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of Children from Foster Care
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Abstract

Since 1980 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 from foster care. Although subsidies are a key part of federal policy there has been relatively little empirical research on the effect of subsidies on adoption rates. This paper uses data from the Adoption and Foster Care Analysis System to estimate the impact of subsidy rates on adoption rates. Subsidies to families that adopt children from foster care have a positive and statistically significant effect on adoption rates. A one percent increase in average subsidies increases adoption rates by as much as 0.20 percent.

Key words: Adoption, foster care, subsidies, child welfare policy
JEL classification: J18, J12, K3

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INTRODUCTION

According to a recent national survey one in three adults in the United States has considered adoption as a way to start a family (Byron and Deoudes 2002, National Adoption Day Coalition 2005). Yet at the end of fiscal year 2003, 118,000 children in foster care were waiting to be adopted. In each year since the mid-1970s between 20 and 25 percent of children in foster care have needed an adoptive family, but the number of families who adopt children from foster care has never met more than about 40 percent of the need. Evidence indicates that adoption is associated with better educational and psychological outcomes outcomes for children than long term foster care (Triseliotis 2002). 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 et al. 2005).

Since 1997, the federal government has redoubled efforts intended to increase the adoption of children from foster care, most notably the Adoption and Safe Families Act of 1997. The overall strategy for increasing adoptions from foster care has been threefold. The first part of the strategy has been to increase the demand by marketing adoption of children from foster care. The second part of the strategy has been to increase the quantity of adoption services demanded by lowering the cost of adoption from foster care. The third part of the strategy has been to create financial

incentives for states to provide adoption services to match waiting children with prospective adoptive families.

The overall strategy is logical, but the formation and implementation of specific policies has suffered from a lack of research regarding the relative 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 probable impact of the policy change on adoption rates. 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.

Section one describes the development of federal policy on adoption from foster care since 1980. Section two provides an economic analysis of adoption policy, explaining the expected influence of different types of policy on the quantity of adoptions from foster care. This economic analysis of adoption policy provides the framework for the empirical estimation of adoptions from foster care from 1996 through 2002 presented in section three.

A BRIEF HISTORY OF FEDERAL INCENTIVES TO PROMOTE ADOPTION

Children wait in U.S. foster care because their birth families are unable to provide adequate and safe care. 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.[1] As the number of waiting children in foster care climbed, Congress responded to the recurring foster care crises 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 (P.L. 95-266). The law created a discretionary grants program to fund state promotion of the adoption of children with so-called *special needs*. Though the grants program was small relative to later incentives, the introduction of the term *special needs* has had a significant impact on adoption policy. Special needs are characteristics of a child that can make adoption more difficult. Special needs can include physical, mental, learning and emotional disabilities (or risk of these conditions), older age, minority status, or membership in a sibling group that ought to be adopted together. Most children who are adopted from foster care have one or more special needs (USGAO 2002, p. 20). States designate the conditions that constitute special needs in that state. The definition of special needs is dynamic; states may change their definitions as economic and social circumstances change.

The Adoption Assistance and Child Welfare Act of 1980 (P.L. 96-272), which instituted a wide range of changes in the child welfare system, 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 subsidies to families adopting children who have special needs or an elevated risk of developing special needs. Each

state determines its own level of monthly adoption assistance subsidy support; states are partially reimbursed (at the Medicaid reimbursement rate) through federal appropriations. Federal reimbursement of an adoption assistance subsidy is capped at the amount that would be reimbursed if the child remained in foster care. States may choose to appropriate additional funds for adoption assistance from their own budgets. Analyses of early use of adoption assistance subsidies indicated that use of the subsidy was associated with shorter stays in foster care for children (Sedlak and Broadhurst 1993, Avery and Mont 1992, 1997), but no data were available to ascertain whether the subsidies influenced the number of adoptions from foster care that were actually finalized in the states. 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 et al 2005).

Nonetheless, adoption assistance subsidy payments remain the primary vehicle for on-going federal and state support of adoptions of children from foster care. Federal spending on adoption was $1.3 billion in 2002; state spending was about $1 billion. The Title IV-E adoption subsidy budget grew 30 percent between 2000 and 2002 (Scarcella et al 2004). Liabilities of the adoption subsidy program are projected to overtake the liabilities of the foster care maintenance program within the next decade (Wulczyn and Hislop 2003).

