Using Subsidies to Promote the Adoption of Children from Foster Care

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Abstract

Since 1978 the federal government has implemented a variety of programs to promote the adoption of children from foster care. A key part of these programs has been the use of subsidies to lower the cost of adopting and parenting children who have been in foster care. Although subsidies are a key part of federal policy, there has been little empirical research on the effect of subsidies on adoption rates. This paper uses data from the Adoption and Foster Care Analysis and Reporting System to estimate the impact of subsidy rates on adoption rates. Subsidies to families have a positive and statistically significant effect on adoption rates.

Keywords

Adoption; Child welfare; Foster care; Policy; Subsidies

Introduction

One in three adults in the United States has considered adoption as a way to start a family; one in five has very seriously considered adoption (Harris Interactive, 2002). The 1995 National Survey of Family Growth indicated that nearly 10 million women had considered adoption and more than 1 million had taken steps to adopt (Chandra, Abma, Maza, & Bachrach, 1999). Yet the number of families who adopt children from foster care has never met more than about 40% of the need. At the end of fiscal year 2003, 118,000 children in foster care were waiting to be adopted (U.S. Department of Health & Human Services [U.S. DHHS], 2005).

Adoption is associated with better educational and psychological outcomes for children than long term foster care (Triseliotis, 2002).[1] In addition, governments spend about half as much to support a child who has been adopted from foster care as they do to support a similar child who remains in long-term foster care (Barth, Lee, Wildfire, & Guo, 2006). Congress has recognized the value of adoption to children since 1978. In 1997 the federal government redoubled its efforts to increase the adoption of children from foster care. The overall strategy for increasing adoptions from foster care is: (a) increase demand by marketing adoption of children from foster care; (b) increase the quantity of adoption services demanded by lowering the price; (c) create incentives for states to provide adoption services for waiting children.

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[1]The literature reviewed by Triseliotis (2002) shows that adoptions at young ages have the best outcomes, but because the family resources available at adolescence improve later life chances (Burgess, Gardiner, & Propper, 2006), late adoptions may have considerable benefits as well.

The overall strategy is logical, but there is little research regarding the impact of the different programs on the quantity of adoptions. The significance of this problem has been highlighted recently by budget crises in several states. When policymakers in Kansas, Missouri, and Oklahoma recently tried to reduce support for children adopted from foster care to help balance their state budgets (Eckholm, 2005), they did so without a reliable estimate of the impact of the policy change on adoptions. This paper begins to fill the gap in our knowledge about the effectiveness of adoption policy by estimating the relationship between adoption subsidies and adoptions from foster care.

The next section describes the development of federal policy on adoption from foster care. The following section describes the expected influence of policy on adoptions. The economic analysis of adoption policy frames the empirical estimation of the determinants of the adoptions rate presented in the final section.

Federal Incentives to Promote Adoption

Since 1978 Congress has tried to promote the adoption of waiting children from foster care. However, even in years when the number of adoptions rose, the number of waiting children rose faster. As the number of waiting children in foster care climbed, Congress responded with new adoption incentive programs.[2]

The first federal adoption incentive was contained in the Child Abuse Prevention and Treatment and Adoption Reform Act of 1978. The law funded state promotion of the adoption of children with so-called *special needs*. Though the program was small, the introduction of the term special needs was significant. Special needs are characteristics of a child that can make adoption more difficult. Special needs can include physical, cognitive, and emotional disabilities; older age; minority race; or membership in a sibling group that ought to be adopted together. Each state designates the conditions that constitute special needs in the state.

The Adoption Assistance and Child Welfare Act of 1980 created the first federal incentive aimed at families who adopt. The act amended section IV-E of the Social Security Act to authorize monthly adoption assistance payments to families adopting children who have special needs. Each state determines its own level of monthly adoption assistance subsidy support; states are reimbursed at the same rate as for Medicaid expenses.

Analyses of the early use of adoption assistance subsidies indicated that use of the subsidy was associated with shorter stays in foster care (Avery & Mont, 1992; Sedlack & Broadhurst, 1993), but no data were available to ascertain whether the subsidies influenced the number of adoptions. A recent Department of Health and Human Services report finds a positive relationship between subsidies and adoptions, but does not consider other policy or economic factors that might influence adoptions (Dalberth, Gibbs, & Berkman, 2005).

Adoption assistance payments constitute the primary governmental support of adoptions of children from foster care. A smaller amount, authorized by the Tax Reform Act of 1986, subsidizes the up-front costs of the adoption of a child from foster care with up to $1,000 of matching funds to states. Altogether, federal spending on adoption was $1.3 billion in 2002; state spending was about $1 billion. The federal adoption subsidy budget grew 30% between 2000 and 2002 (Scarcella, Bess, Zielewski, Warner, & Geen, 2004).

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[2]Many federal laws affect child welfare systems in the states. For example, the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996 limited reimbursements to states for some foster care and adoption expenses. For a discussion of the effects of PRWORA on families of children with special needs, see LeRoy and Johnson (2002); for its effect on young mothers, see Miranne and Young (2002). For a state-level analysis of family leave policy, see Garand and Monroe (1995).

