uses the standard instrument of non-kin exits in a county-month-year used throughout the paper. All regressions include child demographic and entry reason controls, and county and month by year fixed effects. Standard errors are clustered at the county level.

Table A33: Intermediate Foster Care Outcomes

Panel A: IV	Outcome Sample		Eligible Sample		Old Children Sample (Weighted)	
	Adopt or Guardian by 18	Number Placements after Entry	Adopt or Guardian by 18	Number Placements after Entry	Adopt or Guardian by 18	Number Placements after Entry
	(1)	(2)	(3)	(4)	(5)	(6)
Initial non-kin family placement	0.0764	-3.161	-0.0740	-1.081	0.0809	-0.4614
	(0.1306)	(2.390)	(0.1474)	(1.705)	(0.0380)	(0.6400)
Instrument			Non-kin exits			
County, month x year fes	Y	Y	Y	Y	Y	Y
Child demographic, entry reason controls	Y	Y	Y	Y	Y	Y
Mean outcome	0.045	4.46	0.043	4.42	0.016	1.83
Number observations (children)	3,619	4,454	13,840	15,731	143,409	151,372
Panel B: OLS						
	(1)	(2)	(3)	(4)	(5)	(6)
Initial non-kin family placement	0.0459	-0.734	0.0413	-0.747	0.0349	-0.439
	(0.011)	(0.169)	(0.0052)	(0.096)	(0.0094)	(0.076)
County, month x year fes	Y	Y	Y	Y	Y	Y
Child demographic, entry reason controls	Y	Y	Y	Y	Y	Y
Mean outcome	0.045	4.46	0.0431	4.42	0.016	1.83
Number observations (children)	3,619	4,454	13,840	15,731	143,409	151,372

Notes: This table presents OLS and IV regression results of adoption or guardianship indicator variables and number of placement numeric variables on the initial placement with non-kin indicator variable. It does this across the outcome, eligible and old children sample, where observations in the old children sample are weighted according to (obs weight = percent observations with same county in outcome sample) to ensure a stronger first stage. The samples for adoption and guardian by 18 models exclude children who do not exit by age 18. Smaller sample sizes for number placements are smaller because missing value in the number placements variable. Throughout models include child demographic and entry controls, and county and month by year fixed effects. Standard errors are clustered by county.

Table A34: Treatment Effects with Time in Foster Care as Endogenous Variables

	Economic and Social Outcome Index			
	IV		OLS	
	(1)	(2)	(3)	(4)
Months in non-kin family placement	0.0618		0.0230	
	(0.0193)		(0.002)	
Percent time in non-kin family placement		2.928		0.830
		(1.114)		(0.0750)
County, month x year fes	Y	Y	Y	Y
Child demographics, entry reason controls	Y	Y	Y	Y
Sd endogenous variable	15.0	0.437	15.0	0.437
Mean endogenous variable control	4.13	0.129	4.13	0.129
Mean endogenous variable treatment	23.9	0.838	23.9	0.838
Number observations (children)	5,113	5,113	5,113	5,113

Notes: This table reports treatment effects estimated by IV and OLS on two alternative endogenous variables for the economic and social outcome index. The models are identical to those in Table 7 except for the endogenous variables. Months in non-kin family placement is a numeric variable that counts the number of placements recorded after entry that are non-kin family placements and multiplies by 6 months (the length between reporting periods). Percent time in non-kin placements looks at the percentage of placements reported for the child after entry that are non-kin placements. Standard errors are clustered at the county-level.

Table A35: Correlation between Instrument and Survey Eligibility and Initial Response

	Eligible for NYTD and Surveyed at Age 17		Response at Age 17
	(1)	(2)	(3)
Instrument: Non-kin exits	-0.00018	-0.000095	-0.00081
	(0.00005)	(0.00005)	(0.00030)
In at 17		0.13	
		(0.004)	
Number observations (children)	209, 075	209, 075	18,482
Mean of outcome	0.088	-	0.63
(SD of independent variable) x (coefficient) / (Mean of outcome)	-0.118	-	-0.079
Child demographic, entry controls	N	N	N
County, month x year fes	Y	Y	Y

Notes: This table presents coefficients in OLS regressions of survey eligibility for NYTD and initial response at age 17 for NYTD. The outcome in columns (1) and (2) is defined as whether a child shows up in the NYTD data as eligible for the survey. The sample this is estimated on is the old children sample used and defined throughout the paper. The outcome in column (3) is defined as whether a child responds to the initial NYTD survey (and is undefined for children not eligible for the NYTD survey). The instrument follows the standard definition throughout the paper. In at 17 is an indicator variable for whether a child is in the sample at age 17 or not. Standard errors are clustered at the county-level.