The Economic Recovery Tax Act of 1981 (P.L. 97-34) created an itemized deduction of up to $1,500 for qualified expenses relating to the adoption of children with special needs. The Tax Reform Act of 1986 (P.L. 99-514) provided matching

funds of up to $1,000 to states that pay the up-front expenses of the adoption of a child from foster care. The adoption tax deduction was replaced by the Adoption Tax Credit in 1996 (P.L. 104-188). The Adoption Tax Credit was available beginning in 1997 to any family finalizing an adoption from any source, including an adoption from foster care. The credit could be taken against up to $5,000 in qualified expenses for adoption ($6,000 for the adoption of a child with special needs). An income exclusion of up to $5,000 was also made available for adoptive parents whose employers offered reimbursement for adoption expenses. In its study of utilization of the adoption tax credit, the Department of the Treasury found that only 15 percent of families who claimed the credit had adopted a child with special needs, and the tax benefits to these families was only eight percent of total benefits claimed (US Dept. of Treasury 2000, p. 2). Expenses for adoption from foster care are small, usually zero, because states use the 1986 provision of federal matching funds to pay the up-front cost of adoption for these families. The result is that most families who adopt children from foster care received no benefits from the Adoption Tax Credit.

The Adoption and Safe Families Act of 1997 (P.L. 105-89) was the most wide-ranging reform of foster care and adoption policy since 1980. The ASFA swung the focus of incentives from families to states. States could 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).[3] In November 2003, the bonus payments were reauthorized to extend through fiscal year 2007. The ASFA contained other provisions; most notably the law

accelerated the process of foster care case review and the termination of parental rights. These other provisions have been widely discussed in law and social work journals.[4] The ASFA also increased funding available for post-adoption services and added a new discretionary grants program that states could use for programs that support adoption-related goals.

Table 1 shows that there has been an increase in adoptions from foster care under ASFA. The average number of adoptions across the states increased steadily from 335 in fiscal year 1996 to 1,022 in fiscal year 2002.[5] As might be expected, there is great variation in the number of adoptions from foster care between the states. The standard deviation of the number of adoptions is 485 (145 percent of average) in 1996 and 1,411 (138 percent of average) in 2002. Part of the reason for the large standard deviation is the difference in the size of the states and the difference in age structure of the population between the states. Considering adoption from foster care in a demographic way, parents used adoption of a child from foster care to expand the size of the family more than twice as often in 2002 than they did in 1996. The average adoption rate across states, 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, with standard deviations of 10 and 6.5, respectively. The number of adoptions from foster care per 100,000 persons in the state increased from 0.078 to 0.188, with standard deviations of 0.117 and 0.079.[6]

These data are based on administrative data from the Department of Health and Human Services (DHHS), Administration for Children and Families, Children's

Bureau. The number of adoptions of children from foster care that is finalized in each state during the federal fiscal year is reported by states to DHHS through the Adoption and Foster Care Analysis Reporting System (AFCARS). AFCARS came on-line in 1995 and provides the first consistent and national source of data on children adopted from foster care. AFCARS also provides a twice-yearly census of children in foster care.

Prior estimates of adoptions, including adoptions from foster care, were made on the basis of voluntary reports and surveys and are summarized in Karen Stolley (1993). These estimates are quite incomplete. Moreover, Penelope Maza (1999) concludes that the prior sources of data on adoptions from foster care contain significant undercounts.

The increase in adoptions of children from foster care might be the result of performance incentives offered to states under ASFA, but a complete picture of what is driving the increase in adoptions from foster care must include a description of how states have used adoption assistance subsidies to meet ASFA goals. The number of adoptions from foster care that included an adoption assistance subsidy agreement averaged 255.9 in 1996 and 911.5 in 2002. That is, in 1996 76 percent of adoptions from foster care included a subsidy while in 2002 89 percent included one. States claimed reimbursement through federal Title IV-E funds more often in 2002 as well. In 2002, an average of 755 adoptions from foster care fell were Title IV-E eligible (73.8 percent) while in 1996 only 182 (54.3 percent) of adoptions were eligible. Not only are adoption assistance subsidies used to support more adoptions from foster care, but the

average of adoption assistance subsidy payments is higher as well. The average subsidy payment per child about doubled between 1996 and 2002. In current dollars the state average of the subsidy payment increased 2.15 times; in constant 2000 dollars average subsidy payments increased 1.88 times. Clearly one way that states have met ASFA's adoption goals has been to make more use of the adoption assistance incentive to families.

The latest adoption incentive program began January 1, 2003. The Tax Relief Act of 2001 (P.L. 107-16) swings the focus of federal incentives back from the states to the family. The Act institutes a $10,000 unqualified tax credit for each family who adopts a child with special needs. The unqualified tax credit goes to families finalizing the adoption of a child with special needs after January 1, 2003. The tax credit is not reimbursement of adoption expenses. It is an outright gift equal to one year's tax liability for most families.[7] 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 incentive of the unqualified tax credit.[8] This paper provides indirect evidence on the possible responsiveness of the one-time financial incentive by estimating how responsive families have been to the on-going financial incentive of adoption assistance subsidy payments relative to their responsive to existing programs that cover the up-front costs of adoption.