The Economic Recovery Tax Act of 1981 created an itemized deduction for expenses relating to the adoption of children. The tax deduction for adoption was replaced by a tax credit in 1996. The tax credit was available for expenses of adoption from any source, including an adoption from foster care. However, only 15% of families who claimed the credit had adopted a child with special needs, and the tax benefits to these families was only 8% of total benefits claimed (U.S. Dept. of the Treasury, 2000). Because states use the 1986 provision of federal matching funds to pay the up-front cost of adoption, most families who adopted children from foster care had no expenses and received no benefits from the adoption tax credit. Instead, the tax credit reduced the relative cost of private adoption.

The Adoption and Safe Families Act of 1997 (ASFA) was a wide-ranging reform of foster care and adoption policy. Under ASFA, states earn bonus payments for increasing the number of adoptions from foster care. Adoptions over the state's goal earned the state a bonus of up to $4,000 each (up to $6,000 each for children with special needs). ASFA also increased funding available for post-adoption services and added a new discretionary grants program for programs that support adoption-related goals.

Figure 1 shows that the number of adoptions from foster care nearly doubled between 1996 and 2004 (U.S. DHHS, 2006). Part of the increase in adoptions of children from foster care might be the result of performance bonuses offered to states under ASFA, but a complete picture of what drove the increase in adoptions from foster care must account for other economic and policy factors, including an accounting of how states used adoption assistance subsidies to meet ASFA goals.

Most recently, the Tax Relief Act of 2001 created a new federal incentive for prospective adoptive families. A $10,000 unqualified tax credit now goes to families who adopt a child with special needs. The tax credit is not reimbursement of adoption expenses; it is an outright gift. In part because so few families who adopted children from foster care were able to utilize earlier adoption tax benefits, it is not known how families considering adoption will respond to the unqualified tax credit.

The Market for Adoption Services

When economists have written about adoption, they have primarily been interested in explaining why there are so few infants available for adoption through private agencies, lawyers, and facilitators, while there are so many prospective adoptive families who seek healthy infants. Medoff (1993) and Gennetian (1999) explore the determinants of relinquishment and determinants of abortion, while Waddoups (1994) considers issues in open adoption. Landes and and Posner (1978); Posner (1992); and Blackstone, Buck, and Hakim (2004) conclude that the birth parents, the adoptive parents, and the children would be better off if the price mechanism were allowed to function more freely in the market for adoption.

Except for studies of policy in specific states (e.g., Avery & Mont, 1992; Kossoudji, 1997) economists have given relatively little attention to policy affecting the lives of children waiting in foster care. These children lack parental care because their parents' rights have been (or soon will be) terminated by a court subsequent to a finding of abuse or neglect. These children are not all young; the median age of a child waiting in foster care in 2003 was 8.7 years (U.S. DHHS, 2005). These children have had traumatic experiences and need permanent families to help them find the place in society and the economy that most children take for granted.

There is evidence that many adults who consider adoption are open to adopting a child from foster care. While most adults surveyed say they prefer younger and healthier children, a significant number say that they would be likely to consider children with medical problems, children who wait in foster care, or a child of a different race.[3] The organizations that recruit

adoptive families for children waiting in foster care receive hundreds of thousands of inquiries each year. The National Adoption Center, for example, receives over 40,000 calls per year; about one third of callers are specifically interested in adopting a child from foster care (Wilson, Katz, & Geen, 2005).

Federal adoption policy aims to tap this pool of prospective adoptive parents. That is, Congress aims to influence the demand for adoption services for children in foster care. Note that the analysis here does not assert that adoption simply allocates children to the adults who are most willing to pay. Instead, it considers demand for the professional social work service of matching an adoptive family with a child on the basis of the child's needs and the family's strengths. The approach here thus combines the insights of sociologists and social workers, such as Zelizer (1981) and Freundlich (2000), with the basic economic premise that people respond to changes in relative prices.

Consider demand for two types of adoption service: service from a public agency and service from a private agency. Assume that adoption services from the two agencies are perfect substitutes in the eyes of the prospective parents, and that there is less-than-perfect substitution in the consumption of adoption services and all other goods.[4] Then household utility is $u = v$ $(h(\alpha_F q_F + \alpha_P q_P), q_2, \ldots, q_N)$, where h is the subutility function for consumption of adoption services; q_F is the number of former foster children adopted through a public agency; q_P is the number of children adopted through the private agency; α_i represents the expected characteristics of adoption services at the different agencies, including time to placement and expected characteristics of the children to be placed; and $q_2, \ldots, q_N$ are other goods consumed by the family.

The solution that maximizes family utility when there are only two sources of adoption services is, of course, straightforward. Families choose to adopt through the public agency if the marginal benefit of adoption services at a public agency relative to the benefit of private adoption is higher than the ratio of the prices. The lower the price of adoption services at the public agency relative to the price of adoption services at the private agency, the more likely any individual family will be to choose to adopt through the public agency, and the more common adoptions from foster care will be in the aggregate. In other words, there is a downward sloping demand curve for adoption services.