Table A36: Correlation between Initial Non-kin Placement and Survey Eligibility and Initial Response

	Response at Age 17				
	(1)	(2)	(3)	(4)	(5)
Initial Non-Kin Family Placement	0.059				
	(0.007)				
Initial Placement with Age 40+		0.030			
Non-Kin Family		(0.014)			
Initial Placement with Non-Kin			0.0076		
Family that is a Couple			(0.011)		
Initial Placement with Black				0.0056	
Non-Kin Family				(0.014)	
Initial Placement with White					0.012
Non-Kin Family					(0.015)
Number observations (children)	18,482	6,827	7,389	6,664	6,667
Mean of outcome	0.63	-	-	-	-
(SD of independent					
variable) x (coefficient) /	0.047	-	-	-	-
(mean of outcome)					
Child demographic,	N	N	N	N	N
entry controls					
County, month x year fes	Y	Y	Y	Y	Y

Notes: This table presents OLS regression results for whether a child responds to the initial survey at age 17 regressed on the endogenous variable of initial non-kin family placement and other specific types of non-kin family placements that could occur as identified in the AFCARS data. Column (1) regresses response to the survey at age 17 on whether a child is placed with a non-kin family. Column (2) regresses response to the survey at age 17 on whether a child is placed with a non-kin family where the primary foster caretaker is 40 or higher, only including children that are placed in non-kin families and are eligible for the survey. Column (3) regresses response to the survey at age 17 on whether a child is placed with a non-kin family that has a family structure indicating it is a couple (e.g. 2 parent household), only including children that are placed in non-kin families and are eligible for the survey. Column (4) regresses response to the survey at age 17 on whether a child is placed with a non-kin family that has a black primary foster caretaker, only including children that are placed in non-kin families and are eligible for the survey. Column (5) regresses response to the survey at age 17 on whether a child is placed with a non-kin family that has a white primary foster caretaker, only including children that are placed in non-kin families and are eligible for the survey. Standard errors are clustered at the county-level.

Table A37: Main treatment effects correcting for selection bias at different survey stages

	IV Outcome Index			
	(1)	(2)	(3)	(4)
Initial Non-Kin Family Placement	2.021	3.079	2.193	2.608
	(0.674)	(0.954)	(0.738)	(0.892)
Number observations (children)	5,112	5,112	5,112	5,112
Inverse propensity score weighted on				
Initial Eligibility	N	**Y**	N	N
Initial Response at age 17	N	N	**Y**	N
Response at age 21	N	N	N	**Y**
Instrument	Non-kin exits			
Child demographic, entry controls	Y	Y	Y	Y
County, month x year fes	Y	Y	Y	Y

Notes: This table presents coefficients on IV regressions for the main outcome index on the endogenous variable of initial non-kin family placement, where observations are inverse propensity weighted using a child's entry reasons and demographics to reflect the probability of observing that child. Column (1) applies no inverse propensity weighting. Column (2) applies inverse propensity weighting based on the probability of a child's survey eligibility. Column (3) applies inverse propensity weighting based on the probability of a child's initial response to the survey. Column (4) applies inverse propensity weighting based on the probability of a child responding to the final age 21 survey.

Table A38: OLS and Intent-to-Treat Attrition

Panel A: Correcting for Non-Response Bias with Observables	Outcome Index			
	Non Weighted	Weighted		
	(1)	(2)		
Initial non-kin family placement	2.021	2.608		
	(0.674)	(0.892)		
Instrument	Non-kin exits			
Inverse propensity score weighted	N	Y		
County, month x year fes	Y	Y		
Child demographic, entry reason controls	Y	Y		
Number observations (children)	5,112	5,112		
Panel B: Lee (2009) Attrition Bounds	OLS Sample A	ITT Sample A	OLS Sample B	ITT Sample B
	(1)	(2)	(3)	(4)
Initial non-kin family placement	0.6459		0.7090	
	(0.0667)		(0.0747)	
Non-kin exits		0.1288		0.1511
		(0.0710)		(0.0825)
Lee (2009) upper bound	1.2410	0.1288	1.2734	0.1511
Lee (2009) lower bound	0.6459	0.0146	0.7089	0.0382
Response rate treatment	0.621	0.556	0.630	0.560
Response rate control	0.521	0.575	0.516	0.575
p-value response rates differ	<0.001	0.254	<0.001	0.571
County, month x year fes	Y	Y	Y	Y
Child demographic, entry reason controls	Y	Y	Y	Y
Number observations (children)	5,112	5,112	3,877	3,877