THE MARKET FOR ADOPTION SERVICES

Economic research on adoption mainly concerns the relinquishment of infants

and their subsequent adoption. Economists 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. Marshall Medoff (1993) and Lisa Gennetian (1999) explore the determinants of relinquishment of infants by birth mothers and compare the determinants of relinquishment relative to abortion. Elizabeth Landes and Richard Posner (1978) develop an analysis of the market for infant adoption, with an eye towards recommending policy that would reduce the shortage of infants. Posner (1992) expands on the argument. Posner concludes that the birth parents, the adoptive parents, and the children would be better off if the price mechanism were allowed to function more freely. Posner posits that fewer prospective adopters would seek infants if their adoption was more expensive. He further argues that if birth mothers were fairly compensated more infants would be available; that is, Posner argues that the supply of infants available for adoption is upward sloping.

The focus of federal policy, as well as the focus of this paper, is on the demand for adoption services. The choice of the phrase *adoption services* is purposeful. Posner argues that the adoption market for infants is a market in which parental rights are exchanged. Critics such as Viviana Zelizer (1981) and Madelyn Freundlich (2000) denounce this stance as equivalent to baby-selling and argue that a model in which children go to the highest bidder is inconsistent with actual social work practice. Children who are adopted through agencies (public, private, and international) are not simply allocated to those who are most willing to pay. Adoption agencies provide the

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professional service of matching an adoptive family with a child on the basis of the child's needs and the family's strengths. The approach of this paper combines these insights by sociologists and social workers with the basic economic premise that people respond to changes in relative prices. This paper therefore considers demand by prospective parents for adoption services, the service of being matched with a child that the parents are well-equipped to nurture.

For simplicity consider demand for only two types of adoption services: adoption services from a domestic public agency that places children waiting in foster care and adoption services from an agency that places children in intercountry adoption. Assume that the 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.[9] Then household utility is $u = v(h(\alpha_P q_P + \alpha_I q_I), q_2, ..., q_N)$, where h is the subutility function for consumption of adoption services; q_P is the number of children adopted through a domestic public agency; q_I is the number of children adopted through an international 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 $q_{2,...,} q_N$ 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 compare the marginal benefits of adoption from each source to the marginal cost from each source. Families choose to adopt through the domestic public agency if the marginal benefit of

adoption services at a public agency relative to the benefit of international adoption is higher than the price of adoption services at the public agency relative to the international agency. The lower the price of adoption services at the public agency relative to the price of adoption services at the international agency, the more likely any individual family will be to choose to adopt through the domestic public agency, and the more common adoptions from foster care will be in aggregate. In other words, there is a standard downward sloping demand curve for adoption services.

Within this framework, there are two avenues open to government to promote adoption of waiting children from foster care. The first avenue is to shift out the demand curve 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. Some ASFA bonus monies were used for "adoption awareness" (six states) and "recruitment of adoptive families" (11 states) (Cornerstone Consulting Group 2001). The second avenue open to government is to influence the relative prices of different adoption services. As outlined in the previous section, federal adoption policy aims to decrease the relative price of adoption services through a public agency through adoption assistance subsidies, through reimbursement of up-front expenses, and through adoption tax benefits.[10]

The idea that Congress can use tax and subsidy policy to influence choices in adoption is somewhat controversial. The degree of substitutability between providers of adoption services has not been measured. Some might argue that the market for

adoption services is strictly segmented.[11] One possibility is that the market for

adoption services is segmented by the age of the child to be adopted: families that seek

infants or young children do not seek adoption through public agencies. It is true that

most public agencies, and private agencies that contract with public agencies, match

families mainly with older children and children with special needs. However, 6,478

(13 percent) of the 50,800 children adopted with state agency involvement in fiscal year

2001 were born in 1999, 2000, or 2001.[12] 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 medical condition of

children adopted from abroad indicates that not all international adoptions involve

healthy children.[13] Moreover, recent State Department statistics indicate that children

of color from Africa and the Caribbean are adopted by families in the U.S.[14] 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, Katz and Geen 2005, 27). These facts lend support to the

assumption that at least some families view adoption from foster care and international

adoption as substitutes and may therefore be responsive to a policy-induced change in

relative prices.

By all accounts, the price of international and private adoption services is quite

high. The Department of Treasury reports that the average cost of adoptions claimed

by families on their 1998 tax returns was $9,876; 52 percent of families reported

expenses greater than $10,000 (USDOT 2000, p. 3). In contrast, almost all of the up-front costs of adoption from foster care are paid by states with help from the federal government, and the monthly adoption assistance subsidy is available (again from the states with federal help) for most children. Economic theory suggests that states that offer more generous support for adoptions from foster care will be more successful at meeting the federal goals for adoption promotion.