This framework emphasizes two of the avenues that are open to government to promote adoption of waiting children from foster care. The first avenue is to increase demand by marketing adoption from foster care. The government follows this path with such efforts as the www.AdoptUSkids.org website; individual states and non-governmental adoption advocates follow this path with programs such as radio and television advertisements; for example, *Wednesday's Child.* A second avenue open to government is to decrease the relative price of adoption services through a public agency by increasing (a) adoption assistance subsidies, (b) reimbursement of up-front expenses, and (c) adoption tax benefits, as described above. The theory suggests that states with more generous subsidy support will be more successful at promotion of adoption for children in foster care.

The idea that tax and subsidy policies influence choices in adoption is somewhat controversial. Conventional wisdom posits that the market for adoption services is segmented by the age, health, and skin color of the child to be adopted. It is true that most public agencies mainly match families with older children and children with special needs. However, 6,478 (13%) of

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[3]Respectively 15%, 26%, and 42%; author's calculations from 2002 Adoption Attitudes Survey. The author thanks Rita Soronen of the Dave Thomas Foundation and Jon Siegel of Harris Interactive for their assistance in obtaining the 2002 Adoption Attitudes Survey. Also see Chandra, Abma, Maza, and Bachrach (1999).
[4]The simplification of perfect substitutes is a familiar feature of choice-between-varieties models, but is not crucial to the argument.

the 50,800 children adopted with state agency involvement in fiscal year 2001 were infants or toddlers born in 1999, 2000, or 2001.[5] Conventional wisdom also posits that private and international adoption agencies, as well as adoption lawyers and adoption facilitators, promise to match families with healthy, light-skinned, young children or infants. But the emergence of a medical specialty to evaluate the condition of children adopted from abroad indicates that not all international adoptions involve healthy children (American Academy of Pediatrics, 1981). Moreover, many children of color from Africa and the Caribbean are now adopted by families in the U.S. (U.S. Dept. of State, 2006). The statements of prospective adoptive parents in focus groups in three major U.S. cities also indicate that families consider both international adoption and adoption from foster care (Wilson et al., 2005). Finally, as discussed above, survey data suggests prospective adoptive parents consider many types of children and many providers of adoption services. A goal of this paper, then, is to see whether there is an inverse relationship between adoptions from foster care and other adoptions so that policy-makers will be aware of the effects of a policy-induced change in the relative prices of adoption services.

Methods

Consider the following model of the determinants of adoptions (*A*) of children from foster care in state *i* and year *t*:

$$A_{it} = \alpha + S_{it}\beta + X_{it}\phi + M_{it}\delta + \varepsilon_{it}. \tag{1}$$

The primary estimate of interest is β, which captures the effect of adoption subsidies (*S*) on the adoption rate. The vector *S* includes the monthly adoption assistance subsidies in each state-year, as well as a measure of the generosity of the reimbursements to offset the up-front costs of adoption. The vector *X* contains information about substitutes for adoption from foster care, as well as demographic attributes of the population in each state that may shift demand for waiting children.

Lastly, the adoption rate varies with the ability of the states to match waiting children with families. Adoptive matching depends on available resources, especially available social worker time. Matching may also depend on attributes of both the adult population and the population of waiting children. These are the variables in the vector *M*.

Data and Measurement

It would be desirable to begin an analysis of adoption policy prior to the Adoption Assistance and Child Welfare Act of 1980. Unfortunately, data on adoption prior to 1995 are both scarce and unreliable.[6] The data used here are public use versions of administrative data from the Adoption and Foster Care Analysis and Reporting System (AFCARS) for 1996 through 2003. The AFCARS adoption data contain information about each child who exited foster care through adoption during the year. AFCARS data are collected from the states by the Children's Bureau and are arguably the most reliable data ever collected on adoption from foster care.

AFCARS was mandated in 1986 and came into operation in fiscal year 1995, but data for 1995 are quite incomplete and are not used here. Even for 1996, 14 states did not submit data, and 23% of submitted adoption records contained missing or invalid observations of the amount of the subsidy payment. The completeness of the data improves after 1996. Only four states failed to submit data for fiscal year 1997, and missing or invalid observations of adoption

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[5]Calculation of author using the Adoption and Foster Care Analysis and Reporting System (AFCARS) public use adoption files.
[6]See Stolley (1993) for details about early adoption data. See Maza (1999) and Hansen and Hansen (2006) for a comparison of AFCARS and other data. The Multi-state Foster Care Data Archive (Wulczyn, 2002) contains children's case histories for a few states.

assistance falls to about 13%. For 1998 through 2002, all states except New York State submitted relatively complete data on subsidies.