Notes: This table contains two panels of results. Panel A undertakes the exercise in Sacerdote (2007) suggested by Wooldridge (1999) and corrects for non-response bias on observables by creating a propensity score for response to the survey at age 21 using a logistic regression model, and weighting observations according to $1/\text{fitted prob response}$. All demographics and entry reason variables are used to create the weights. Panel B computes Lee (2009) bounds for OLS treatment effects and intent-to-treat effects from the reduced form. The outcome variable is the outcome index used throughout the paper. Columns (1) and (2) use Sample A: children that responded to the survey at age 17 and that were sampled by states that randomly sample children who respond at age 17 for the age 21 survey. These are the only children eligible to take the survey at age 21. Column (3) and (4) use Sample B: the subset of the outcome sample in states that do not randomly sample children who respond at age 17 for the age 21 survey, and compute response rates in those samples, too. Throughout standard errors are clustered at the county level.

Table A39: Robustness to Age Cutoff for Children Included in Sample

Panel A: IV	Children Last Entry 12 Years or Older	Children Last Entry 13 Years or Older	Children Last Entry 15 Years or Older
	(1)	(2)	(3)
Initial non-kin family placement	1.188	1.389	1.639
	(0.497)	(0.490)	(0.835)
Instrument		non-kin exits month	
First stage F-statistic	53.6	67.6	44.8
County, month x year fes	Y	Y	Y
Child demographic, entry reason controls	Y	Y	Y
Number observations (children)	5,699	5,545	4,498
Panel B: OLS			
	(1)	(2)	(3)
Initial non-kin family placement	0.627	0.629	0.658
	(0.065)	(0.066)	(0.071)
County, month x year fes	Y	Y	Y
Child demographic, entry reason controls	Y	Y	Y
Number observations (children)	5,699	5,545	4,498

Notes: This table includes OLS and IV estimates for regressions of the outcome index at age 21 used in Table 7 on an indicator for a child's initial placement in a non-kin family with various samples of children that vary by the age cutoff. Column (1) provides IV (Panel A) and OLS (Panel B) estimates for the sample of foster children that enter between ages 12 and 17. Column (2) provides IV and OLS estimates for the sample of foster children that enter between ages 13 and 17. Column (3) provides IV and OLS estimates for the sample of foster children that enter between ages 15 and 17. All models include demographic and child entry controls, and county and month-by-year fixed effects. Standard errors are clustered at the county level.

Table A40: IV Specification and Index Robustness

Panel A: Specification Tests	Old Child Exits	Drop Outlier County x Month x Years	Drop Very Small Counties	Dropping Endpoints of Data
	(1)	(2)	(3)	(4)
First stage coefficient on	0.0031	0.0028	0.0020	0.0020
instrument	(0.0007)	(0.0008)	(0.0003)	(0.0003)
IV coefficient on	3.428	2.606	1.760	1.953
economic and social outcome index	(0.857)	(0.736)	(0.706)	(0.692)
Instrument	Non-kin exits month 14 years+		Non-kin exits month	
County, month x year fes	Y	Y	Y	Y
Child demographic, entry controls	Y	Y	Y	Y
Number observations (children)	5,113	4,277	3,923	5,037

Panel B: Outcome Indices	Incarceration, Homelessness, Substance Abuse Index	Employment, Enrollment Alternate Index	Incarceration, Homelessness, Substance Abuse, Employment, Enrollment Alternate Index with High School Education	Economic and Social Outcome Index with High School Education
	(1)	(2)	(3)	(4)
IV coefficient on	1.938	1.228	3.663	2.517
specified outcome	(0.602)	(0.618)	(1.033)	(0.829)
Instrument		Non-kin exits month		
Mean outcome	0.323	0.217	0.661	1.13
Sd outcome	1.94	1.63	3.09	2.44
County, month x year fes	Y	Y	Y	Y
Child demographic, entry controls	Y	Y	Y	Y
Number observations (children)	5,113	5,113	5,113	5,113

Notes: Panel A provides first stage and IV regressions on different subsamples and with different instruments. Column (1) of panel A uses 14 year old non-kin exits as the instrument; column (2) drops county-month-year level observations where the instrument value falls outside the 5th and 95th percentile of the county-specific instrument distribution; column (3) drops all counties with 4 or less children in the sample; column (4) drops children with observed entries in the same month as the first reporting period. Panel B provides IV regressions on different outcome indices. Column (1) uses an index that adds incarceration, homelessness and substance abuse; column (2) uses an index that adds part-time employment, full-time employment and enrollment status; column (3) uses an index that adds the indices in columns (1) and (2) and also adds in high school education; column (4) uses the original index used in the main results and adds high school education. In all regressions standard errors are clustered at the county-level.

