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The Economics of Adoption of Children from Foster Care

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Abstract

Federal initiatives since 1996 have intensified the efforts of states to achieve adoption for children in foster care with the case goal of adoption. For many waiting children, the path to adoption is long. We offer an economic analysis of adoption from foster care, with an emphasis on the reasons why it may be so difficult to achieve the goal of adoption for all waiting children. We then estimate the determinants of adoptions from foster care across the states using data for fiscal years 1996 and 1997. Adoption assistance subsidy rates stand out as the most important determinant of adoptions from foster care, followed by utilization of alternatives such as intercountry adoption. Adoptive matching on the basis of race does not appear to prevent adoptions from foster care in the aggregate, leaving flaws in the matching process (such as a lack of information and difficulty utilizing the ICPC) as a primary reason why children wait.

Key words: Children, adoption, financial incentives

JEL classification: D1, R2, K3

<u>Introduction</u>

President Clinton's "Adoption 2002" and President Bush's unveiling of www.AdoptUSKids.org are emblems of the renewed attention of federal policy to the adoption of children from foster care. The 1997 Adoption and Safe Families Act (P.L. 105-89) changed the regulations states must follow and the incentives states received when they improved performance in adoptive placements. The 2001 Tax Relief Act (P.L. 107-16) changed adoption incentives again by offering a $10,000 unqualified tax credit to families who finalize the adoption of children with special needs after January 1, 2003. Changes in public policy concerning adoption should be informed by an understanding of the factors that influence the adoption decision of the family and adoptive placement by social workers, but relatively little research has been done on the factors that influence adoptions from foster care across the states.

In this paper we present an economic analysis of the adoption of children from foster care. Using the theory of consumer behavior to anchor our reasoning, we estimate a statistical model of adoptions from foster care across the states using data for fiscal years 1996 and 1997. We find that the size of the adoption assistance payment is the only policy variable that is clearly and positively correlated with success in achieving adoption for waiting children. There is evidence that adoptions from foster care and intercountry and private adoptions are negatively correlated, suggesting that policy that reduces the cost of alternatives to adoption from foster care may prevent the adoptions of some waiting children. We find no evidence of a negative effect of adoptive matching on the basis of race in the cross-section. More spending on child welfare services does not result in more adoptions of waiting children, which leads us to conclude that flaws in the match process itself, such as incomplete information about children and families, along with deficiencies in the Interstate Compact, are likely to explain why many of the waiting children are not placed with adoptive families.

An Economic Model of Adoption from Foster Care

While economic analyses of adoption are rare, they are not entirely absent. Perhaps most provocatively, Elizabeth Landes and Richard Posner (1978) develop an analysis of the market for infant adoption, with an eye towards recommending policies that would reduce the shortage of infants available for adoption. They view infant adoption as a market in which parental rights are exchanged. They conclude that the cost of adoption should be allowed to rise until enough infants are offered to meet the desires of approved families who are willing to pay a high price. Critics such as Viviana Zelizer (1981) and Madelyn Freundlich (2000) view the argument of Landes and Posner as an argument in favor of baby-selling. Our view is that the argument of Landes and Posner is inappropriate for the study of the adoption of waiting children for three reasons.

First, adoption is not a market for a child, or even a market where parental rights are sold. Despite well-publicized aberrations children who are adopted through agencies (public, private, and international), lawyers, and facilitators are not simply allocated to those who are most willing to pay (Pertman, 2000). Adoption is a professional service. Potential adoptive families pay to be matched with the children who they are well-suited to parent, either by the best judgment of the family or by the best judgment of a social worker.

Second, there is more than one market for adoption services, and the markets are separated by the characteristics of the children to be adopted. Most private and international adoption agencies promise to match families with healthy, light-skinned, young children or babies. In this paper we do not directly consider demand for adoption services from private and international sources of adoption; we focus only on adoption from foster care. The children who wait in foster care are not babies. Maza (2002) estimates that the mean age of waiting children was 7.9 years in 1999; in 2001 the mean age was 8.4 years. African American children wait longer for adoptive

placement (Kapp et al., 2001), and according to Maza, 41 percent of children waiting in foster care at the end of 1999 were African American. The children who wait in foster care often belong to a sibling group or have other special needs. Families who choose to adopt children with special needs are aware that, while their emotional reward is great, parenting their adopted child(ren) requires extra time, effort, and expense.