The AFCARS data on adoptions from foster care in the states are summarized in table 1. In the representative state, the number of adoptions from foster care increased steadily, from 335 in fiscal year 1996 to 1,022 in fiscal year 2002. There is, of course, great variation in the number of adoptions from foster care between the states. The standard deviation of the number of adoptions was 485 (145% of average) in 1996 and 1,411 (138% of average) in 2002. The large variance in adoptions is partly due to the difference in size of the states and partly due to adoption policy.

The economic framework suggests that parents consider adoption from foster care as one of many ways of expanding the size of the family. That is, if adoption policy is effective, it will influence the frequency of adoption relative to births. The demographic way of measuring adoptions also reduces the noise created by differences in the size of the states.[7] Table 1 shows that the average adoption rate, defined as the number of adoptions of children from foster care per 1,000 births in the state, increased from 5.8 in 1996 to 13.8 in 2002. The adoption rate is the dependent variable in the estimation of equation 1.

For each child adopted, AFCARS indicates whether there was any monetary subsidy, whether a monthly subsidy payment is scheduled, and whether federal matching funds were claimed under Title IV-E. In 1996, an average of 256 adoptions from foster care per state (76%) included an adoption assistance subsidy agreement (Table 1). In 2002, an average of 912 adoptions (89%) was supported by a subsidy. States claimed federal matching funds through federal Title IV-E funds more often in 2002 as well. In 2002, states made an average of 755 Title-IV claims (on 73.8% of adoptions); in 1996 they made an average of only 182 claims (54.3%).

Not only did states support a greater share of adoptions with subsidies in 2002 compared to 1996, but states also increased the amount of subsidy support. The average subsidy payment per child reported in AFCARS about doubled between 1996 and 2002, from $193 to $414. Measured in cost-of-living adjusted (American Federation of Teachers, various years), constant 2000 dollars (U.S. Dept. of Labor, 2006), the average subsidy payment increased from $214 to $403. The average subsidy in the state is included in the vector *S* on the right-hand-side of equation 1, and it is expected to have a positive effect on the adoption rate.

The federal government gives up to $1,000 in matching funds to the states for each adoption of a Title IV-E eligible child. About two thirds of states, therefore, subsidize $2,000 or more of up-front expenses. Included in *S* is a dichotomous variable where 1=the state reimburses $2,000 or more (North American Council on Adoptable Children, 2007).[8] Its expected effect on the adoption rate is positive.

In the vector *X* are variables that may affect the level of demand for adoption services for children in foster care, including information about substitutes. Substitutes include domestic adoption through a private agency, intercountry adoption, and own childbearing. The relative effect of own childbearing is captured in the denominator of the adoption rate. Because many adults who take concrete action to adopt do so because of impaired fecundity, it would be of interest to measure the cost of infertility treatment, or alternatively the utilization of infertility treatment in the states. Unfortunately, data by state are not available. Note, however, that the

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[7]The demographic measure of the adoption rate was introduced by Selman (2002). In the social work literature, the adoption rate is defined as the percentage of the children in foster care who exit through adoption. Considering adoptions relative to the foster care population is not appropriate for the study of demand, but it is of more relevance to the study of incentives within the child welfare system.
[8]Archives were made available to the author by the North American Council on Adoptable Children.

availability of medical technology to treat infertility may simultaneously reduce the demand for adoption and increase the measured fertility rate, which would tend to bias the measured effect of the subsidy downwards in the estimation of equation 1.

Data by state on private, domestic agency adoptions are available only for 1996, when they averaged 33% of all adoptions (National Committee for Adoption, 1999). More data are available on intercountry adoptions, as shown in Table 2. Intercountry adoptions averaged just over 17% of all adoptions of unrelated children (that is, excluding adoptions by stepparents) in 1996, but fell to 13.3% and 12.5% in 2000 and 2001 respectively (National Adoption Information Clearinghouse, 2004). If intercountry adoptions and adoptions from foster care are substitutes, then the coefficient on the relative frequency of intercountry adoptions will be negative.

Other variables that may affect the level of demand for adoption services are state income and age structure of the population. The means of these variables are reported in table 2. The median household income (in 2000 dollars) rose from $55,107 in 1996 to $76,216 in 2002 in the representative state. The percentage of the population between 25 and 44 years of age measures the proportion of the population that is likely to be building families. Averaging across the states, the proportion of the population between 25 and 44 fell from 31.5% in 1996 to 29.1% in 2002 (U.S. Bureau of the Census, 1997, 1998, 1999, 2000, 2001, 2002, 2003).

The social work literature identifies three elements of *M* that affect the ability of states to match prospective adoptive families with waiting children: (a) public child welfare agency resources, (b) the racial make-up of the adult population of the state, and (c) the racial make-up of the population of waiting children.

Adoptive matching requires substantial resources, especially social worker time. If limited resources result in high caseloads, social workers may find that after they provide emergency services to children, reunification services to birth families, and support services to foster families, they have little time remaining to provide adoption services. A recent study of barriers to the adoption of children from foster care found that poor customer service led many prospective parents to drop out of the adoption process at public agencies (Wilson, et al., 2005). That state child welfare budgets limit the ability of states to provide adoption services is also implied by the way states have used federal adoption incentive monies. Thirteen states used some or all of their funds to hire or contract additional social work staff (U.S. General Accounting Office, 2002).