Table A41: Main Treatment Effects with Outcome Normalized to Mean 0 and Standard Deviation 1 on the Entire Sample

	Outcome Index Normalized on Entire Sample	
	OLS	IV
	(1)	(2)
Non-kin family placement	0.311	0.973
	(0.032)	(0.325)
Number observations (children)	5,113	5,113
Mean of outcome index	0	
Standard deviation of outcome index	1	
County, month-year fes	Y	Y
Child entry, demographics	Y	Y

Notes: This table shows OLS and IV results of an outcome index that combines all the outcomes in Table 7 but does the normalization in a different way. Instead of normalizing each outcome variable to have mean 0 and sd 1 in the control (e.g. placement in congregate care) sample, it normalizes each outcome variable to have mean 0 and sd 1 in the entire outcome sample (across control and treatment, or placement in both congregate care and non-kin family placements). Both regressions include county and month x year fixed effects and the child entry and demographic controls used in Table 7. Standard errors are clustered at the county-level.

Table A42: Heterogeneous IV Treatment Effects

	Outcome: Outcome Index						
	Subsample: Female	Subsample: Male	Subsample: Age 14-15	Subsample: Age 16-17	Subsample: Black	Subsample: Hispanic	Subsample: White
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Initial Placement with	1.143	3.901	1.678	2.340	2.461	3.092	0.584
Non-kin Family	(0.637)	(1.119)	(0.929)	(0.948)	(3.119)	(0.872)	(1.566)
Number observations (children)	2967	2146	2069	3044	1532	1051	2265
County, month x year fes	Y	Y	Y	Y	Y	Y	Y
Child demographic and entry controls	N	N	N	N	N	N	N
First stage F-stat	23.56	20.14	22.32	30.13	5.04	17.72	11.11
Mean of Index in Subsample	1.24	0.685	1.14	0.920	0.998	1.23	0.906

Notes: These results show IV regressions of the main economic and social outcome index, described in Section 2.3 which includes variables on employment, enrollment, incarceration, homelessness and substance abuse referrals for different subsamples. Column (1)-(2) looks at these regressions for female and male children. Column (3)-(4) looks at these regressions for children whose entry into foster care is between ages 14-15, and ages 16-17. Column (5)-(7) look at these regressions for black, hispanic and white children. All regressions have county and month x year fixed effects. Standard errors are clustered at the county-level.

Table A43: Descriptive Evidence on Foster Family Preferences

	Placement with Non-Kin Foster Family	
	(1)	(2)
(Intercept)	0.545	0.527
	(0.004)	(0.006)
Sex: male	−0.195	−0.211
	(0.002)	(0.003)
Race: black	−0.050	−0.071
	(0.004)	(0.006)
Race: white	−0.00001	−0.042
	(0.004)	(0.006)
Race: hispanic	0.004	0.009
	(0.004)	(0.006)
Age: 15	−0.060	−0.065
	(0.003)	(0.004)
Age: 16	−0.084	−0.090
	(0.003)	(0.004)
Age: 17	−0.093	−0.099
	(0.003)	(0.004)
Observations	231,342	93,606
R^2	0.050	0.066

Notes: This table presents OLS regressions of an indicator variable for placement with non-kin foster family on entry (versus placement in congregate care). Column (1) includes all child entries for children with non-missing demographics entering between the ages of 14 and 17. Column (2) includes child entries in county-month-years where at least 10 children entered in the same county-month-year. The reference group for race is asian pacific islander and native american, and the reference group for age is entering at 14 years old. Standard errors clustered at the county level are given in parentheses.

Table A44: Treatment Effects for Boys and Girls

	Give Birth or Father Child		Connection to Adult		Incarceration		Homelessness		Substance Abuse		Employment or Enrollment	
	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Initial placement with	0.0356	-0.170	0.210	0.625	-0.157	-0.662	-0.183	-0.584	-0.120	-0.361	0.0971	0.310
non-kin family	(0.200)	(0.188)	(0.102)	(0.323)	(0.106)	(0.250)	(0.163)	(0.255)	(0.114)	(0.154)	(0.327)	(0.359)
Number observations (children)	2958	2106	2957	2141	2934	2105	2939	2097	2924	2087	2967	2146
County, month x year fes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Instrument						non-kin exits month						
Mean of outcome	0.352	0.167	0.900	0.891	0.146	0.341	0.320	0.327	0.111	0.151	0.697	0.672

Notes: This table shows treatment effects of placement with a non-kin family on a variety of outcomes using the instrumental variable on two different subsets of foster children, males and females. Odd columns provide results for females, and even columns provide results for males. Columns (1)-(2) use an outcome variable that is an indicator for whether the youth has given birth herself, or the youth has fathered any children who were born in the past 2 years. Columns (3)-(4) use an outcome variable that is an indicator for whether the youth "knows an adult who he or she can go to for advice or guidance when there is a decision to make or a problem solve, or for companionship when celebrating personal achievements". See Table 7 for definitions of the outcomes in Columns (5)-(12). No regression specifications include child entry or demographic controls. All specifications include county and month x year fixed effects. Standard errors are clustered at the county level.

