

Welfare Reforms, Family Resources, and Child Maltreatment

*Christina Paxson
Jane Waldfogel*

Abstract

This paper examines the impact of welfare reforms on several measures of child maltreatment. The authors use state-level data from 1990 to 1998 to examine whether recent welfare reforms have increased or reduced the incidence of reported and substantiated cases of maltreatment, the incidence of specific types of substantiated maltreatment—physical abuse and neglect—and the number of children living in out-of-home care. The welfare reforms considered are the imposition of: family caps, lifetime limits, work requirements, sanctions for non-compliance, and the restriction of welfare benefits to immigrants. How welfare benefit levels and changes in state Earned Income Tax Credit programs affect reports and substantiated cases of maltreatment are also considered. Evidence strongly indicates that reductions in states' welfare benefit levels increase the number of children in out-of-home care, and some evidence indicates that strict lifetime welfare limits and tougher sanctions for noncompliance are related to higher levels of substantiated maltreatment. The evidence on family caps is mixed: family caps appear to be associated with fewer instances of substantiated maltreatment, but more children in out-of-home care. Because most of the welfare reforms examined have been in effect for only a short time, these results should be considered preliminary. Overall, however, they provide some evidence that the recent welfare reforms in the United States may have increased child maltreatment. © 2003 by the Association for Public Policy and Analysis and Management.

INTRODUCTION

Over the past decade, the U.S. welfare system has undergone a major transformation. The reforms began in the first half of the 1990s, as some states used the waiver process to change their Aid to Families with Dependent Children (AFDC) programs, capping benefits when new children were born to families on welfare, limiting the time that families could remain on welfare, and requiring parents to participate in work or work-related activities as a condition of receiving welfare. By 1996, all but four states had obtained at least one waiver and were implementing one or more of these types of reform (Council on Economic Advisors, 1997, 1999).

The reform process accelerated in 1996, with the passage of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA), which abolished

Manuscript received May 2001; review completed August 2001; revision completed December 2001; revision review completed March 2002; accepted March 2002.

Journal of Policy Analysis and Management, Vol. 22, No. 1, 85–113 (2003)

© 2003 by the Association for Public Policy Analysis and Management

Published by Wiley Periodicals, Inc. Published online in Wiley InterScience (www.interscience.wiley.com)

DOI: 10.1002/pam10097

the federal AFDC program and replaced it with a new time-limited program, Temporary Assistance to Needy Families (TANF). Under TANF, families cannot receive federally funded benefits for more than 5 years (although up to 20 percent of families can be exempted), and states may impose shorter time limits. Certain groups face harsher limits. Immigrants, for example, face a number of restrictions in their eligibility for benefits, but with states having many options to make benefits more or less available to them.

In this paper, data on welfare policies, families' resources, and several measures of child maltreatment are used to examine these relationships over the 1990–1998 period. We begin by establishing the relationship between key family resource variables and our measures of child maltreatment, focusing in particular on the effects on the measures of maltreatment of the share of children who live in severe poverty and the share of children who live with employed single mothers. These results suggest that both income and the employment status of single mothers matter for measures of child maltreatment. We then turn to an analysis of key welfare policies that are most likely to affect the income and employment status of single mother families and thus the treatment of children: the level of welfare benefits (benefit levels); the presence or absence of state policies that limit payments to families with new children born on welfare (family caps); limits on the length of time families can receive welfare (time limits); work or work-related activity requirements as a condition of receiving cash assistance (work requirements); and financial penalties or sanctions on those families who fail to comply with the work requirements (sanctions). We also examine the impact of states' EITC programs, and the availability of welfare benefits for immigrants in the post-TANF period. Analysis of the welfare reforms is necessarily preliminary, given that many of the reforms have only recently been enacted. Thus, most weight is placed on the results for welfare generosity, as welfare benefits have been in effect longer and have been consistently measured throughout the period analyzed.

HOW MIGHT WELFARE REFORMS AFFECT CHILD MALTREATMENT?

Recent welfare reforms have shifted the focus of the system from providing cash and other support to low-income single-mother families on an entitlement basis to providing cash and other support to families contingent on their participation in work or work-related activities. TANF programs now require work or participation in a work-related activity at the time of application or soon thereafter, and these requirements are backed up with sanctions—financial penalties that reduce or terminate benefits for families that fail to comply. As part of the reform process, states have increased work incentives in the welfare system, allowing families on welfare to keep more of their earnings, for instance. The states and the federal government have also greatly expanded support for low-income working families, in an effort to “make work pay.” Particularly important in this regard were a substantial increase in the value of the federal Earned Income Tax Credit (EITC) as well as increases in funding for child care and child health insurance, which together greatly increased the rewards to work for low-income single mother families.

In concert with a strong economy, the welfare reforms and increased support for working families have decreased single mothers' reliance on welfare and increased their participation in the labor force. Between 1994 and 1999, welfare caseloads fell by half, from 5 million cases to 2.5 million, and recipients as a percentage of the U.S. population fell from 5.5 percent to 2.3 percent (DHHS, 2000a). Single mothers' participation in the labor force increased dramatically, rising 10 percentage points from 1990 to 1998 for single mothers overall and more than 15 percentage points

for never married mothers, the group most likely to have been on welfare (Waldfogel et al., 2002). Poverty rates of children living in single-mother families fell from 53 percent in 1990 to 42 percent in 1999 (Bureau of the Census, 2000). However, these aggregate statistics probably mask a good deal of variation in outcomes among women affected by welfare reform. Some women who have left welfare for work have increased their income substantially, while others (who remain on welfare or have left welfare without work) may be worse off (see, for instance, Primus et al., 1999). The aggregate statistics also mask what are likely to be large differences for certain sub-groups, such as immigrants, who are more likely than other families to have lost benefits under the welfare reforms.

As the welfare reforms have unfolded, analysts have speculated about the influence the reforms might have on child maltreatment (see, for instance, Besharov, 1997; Courtney, 1997; Waldfogel, 1998). The public welfare system, which handles cash and other assistance to low-income families, has always been closely linked to the child welfare system, which handles reports of abuse and neglect and also placement into foster care. Families who are or have been on welfare make up a large share of families that come to the attention of the child welfare system (American Association for the Protection of Children, 1987; DHHS, 2000b; Pelton, 1994). Thus, any changes that affect families involved with the welfare system might conceivably affect families that enter the child welfare system. Moreover, the nature of the welfare reforms raises specific concerns about the likely effects on reports and substantiated cases of maltreatment. A large body of literature in the maltreatment field establishes a strong connection between family poverty and maltreatment. Low-income families are more likely to be reported for abuse and neglect and their children are more likely to be placed into foster care (for reviews, see Lindsey, 1994; Waldfogel, 1998). In parallel, states whose rates of child poverty increase, experience increases in reported and substantiated cases of maltreatment (Paxson and Waldfogel, 1999, 2002). Research also suggests that when welfare benefits are lower, more children are reported for neglect and more children enter foster care (Paxson and Waldfogel, 2002). To the extent that welfare reforms were accompanied by higher rates of child poverty or decreased welfare benefits, these reforms might be expected to raise the rates of reported and substantiated maltreatment. Conversely, if the net effect of welfare reform were to lower rates of child poverty or increase the levels of assistance, then the reforms might be expected to lower these rates.

In fact, the welfare reforms did more than change benefits and income. Together with a strong economy and increased support for low-income working families, they have also boosted the employment of single mothers. It is not clear a priori what effect this might have on the parenting children receive (see, for instance, Duncan and Chase-Lansdale, 2002). If single mothers who work become more organized and are in better mental health, then conceivably their parenting might improve. If, in contrast, single mothers who work become more stressed and have poorer mental health, their parenting might deteriorate. It is also possible that regardless of the effect on the single mothers' own parenting, the treatment of children might change because non-parental child care would be used more often. If child care is of poor quality, rates of reported maltreatment might increase. Conversely, if child care is of good quality, child outcomes, including maltreatment, might improve. Although a large literature deals with the higher likelihood of reported maltreatment among single mothers than married mothers, few studies have considered the consequences of employment within those families. Prior research with state-level data has found that rates of reported and substantiated maltreatment in a state are higher when more children are living with single

mothers who are working, but not when more children are living with single mothers who are not working (Paxson and Waldfogel, 1999, 2002).