Finally, the adoption of a child from foster care provides a benefit to all of society, not just a benefit to the adoptive family. As Barth (1997) describes, the adoption of a waiting child reduces the fiscal burden of foster care for the state and improves outcomes for the child and for the community by improving education and reducing problem behaviors. Markets in which the decisions of a few benefit everyone are said to have "positive externalities." Other markets with positive externalities include educational television and fuel efficient cars. In order to encourage more T.V. producers to make educational programs and more drivers to buy fuel efficient cars, Congress subsidizes people who engage in these beneficial activities. Likewise, we expect subsidies to encourage more families to choose adoption from foster care.

The basis of our approach is found in the theory of consumer behavior. We assume that the demand for adoption services for waiting children is similar to the demand for other goods and services in that more is desired at a lower price than at a higher price. That is, if the price of adoption services for waiting children is low, then more prospective adoptive families will seek to adopt a waiting child. If the price of adoption services for waiting children is high, then few prospective adoptive families will seek to adopt a waiting child.[1] Price is measured not only in money, but in the value of time. That is, parents consider the time to fill out paper work, time to meet with the social worker, and time spent waiting for adoptive placement as part of their payment for adoption services. Non-monetary costs are, in fact, the main costs associated with the adoption

of children from foster care; monetary costs are generally covered by the states (with federal assistance), as will be discussed below.

There are two reasons that demand is negatively correlated with price. First, when the price of adoption services is high (recall that "price" includes time spent in the adoption process), then few prospective adoptive families can afford to adopt waiting children. Second, when the price of adoption services for waiting children is high, prospective adoptive families are more likely to choose one of the alternatives to adoption from foster care such as traditional conception and child birth, infertility treatment or surrogacy, foster parenting, or private or international agency adoption. Of course, the number of children in need of adoptive families does not depend on the price of adoption services; the number of children who are available for adoption depends only on the termination of parental rights by the courts.[2]

A potential solution to the problem of waiting children, then, is to increase subsidy support for adoption. A bigger subsidy lowers the price of adoption services, increases the number of adoptions, and reduces the number of children who wait in foster care. Indirect evidence that increasing subsidy support may increase adoptions comes from a recent study of the longest waiting children in New York State. Avery (1999) finds that 60 percent of social workers responsible for placement of the longest waiting children say that higher subsidies might improve their chances of adoption. The effectiveness of increasing subsidies will depend on how responsive families are to changes in the subsidy.[3]

Insufficient demand for adoption services may not be the only reason children wait. Children who wait are matched individually with adoptive families by a social worker. Adoptive matching requires resources, especially social worker time and adequate information about potential adoptive families and waiting children. After child protective services has provided emergency

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services to children, reunification services to birth families, and support services to foster families, there may be few resources remaining to provide adoption services.

Indirect evidence to support the hypothesis that limited appropriations prevent some adoptions 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).

Children may also wait in foster care if the matching process itself is flawed. Melosh (2002) describes how the criteria for matching families and children have changed considerably since 1960s, but the instrument for obtaining the information used in matching has hardly changed. Social workers perform a home study for each prospective adoptive family. The narrative of the home study includes a statement by the family regarding the characteristics of children it prefers, plus the opinion of the social worker regarding the capacity of the family to parent children with different characteristics. Social workers have to compare families and children along numerous dimensions: family size, attitude toward siblings, age of parents and child, physical, emotional and mental disabilities, and so on. The information conveyed in the home study completed by one social worker may not be the information desired by a social worker seeking an adoptive family for a waiting child. Since the content and format of the home study is not always uniform across jurisdictions within a state, much less across states, social workers may find it impossible to obtain enough information to match all waiting children with families (US DHHS, 2002).

Evidence is strong that institutional constraints do prevent some adoptions of waiting children. In Lucille Grow's (1970) study of 261 adoption agencies, there were 32,645 families approved for an adoptive placement and 32,288 waiting children, or 357 more families than available children. Barth and Berry (1989) find that during the mid-1980s only about 6,000 of over 13,000 requests for information about adoption from foster care in California resulted in an application for

adoption. Only about 1,500 adoptive placements were made to the families who applied. A complete analysis of the reasons that families might wait, even if there are many waiting children, is beyond the scope of this paper. Possibly, some families are unwilling or unable to accept placement of a child with special needs. Some other reasons that families might wait, including adoptive matching on the basis of race, are discussed below. Available data do suggest, however, that while many states have more waiting children than waiting families, some states continue to have more families waiting for an adoptive child than they do waiting children.[4]

The inherent problems of adoptive matching are exacerbated if interstate placement of waiting children is difficult. The Interstate Compact was created in 1960 to facilitate adoption across state lines, but it has not been particularly effective (USGAO, 1999; Freundlich, 1996; USDHSS, 2002). While potential adoptive families may find information about waiting children from across the United States on Web sites such as www.AdoptUSkids.org, interstate placement may delay or prevent placement.