It is difficult to measure child welfare resources directly devoted to the adoption of children from foster care. By 1996 many states provided concurrent planning for children in foster care. Concurrent planning means that a social worker plans simultaneously for a child's reunification with birth parents and for a backup—usually for adoption—should reunification efforts prove fruitless. To a great extent, then, child welfare practice makes it impossible to divide child welfare spending into discrete categories for adoption and foster care.

To capture the overall effect of resources devoted to child welfare, state child welfare spending per child in foster care is included in the regression. Data on child welfare spending were collected biennially during this period by the Urban Institute (Scarcella, et al., 2004). The average child welfare spending per child in foster care (Child Welfare League of America [CWLA], 2006) was $36,667 in 1996, $47,392 in 2000, and $32,607 in 2002 (in 2000 dollars). Child welfare spending per child in foster care varies greatly between the states; the standard deviation was about 30% of the mean in 1996 and more than the mean in 2000 and 2002.

Lastly, the race of potential adoptive families and the race of waiting children may influence the ability of social workers to make matches between families and waiting children. African

Americans may not desire adoption, adoptive parents may discriminate against minority children, or there may be racial bias in the child welfare system. The specification, therefore, includes the percentage of African Americans in the state population and in the foster care population.

Results

Data on some of the independent variables in equation 1 are not available for all states in all years. For example, data on intercountry adoptions are available for only 76 state-years (of a possible 364), while data on state child welfare spending is available for 148 state-years. Only about 50 state-years have observations of all the independent variables. Table 3 shows four different specifications of the estimation of equation 1; together, they extract the most possible information from the scarce data.

The first specification provides a baseline; it includes as independent variables only the adoption assistance subsidies and generosity of reimbursement for the up-front costs of adoption. The second specification includes the subsidy policies and child welfare spending per child in foster care. The third specification includes the 76 state-years for which there are state level data on intercountry adoption. The final specification includes the average adoption assistance subsidy, state median income and age structure, and race variables.

Many unmeasured child welfare policies and practices are implemented at the state level and are changed only infrequently. A fixed effects specification should, therefore, yield relatively unbiased estimates of the effect of the adoption subsidy. Table 4 summarizes the results of four fixed effects specifications. The first, again, provides a baseline. The second column presents the log-log specification of the fixed effects model, in which the coefficient on adoption subsidy support is interpreted as the elasticity of the adoption rate with respect to the subsidy. The third column uses a one-year lag of the average subsidy as the independent variable in order to facilitate comparison with previous work, and it is estimated using feasible generalized least squares allowing within group heteroskedasticity

Ideally, the effect of changing adoption assistance payments would be isolated from the other effects of ASFA using a difference-in-difference estimator, but the scarcity of data prevents the use of this approach. Moreover, there is evidence of serial correlation in the AFCARS data, in which case a first-differenced model is preferred to a difference-in-difference approach (Wooldridge, 2003). The final column of table 4 shows the results of the first-differenced specification, which is estimated using generalized least squares.

Average adoption assistance payments are positively related to the adoption rate, and the effect is statistically significant in seven of the eight specifications in table 3 and table 4. Further, the magnitude of the effect is similar in all of the regressions, regardless of the limitations of the other explanatory variables.

Discussion

An increase of $100 in the average level of adoption assistance payments is associated with an increase in the adoption rate of one. An increase in the adoption rate of one adoption per 1,000 births translates into 80 additional children adopted in the average state during each fiscal year. Eighty fewer foster children, on average, in each of 52 jurisdictions (50 states, the District of Columbia, and Puerto Rico) adds up to almost 4,200 fewer children waiting in foster care in the nation.

The point estimate of the elasticity of the adoption rate with respect to the subsidy (Table 4, column 2) is 0.16; the 95% confidence interval of the elasticity is between 0.12 and 0.20.

Consider what this means for California. California offered an average adoption assistance subsidy close to the national average over the period ($341 for California, $330 nationally). For California an increase of 10% in adoption assistance ($34 per month) could increase adoptions by as many as 96 children per fiscal year.

The only previous estimate of the effectiveness of adoption assistance subsidies uses a cross section of states in 1996–1997 and finds a relationship between adoptions and the lagged value of the basic, or advertised, adoption assistance rate (Hansen & Hansen, 2006). The authors argue for a lag because adoptions can be subject to unanticipated delays. Increases in subsidy support offered at the time of placement *t* may not be reflected until finalizations occur, say at *t*+1. Column 3 of Table 4 shows that the lagged and contemporaneous effects are indistinguishable when all currently available observations are considered.

The increase in the average subsidy over the period indicates that one way that states increased adoptions under ASFA was to make adoption from foster care a more attractive alternative for families. In 163 state-years there were increases in the average adoption assistance payment; the average increase was $94 (in 2000 dollars). In 115 state-years there was no change or a decline in payments; the average decline was $57. In state-years in which adoption assistance held steady or fell there was an increase in adoptions of 48 children on average. In state-years in which adoption assistance payments rose, the increase in adoptions was three times higher, averaging 147 children per fiscal year.