Welfare reforms may also affect fertility or family structure, which could in turn influence maltreatment (since, for instance, the risk of maltreatment is thought to rise with the number of children in the family). One of the goals of PRWORA was to reduce the rate of out-of-wedlock childbearing, and one of its elements, the family cap, was specifically designed to reduce the financial reward to having an additional child while on welfare. However, previous research suggests that any effects of welfare policies on family formation are likely to be small (for a recent review, see Moffitt, 1998). The evidence to date on the family cap is mixed (for a recent review, see Wiseman, 2000), with one experimental study in New Jersey finding that a family cap reduced fertility (Camasso et al., 1998a, 1998b), while another in Arkansas found that it did not (Turturro, Benda, and Turney, 1997). One state-level study finds that family caps reduce the share of non-marital births (Horvath and Peters, 1999).

Although the focus of this paper is mainly on behavioral changes (from 1990 to 1998) associated with welfare reform, it is important to note that the recent welfare reforms may also have had “mechanical” effects, altering the rate of maltreatment identified by the child welfare system without having any true effect on the treatment of children. Consider the situation of a young, clinically depressed mother who is providing less than adequate care for her preschool-aged child. Before work-oriented welfare reform, a concerned relative, neighbor, or professional might have reported her child’s situation to the child welfare system. But since welfare reform, increased contacts with a welfare worker, during the course of a visit to the home or a meeting to discuss the mother’s work activity requirement, would add to the chance that the child’s inadequate care would be discovered and reported to child welfare. Thus, the probability that a family like this would be reported to child welfare could go up post welfare reform, even though the treatment of the child had not changed (Besharov, 1997). This is referred to as a mechanical rather than a behavioral change. Mechanical effects could also work in the opposite direction. For example, if TANF policies are associated with a lower take-up rate for Medicaid, children may be less likely to come into contact with health professionals who are among the most reliable reporters of maltreatment: reports and substantiated cases could decline, despite no change in the status of children. Without data on the actual treatment of children, such mechanical changes cannot be distinguished from true behavioral changes.

In addition, welfare reforms may increase children’s risk of being placed in foster care. Some of these effects may reflect real differences in the care of children. For instance, if families’ incomes are lower after welfare reform or if mothers are occupied with work activities, children may be more likely to enter foster care or less likely to be discharged from care. Other effects may be mechanical. If TANF is less readily available as a source of income support for relatives caring for children whose parents are involved with the child welfare system, use of foster care payments for those children may rise (Geen and Waters, 1997). If so, the foster care data would show an increase in the number of children in foster care even though these children were living with the same relatives that they had been living with previously.

CHILD MALTREATMENT TRENDS IN THE 1990s

State child protective services systems receive reports of suspected child maltreatment, determine whether or not reports should be substantiated, and decide what actions, including removing children to foster care or some other form of substitute care, should be taken to protect children from further harm. In 1998, states received 2.8 million

reports of maltreatment, roughly the same number as in 1990. Reports rose slightly during the early 1990s and then fell towards the end of the decade. Throughout the decade, the most common type of maltreatment reported to child protective services was neglect. In 1998, neglect constituted 56 percent of all reports, physical abuse made up 23 percent, and sexual abuse, emotional maltreatment, and other categories together accounted for the remaining 21 percent (DHHS, 2000). Reports may be made by so-called "mandated reporters," usually doctors or teachers who work with children and who are legally required to report suspected cases of maltreatment; by voluntary reporters, such as family members, friends, and neighbors; or the children themselves.

Reports are disposed of in a variety of ways. For the most part, they are categorized as "substantiated," "indicated" (in some states), "unsubstantiated," or "other." A case is substantiated if sufficient evidence has been found to indicate that a child has been abused or neglected in accordance with state law; a case is unsubstantiated if the evidence indicates that a child was not abused or neglected. Some states (eight in 1998) use the category "indicated" (in addition to substantiated) if there is evidence of maltreatment, but not of the level required by state law for substantiation (DHHS, 2000). In the analysis in this paper, substantiated and indicated cases are combined into a single category.

The share of reports that are substantiated or indicated has been falling over time. In 1998, only 29 percent of reports that were investigated were substantiated or indicated. Most reports that are not substantiated or indicated are unsubstantiated, but a growing number have an "other" disposition as states experiment with different ways of responding to reports of maltreatment (these differential response reforms are described in Waldfogel, 1998). In 1998, 14 percent of all reports that were investigated or assessed had an "other" disposition, as compared to only 0.4 percent in 1990. The spread of differential response reforms and the use of "other" dispositions complicates the tracking of rates of substantiated or indicated victimization over time. As shown in Figure 1, the fraction of children who are substantiated or indicated as victims of the various types of maltreatment is fairly flat throughout the 1990s, and falling slightly after 1996.¹ The increased use of the "other" category, however, means that trends over the 1990s may in part reflect shifts in definitions.² If the condition of children really has deteriorated over the 1990s, the shifts in definitions would make it more difficult to detect. Information on the fraction of children living in out-of-home care (primarily foster care) provides some independent evidence on trends in child maltreatment. Figure 2 indicates that the fraction of children in out-of-home care increased from 1990 to 1997, and showed a very slight decline from 1997 to 1998. The data on out-of-home care come from a different source than the data on reports and cases of abuse and neglect, and so are not subject to the same reporting problems, but they have their own limitations. No single series of numbers reports children in out-of-home care. The data from 1990 to 1995 and 1996 to 1998 were compiled by different organizations. Although the large increase in out-of-home care between 1995 and 1996 could be associated with TANF, it might more plausibly reflect the break in the series. Moreover, the data are more comprehensive when tracking the total number of children in foster care than in tracking entries or exits from care. This is unfortunate since a more complete analysis of foster care determinants would ideally take into account trends in entries and exits, as well as total numbers in care.

¹ Our victim measure is the sum of children substantiated or indicated in different categories of maltreatment. Different victim totals can be constructed from the national NCCAN data, and slightly different patterns over time can be found, depending on whether one sums across categories of maltreatment, gender of the victim, and so on, because some states provide numbers for some and not for others.

² We currently lack the data to correct for these changes in definitions but hope to do so in the future.

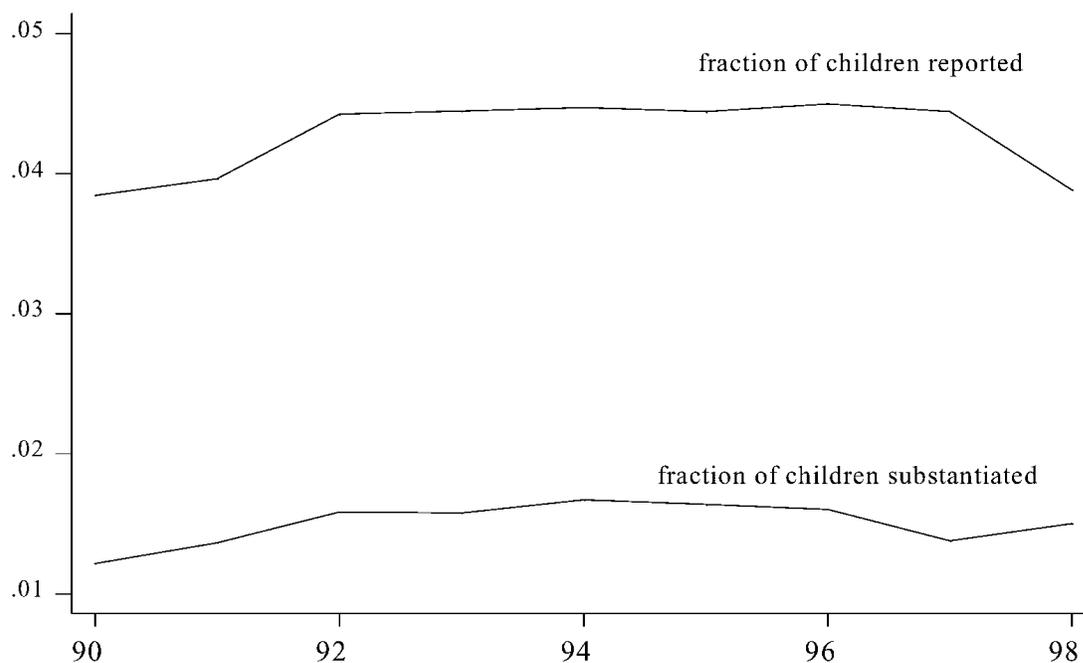


Figure 1. Fraction of children reported for and substantiated for maltreatment, 1990–1998.