Finally, children may wait in foster care because of adoptive matching on the basis of race. While delay of adoptive placement on account of race is prohibited by the Multi-Ethnic Placement Act and the Interethnic Adoption Provision (P.L. 103-382 and P.L. 104-188), attitudes concerning racial matching may affect the decisions of either social workers or the decisions of prospective adoptive families. About two-thirds of waiting families in 1996 were Caucasian, non-Hispanic (CWLA NDAS). Waiting children are mainly African American and Hispanic (CWLA NDAS; Maza, 2002). Even before transracial adoption became a hotbed of conflict within the field of social work, surveys conducted in the 1960s and 1970s suggested that race of the adoptive child was a particularly important area of concern for adoptive families (Kossoudji, 1989). 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 (Sedlack and Broadhurst, 1993; Brooks and James, 2002).

Just as families have opinions about appropriate matches, social workers may have their own opinions about matching children and families with certain characteristics. Sherri Kossoudji (1989) and Judy Fenster (2000) raise some important questions about racial bias in child welfare practice. Using Michigan Department of Social Services data on case openings and closings, Kossoudji finds that social workers choose termination of parental rights earlier and more often for white children who enter child protective services than for African American children. African American children who cannot be reunified with their birth families therefore move towards permanency more slowly. Avery (1999) reports that 43 percent of social workers responsible for the longest-waiting children in New York State considered transracial adoption inappropriate. Fenster finds negative attitudes towards transracial adoption are more common among African American social workers than among white social workers. In a survey of California families who adopted in the 1980s, about 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 1987 National Health Interview Survey revealed that just eight percent of all adoptive families include parents and children of different races, including parents who adopted Asian-born children. The National Adoption Information Clearinghouse reports that an estimated 15 percent of the 36,000 adoptions of waiting children in fiscal year 1998 were transracial or transcultural adoptions (NAIC). The discrepancy between the survey estimates and national reports indicates further statistical analysis of the incidence and trends in transracial adoption require much more study. Nonetheless, a strong preference for racial matching in adoptive placement either prospective families or social workers may have the same effect as limited resources or limited information: some waiting children may remain in foster care.

It is important to recognize that these explanations are not competing. More than one, and possibly all, of the explanations could contribute to long waits in foster care. For the purposes of public policy it is necessary to both validate the explanations and to ascertain the relative importance of each; these are the goals of the next section of the paper. Each of the explanations leads to a different conclusion about the how resources should be allocated to achieve the goal of adoption for waiting children. The policy implications of validation of the first two explanations are clear. If the price of adoption services for the children who wait is set too high, legislators can resolve to increase adoptions from foster care by increasing subsidies. If insufficient child welfare resources prevents the adoption of some children, then legislators can resolve to increase funding for child welfare agencies. If neither differences in adoption subsidies nor differences in child welfare resources explains differences in the adoptions from foster care, then perhaps the most important barriers to the adoption of waiting children are to be found in the matching process itself or in racial matching, in which case increases in appropriations may not be the most effective way to increase adoptions from foster care. More fundamental changes in the recruitment of potential adoptive families or in the way waiting families are matched with waiting children may be required.

Empirical Analysis of Adoption from Foster Care

We estimate differences in the adoptions from foster care between the states as a function of the variables that affect the demand for adoption services for waiting children and the variables that affect the ability to match families and children. That is, we estimate the linear model:

$$\log A_i = a + b_1 D_i + b_2 M_i + e_i,$$

where A_i is adoptions from foster care in state i; a, b_1 and b_2 are the parameters to be estimated; and e_i is an error term. The vector D contains information about adoption assistance and other subsidies, information about substitutes for adoption from foster care, plus information about other

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variables that affect demand for adoption services such as income and age structure of the state population. As described in the previous section, the ability of social workers in a state to match waiting children with families will depend on child welfare resources, on the matching process, and on racial matching. These are the variables in the vector M. Observations of the independent and dependent variables are available for most states for fiscal year 1996.

As Stolley (1993) and Maza (1985, 1999) describe, data on adoptions from foster care are incomplete. Data on adoption prior to 1995 are notoriously scarce; from 1975 to 1995 there was no federal collection of data. The Omnibus Reconciliation Act of 1986 (P.L. 99-509) mandated the Department of Health and Human Services to again collect data on adoption from foster care from the states. It took nine years for the resulting Adoption and Foster Care Analysis and Reporting System (AFCARS) to come into operation. State-level AFCARS data for 1996 are available on the Web from the USDHHS. Because states were required to submit data to AFCARS in order to receive adoption incentive payments under the Adoption and Safe Families Act, the revisions of the AFCARS are believed to be more accurate than other sources. There are, however, two other sources of data on adoptions in the states for 1996. The private National Council for Adoption (formerly the National Committee for Adoption) published 1996 data in the third of its *Adoption Factbook* series (National Committee for Adoption, 1999). The American Public Human Services Association collected data under auspices the Voluntary Cooperative Information System, the Child Welfare League of America supplemented the VCIS data with its own survey of the states and published the results on the Internet (CWLA NDAS).