EMPIRICAL ANALYSIS

Consider the following model of the determinants of the rate of adoptions of children from foster care:

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

The dependent variable is the demographic measure of the adoption rate, adoptions from foster care per 1,000 births in the state. Regressions using the number of children adopted from foster care and adoptions from foster care per 100,000 people in the state give similar results. The vector S includes monthly adoption assistance subsidies, and also includes measures 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, and other variables that affect demand for waiting children such as income and age structure of the state population. Lastly, the number of adoptions of children in foster care across the states is likely to vary with the ability of the states to match waiting children with families. The ability of a state to match waiting children with families depends on child welfare policy and resources, especially available social

worker time, characteristics of the population of the states, and characteristics of the waiting children in the states. These are the variables in the vector *M*. Descriptive statistics for variables included in *X* and *M* appear in table 2.

Earlier estimates of the effectiveness of adoption assistance payments as incentives are not based upon the actual subsidy paid, but upon the basic adoption assistance subsidy rates (Hansen and Hansen 2003). Basic rates are, in a sense, advertised by the state departments of social services as being typical rates. Basic rates vary by age of the child, with higher rates supporting adoptions of older children. Almost all states and local jurisdictions allow adoptive families to bargain over the actual rate of adoption assistance, so that basic and actual rates vary substantially (Hansen and Pollack 2005). Because some adoptions from foster care are made without support of the adoption assistance subsidy, the average subsidy is less than the basic rate.[15] The real value of basic rates rose only $25 between 1996 and 2002, but the real value of actual subsidies paid nearly doubled. Once the more recent data are considered, basic rates do not have a statistically significant effect on adoptions.

The effect of the average real value of the adoption assistance subsidy on adoption rates is positive and statistically significant in three out of the four regression specifications presented in table 3. Of course, the coefficients are of small magnitude because adoption from foster care is a relatively rare event compared to births, but it of critical policy significance to document the positive effect of adoption assistance subsidies on adoptions.

As discussed above, in addition to the monthly adoption assistance subsidy,

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federal law encourages states to subsidize the up-front cost of adoption from foster care, including the cost of legal fees. The subsidy of up-front cost is offered in the form of matching funds to the states, up to $1,000 per adoption. That is, to utilize the full federal subsidy, the state must reimburse families at least $2,000. About two thirds of states utilize the full amount of federal matching funds. I include a dichotomous variable that equals one if the state reimburses at least $2,000 of up-front costs. These states have more adoptions from foster care, but the effect is not statistically significant, as shown in specification (2) of table 3. It is likely that multicolinearity is dragging down the *t*-statistics in specification (2) because states with more generous subsidies of up-front costs also have more generous on-going subsidy support.

Parents choose adoption from among the many ways of increasing the size of the family, which include infertility treatment, surrogacy, and private and international agency adoption services, as well as more traditional conception practices. The demographic measure of the adoption rate has as its denominator the birth rate. Data on private, domestic agency adoptions are available only for 1996, when they averaged 33 percent of all adoptions. The percent of adoptions of unrelated children from intercountry sources averaged just over 17 percent in 1996, but fell to 13.3 percent and 12.5 percent in 2000 and 2001 respectively. The coefficient on intercountry adoptions is negative and statistically significant, indicating that prospective adoptive parents may indeed consider different sources of adoption services as substitutes. This confirms cross-sectional results available for 1996 (Hansen and Hansen 2003).

As noted earlier, the data on adoptions outside AFCARS are scarce and subject to undercounts. Improving the quality adoption data is important to the study of the effectiveness of adoption policy. Consider intercountry adoption as a case in point. In 1996, the qualified Adoption Tax Credit lowered the price of private and intercountry adoption services at relative to the price of adoption services at domestic public agencies. From 1996 through 1999, the number of orphan visas issued by the U.S. State Department increased 45 percent.[16] Some children waiting in foster care might have been adopted if the tax code had not altered relative prices.

Unfortunately, a measure of infertility treatment by state is not available. Note, however, that the 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 measured effect of the subsidy downwards. One study of couples who experienced male infertility but chose donor insemination rather than adoption shows that almost half believed donor insemination would be easier than adoption (Daniels 1994).

Other variables that may affect the demand for waiting children are the income and age structure of the population. Median household income for each state is negatively correlated with adoptions from foster care (specification (4) of table 3). 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, p. 3). The results reinforce the claim that that adoption assistance payments and up-front subsidies successfully reduce income barriers to

adoption from foster care, even though adoption assistance subsidies are not means-tested.

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. As expected, the proportion of the population in this age group is positively associated with adoptions of children from foster care.

Recall that adoption services are provided by professional social workers that match families with children. Matching requires resources, especially social worker time. A public adoption agency may have insufficient resources to match waiting children with potential adoptive families in a timely manner. If limited resources results 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. Evidence to support this hypothesis comes from recent federal funding initiatives. When states acquired additional funding for child welfare services under the 1997 Adoption and Safe Families Act, 13 of 46 states used some or all of their funds to hire or contract additional social work staff (USGAO 2002, p. 33). Further, a recent study of barriers to the adoption of children from foster care found that poor "customer" service of prospective adoptive parents led many to drop out of the adoption process at public agencies (Wilson, Katz, and Geen 2005).