Table A45: Outcome Indices and Treatment Effects by Sex

	Main Outcome Index		Main Outcome Index Adding in Having Children		Main Outcome Index Removing Incarceration		Main Outcome Index Adding in Having Children and Removing Incarceration	
	Females	Males	Females	Males	Females	Males	Females	Males
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Initial placement with non-kin family	1.143	3.901	1.177	4.183	0.754	2.500	0.787	2.783
	(0.637)	(1.119)	(0.717)	(1.342)	(0.517)	(0.798)	(0.609)	(1.017)
Number observations (children)	2.967	2,146	2.967	2,146	2.967	2,146	2.967	2,146
County, month x year fes	Y	Y	Y	Y	Y	Y	Y	Y
Instrument	non-kin exits month							
Mean of outcome	1.24	0.685	1.10	0.941	0.893	0.742	0.752	0.997
SD of outcome	1.91	2.25	2.28	2.47	1.53	1.61	1.95	1.85

Notes: This table shows treatment effects of placement with a non-kin family on a variety of outcomes using the instrumental variable on two different subsets of foster children, males and females. Columns (1) and (2) recreate the results for the main outcome index used in Table 7 split out by females and males. This includes normalized outcomes for employment or enrollment, incarceration, homelessness and substance abuse. Columns (3) and (4) change the index in columns (1) and (2) by adding in the z-score of the outcome variable for giving birth or fathering a child. The z-scores are calculated by subtracting the control group mean and dividing by the control group standard deviation. Columns (5) and (6) change the index in columns (1) and (2) by removing the z-score for incarceration from the outcome index. Columns (7) and (8) change the index in columns (1) and (2) by both removing the z-score for incarceration from the outcome index and adding in the z-score for the outcome variable for giving brith or fathering a child. County and month x year fixed effects are included throughout. Standard errors are clustered at the county level.

Table A46: Counterfactuals on Scarcity and Allocation: No Control Function

Counterfactual	Mean Outcome (Index)	Mean Outcome - Baseline Mean Outcome 90% Confidence Interval	Proportion less than baseline
	(1)	(2)	(3)
Baseline	0.953	-	-
Add 50% families	1.036	[0.096, 0.141]	0
Random matching	1.004	[-0.001, 0.042]	0.096
Place twice as many boys as girls	1.027	[0.001, 0.057]	0.044
Optimal matching on observables	1.052	[0.046, 0.116]	0
Optimal matching on observables and unobservables	-	-	-

Notes: This table computes counterfactual outcomes for children in county-month-years that have a child in the survey data and have non-trivial variation in placement. It uses the standard probit placement equation to simulate placements and uses an OLS model interacting the main child demographic observables (sex, race, age) with treatment (placement with a family) to simulate outcomes. Column (2) gives 90% confidence intervals for the difference between the counterfactual mean and the baseline mean using block bootstrap where counties are blocks and I use 250 bootstrap replications. Column (3) gives the proportion of simulations of these 250 bootstrap replications where the counterfactual mean is less than the baseline using the same bootstrap technique. The details of each counterfactual are provided in the text. There is no optimal matching on unobservables in this model since there is no model for ξ_i in this setup.

Table A47: California Basic Foster Care Rates

Year	Age 0-4	Age 5-8	Age 9-11	Age 12-14	Age 15-21
2005	414	450	479	533	580
2006	398.36	433	460.9	512.86	558.09
2007	390.94	424.94	452.32	503.31	547.69
2008	371.24	403.52	429.52	477.94	520.09
2009	339.51	368.63	392.3	436.9	475.13
2010	335.65	364.44	387.84	431.93	469.73
2011	323.5	351.25	373.8	416.3	452.73
2012	545.86	591.07	621.77	650.77	681.48
2013	551.87	597.23	628.31	657.71	688.79
2014	554.18	599.6	630.98	660.72	692.1
2015	566.9	613.05	645.18	675.67	707.81

Notes: Basic monthly rates (stipends) for foster care in California in 2005 dollars.