Table 1 shows the differences between the sources for the 1996 data. Although none of the sources of adoption data is complete (Stolley, 1993; Maza, 1985, 1999), the correlation coefficients between the data sets are high.[5] However, the Child Welfare League of America and National Council for Adoption appear to have undercounted adoptions. Maza (1999) also reports that earlier

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data on adoption collected in the Voluntary Cooperative Information System contained an undercount. We limit our attention, therefore, to the state-level data published by the Children's Bureau using AFCARS.

Though the AFCARS data are the best available numbers, and AFCARS constitutes the source of official numbers used for bonus payments to states under the Adoption and Safe Families Act, the data are not perfect or complete. In it's *User's Guide and Codebook* to the AFCARS data files, the National Data Archive on Child Abuse and Neglect (2002) cautions that data for fiscal years 1995 through 1997 may not be "credible (p. 9)," according to the states. Results using the AFCARS data, even at the state level, should be viewed as preliminary. Nonetheless, the high coefficients of correlation between the sources of the available data give us some confidence that the overall conclusions of our study will be confirmed by future research.

The choice of data for the dependent variable is additionally complicated by the nature of adoption proceedings. 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. Waiting periods vary by state. The date that the adoption is finalized might also be subject to influences beyond the control of either social workers or adoptive families (for instance, court delays). For these reasons it might be wise to use as a dependent variable the average of the number of adoptions across several years, or to introduce a year's time lag into the model. Table 1 gives descriptive statistics for the average of adoptions reported in the AFCARS data for 1995-1997 and for adoptions finalized in 1997. Adoptions from foster care rose during the late 1990s, so that the 1997 figures pull up the average of the earlier years.

The standard deviation of the number of adoptions from foster care is large, about 1.5 times the average. Part of the reason for the great variation in the number of adoptions is the variation in the size of the states. To correct for differences in the size of the states, we calculate the number of

adoptions per 100,000 persons in each state. The average and standard deviations of adoptions per 100,000 persons appear at the bottom of table 1. The average number of adoptions per 100,000 in 1997 is 11.9, the standard deviation is 14.8. The number of adoptions per 100,000 ranges from about 3.2 (in Alabama) to 27.4 (in New York State).

The first type of subsidy for adoption that we consider is the Title IV-E monthly adoption assistance subsidy.[6] Although federal Title IV-E reimbursements are limited to the maximum of the payments that could be made for foster care reimbursements, states may choose to set monthly adoption assistance payments at whatever level deemed appropriate in the state. The regular adoption assistance subsidy paid by the states under P.L. 96-272 to a family of a nine-year-old child averages $361 per month, with a standard deviation of $116. After adjusting for variations in the cost of living between states, the standard deviations of the adoption assistance subsidy falls to $82.[7].

We first use univariate regression to test the strength of the correlation between the size of the adoption assistance subsidy payment and the number of adoptions per 100,000 from the various sources.[8] The model using 1997 adoptions and 1996 subsidy rates outperforms the contemporaneous model for all sources of data on adoption. A scatter diagram of adoptions per 100,000 population and the cost-of-living adjusted subsidy rate is shown in figure 1. The variations in the logarithm of the monthly adoption assistance subsidy rates for 1996 between the states explain nearly 25 percent of the variation in the logarithm of adoptions per 100,000 in 1997. The point estimate of the coefficient on the adoption assistance subsidy variable is statistically significant and equal to 1.5. This means that an increase in the monthly adoption assistance subsidy payment of one percent is associated with a 1.5 percent increase in the number of adoptions per 100,000 persons. For the average state, an increase of $36 in the adoption assistance subsidy is associated with an increase of 1.785 adoptions per 100,000 persons, or nearly 10 additional adoptions.

Table 2, column (1) introduces into the regression the other independent variables that are part of state and federal budgets. In addition to monthly adoption assistance subsidies, federal law (P.L 99-514) subsidizes the up-front cost of adoption from foster care, including the cost of the home study and legal fees, as described in above. The maximum federal reimbursement is $1000, so a state that reimburses families up to $2000 can recover half its cost. Most states, but not all, utilize the full amount of federal matching funds; the maximum subsidy for up-front adoption expenses is, on average, $1,587. We include a dichotomous variable that equals one if the state chooses a reimbursement maximum of $2000. States that do not reimburse at least $2000 of the up-front costs of adoptions have lower adoption rates, but the effect is not statistically significant. There is correlation, however, between offering a high monthly adoption assistance subsidy and offering a high level of reimbursement of up-front costs, so the standard errors of the coefficients may be inflated.