It is difficult to measure child welfare resources devoted to the adoption of children from foster care. By 1996 many states had begun to provide 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—

frequently for adoption—should reunification efforts prove fruitless. To a great extent

it is impossible to clearly divide child welfare spending into discrete adoption and

foster care categories. Moreover, spending on adoption includes adoption assistance

subsidies, which, of course, already appears in the regressions.

To capture the overall effect of resources devoted to child welfare, I control for

child welfare spending per child in foster care, using data collected biennially by the

Urban Institute. The average child welfare spending per child in foster care was

$15,360 in 1996 and $39,864 in 2002 (in real 2000 dollars). Child welfare spending per

child in care varies greatly between the states; the standard deviation is about 30

percent of the mean in each year. Despite the considerable variation, child welfare

spending per child in foster care does not much influence adoptions from foster care.

Previous studies of adoption from foster care suggest that race is a particularly

important factor influencing the ability of social workers to make matches between

families and waiting children (see Simon, Altstein, and Melli 1994 for a concise

summary of the large literature on transracial adoption). Both the race of potential

adoptive families and the race of waiting children have been cited as relevant. Some

researchers (most recently by Melosh 2002) have suggested that African American

families eschew formal adoption. It is said that, when circumstances require, African

Americans prefer to use informal networks of extended family care. I control for the

size of the African American community in the state population and expect that the

greater the percentage of African Americans in the state population, the lower the adoption rate will be. The sign of the coefficient confirms the expectations, and the estimated coefficient is statistically significant.

Finally, discrimination on the basis of race may prevent the adoption of waiting children. It is mainly Caucasian families who adopt a child whom they do not know; waiting children are mainly African American and Hispanic. If Caucasian families are unwilling to adopt children of color, it will be 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. 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.

Just as families may have preferences about appropriate matches in adoption, social workers may have their own opinions about matching children and families with certain characteristics. Sherri Kossoudji (1989, 1997) and Judy Fenster (2000) raise some important questions about racial bias in child welfare practice. Using Michigan Department of Social Services data on foster care case openings and closings, Kossoudji finds that African American children who cannot be reunified with their birth families move towards permanency more slowly than Caucasian children. Fenster finds negative attitudes towards transracial adoption are more common among African American social workers than among white social workers. Despite federal

efforts to remove race from the list of considerations in adoption from foster care, on average only 13 to 14 percent of adoptions from foster care are transracial placements (Hansen and Simon 2004). In a survey of families in California who adopted in the 1980s, 64 percent said they were willing to adopt a black child, but only five percent of the willing families actually adopted transracially (Brooks and James 2002).

The data do not support the conclusion that race of the child is a significant barrier to adoption. There is no statistical association between a greater concentration of African American children in foster care and adoptions from foster care. Possibly states with higher concentrations of waiting children who are African American have been more successful at developing strategies for matching the children to families or for recruiting prospective adoptive families.

Note that data on some policy and control variables are not available for all states in all years. Specification (2) in table 3 includes state adoption and child welfare policies, but only has 143 observations. Because of the relatively small number of observations and because most adoption policies are implemented at the state level and are changed only infrequently, it makes sense to focus on effect subsidies within a fixed effects framework. Table 4 presents results of these simpler regressions, including linear and logarithmic specifications, with and without state and year effects. Regressions (1) through (3) of table 4 show that the average real value of adoption assistance payments (in 2000 dollars and adjusted for differences in cost-of-living between states) positively influences adoptions of children from foster care. Regressions (4) through (6) of table 4 report the intuitive log-log specification, where

the coefficient on adoption subsidy support (β) is interpreted as the elasticity of the adoption rate with respect to the subsidy. The estimated elasticity is between 0.12 and 0.20. That is, an increase in the average adoption assistance payment of one percent is associated with as much as a one-fifth of one percent increase in adoptions per 1,000 births.[17]

Because accurate counts of adoption of children from foster care are not available for the period before ASFA, the usual difference-in-difference estimate of the independent effect of adoption assistance payments cannot be calculated. However, first differencing can be used to assess whether the observed increase in adoption assistance within a state is correlated with an increase in adoptions in that state.[18] The first column of table 5 confirms that in a first-differenced model adoption assistance payments are positively related to adoptions per 1,000 births, but the effect is not statistically significant.

The relative weakness of the first-differenced model has two interpretations. First, the results presented in table 3 indicate that it is likely that the differences in the control variables explain a large part of differences in changes adoption rates. Moreover, other unmeasured state adoption and foster care policies may explain significant proportions of variations in (changes in) adoptions of children from foster care. A second interpretation is that the simple models presented in tables 3 and 4 do not adequately capture the dynamic of the legal process of adopting a child.