THE EFFECT OF WELFARE REFORMS ON CHILD MALTREATMENT

A large and growing literature has established that welfare reforms, in concert with a strong economy and expanded work support such as the EITC, have reduced welfare caseloads (Council of Economic Advisors, 1997, 1999; Figlio and Ziliak, 1999; Huang, Garfinkel, and Waldfogel, 2000; Wallace and Blank, 1999; Ziliak et al., 1997) and increased single mothers' employment (Bainbridge, Meyers, and Waldfogel, 2000; Ellwood, 2000; McKernan et al., 2000; Meyer and Rosenbaum, 2001, 2000; Moffitt, 1999; Shoeni and Blank, 2000). Studies of welfare leavers have provided evidence on the influence of welfare reforms on other outcomes for families (for a recent review, see Acs and Loprest, 2000).

Fewer studies consider the effects of welfare reforms on child wellbeing. However, the existing evidence indicates some adverse effects. For example, several studies indicate that families that experienced reductions and interruptions in welfare benefits were more likely to become involved in the child welfare system (Needell et al., 1999; Shook, 1999), and that children were returned more slowly from foster care to families that had reduced AFDC benefits and increased work activity, as compared with other Ohio families on welfare (Wells and Guo, 2000). Another study found that welfare families who were randomly assigned to a program emphasizing rapid entry into employment had higher rates of sanctioning and case closure and also higher rates of neglect, but not of abuse, during portions of the 2-year follow-up period (Fein et al., 2001).

The most recent evidence on the effect of the welfare reforms on measures of child maltreatment comes from an in-depth case study of 12 states by the Urban Institute

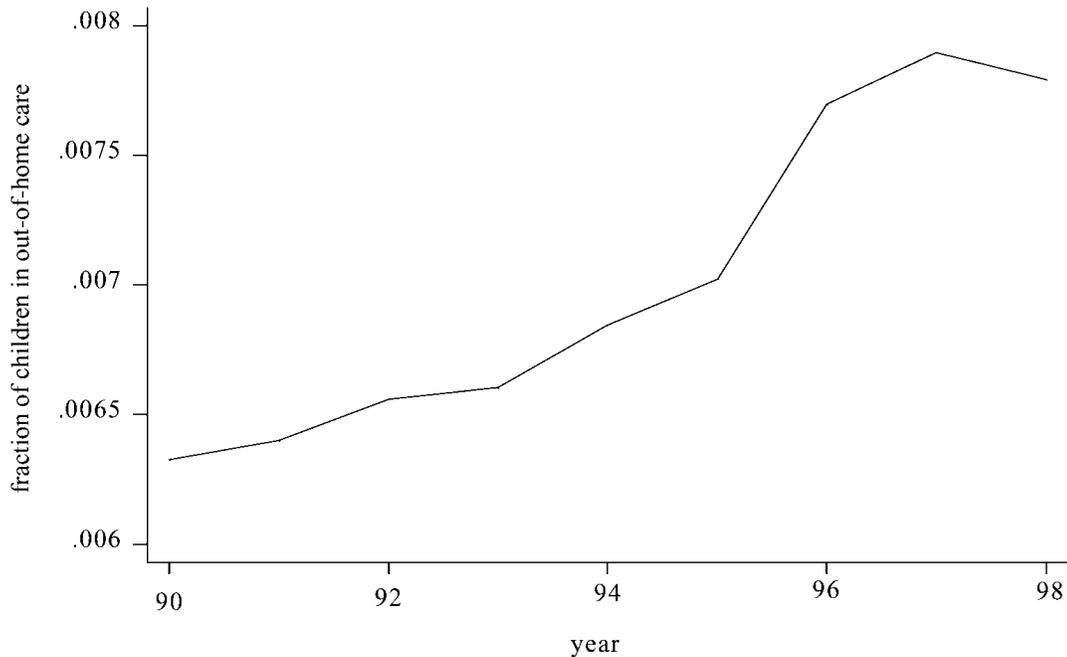


Figure 2. Fraction of children in out-of-home care, 1990–1998.

(Geen et al., 2001). Although the authors did not find a clear-cut connection between welfare reforms and entry into the child welfare system, they did record a number of specific concerns voiced by the child protective services workers they interviewed. In six states, child protective services workers reported seeing more abandoned children, which they attributed to low-income parents' inability to cope with stricter welfare requirements. In five states, child protective services workers reported more children being referred for inadequate supervision because parents were working and using inadequate child care. Also in five states, workers reported an increase in reports of maltreatment of children in immigrant families, a group that has been particularly affected by welfare reforms. In several states (number not specified), workers noted an increase in reports having to do with domestic violence, perhaps because welfare offices are paying more attention to the problem. Also in several states, workers reported getting more referrals from welfare offices. In some states this is because sanctioned families are automatically referred to child protective services and in others it is because welfare workers are now having more contact with families on their caseload, with an especially marked increase in home visits, and are therefore becoming more aware of their problems. Workers also mentioned welfare workers referring more families to child protective services as a result of having received new training on their obligations as mandated reporters.

In light of these specific findings, it may seem surprising that the Urban Institute study failed to perceive any overall effect of welfare reform on child welfare caseloads. However, many other changes occurred throughout the 1990s that might have affected child welfare caseload. Unless one controls for those other changes, teasing out the effect of welfare reform is difficult. Another reason for the lack of a clear overall effect

is that welfare reforms may have offsetting effects. Some families may do better after welfare reform, while others may do worse. Moreover, although welfare reform has been underway throughout the decade, in most states families have yet to reach the time limits, and the number of families who have been sanctioned is still relatively low. Besides that, families who do experience hardship as a result of welfare reform may not immediately come to the attention of child protective services. They may be able to buffer the changes for a while with help from friends and family members (the Urban Institute study heard about more families “doubling up” in three of their sites). It may simply be too soon to tell what the full effect of welfare reform is likely to be.

The following empirical analysis improves upon the prior literature on the effects of welfare reform on child maltreatment by using data on reports and substantiated cases of abuse and neglect and numbers of children in foster care from every state (except Maryland) and the District of Columbia, over the period 1990 to 1998. Moreover, a number of other changes that were occurring at the same time as the welfare reforms (changes in demographics, family structure, and state’s EITC programs) are controlled for. An important limitation, in common with prior research, is inability to control for all of the reforms going on within states’ welfare and child welfare systems over this time period. For example, this study does not control for: the generosity of children’s health insurance programs or child care subsidies; changes in procedures for handling reports of abuse and neglect; or changes in laws affecting the flow of children into or out of foster care. Being unable to control for such changes in policies and laws within states over time is a concern if these policies are correlated with the welfare reforms whose effects are being estimated. If, however, these changes occur independently from the changes in welfare reform their omission will not bias the results. Moreover, the models do control for fixed state effects, an important issue given the substantial variation across states in definitions of maltreatment and share of cases substantiated.