Because one of the primary resources for waiting children is the foster family, we test to see if setting adoption subsidy rates above foster care board rates increases the number of adoptions, irrespective of how high the monthly rates are. In seven states, adoption assistance payments exceed foster care board rates. These seven states have more adoptions from foster care per 100,000 persons in the state. This finding underscores the importance of further study of incentives in adoption. We would not argue that foster care board rates should be lowered, of course, since foster care board rates do not even equal the average amount spent on children (Laws and O'Hanlon, 1999). We would argue, however, that states ought to pay close attention to the matter of the adoption assistance rate relative to the foster care board rate.

We hypothesized in the previous section that the ability to match waiting children with families is likely to depend upon the resources provided to social workers by states legislatures and Congress. Our measure of child welfare resources is 1996 appropriations for child welfare services

in each state, as collected by the Urban Institute. The Urban Institute reports on both appropriations made for adoption and appropriations made for foster care; however, by 1996 many states had begun to provide concurrent planning for children in foster care. With concurrent planning of reunification and adoption, it is impossible to clearly divide child welfare spending into discrete adoption and foster care categories. Moreover, appropriations for adoption also include the adoption assistance subsidy, which is already accounted for in the regression equation.

Child welfare spending per child in care varied greatly between the states. The average child welfare spending per child was $13,996, and the standard deviation was $8,799. Child welfare spending per child does not appear to influence the adoption rate. The regression results in table 2, column (1) confirm that after controlling for adoption incentives paid to families, child welfare spending per child is not strongly associated with an increase in adoptions from foster care. Even if we attribute, as we may, the low level of statistical significance of the coefficient to multi-colinearity, the size of the coefficient is so small that to increase adoptions per 100,000 by one would require additional child welfare expenditures in the representative state of about $1,100 per child in foster care. In 1996, the average of the number of children in foster care in the states in our study was 10,442. Therefore, the representative state would need additional appropriations of at least $11.5 million annually, or more than a 10 percent increase over average state spending on child welfare services in 1996 to achieve an increase in adoptions of less than one percent.

Together, the variables that represent direct state and federal spending on behalf of foster and adopted children and their families explain 27 percent of the variation in the log of adoptions per 100,000. Considerably more of the variation in adoptions from foster care can be explained when other determinants of demand for adoption services and other determinants of the ability of social workers to match children with families are introduced into the model, as shown in column (3) of table 2.

Other variables that affect the demand for adoption services are the income and age of the population. We include the median household income for each state as our measure of income. The average household income across the states was $37,995, with a standard deviation of $5,594. We include the percentage of the population between 25 and 45 years of age as a measure of the proportion of the population that are likely to be building families. The coefficients on these variables are positive and comparatively large, but neither of the coefficients is statistically significant.

Prospective adoptive families choose between childbirth (with or without infertility treatment), private adoption, intercountry adoption, and adoption from foster care. We control for utilization of these alternatives to adoption from foster care in the specification shown in column (2) of table 2. We expect births per 1000 women, the percent of unrelated adoptions that are private (agency plus non-agency), and intercountry adoptions as a percent of all unrelated adoptions to be negatively associated with the adoption rate. Our expectations are confirmed. States with a large percentage of intercountry adoptions have lower adoption rates, and the coefficient is statistically significant. Suppose two states are identical, except that in state A intercountry adoptions are one percent higher than in state B. The empirical results suggest that we could expect three-tenths of one percent fewer adoptions foster care adoptions for every 100,00 people in state A. The negative relationship between intercountry adoption and adoption from domestic foster care underscores the importance of studying carefully the alternatives to adoption from foster care in the formulation of public policy. For example, tax benefits that go mainly to those who choose intercountry adoption may reduce, at the margin, the number of families who consider adoption from foster care.

The final group of independent variables represents potential difficulties social workers face in matching waiting children with families. Previous studies of adoption from foster care have suggested that race is a particularly important factor influencing the ability to make matches. Both

the race of potential adoptive families and the race of waiting children have been cited as relevant variables. Some researchers (most recently Melosh, 2002) have suggested that African American families avoid stranger adoption. It is said that, when circumstances require, African Americans prefer to use informal networks of extended family care. We therefore control for the size of the African American community, and we expect that the greater the percentage of African Americans in the state population, the lower the adoption rate will be. States with larger African American communities have fewer adoptions from foster care per 100 thousand population, as expected, but the effect is not statistically significant.