The finalization of the adoption of a waiting child is a legal procedure that takes several months to more than a year to complete. After a child is placed in the

home of her adoptive family, there is generally a waiting period before the family may file a petition asking the court to finalize the adoption. The length of the waiting period varies by state. During the waiting period, the prospective adoptive family may receive maintenance payments on behalf of the child to be adopted, but the family may re-negotiate the amount of the monthly adoption assistance payment before the adoption petition is made and the adoption is finalized. The amount that is recorded in AFCARS is the monthly amount in effect at the time the adoption is finalized. The date that the adoption is finalized is subject to influences beyond the control of either social workers or adoptive families (for instance, court delays). It is not clear whether adoption assistance payments provides an incentive that increases a family's willingness to accept placement of any child for adoption, or whether increases in adoption assistance payments increase the likelihood of finalization of the adoption of a child who has already been placed with the family. The former implies a lagged effect between adoption assistance payments and adoptions from foster care; the latter implies a contemporaneous effect. In a cross-section covering only fiscal years 1996 and 1997, adoptions of children from foster care per 100,000 persons in the state are sensitive to the inclusion of a lagged effect of adoption assistance payments (Hansen and Hansen 2003). Using all of the currently available data, covering 1996 through 2002, the previous year's average adoption assistance payment is positively associated with adoptions per 1,000 births. The regression results in the second column of table 5 are of the same order of magnitude as the results in columns (1) through (3) of table 3, indicating that the lagged and contemporaneous effects are about the same in the

pooled data.

IV. 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 of adoption from foster care provides at least three insights for economists and policymakers concerned with child welfare. First, more generous adoption subsidies to families increase the ratio of adoptions of children from foster care to the number of births. Second, there appears to be substitutability between types of adoption. This means that 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 towards families who adopt through private or intercountry agencies may to reduce adoptions from foster care. Finally, differences in child welfare spending do not explain much of the differences in adoptions from foster care; the allocation of funds between child welfare programs may not be efficient.

States are currently concerned about the growing liability that adoption assistance subsidy payments represent. One reason for the concern may be the way eligibility for federal mating funds is determined. In order to be eligible for the Title IV-E federal match, children must have state-defined special needs and must either qualify for federal SSI or must have been born into a family that would have qualified for AFDC benefits. Because the federal match is tied to AFDC eligibility criteria, and because AFDC eligibility criteria are no longer updated, states may fear that the

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fraction of waiting children who are IV-E eligible may fall in the near future, which could substantially increase states' fiscal obligations. A 2004 Pew Commission report suggested de-linking adoption assistance from the out-dated AFDC criteria, Senator Rockefeller (S. 2524) and Representatives Herger and Cardin (H.R. 4856 and 1534) have introduced bills that would achieve de-linking of adoption subsidies from outdated AFDC criteria in various ways, thus freeing states from the worry that federal matching funds will disappear.

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Table 1

Mean Adoptions from Foster Care and Subsidy Payments in the States, 1996-2002

	1996	1997	1998	1999	2000	2001	2002
Adoptions with State Agency Involvement	334.7	498.3	757.7	907.1	987.6	991.7	1022.3
Adoptions/ 1000 Births	5.8	6.2	9.3	11.5	13.0	13.1	13.8
Adoptions/ 100,000 People	.078	.085	.129	.159	.181	.179	.188
Adoptions with Subsidy	255.9	298.2	651.2	800.8	871.1	875.1	911.5
Title IV-E Claims	182.0	214.6	544.7	683.5	743.6	738.5	755.3
Ave. Subsidy (current dollars)	192.7	219.5	298.4	334.6	351.3	393.0	414.3
Ave. Real Subsidy (2000 dollars)	213.8	240.5	324.3	355.3	359.3	389.5	402.5

Sources: Adoptions and subsidy data from the AFCARS adoption data set. Births and population from the Statistical Abstract of the United States, various years. Subsidy amounts adjusted for inflation using the CPI and adjusted for cost-of-living using the American Federation of Teachers Interstate Cost of Living Index, http://www.aft.org (last accessed January 20, 2003).

Table 2

Means of Other Policy and Control Variables

	1996	1997	1998	1999	2000	2001	2002
Percent of Adoption Services at Intercountry Agencies	17.2					13.3	12.5
Child Welfare Spending per Child in Foster Care (2000 dollars)	$15,360		$33,324		$36,740		$39,864
Median Income (2000 dollars)	55,107	58,749	62,838	67,059	71,915	74,914	76,216
Population Age 25-44 (percent of total)	31.46	31.30	30.97	30.55	30.08	29.61	29.13
African-Americans (percent of population)	11.05	11.10	11.14	11.18	11.22	11.26	11.30
African-Americans in Foster Care (percent of foster care population)	36.54	31.68	32.20	29.61	30.80	29.92	37.6

Sources: Age and race statistics from U.S. Census Bureau, Statistical Abstract of the United States, various years. Child welfare spending from Urban Institute, "Assessing the New Federalism Databases, State Database," http://www.urban.org/content/Research/Databases (last accessed January 5, 2003) and "The Cost of Protecting Vulnerable Children" series. Reimbursement rates from North American Council on Adoptable Children, State Subsidy Profile Archives (used with permission). Intercountry adoptions in 1996 from National Council for Adoption (1999), in 1999 from National Adoption Information Clearinghouse (2004).