The final column of Table 4 confirms that in a first-differenced model adoption assistance payments are positively related to adoptions per 1,000 births. Increasing support for adoptive families increases the likelihood that families will choose to expand through the adoption of a child from foster care. In the first-differenced model, an increase in the adoption assistance payment of $1 is associated with an increase of 0.184 in adoptions per 1,000 births. The average state that pursued a policy of increasing adoption subsidies chose to increase the subsidy by $94 per month and could expect to increase the adoption rate by almost 17, which is 130% of the average adoption rate across all states in fiscal years 1999 through 2001.

Returning to Table 3, column 2, the reimbursement of up-front expenses positively influences the adoption rate. The coefficient on the dichotomous variable representing generosity of reimbursement of up-front costs is positive, and large, with generous states having more than one additional adoption per 1,000 births. That the coefficient is not statistically significant is probably the result of correlation with the subsidy rate.

It is also clear from Table 3, column 2 that increasing the total child welfare budget is not likely to be an efficient way to increase adoptions from foster care. Spending an additional dollar on services for each child in foster care increases the adoption rate by 0.001, while adding a dollar to the average monthly subsidy of those adopted increases the adoption rate by 0.010.

The relationship between intercountry adoptions and the rate of adoption from foster care is negative and statistically significant (Table 3, column 3), indicating that prospective adoptive parents probably do consider different sources of adoption services to be substitutes. This confirms cross-sectional results for 1996 (Hansen & Hansen, 2006). Since intercountry adoptions are negatively related to the rate of adoptions from foster care, policymakers who seek to encourage adoptions from foster care must simultaneously consider policy regarding the alternatives. For example, policies such as tax credits that go primarily toward families who adopt through private or intercountry agencies may reduce adoptions from foster care.

Median household income in the state is negatively correlated with adoptions from foster care (table 3, column 4). This runs counter to evidence on adoptions in general. The National Survey of Family Growth reveals that women with higher incomes are more likely to have adopted a

child (Chandra, et al., 1999). However, if more adoptions from foster care are completed in lower income states, then it seems likely that adoption assistance payments and upfront subsidies can successfully reduce income barriers to adoption, even though adoption assistance subsidies are not means-tested. As expected, the proportion of the population aged 18 to 45 is positively associated with the adoption rate.

A higher concentration of African American adults in a state is correlated with a lower adoption rate, and the effect is statistically significant. This is consistent with the idea that African American families eschew formal adoption; it is said (most recently, Melosh 2002) that African Americans prefer to use informal networks of extended family care.

Social workers seeking permanency for children in states with a large African American community must rely on other means to achieve their goals. For example, if networks of relatives in African American communities provide care for children whose birth parents cannot care for them, then guardianship may be preferred to formal adoption. Relatives may prefer to provide a permanent legal family through guardianship because guardianship does not require termination of the birth parents' rights.[9]

It is mainly Caucasian families who adopt children not previously known to them, while African American and Hispanic children are over-represented in the population of children waiting in foster care. If Caucasian families are unwilling to adopt children of color, social workers may find it more difficult to match waiting children with adoptive families. Even before transracial adoption became a hotbed of conflict within the field of social work in the 1970s and 1980s, surveys suggested that race of the child was a particularly important area of concern for adoptive families (Simon, Altstein, & Melli, 1994). More recent surveys of adoptive families find a much smaller role for race, but some families still express strong preferences about the race, age, number of siblings and disabilities of children they are willing to adopt (Brooks & James, 2003; Chandra et al., 1999; Harris Interactive, 2002).

Other studies have noted racial bias in the child welfare system. Fenster (2002) finds negative attitudes towards transracial adoption are more common among African American social workers than among Caucasian social workers. Kossoudji (1997) finds that African American children who cannot be reunified with their birth families are moved toward adoption more slowly than Caucasian children. In a survey of families in California who adopted in the 1980s, 64% said they were willing to adopt a Black child, but only 5% of the willing families were matched with a child of a different race (Brooks & James, 2003). And, despite the passage of federal statutes to remove race from the list of considerations in adoption from foster care, on average only 13–14% of adoptions from foster care are transracial placements (Hansen & Simon, 2004).

But the estimates in specification 4 of Table 3 do not support the conclusion that race of the child is a significant barrier to adoption. There is not a negative association between a greater concentration of African American children in foster care and adoptions from foster care; the sign of this coefficient is unexpectedly positive, but not statistically significant at conventional levels. States with higher concentrations of waiting children who are African American appear to be finalizing adoptions at about the same rate as states with few minority children. If, in fact, placing African American children in adoption is more difficult, it appears that states have met the challenge by developing strategies for matching the children to families or by recruiting more prospective adoptive families.

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[9]This idea is contradicted by recent evidence on minority altruism in broader contexts (Cao, 2006).