As discussed above, some prospective adoptive families may be reluctant to adopt African American children, and that some social workers are reluctant to match African American children with non-African American families. We find that the concentration of African American children in foster care is positively associated with the number of adoptions per 100,000. Taken together, the coefficients on size of the African American community in the state and on the concentration of the African American children in foster care present an encouraging picture. The empirical results may reflect the successfulness of efforts to recruit African-American adoptive families for the African American children who wait, including efforts to promote kinship adoption.

We control for the number of Native American children in foster care because placements of Native American children are regulated by the Indian Child Welfare Act P.L. 95-608). The IWCA "created powerful preferences for placing children with extended family, or within their own tribe, or within the Native American community" (Bartholet, 1999, p. 125). Additionally, under the IWCA states must meet the "beyond a reasonable doubt" standard (rather than the "clear and convincing evidence" standard) when attempting to terminate parental rights of a Native American. For these reasons, we expect state with large populations of Native American children in foster care to have lower adoption rates. Again, we were surprised to find that states with larger populations of

Native American children have more adoptions per 100,000. More research into the reasons for these unexpected positive correlations is required. Quite probably, states with higher concentrations of waiting children who are African American or Native American have been more successful at developing strategies for matching the children to families.

Finally, we consider states' use of the Interstate Compact. We control for the total ICPC placements (both into the state and out of the state) relative to the number of adoptions from foster care. We expect that greater propensity to utilize the ICPC to be indicative of more aggressive recruitment, and therefore we expected to find a positive sign on ICPC use. However, use of the ICPC does not correlate with adoptions from foster care.

In Column (3) of Table 2, we control for the proportion of children with a goal of adoption who have special needs, according to the definition of special needs in their own state. We perform this separate specification because data on the special needs status of waiting children was available for very few states. We expect children with special needs to be harder to place, so that we expect fewer adoptions per 100,000 in the states where nearly all of the children with a goal of adoption had "special needs". However, after controlling for the other policy variables, the prevalence of special needs among children with the goal of adoption does not appear to influence adoptions from foster care. This finding is consistent with a study of photolisted children in New York State by Avery (1999). She finds that the special needs of children who were adopted and of children who experienced long waits were very similar.

Differences in adoption assistance subsidy payments alone explain 25 percent of differences in adoptions. Differences in the set of independent variables used in table 2, column 2, explain a combined 68 percent of variation in adoptions. The failure of variations in child welfare spending and in utilization of the ICPC to explain differences in adoptions from foster care, together with the positive relationship between concentrations of Native American and African American children in

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foster care and adoptions, leads us to suspect that institutional differences in the adoptive recruitment and adoptive matching processes between the states might explain much of the remaining 32 percent of the variation in adoptions from foster care. Future research will extend the analysis in two ways. First, we plan add institutional details (such as the use of databases for matching, the use of adoption specialists, the use of child-specific recruitment, and demonstration project funding) to the analysis. Second, because use of a simple cross-section may not uncover correlations that can be revealed with a panel of data on states over time, we plan to construct histories of adoption policy and practice in the states.

Conclusion

Our economic analysis of adoption from foster care suggests that adoption assistance subsidy policy is the most important determinant of adoptions from foster care that is under the direct control of policymakers. Also, because adoptions from foster care strongly and negatively related to intercountry adoptions, our analysis suggests that policymakers might be able to increase, on the margin, adoptions from foster care by removing tax benefits that artificially reduce the cost of intercountry adoption. Our analysis leads us to predict that, if publicized, the introduction of the unqualified Adoption Tax Credit for special needs adoptions that went into effect January 1, 2003, may be an effective tool for increasing the number of adoptions from foster care.

Racial matching in adoptive placement is not implicated as a barrier to adoption in the statistical snapshot of adoptions from foster care in 1996-97. Because increasing spending on child welfare services and increasing utilization of the ICPC do not appear to be an effective way to increase adoptions for waiting children, we suspect that the most important remaining barriers to adoption are flaws in the matching process itself. Additional research is needed to distinguish the strategies of states that are most successful in meeting the needs of waiting children.