Table 3

Determinants of Adoption Rates

Dependent Variable is Adoptions per 1,000 Births

	(1)	(2)	(3)	(4)
Ave. Real Subsidy	.008*	.010	.005*	.010*
	(2.93)	(1.40)	(2.61)	(4.29)
Reimbursement > $2000	1.21	1.79		
	(1.24)	(0.76)		
Intercountry Adoptions				-.045*
				(1.84)
State Median Income				-23.0*
				(7.34)
Percent of Population Age 18-44				1.28*
				(5.16)
African Americans as Percent of Population				-.250*
				(2.28)
African Americans as Percent of Foster Care Population				.070
				(1.40)

Child Welfare Spending per Foster Child	.001*			
	(2.42)			
N	249	148	76	272
R2	.09	.09	.10	.26

Sources: See Tables 1, 2, and text.

Notes: Absolute value of t-statistics in parentheses; * indicates $p < .05$. Constant term estimated but not reported. Corrected for heteroskedasticy.

Table 4

Fixed Effects Model Results

Dependent Variable is Adoptions from Foster Care per 1,000 Births

	(1)	(2)[a]	(3)	(4)	(5)	(6)[a]
Ave. Real Subsidy	.008*	.010*	.006*	.120*	.200*	.160*
	(3.97)	(4.26)	(2.72)	(1.98)	(4.59)	(2.07)
N	323	323	323	323	323	323
R^2	.05		.17	.02		
F-Statistic		7.55			3.83	
Wald Chi^2						4.28
Variables in Logs?	No	No	No	Yes	Yes	Yes
Year Effects?	No	No	Yes	No	No	Yes
State Effects?	No	Yes	No	No	Yes	Yes
Heteroskedasticity Correction?	Yes	No	Yes	Yes	No	Yes

Source: See table 1.

Notes: Absolute value of t-statistics in parentheses; * indicates $p < .05$. Constant term estimated but not reported.

[a] Estimated using feasible generalized least squares allowing within group heteroskedasticity.

Table 5

First Differenced and Lagged Regressions

Dependent Variable:	Change in Adoptions per 1,000 Births	Adoptions per 1,000 Births
Change in Subsidy from Previous Year	.004	
	(1.50)	
Ave. Real Subsidy Previous Year		.010*
		(4.16)
N	209	225
R2	.02	.07

Sources: See table 1.

Notes: Absolute value of t-statistics in parentheses; * indicates $p < .05$. Constant term estimated but not reported. Corrected for heteroskedasticity.

[1] Recent aggregate data indicate that ASFA may be reversing this trend. Between fiscal year 2000 and fiscal year 2003 the number of waiting children fell slightly, even though the number of adopted children fell as well. At the same time, the number of exits from foster care from reunification and from aging out rose. See ACF (2005) at http://www.acf.hhs.gov/programs/cb/dis/index.htm (last accessed on September 29, 2005). Further analysis of these figures is beyond the scope of the current study.

[2] In addition to the laws listed here, other legislation has affected the child welfare systems in the states, including the Strengthening Abuse and Neglect Courts Act of 2000 (P.L. 106-314) and the Welfare Reform Act of 1996 (P.L. 104-193), which placed limits on reimbursements to states for foster care and adoption expenses. Important to many adoptive families are laws concerning education of children with special needs, most recently the Individuals with Disabilities Education Act (P.L. 105-17). Recent laws directly concerning international adoption include the Child Citizenship Act of 2000 (P.L. 106-375) and Intercountry Adoption Act of 2000 (P.L. 106-279). We do not consider these indirect incentives in the current paper.

Consideration of race in adoption from foster care is limited by the Multiethnic Placement Act of 1984 (P.L. 103-382), the Minimum Wage Increase Act of 1996 (P.L. 104-188 Section 1808, known variously as the Interethnic Adoption Provision and MEPAII). Adoptions of children of Native American descent are subject to the Indian Child Welfare Act (P.L. 95-608).