Conclusion

While many questions about adoption policy remain to be answered (for example, more research on family recruitment and the matching process in adoption is much needed), this study provides key evidence on the effectiveness of offering incentives to families who adopt children from foster care. State support for an adoptive family, before and especially after, the adoption is an important part of the family's decision to adopt a child from foster care. Moreover, it would be difficult to obtain increases in adoptions from foster care by increasing overall child welfare spending without also increasing subsidy support for adoptive families.

States are currently concerned about the growing liability that adoption assistance subsidy payments represent. One reason for the concern is the way eligibility for federal funds for children is determined. In order the state to claim Title IV-E reimbursement, the child must have state-defined special needs and must either qualify for federal SSI or must have been removed from a family that would have qualified for benefits under Aid to Families with Dependent Children (AFDC) at the time of removal. Of course, because AFDC was replaced by the Temporary Assistance for Needy Families, AFDC eligibility criteria are no longer updated. Therefore, fewer waiting children are likely to be IV-E eligible the future. States wishing to continue to support adoptions from foster care could see a substantial increase in their fiscal obligations if there is no change in the federal definition of IV-E eligibility. A 2004 Pew Commission report suggested de-linking adoption assistance from the out-dated AFDC criteria (Pew Commission on Children and Foster Care, 2004), and Senator Rockefeller and Representatives Herger and Cardin introduced bills intended to free states from the worry that federal matching funds will disappear. However, none of these bills emerged from committee. [10] An important avenue for further research, then, is to explore the importance of increasing post-adoption financial support on the intensive margin (through higher monthly payments) relative to increasing support on the extensive margin (through supporting a larger proportion of adoptions).

Acknowledgements

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[10]Most recently, Sen. John D. Rockefeller (D-WV) introduced S. 1539 (a bill to amend part E of title IV of the Social Security Act to promote the adoption of children with special needs) on July 28, 2005. Rep. Benjamin Cardin (D-MD) introduced H.R. 1534 (Child Protective Services Improvement Act) on April 1, 2003. Rep. Herger introduced H.R. 4856 (Child Safety, Adoption, and Family Enhancement Act) on July 19, 2004.

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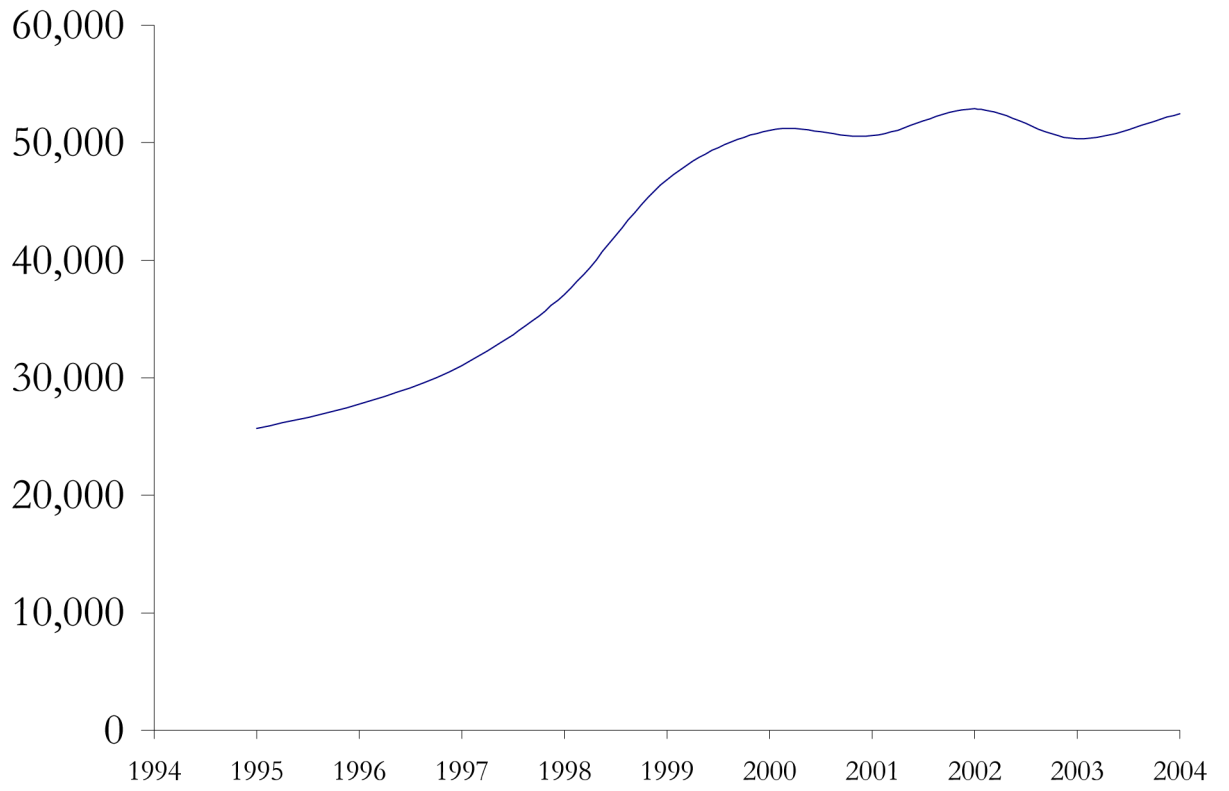
Fig. 1. Adoptions from Foster Care, 1995–2004
Source: U.S. DHHS (2006)