Table 1

Adoption Statistics Compared

	N	Average	Standard Deviation
Adoptions from Foster Care in 1996 (AFCARS)[a]	51	544	825
Adoptions from Foster Care in 1996, National Data Analysis System (CWLA)[b]	45	514	744
Adoptions from Foster Care in 1996, National Council for Adoption (NCFA)*[c]	49	490	770
Average of 1995-97 (AFCARS)[a]	51	547	850
Adoptions from Foster Care in 1997 (AFCARS)[a]	51	608	928
1996 AFCARS per 100k Population[d]	51	12.2	14.7
1995-97 Ave. AFCARS per 100k Population	51	11.5	15.1
1996 CWLA per 100k Population	45	10.1	6.1
1996 NCA per 100k Population	49	10.6	15.9
1997 ACF per 100k Population	51	11.9	14.8

[a] U.S. Department of Health and Human Services, Administration for Children and Families, Children's Bureau, "Adoptions of Children with Public Child Welfare Agency Involvement by State, revised May 18, 2001," http://www.acf.dhhs.gov/programs/cb (last accessed June 1, 2002).

[b] The Child Welfare League of America, National Data Analysis System, "Number of Children in State Custody, by Adoption Status (Archive), 1996," http://ndas.cwla.org (last accessed January 5, 2003).

[c] National Council for Adoption (1989).

[d] State Population from U.S. Census Bureau, Statistical Abstract of the United States: 1997.

* Observations of zero adoptions counted as missing values.

Table 2

Multivariate Regression Results
Dependent Variable: Log of Adoptions per 100,000 Population

	(1)	(2)	(3)
Log of C-O-L Adjusted Adoption Assistance Subsidy [a, b]	0.99*	1.41*	1.22*
	(0.48)	(0.55)	(0.63)
Up-front Cost Subsidy < $2k [c]	-0.02	-0.04	0.11
	(0.18)	(0.15)	(0.25)
Adoption Subsidy > Foster Care Rate [a]	0.39	0.10	.99*
	(0.32)	(0.28)	(0.31)
Log of Child Welfare Spending per Child in Foster Care [d, e]	0.01	0.06	0.21
	(0.15)	(0.15)	(0.19)
Percent with Goal of Adoption and Special Needs [e]			.005
			(.006)
Log of Median Income [f]		0.24	
		(1.37)	
Percent of Pop. Age 25-44 [f]		0.15	
		(0.10)	
Births per 1000 Women Age 15-44 [f]		-0.02	
		(0.02)	
Percent Private Adoptions [g]		-0.01	
		(0.01)	
Percent Intercountry Adoptions [g]		-0.03*	
		(0.12)	
African Americans as Percent of Population [h]		-0.02	
		(0.01)	
African Americans as Percent of Foster Care Population [e]		0.02*	
		(0.008)	
Native Americans >= 10 % of Foster Care Population [e]		0.49*	
		(0.21)	
ICPC Total as Percent of Adoptions [g]		-0.001	
		(0.001)	
N	43	33	20
R-Squared	0.27	0.68	.27
F	3.07	13.52	3.01

Notes: Weighted by population of the state. Standard errors in parentheses, adjusted for heteroskedasticity. * indicates statistical significance at the 95 percent level. Incomplete data for CA, DE, IA, HI, MD, PA, TX, and VA. Additional states missing from column (2) estimate are CO, DC, KS, MT, ND, NE, OH, OR, and WY. Additional states missing from column (3) are AK, AR, KE, ME, MA, MI, NH, OK, RI, TN, VT, WA, WV, and WY.

Sources:

[a] Laws and O'Hanlon (1999).

[b] Cost of living index for 1995 from American Federation of Teachers, **"AFT Interstate Cost of Living Index,"** http://www.aft.org/research/salary/stgrave/col/97.htm (last accessed January 20, 2003).

[c] North American Council on Adoptable Children, "Reimbursement of Non-Recurring Adoption Expenses," http://www.finallyfamily.com/reimbursement.htm (last accessed June 1, 2002).

[d] Urban Institute, Assessing the New Federalism Databases, State Database, http://www.urban.org/content/Research/Databases/Databases.htm (last accessed January 5, 2003).