METHODS AND DATA

Methods

The goal here is to estimate the effects of features of state welfare programs on child maltreatment. Unfortunately, household-level data do not exist for maltreatment from a population-based sample spanning a large number of states. This means it is not possible, for example, to examine how children whose families were affected by changes in state welfare programs fared relative to other children in the same state. Nor is it possible to examine the effects of welfare reform on the actual abuse and neglect of children. The data on maltreatment that are available, from the National Center for Child Abuse and Neglect (NCCAN), are state-level aggregates of numbers of reports and substantiated cases of maltreatment, broken out by type of maltreatment.³ Thus, it is important to keep in mind that maltreatment in this paper refers to reports of abuse or neglect filed with state child protective services agencies, and cases of abuse or neglect substantiated (or indicated) by those agencies. A fairly consistent series of data on these state-level measures of maltreatment are currently available from 1990 to 1998. In this paper, measures of maltreatment include the total number of reports

³ The NCCAN data also break out cases of maltreatment by other categories, for example by the age of victims, the race of victims, and the relationship of the perpetrator to the victim. We do not use this information here. The NCCAN data do not include information about the welfare status of the victim’s households.

in the state, the number of substantiated and indicated cases of maltreatment, the number of substantiated and indicated cases of physical abuse, and the number of substantiated and indicated cases of neglect. Because the most severe cases of maltreatment result in removal of the child from the home, the number of children in out-of-home care (primarily foster care) was also examined. However, it should be noted that children may also be placed in out-of-home care for other reasons, such as parental incapacity or incarceration, or the disability or delinquency of the child.

The use of state-level data implies the need for caution when interpreting results. For example, a finding that increases in the fraction of children with working mothers are associated with higher rates of reported or substantiated maltreatment does not necessarily imply that the risk to any individual child rises when his or her mother works. This is the “ecological fallacy” problem. It must be continually kept in mind that the associations identified occur at the state level and not at the household or child level. Without household-level data, it is difficult to trace the mechanisms that underlie the aggregate relationships. Nevertheless, the state-level analyses provide some indication as to potential relationships between policy changes and the treatment of children. As such, they can raise “red flags” that indicate potential adverse effects of policies that should be further explored.

Below, two sets of results are presented. The first is an updated version of the results in Paxson and Waldfogel (2002); it focuses on the relationship between poverty, family structure, and parental employment and the measures of maltreatment. The second set, which is more central to this paper, examines the relationship between characteristics of states’ welfare programs and the measures of maltreatment. For both sets of results, equations are estimated of the form:

$$\ln(y_{st}) = \gamma_s + \delta_t + X'_{st}\beta + e_{st} \quad (1)$$

where $\ln(y_{st})$ is the logarithm of the measure of maltreatment for state s in year t . The term γ_s denotes a set of state fixed effects, and the term δ_t denotes a set of year effects. For both sets of results, the vector X_{st} contains a set of controls for: the logarithm of the state’s population, the logarithm of the number of children in the state, the fraction of children in different age categories, the fraction of children who live in urban areas, the fraction of children in different ethnic groups, and the fraction of children whose mother does not have a high school degree. The last three variables (fraction in urban areas, fraction in different ethnic groups, and fraction with poorly educated mothers) are constructed using data from the 1990–1998 March Current Population Surveys (CPS).

In the first set of results (those that update Paxson and Waldfogel, 2002), X_{st} is a set of measures of the economic circumstances and family structure of children in the state; specifically: we include the state’s adult unemployment rate, the average per capita income level of children in the state, the fraction of children in extreme poverty, and a set of measures of the fraction of children in different family structures with different parental employment patterns. These measures are also derived from CPS data. The second set of results, rather than including the economic circumstances of children in X_{st} , instead includes a set of measures of characteristics of the state’s welfare system that are, presumably, determinants of children’s economic circumstances.

The use of state fixed effects in equation (1) is important. A variety of unobserved factors may result in different levels of maltreatment across states. For example, laws governing child maltreatment differ among states, as do standards for substantiating

cases in practice. These differences in laws and standards could result in cross-state differences in measured maltreatment rates, even if no real differences in maltreatment exist. States may also differ in things such as (unobserved) parental attitudes or the cost of child care that genuinely affect the way that children are treated. Furthermore, these unobserved factors could be correlated with the variables in X_{st} , leading to biased parameter estimates. (For example, “child-friendly” states that strictly enforce child maltreatment laws may also be less likely to adopt “tough” welfare reform measures that could harm children—possibly diminishing the estimated effect of tough welfare reforms on child maltreatment.) To the extent that these factors are fixed over time, the bias can be eliminated by the inclusion of state fixed effects. Another potential problem is that common trends or time patterns in reports of child maltreatment will be spuriously correlated with trends or time patterns in other variables. The inclusion of year effects will sweep out these factors, at least to the extent that they are common across states.

An important issue for the first set of results is measurement error in the independent variables in equation (1) (right side), specifically the inclusion of exogenous variables that have been computed from the March CPS data. Despite the fact that the March CPS collects information on the household characteristics of a large number of children (30,000 to 40,000 per year), the state-level characteristics computed from the CPS are based on relatively small samples, especially for the smaller states. If equation (1) is estimated using ordinary least squares, measurement error in these measures will produce biased parameter estimates. However, this measurement error can be corrected, using the methods outlined in Paxson and Waldfogel (2002) and discussed in more detail in Deaton (1985). In what follows, bias-corrected estimates are shown for the first set of results, since the family structure variables of interest in these regressions are measured from the CPS. In practice, bias correction has large effects on these parameter estimates (Paxson and Waldfogel, 2002). In the second set of results, examining the relationship between the welfare policy measures and maltreatment measures, ordinary least squares estimates are reported. These regressions include only four independent variables that were constructed from the CPS data (fraction urban, fraction black, fraction other non-white, and fraction with mothers with no high school degree), and the bias correction has very little effect on the coefficients and standard errors of the policy variables discussed below.⁴

Data

The state-level information on reports and substantiated or indicated cases of child maltreatment from 1990 to 1998 comes from the NCCAN data base. This data base contains information on the numbers of reports of child maltreatment, and the numbers of substantiated or indicated cases of physical abuse, neglect, sexual abuse, and other types of abuse. This information can be used to calculate each state’s substantiation rate. No consistent information on substantiated or indicated cases is available prior to 1990.

Several details of the measures of abuse and neglect should be mentioned. First, “reports” are usually recorded by states on a family basis (i.e., number of families reported for maltreatment) but are also reported on a child basis (i.e., number of children suspected to be victims of maltreatment) by a small number of states. All

⁴ Hypothesis testing is less cumbersome when the bias-corrected estimates are not used.

reports were converted to a “family” basis by multiplying “child-based” reports by the average ratio of family-based to child-based reports in states that produced both figures (the conversion factor was equal to 0.616).⁵ Second, the term “victims” or “substantiated cases” refers to children in both indicated and substantiated cases. Third, some states report medical neglect as a category separate from neglect, but many do not. For the states that report both, the two categories are combined into one. Fourth, the measure of the total number of victims is the sum of victims in each of the categories (physical abuse, neglect, sexual abuse, and other). In some states, children who are victims of more than one type of maltreatment are included in the victim totals of each type of maltreatment they were exposed to. In these cases, the measure of “total victims” is overstated. This is unlikely to bias the results, since state fixed effects are included in the models. Further information about the maltreatment numbers can be found in Paxson and Waldfogel (2002).

The final measure of maltreatment is the number of children in out-of-home care—primarily foster care. Information on the number of children in out-of-home care from 1990 to 1995 comes from the Voluntary Cooperative Information System (VCIS), a project of the American Public Human Services Association (formerly the American Public Welfare Association). The VCIS data series ends in 1995, so data for 1996 to 1998 come from a database maintained by the Child Welfare League of America (CWLA). Both the VCIS and CWLA data are a count of the children in out-of-home care on the last day of the year, and are available by state and year. As noted, the number of children in care at a point in time reflects both flows into foster care and out of foster care. Ideally, we would model flows into care and out of care, as well as the total number in care. However, the data on flows are limited, since not all states reporting total numbers also report numbers entering and exiting. This should be less of a problem in future research as better national data on foster care become available through the new AFCARS reporting system (Waldfogel, 2000).⁶

The state-level data on the socioeconomic characteristics of children’s families come from the 1990–1998 March Current Population Surveys. These variables were defined to reflect the living conditions of children within each state and each year, rather than the living conditions of the entire population. For each year, records were selected for all children under the age of 18, socioeconomic variables were constructed for each child, and then estimates of state-level means were computed for all children, using the appropriate individual-level survey weights. The state-level statistics include: the average of the logarithm of the child’s household per capita income; the fraction of children with family income less than 75 percent of the poverty line; the fraction of children living in urban areas; the fraction of children who are white, black, or of another race; the fraction of children whose mother has less than a high school education; the fraction with a non-working father; and the fraction with no father in the household. Also computed was the fraction of children with a working mother and an absent father, the fraction with

⁵ For ease of exposition, we refer to the number of reports as the number of children reported, but it is important to note that this may not equal the number of different children reported (since a child may be reported more than once). For our purposes, this is not a crucial distinction since we would be interested in effects of welfare reform whether they operated through more children being abused or neglected or through some children being abused or neglected more often.