Table 1

Adoptions and Subsidy Payments in the States, 1996–2002

Variable	Year						
	1996	1997	1998	1999	2000	2001	2002
Ave. Adoptions with State Agency Involvement	335	498	758	907	988	992	1022
	(485)	(922)	(1,117)	(1,422)	(1,507)	(1,540)	(1,410)
Adoptions/ 1000 Births	5.8	6.2	9.3	11.5	13.0	13.1	13.8
	(10.1)	(6.1)	(5.2)	(6.6)	(7.4)	(6.5)	(6.7)
Adoptions with Subsidy	255	298	651	801	871	875	912
	(385)	(475)	(1,016)	(1,301)	(1,398)	(1,442)	(1,325)
Title IV-E Claims	182	215	545	684	744	739	755
	(290)	(383)	(938)	(1,196)	(1,267)	(1,301)	(1,216)
Ave. Subsidy, current dollars	193	220	298	335	351	393	414
	(156)	(167)	(178)	(176)	(165)	(161)	(158)
Ave. Subsidy, COL-adjusted[c] 2000 dollars	214	240	324	355	359	390	403
	(174)	(185)	(195)	(187)	(169)	(151)	(141)

Note: Standard deviations in parentheses. See text for sources.

Table 2

Descriptive Statistics of Policy and Control Variables

Variable	Year						
	1996	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**
% of Adoptions at Intercountry Agencies	17.2					13.3	12.5
	(8.7)					(7.6)	(7.2)
Child Welfare Spending per Child in	36,667		35,997		47,392		32,607
Foster Care (2000 dollars)	(13,693)		(15,625)		(59,551)		(47,930)
Median Income (2000 dollars)	35,122	36,603	38,551	40,251	41,762	42,300	42,364
	(5,505)	(5,389)	(5,742)	(5,834)	(6,403)	(6,562)	(6,495)
Population Age 25–44 (% of total)	31.46	31.30	30.97	30.55	30.08	29.61	29.13
	(1.82)	(1.79)	(1.73)	(1.69)	(1.66)	(1.64)	(1.63)
African Americans (% of population)	11.05	11.10	11.14	11.18	11.22	11.26	11.30
	(12.23)	(12.23)	(12.24)	(12.24)	(12.24)	(12.24)	(12.24)
African Americans in Foster Care (% of foster care population)	36.54	31.68	32.20	29.61	30.80	29.92	37.60
	(28.25)	(27.84)	(25.13)	(24.50)	(23.73)	(23.29)	(23.25)

Note: Standard deviations in parentheses. See text for sources.

Table 3

OLS Estimates of Determinants of the Adoption Rate

Variable	Baseline		Includes All Policy Variables		Includes Intercountry Adoptions		Full Model	
	Estimates	SE	Estimates	SE	Estimates	SE	Estimates	SE
Ave. Subsidy (2000 dollars)	$.008^a$	2.93	.010	1.40	$.005^a$	2.61	$.010^a$	4.29
Reimbursement>=$2000	1.21	1.24	1.79	0.76				
Intercountry Adoptions as % of all Adoptions					$-.045^a$	1.84		
State Median Income							-23.0^a	7.34
% of Population Age 18–44							1.28^a	5.16
Child Welfare Spending per Foster Child			$.001^a$	2.42				
African Americans as % of Population							$-.250^a$	2.28
African Americans as % of Foster Care Population							.070	1.40
N	249		148		76		272	
R^2	.09		.09		.10		.26	

Note: Absolute value of *t*-statistics in parentheses. Constant term estimated but not reported. Corrected for heteroskedasticity. See text for sources. Variables indicate levels of statistical significance:

[a] $p<.05$.

Table 4

Fixed Effects Results

Variable	Contemporaneous				Lagged				First Differenced	
	Baseline		Log-Log Specification							
	Estimate	SE	Estimate	SE	Estimate	SE			Estimate	SE
Ave. Subsidy (2000 dollars)	.010[a]	4.26	.160[a]	2.07	.010[a]	4.16			.185[b]	1.68
N	323		323		225				268	
R^2									.01	
Wald Chi^2	7.55		4.28		3.98					
Variables in Logs?	No		Yes		No				No	
Year Effects?	Yes		Yes		Yes				No	
State Effects?	Yes		Yes		Yes				Yes	
Heteroskedasticity Correction?	Yes		Yes		Yes				No	

Note: Absolute values of *t*-statistics in parentheses. Constant term estimated but not reported. Variables indicate levels of statistical significance:

[a] p<.05

[b] p<.10