[e] Foster Care population data from Child Welfare League of America, National Data Analysis System, http://ndas,cwla.org (last accessed June 10, 2003).
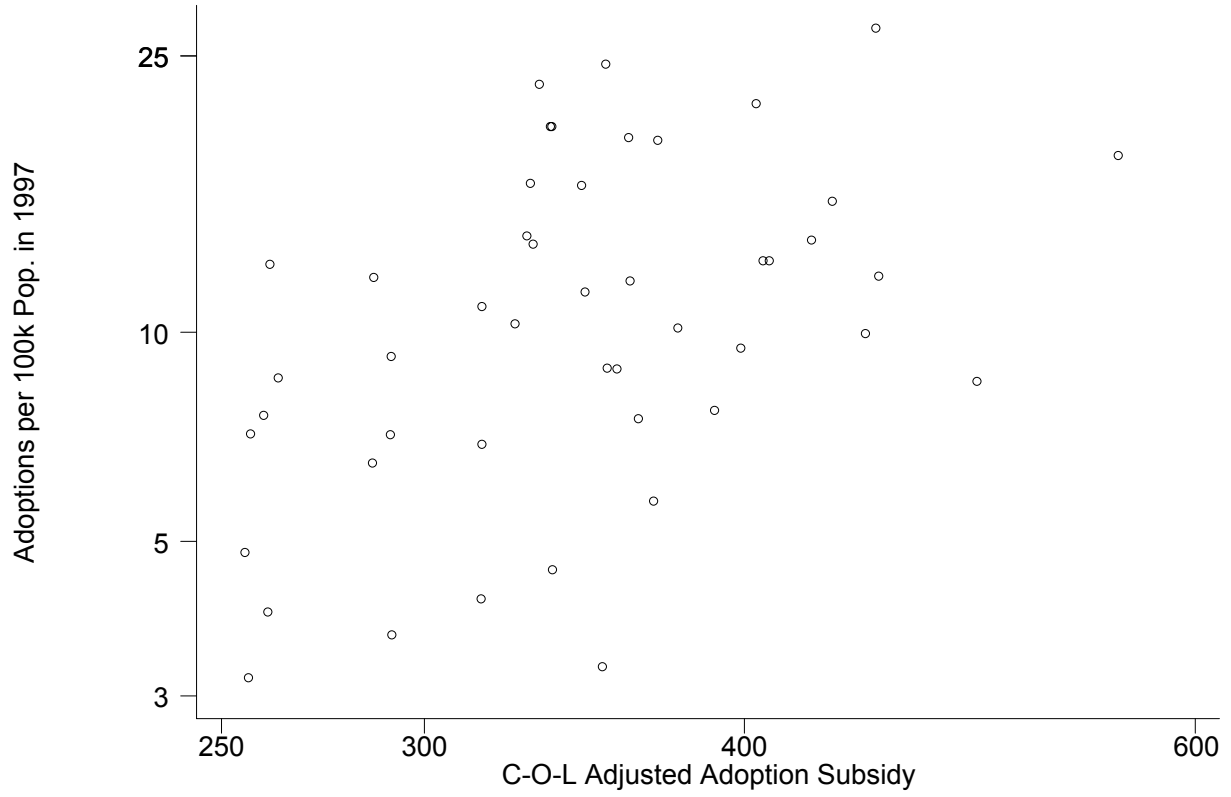
[f] U.S. Census Bureau, Statistical Abstract of the United States: 1997.

[g] National Council for Adoption (1989).

[h] U.S. Census Bureau, Statistical Abstract of the United States: 1998.

Figure 1

Scatter Diagram of Adoptions per 100k and Adoption Subsidy Rate
(log scale)

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<u>Notes</u>

[1] For a lengthier treatment of the consumer theory, please consult Mankiw (2001) chapters 4, 7, and 21; a mathematical treatment may be found inDeaton and Muellbauer (1980). A graphical representation of the model is available from the authors upon request and at http://academic2.american.edu/~mhansen.

[2] If Posner is correct, then the supply of infants relinquished for adoption may increase with the price. The supply of infants relinquished for adoption is discussed by Gennetian (1999) and Medoff (1993). The number of waiting children will be sensitive to non-price elements of subsidy. For example, the "15 of 22" rule for seeking TPR in ASFA would be expected to increase the number of waiting children.

[3] Other studies of the adoption assistance subsidy include Sedlack and Broadhurst (1993), Avery and Mont (1993, 1997) and Avery (1996) focus on who receives the subsidy and upon how quickly children are placed with the subsidy.

[4] For 1996 data see Child Welfare League of America, National Data Analysis System, "Number of Children with a Goal of Adoption and Legally Free for Adoption," and "Number of Licensed or Approved Adoptive Families, by Race/Ethnicity (ARCHIVE), 1996," http://ndas.cwla.org (last accessed January 5, 2003). Simon, Alstein, and Melli (1994), pp. 6-7 give a similar table for 1988.

[5] The correlation matrix is:

	NCA	NDAS	ACF
NCA	1.00		
NDAS	0.88	1.00	
ACF	0.92	0.99	1.00

[6] Other subsidies are also available in some states to cover the cost of child-rearing; for example, Illinois waives tuition at state colleges for children adopted from foster care while Florida subsidizes the cost of post-secondary education of any kind for children adopted from its foster care system. More research on the historical evolution of these subsidies is necessary.

[7] Descriptive statistics of the independent variables available from the authors by request and at http://academic2.american.edu/~mhansen.

[8] Univariate regression results available from the authors upon request and at http://academic2.american.edu/~mhansen.