⁶ We are not able to use AFCARS data here because state-level AFCARS data are available only for a subsample of our years, 1994 to 1997.

a working mother and a non-working father, and the fraction with a working mother and a working father.⁷ The addition of these variables to the model allows an examination of how the movement of mothers from non-work to work affects maltreatment, and whether the effect of movements of mothers into work depends on the status of fathers.

The remaining variables are drawn from a variety of sources. Estimates of the number of adults and children in different age categories in each state and year were obtained from the Web site of the U.S. Census Bureau. The data sources for the welfare measures are listed in the Appendix. A state is considered to have adopted a reform in a given year if the policy had been implemented early in the year in question.

After eliminating observations with missing information on the NCCAN maltreatment measures, the final sample consisted of 415 observations (where an observation is a state/year pair), representing 49 states and the District of Columbia.⁸ An additional 36 observations lacked information on the number of children in out-of-home care, leaving 379 observations with which to estimate equation (1) for out-of-home care.

RESULTS

Family Structure, Employment, and Maltreatment

The first set of estimates (Table 1) focuses on the relationship between poverty, family structure, parental employment, and measures of child maltreatment. These results are updates of those in Paxson and Waldfogel (2002), which used data from 1990 to 1996. Although these results are not the primary focus of this paper, several findings are relevant to welfare reform.

First, higher poverty rates are associated with more substantiated cases of maltreatment (although poverty is not related to reports of maltreatment) and more substantiated cases of physical abuse and neglect. These effects are large. For example, an increase in the fraction of children who are in extreme poverty (less than 75 percent of the poverty line) from 0.05 to 0.06 is predicted to increase the number of cases of substantiated maltreatment by 3.8 percent. Similar results are obtained if we use the fraction of children below the poverty line (rather than below 75 percent of the poverty line). At the same time, higher average per capita incomes in states (controlling for the fraction poor and the unemployment rate) are associated with higher numbers of substantiated cases of maltreatment and substantiated cases of physical abuse, but not neglect. This may be due to states being more willing to allocate resources to substantiating claims of maltreatment (e.g., more case-workers) during economic upturns.

Another important finding is that higher fractions of children whose father is absent (i.e., no father or father figure in the household) are not associated with higher rates of measures of maltreatment unless the mother works. For example, the effect of an increase in the fraction of children with absent fathers on the logarithm

⁷ Few children live in households with no mother, and we excluded these cases. "Mothers" can be biological, step, or adoptive. "Fathers" can be biological, step, adoptive, or live-in boyfriends of the mother. See Paxson and Waldfogel (2002) for details.

⁸ Maryland does not report information on substantiated cases to NCCAN. Some other states are missing in specific years. See Appendix Table 1 for details.

Table 1. Maltreatment and income, employment, and family structure. Full sample.

Dependent Variable (In Logarithms)	Reports	Substantiation Rate	Substantiated Cases	Physical Abuse	Neglect	Children in Out-of- Home Care
Unemployment rate	-0.030 (1.41)	0.031 (1.21)	0.001 (0.04)	-0.078 (3.15)	-0.020 (0.79)	0.012 (0.67)
Fraction urban	-0.221 (1.67)	0.052 (0.32)	-0.170 (1.20)	0.040 (0.25)	0.109 (0.69)	-0.260 (2.14)
Fraction black	-0.431 (0.29)	1.331 (0.75)	0.900 (0.57)	1.293 (0.73)	0.470 (0.26)	-1.296 (1.00)
Fraction other non-white race	2.084 (1.23)	-4.082 (2.01)	-1.999 (1.11)	-5.115 (2.53)	-4.338 (2.13)	-2.399 (1.49)
Average ln (income per capita)	-0.365 (0.93)	1.383 (2.92)	1.017 (2.43)	1.228 (2.63)	0.655 (1.39)	-0.741 (2.14)
Fraction less than .75 of poverty line	1.134 (1.04)	2.648 (2.02)	3.782 (3.25)	3.471 (2.67)	3.025 (2.31)	0.461 (0.44)
Fraction with mothers with no high school degree	-1.244 (1.29)	0.223 (0.19)	-1.021 (1.00)	-0.403 (0.35)	-0.210 (0.18)	-0.924 (1.08)
Fraction with absent father	-0.253 (0.17)	-0.103 (0.06)	-0.356 (0.22)	-0.283 (0.16)	-1.917 (1.05)	-1.538 (0.95)
Fraction with absent father and working mother	2.328 (1.35)	1.141 (0.55)	3.469 (1.88)	2.631 (1.28)	4.284 (2.06)	3.592 (2.22)
Fraction with non-working father	-0.166 (0.11)	3.758 (1.99)	3.591 (2.14)	3.761 (2.00)	3.496 (1.85)	-0.321 (0.27)
Fraction with non-working father and working mother	5.200 (2.35)	-6.361 (2.39)	-1.161 (0.50)	-2.933 (1.12)	-2.500 (0.95)	0.578 (0.30)
Fraction with working father and working mother	-0.434 (0.48)	0.312 (0.29)	-0.122 (0.13)	-1.764 (1.65)	-0.136 (0.13)	-0.203 (0.28)
ln(foster care maintenance payment)						0.123 (1.05)
Observations	413	413	413	413	413	379

T-statistics in parentheses. All models included a set of year dummies and state dummies, the logarithm of the state population, the logarithm of the number of children less than age 18, and the fraction of children in three age categories (3–4, 5–13, and 14–17, with the fraction less than 3 as the omitted category). All coefficients and standard errors (on which the *t*-statistics are based) are adjusted for bias due to the use of right-hand-side variables that were estimated from CPS data.

of substantiated cases of maltreatment is negative (-0.36) and insignificant. However, the additional effect of an increase in the fraction of children with absent fathers and working mothers is positive, large (3.5), and significantly different from 0 at the 10 percent level. This result indicates that, within states, increasing the fraction of children with absent fathers and working mothers from 11 percent to 12 percent, holding the fraction of children with absent fathers fixed, is associated with a 3.5 percent increase in the number of victims of substantiated maltreatment. Of the two specific forms of substantiated maltreatment examined (physical abuse and neglect), movements of mothers into work (given absent fathers) have the largest association with neglect. The fraction of working mothers and absent fathers also has a large and significant coefficient in the model for out-of-home care.

Although increases in the share of children with a single mother who works is associated with increases in substantiated maltreatment (and in particular neglect), the same is not true for increases in the share of children in two-parent families with a working mother. First consider the share of children in two-parent families whose fathers do not work. Results indicate that increases in the share of children in a two-parent family with a non-working father is positively associated with substantiated maltreatment. However, the size of this effect does not depend on the share of these children whose mother works. For example, the coefficient on "fraction with non-working father" in the regression for substantiated cases is 3.6 ($t = 2.1$), but the additional effect of increasing the fraction with working mothers (when fathers do not work) is negative but not significantly different from zero. Finally, the estimated coefficient for the fraction of children with two working parents is not significantly different from zero for any maltreatment measure. The omitted category is working father and non-working mother. These results indicate that an increase in the fraction of children with two working parents and a corresponding decline in the fraction of children with a working father and non-working mother is not associated with changes in reported or substantiated maltreatment.