[3] The ASFA Adoption Incentive Program payments to states totaled $68.5 million for 1999-2002, according to USDHSS press releases. States have discretion over use incentive payments within their child welfare systems. The state goals for 1998 (the initial year of bonus payments) were set equal to the average of the adoptions finalized in 1995, 1996, and 1997. Thereafter, the goal was the largest number of adoptions achieved by the state. The amount of the incentive does not appear to have grounding in any cost-benefit study. The Congressional Reporting Service writes that the incentive payments were "a key recommendation in the [Clinton] Administration's Adoption 2002 (Spar 1997, p. 4)." However, no explanation of the choice of the figures $4,000 and $6,000 appear in the White House or Congressional documents or debate, or in the USDHHS (1997) document regarding Adoption 2002.

[4] Specifically, the ASFA allows states to proceed on a "fast track" to termination of parental rights under circumstances of extreme abuse; however, the fast track is seldom used (GAO 2002, p. 24). ASFA also requires states to petition to terminate parental rights if a child has been in foster care for 15 of the most recent 22 months. There are exemptions, however, and the number of children exempted exceeded the number to whom "15 of 22" has been applied (GAO 2002, pp. 26-28). The dearth of research on adoption policy goes beyond financial incentives. For example, the numbers 15 and 22, which are now very important numbers to social workers, were not the result of research recommendations, but the result of Congressional compromise (see testimony before House Ways and Means Human Resources Subcommittee, April 8, 1997). For

critical analysis of the shortened time frames for decision-making see Adler (2001), Stein (2000), and Guggenheim (1999). For a description of how states implemented the provisions, see Christian (1999).

[5] Statistics in this section are author's calculations from the AFCARS data files.Most adoptions from foster care are made within the state of the child's residence. A cooperative agreement (known as the Interstate Compact) to facilite interstate adoptive placements exists, but it is considered ineffective (USDHHS 2002 and USGAO 1999).

[6] The demographic measure of the adoption rate was introduced by Peter Selman (1999). Note that it not the measure of the adoption rate used by social work researchers. 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 incentives to families, but it may be of more relevance to the study of incentives within the child welfare system, see Wulczyn and Hislop (2003) and Dalberth et al (2005).

[7] For example, a family with income of $54,000 paying the average amount of tax paid by the top 25% of filers would pay no federal income taxes with the new credit. (calculated using Tax Foundation, "Summary of Federal Individual Income Tax Data," http://www.taxfoundation.org/prtopincometable.html (last accessed on December 28, 2002)).

[8] P.L. 107-16 also increased to $10,000 the qualified adoption tax credit for expenses relating to the adoption of children without special needs. The Congressional history

of the unqualified tax credit again reveals the lack of relevant quantitative evidence on the effectiveness of adoption incentives. The revised adoption tax credit was introduced as The Hope for Families Act (H.R. 622) contained the unqualified credit. The Ways and Means Committee removed the unqualified credit from the bill. As late as the debate on the House floor on May 17, 2001, the bill contained only the qualified credit, which would benefit primarily families who choose the expensive private or international adoption alternatives. Reps. Delahunt (D-MA), Cardin (D-MD), King (R-NY), and Pomeroy (D-ND) argued on the House floor that the preferential tax treatment of adoptions for waiting children should be re-added, but they argued without benefit of estimates of the costs or benefits of the incentive.

[9] The simplification of perfect substitutes is a familiar feature of choice-between-varieties models (Deaton and Muellbauer 1980), but is not crucial to the argument.

[10] In fact, subsidies and taxes influence the relative prices of all of the various substitutes in parenting. Substitutes in parenting include conceiving a child (without or with medical assistance), engaging a surrogate, as well as fostering and adopting. I forgo lengthy discussion of the substitutes in order to focus on child welfare and adoption policy.

[11] Strict segmentation could reduce search costs for parents. Shughart and Chappell (1999) argue that orphanages served to reduce search costs for adoptive parents in an earlier time.

[12] Calculation of author using AFCARS public use files.

[13] American Academy of Pediatrics (1981). The National Adoption Information Clearinghouse maintains a list of doctors who evaluate children at <http://naic.acf.hhs.gov/pubs/r_devev.cfm> (last accessed 23 November 2003).

[14] According to the State Department, Ethiopia, Liberia, Haiti, and Jamaica were among the largest "senders" of children to the United States in fiscal years 2000 and 2001. U.S. Department of State, Office of Children's Issues, at <http://travel.state.gov/orphan_numbers.html> (last accessed 23 November 2003).

[15] The North American Council on Adoptable Children made the historical basic rate data available by sharing its archive of State Subsidy Profiles. The average basic rate for a five-year-old was $380 in 1996 and $405.50 in 2001 (in constant 2000 dollars).

[16] National Adoption Information Clearinghouse, " Intercountry Adoptions," http://www.calib.com/naic (last accessed December 19, 2002).

[17] Hansen and Hansen (2003) find a higher elasticity in a cross-sectional study of 34 states in 1996-1997.

[18] 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, 467). There are insufficient observations to model a more complex dynamic, such as with the Arellano-Bond (1991) linear, dynamic panel data estimator.