Overall, these results indicate that welfare reforms that result in moving single mothers from non-work to work may increase substantiated child maltreatment in a state, even holding the level and distribution of the state's income fixed. This effect is particularly strong for cases of substantiated child neglect. It should be kept in mind, however, that these results are silent on the issue of whether this increase in substantiated cases reflects increases among the children whose mother moves into work. This issue cannot be addressed without individual-level data.

The results in Table 1 are based on the full sample for which data on measures of child maltreatment are available. However, there is reason to believe that some of NCCAN's maltreatment numbers, especially in the later years, are unreliable. Between 1996 and 1998, several states shifted to new data processing systems, and in these years the maltreatment numbers appear to vary across years more than usual. To examine the robustness of the results to changes in the sample, 15 observations were dropped for which the movements in cases of maltreatment (either reports or number of victims) were especially large, and for which footnotes in the annual NCCAN report indicated that the state was in the process of shifting to a new data system or had some other data problem (such as incomplete records for that year). The results for this smaller sample are in Table 2. Although the results are generally the same, a few differences should be pointed out. Specifically, the effects of "fraction of children with absent father and working mother" on total substantiated cases and substantiated cases of physical abuse are smaller than in Table 1, and are not statistically significant. The effect for substantiated cases of

Table 2. Maltreatment and income, employment, and family structure. Questionable observations removed.

Dependent Variable (In Logarithms)	Reports	Substantiation Rate	Substantiated Cases	Physical Abuse	Neglect
Unemployment rate	-0.020 (1.59)	0.029 (1.48)	0.009 (0.45)	-0.076 (3.23)	-0.013 (0.53)
Fraction urban	-0.104 (1.37)	-0.156 (1.30)	-0.261 (2.01)	0.051 (0.35)	0.062 (0.41)
Fraction black	0.167 (0.19)	0.660 (0.47)	0.827 (0.55)	2.026 (1.21)	1.323 (0.75)
Fraction other non- white race	-0.176 (0.17)	-1.769 (1.06)	-1.946 (1.09)	-5.639 (2.78)	-4.271 (2.01)
Average ln (income per capita)	-0.173 (0.76)	0.988 (2.74)	0.815 (2.11)	0.854 (1.98)	0.461 (1.02)
Fraction less than .75 of poverty line	1.356 (2.10)	1.823 (1.78)	3.179 (2.88)	2.170 (1.77)	2.627 (2.03)
Fraction with mothers with no high school degree	-0.162 (0.30)	-1.018 (1.17)	-1.180 (1.27)	-0.674 (0.65)	-0.448 (0.41)
Fraction with absent father	-0.027 (0.03)	0.940 (0.67)	0.913 (0.61)	0.649 (0.39)	-1.455 (0.82)
Fraction with absent father and working mother	1.008 (0.93)	1.018 (0.59)	2.026 (1.09)	1.228 (0.59)	3.907 (1.77)
Fraction with non-working father	1.022 (1.09)	3.958 (2.64)	4.980 (3.08)	5.127 (2.82)	5.297 (2.77)
Fraction with non-working father and working mother	2.775 (2.06)	-5.746 (2.66)	-2.972 (1.30)	-4.436 (1.72)	-4.773 (1.75)
Fraction with working father and working mother	0.242 (0.47)	0.266 (0.33)	0.508 (0.58)	-0.862 (0.88)	0.566 (0.55)
Observations	398	398	398	398	398

T-statistics in parentheses. All models included a set of year dummies, a set of state dummies, the logarithm of the state population, the logarithm of the number of children less than age 18, and the fraction of children in three age categories (3–4, 5–13, and 14–17, with the fraction less than 3 as the omitted category). All coefficients and standard errors (on which the *t*-statistics are based) are adjusted for bias due to the use of right-hand-side variables that were estimated from CPS data. The sample excludes 15 observations for which there was reason to believe the maltreatment data were incorrect.

neglect, which is the most common form of maltreatment, is slightly smaller than in Table 1, and remains significant at the 10 percent level.⁹

Welfare Reforms and Child Maltreatment

The effects of characteristics of the welfare system on measures of child maltreatment are presented in Tables 4 through 7. The effects of welfare benefits levels (cash assistance plus the value of food stamps), family caps, pre-TANF waivers, and TANF lifetime limits, work requirements, and sanctions on reports are examined in relation to substantiated cases of child maltreatment and the number of children in foster care. The specific measures used are listed and defined in Table 3, which also shows their sample means over the full 1990–1998 period as well as the 1996–1998 period.

This paper deals with the effects of the reforms that came with TANF. However, since 1992, states used waivers to modify their welfare systems to include work incentives, time limits, and work requirements. States that adopted these waivers in the pre-TANF period may have been more likely to adopt “tougher” reforms under TANF, or to adopt TANF plans more quickly. If the pre-TANF waivers are not controlled for, then the estimated “effects” of the reforms under TANF may be biased down. To control for reforms in the pre-TANF period, a variable called “waiver” was constructed; it equals 1 if the state had a waiver for a work requirement, welfare time limit, or work incentive during its pre-TANF period, and 0 otherwise. In other words, once the state adopts its TANF plan, “waiver” is set to 0.¹⁰

Table 4 shows results of regressions that include a limited set of welfare measures: the logarithm of the maximum welfare benefit (including both cash and food stamps) for a family of four, a dummy variable for whether welfare benefits do not increase when an additional child is born to a family on welfare (“family cap”), the pre-TANF waiver measure described above (“waiver”), a dummy variable for whether there is a lifetime limit on receipt of TANF benefits (which is equivalent to the state having a TANF plan in place), a dummy variable for whether the TANF plan requires participation in work or a work-related activity immediately upon applying for benefits, and a dummy variable for whether the first instance of non-compliance results in a full family sanction (i.e., a complete cut in the entire family’s benefits, not just the adult’s “portion” of the benefits or some percentage of the entire family’s benefits). In the models for the number of children in out-of-home care, a measure of the amount the state pays to foster parents for the maintenance of a child was also included. Because maintenance payments vary with age, the payments were averaged for 2-year-olds, 9-year-olds, and 15-year olds, and the logarithm of this value was taken. The number of children in out-of-home care is expected to increase with the amount paid to foster parents for their maintenance. However, it is possible that the foster-care maintenance payment level responds to the number of children the state wants to place in foster care (i.e., it is endogenous), in which case it is not a suitable right-hand-side variable. When the models were re-estimated excluding this variable, little difference was found in the results for the other variables in the model.

⁹ We do not estimate the model for out-of-home placements on the smaller sample, since these numbers do not come from NCCAN.

¹⁰ As it turns out, the variable “waiver” is not significantly different from zero in any of the models. We experimented with an alternative definition of waiver, so that once “waiver” is set to 1, it remained at that value for the remaining years (so, a state that adopted work requirements in 1995 would have “waiver” equal to 1 for 1995–1998). This had no effect on the results.

Table 3. Means (standard deviations) of variables, 1990–1998 and 1996–1998.

Variable Name and Definition	1990– 1998	1996– 1998
ln(reports)	9.85 (1.07)	9.83 (1.11)
ln(substantiation rate)	–0.492 (0.478)	–0.549 (0.483)
ln(substantiated victims)	9.36 (1.09)	9.28 (1.14)
ln(physical abuse)	7.80 (1.08)	7.63 (1.14)
ln(neglect)	8.54 (1.26)	8.47 (1.29)
ln(children in out-of-home care)	8.44 (1.08)	8.66 (1.15)
ln(welfare payments) = ln(AFDC or TANF payments, plus food stamps, for a family of 4)	6.72 (0.224)	6.77 (0.22)
Family cap=1 if state has implemented a family cap under AFDC or TANF	0.131 (0.338)	0.342 (0.477)
waiver=1 if state has pre-TANF work requirements, work incentives, or time limits, else 0.	0.165 (0.371)	0.263 (0.442)
TANF lifetime limit =1 if there is a lifetime limit for benefits under TANF	0.180 (0.385)	0.614 (0.489)
(TANF lifetime limit < 60 months)=1 if lifetime limit under TANF is shorter than 60 months	0.041 (0.199)	0.140 (0.349)
TANF work requirement is immediate=1 if TANF requires work immediately upon receipt of benefits	0.180 (0.385)	0.614 (0.489)
TANF first sanction is full family=1 if the first sanction a family receives under TANF is the entire loss of the family's benefits	0.057 (0.231)	0.193 (0.396)
TANF first sanction lasts until compliance=1 if the state has a financial sanction for the first incidence of non-compliance that lasts until compliance is established.	0.167 (0.374)	0.570 (0.497)
(availability of TANF benefits to immigrants) measures the extent to which immigrants can receive TANF benefits, measured as (1=most available,...,4=least available). This variable does not vary over time once TANF has been adopted.	0.486 (1.13)	1.66 (1.54)
Refundable EITC =1 if the state offers a refundable tax credit based on a fraction of the Federal EITC credit.	0.039 (0.193)	0.070 (0.257)
ln(foster care payment) = logarithm of (foster care maintenance payment for 2-year-olds+foster care maintenance payment for 9-year-olds+foster care maintenance payment for 16-year-olds)/3	5.83 (0.241)	5.93 (0.227)

The source of information for the variables are in the text or in the Appendix.

Table 4. Maltreatment and welfare measures, basic specification. Ordinary least squares.

	Reports	Substan- tiation Rate	Substan- tiated Cases	Physical Abuse	Neglect	Out-of- Home Care
ln(welfare payments)	-0.520 (0.93)	1.01 (1.49)	0.490 (0.85)	0.342 (0.57)	0.031 (0.05)	-0.800 (2.19)
Family cap	-0.002 (0.03)	-0.128 (1.90)	-0.130 (2.27)	-0.062 (1.03)	-0.115 (1.77)	0.156 (3.64)
Waiver	-0.067 (1.31)	0.009 (0.15)	-0.057 (1.10)	-0.053 (0.96)	-0.064 (1.08)	0.006 (0.18)
TANF lifetime limit	0.062 (0.70)	-0.017 (0.16)	0.044 (0.49)	0.044 (0.47)	0.054 (0.52)	-0.074 (1.16)
TANF work requirement is immediate	0.045 (0.78)	-0.115 (1.65)	-0.070 (1.18)	-0.025 (0.39)	0.056 (0.83)	0.087 (2.03)
TANF first sanction is full family	0.095 (1.34)	0.144 (1.69)	0.239 (3.29)	0.168 (2.21)	0.201 (2.45)	0.021 (0.37)
ln(foster care payment)						0.156 (1.48)
<i>F</i> -test: family cap and TANF variables jointly insignificant [<i>p</i> -value]	0.79 [0.535]	1.81 [0.127]	3.47 [0.009]	1.33 [0.260]	2.42 [0.048]	4.12 [0.003]
Observations	389	389	389	389	389	361

T-statistics in parentheses, *p*-values for *F*-tests in brackets. Variables also included in each regression include: ln(population), ln(population aged <18), the fraction of the population aged 3–4, 5–12, and 13–17, the state's unemployment rate, the fraction of children who live in urban areas, are black, are another non-white/non-black race, and have a mother with less than a high school degree. Each regression also includes a complete set of state and year dummies. Variable definitions and sample means are in Table 3.

Table 4 shows that more generous welfare benefits are associated with significantly fewer children in out-of-home care. This effect is large: a 10 percent increase in benefit levels is predicted to reduce placements into out-of-home care by 7.96 percent.¹¹ To the extent that welfare reforms mean lower benefits, these results indicate that benefit cuts will increase the numbers of children in out-of-home care. It is possible that the effects of welfare benefits vary across the pre- and post-TANF period. Specifically, high benefits coupled with policies that make those benefits difficult to obtain could be less effective at reducing substantiated neglect and out-of-home care. However, the data do not support this hypothesis. Models were estimated which included an interaction of the welfare benefit level with a dummy for whether a TANF plan was in effect. This interaction term was itself insignificant in all equations, and its inclusion did not substantially alter the size or significance of the coefficient for the welfare benefit level.

¹¹ In an earlier draft of this paper, we reported a negative and significant effect of the welfare benefit level on substantiated cases of neglect. Since that time, we have established that there are errors in the data published by NCCAN for cases of substantiated neglect in California for 1990 and 1991, and all of the estimates in this paper for reports, total substantiated cases, and cases of neglect and physical abuse now exclude these years for this state. The effect of the welfare benefit level on neglect became small and insignificant once these observations were excluded. We thank Lisa Sanbonmatsu for pointing out the errors in the California maltreatment data.

Table 4 also shows that the effect of family caps on maltreatment varies across the different maltreatment measures. Specifically, the addition of family caps appears to reduce the number of substantiated cases of maltreatment and increase the number of children living in out-of-home care.¹² Although these results may appear to be contradictory, it is possible to tell a story that is consistent with these findings. A number of papers on maltreatment indicate that large family size is positively related to maltreatment (e.g., Berger, 2001). If so, and if family caps prevent family size from increasing, then it is possible that the number of victims of substantiated maltreatment will decline under family caps. A quite different mechanism could be at work with the number of children placed in foster care: it is possible that families that face family caps have strong incentives to (voluntarily) arrange for additional children to be placed in foster care. Foster care often means placement with a relative, who would then receive a foster care maintenance payment to support the child—money that, with family caps, would not be received by the family if the child stayed at home. Without more evidence (for example, on whether family caps are associated with more voluntary placements of infants into foster care), it is difficult to determine if this interpretation is valid. An alternative construction, that family caps reduce substantiated cases of mild maltreatment but increase severe maltreatment that warrants removal of children from their home, seems farfetched.

In addition to the results for welfare benefit levels and family caps, Table 4 provides evidence that full family sanctions are associated with more substantiated cases of maltreatment and both physical abuse and neglect, and that immediate work requirements under TANF are associated with more children in out-of-home care. The last row of Table 4 shows *F*-tests and associated *p*-values for the hypothesis that the family cap and TANF variables are jointly insignificant. This hypothesis can be rejected at the 5 percent level or better for substantiated cases, neglect, and out-of-home care.

The models shown in Table 5 add several additional welfare variables to the models that contain information on the “toughness” of TANF policies. Specifically, a dummy is included for whether the state set a lifetime limit for TANF of less than 60 months (60 months is the limit set by federal law, but states are allowed to choose a shorter time period). A dummy was also included for whether the first sanction for non-compliance with TANF requirements lasts until the family is back in compliance. A number of states either have no monetary sanction for the first instance of non-compliance, or put a limit on the duration of the sanction of 3 months or less. The results indicate that lifetime limits of less than 60 months are positively and significantly related to the number of substantiated cases of maltreatment as well as the number of children in out-of-home care. (The coefficients for substantiated physical abuse and neglect are also positive, but are not statistically significant.) The presence of first sanctions that last until the family is in compliance is positively and significantly related to the number of children in out-of-home care, but is not related to the other maltreatment measures. Adding these additional variables does not alter the results discussed above: higher welfare benefits are associated with lower rates of out-of-home care; family caps are associated with fewer substantiated cases but higher numbers of children in out-of-home care; full family sanctions are associated with more substantiated cases of maltreatment

¹² The fact that current family caps are related to current maltreatment may be surprising, since changes in fertility decisions that result from the caps should affect family size with a lag of at least 9 months. However, it may be that women changed their fertility decisions in response to the announcement of future caps, rather than to the actual implementation of caps. We cannot distinguish between “announcement” and “implementation” effects. In Table 6, we examine whether there are lagged effects of family caps.

Table 5. Maltreatment and welfare measures, “toughness” measures included. Ordinary least squares.

	Reports	Substan- tiation Rate	Substan- tiated Cases	Physical Abuse	Neglect	Out-of- Home Care
ln(welfare payments)	-0.577 (1.03)	1.073 (1.58)	0.496 (0.86)	0.323 (0.53)	-0.0081 (0.01)	-0.698 (1.99)
Family cap	0.002 (0.03)	-0.127 (1.89)	-0.125 (2.19)	-0.059 (0.98)	-0.110 (1.70)	0.153 (3.69)
Waiver	-0.070 (1.38)	0.014 (0.23)	-0.056 (1.07)	-0.054 (0.98)	-0.066 (1.11)	0.014 (0.43)
TANF lifetime limit	0.019 (0.21)	-0.022 (0.20)	-0.003 (0.03)	0.014 (0.14)	0.007 (0.07)	-0.107 (1.64)
TANF lifetime limit < 60 months	0.111 (1.39)	0.063 (0.65)	0.174 (2.13)	0.094 (1.09)	0.139 (1.49)	0.146 (2.38)
TANF work requirement is immediate	0.030 (0.52)	-0.106 (1.49)	-0.075 (1.26)	-0.032 (0.50)	0.043 (0.64)	0.087 (2.05)
TANF first sanction is full family	0.077 (1.08)	0.155 (1.80)	0.232 (3.17)	0.160 (2.07)	0.187 (2.24)	0.021 (0.36)
TANF first sanction lasts until in compliance	-0.047 (0.82)	0.098 (1.40)	0.051 (0.86)	-0.002 (0.03)	-0.015 (0.23)	0.161 (3.86)
ln(foster care payment)						0.188 (1.83)
<i>F</i> -test: family cap, waiver, and TANF variables jointly insignificant [<i>p</i> -value]	0.93 [0.475]	1.64 [0.137]	3.27 [0.004]	1.08 [0.375]	1.99 [0.067]	6.81 [0.000]
Observations	389	389	389	389	389	361

T-statistics in parentheses, *p*-values for *F*-tests in brackets. Variables also included in each regression include: ln(population), ln(population aged<18), the fraction of the population aged 3–4, 5–12, and 13–17, the state’s unemployment rate, the fraction of children who live in urban areas, are black, are another non-white/non-black race, and have a mother with less than a high school degree. Each regression also includes a complete set of state and year dummies. Variable definitions and sample means are in Table 3.

and substantiated cases of physical abuse and neglect; and immediate work requirements are associated with more children in out-of-home care.

It is possible that the effects of different TANF provisions on maltreatment vary with conditions in the local labor market. Strict lifetime limits and immediate work requirements might have a larger adverse effect on children if it is more difficult for their parents to find jobs. To test this hypothesis, variants of the models in Table 5 were estimated, which included interactions between the state adult unemployment rate and the TANF measures. No evidence was found to support the hypothesis that TANF provisions have larger effects when the unemployment rate is higher. The coefficients on the interactions were sometimes positive and sometimes negative, and are never precisely estimated. It is possible that the state unemployment rate is

too crude a measure of job opportunities for those families affected by the TANF provisions, or that there is too little variation in the unemployment rate within states over time to precisely identify interaction effects. Definitive evidence on this issue will have to wait until more years of data are available.

The results in Table 5 are based on the full sample. These models were re-estimated for reports, substantiated cases, and substantiated cases of physical abuse and neglect using the slightly smaller sample for which “questionable observations” from the NCCAN data have been removed. The removal of a few suspect observations has little effect on the results, with a few exceptions. Specifically, the effect of having TANF lifetime limits of less than 60 months becomes significant for reports (it was formerly significant only for substantiated cases and out-of-home placements), and becomes larger for substantiated cases. However, the formerly positive and significant effect of full family sanctions on substantiated cases becomes smaller and insignificant. Other results are basically unchanged.

The results shown so far include current but not lagged values of the TANF measures. However, many of the TANF provisions may not have immediate effects on families. For example, lifetime limits may have smaller effects on the behavior when they are initially imposed, and bigger effects as lifetime limits begin to bind.¹³ Family caps may also have delayed effects, if they affect fertility decisions that affect future family size. Given how recent the TANF policies are, it is not possible to estimate models with many lags of the policy measures. It is possible, however, to see if adding 1-year lags of TANF measures affects the results. Table 6 shows estimates of a model that include lags of the family cap, waiver, and TANF variables shown in Table 5. The coefficients on all variables are shown individually. However, assuming that no more than one lag is relevant (which may or may not be correct), the appropriate measure of the long-run effect of adopting any policy is the sum of the coefficients on each variable and its lag. In the table the symbol # indicates whether, for each policy variable, this sum is statistically different from zero at the 5 percent level or better.

The results in Table 6 are largely consistent with the earlier results. Family caps are shown to decrease the total number of substantiated cases and the number of substantiated cases of both physical abuse and neglect, but to increase the number of children in out of home care. Short lifetime limits are related to higher numbers of substantiated cases and substantiated cases of physical abuse. And, “tough” first sanctions, that last until compliance, are related to higher levels of out-of-home care. One somewhat puzzling finding is that the lagged lifetime limit (equivalent to the state’s having adopted a TANF plan in the previous year) is negatively and significantly related to the number of substantiated cases and substantiated cases of physical abuse. However, these effects are partially offset by positive coefficients on the current value of whether a lifetime limit exists, and the sum of the coefficients for the current and lagged lifetime limit variables is never significant.

It is possible that a state’s choice of welfare reform measures is correlated with other policy changes—for example, changes in children’s health insurance programs or changes in the tax treatment of poor families. If so, the omission of controls for these other policies may bias our estimates. Good measures of children’s health insurance programs in each state are lacking. However, information is available on whether the

¹³ It should be noted that lifetime limits may have substantial effects on work incentives even before they bind. For example, a forward-looking person may work more immediately when lifetime limits are imposed, so that time on welfare can be “conserved” for future periods when it may be needed more.

Table 6. Maltreatment and welfare measures. Lagged policy variables included. Ordinary least squares.

All Dependent Variables Are in Logarithms	Reports	Substan- tiation Rate	Substan- tiated Cases	Physical Abuse	Neglect	Out-of- Home Care
Family cap, current	0.027 (0.39)	-0.058# (0.73)	-0.031# (0.47)	0.057# (0.82)	-0.027# (0.33)	0.162# (3.38)
Family cap, lagged	-0.051 (0.62)	-0.142 (1.51)	-0.194 (2.45)	-0.193 (2.34)	-0.193 (2.05)	0.004 (0.07)
TANF lifetime limit, current	0.062 (0.60)	-0.029 (0.25)	0.032 (0.32)	0.070 (0.67)	0.048 (0.40)	-0.093 (1.23)
TANF lifetime limit, lagged	-0.002 (0.02)	-0.224 (1.72)	-0.227 (2.08)	-0.255 (2.24)	-0.128 (0.99)	-0.021 (0.26)
TANF lifetime limit < 60 months, current	0.083 (0.87)	0.060# (0.54)	0.144# (1.55)	0.050# (0.52)	0.093 (0.85)	0.148 (1.83)
TANF lifetime limit < 60 months, lagged	-0.027 (0.24)	0.257 (1.93)	0.230 (2.07)	0.353 (3.03)	0.156 (1.18)	-0.028 (0.28)
TANF work requirement immediate, current	0.005 (0.08)	-0.119 (1.52)	-0.114 (1.74)	-0.106 (1.55)	-0.022 (0.28)	0.069# (1.49)
TANF work requirement is immediate, lagged	0.073 (0.90)	0.051 (0.55)	0.125 (1.59)	0.134 (1.62)	0.051 (0.55)	0.088 (1.37)
TANF first sanction is full family, current	0.099 (1.05)	0.066 (0.60)	0.166# (1.81)	0.185 (1.93)	0.182# (1.67)	-0.011 (0.14)
TANF first sanction is full family, lagged	0.019 (0.15)	0.025 (0.18)	0.043 (0.37)	-0.049 (0.41)	0.115 (0.83)	-0.073 (0.76)
TANF first sanction lasts until compliance, current	-0.024 (0.37)	0.063# (0.85)	0.040 (0.63)	-0.032 (0.49)	-0.015 (0.20)	0.149# (3.14)
TANF first sanction lasts until compliance, lagged	-0.118 (1.41)	0.181 (1.86)	0.063 (0.77)	0.004 (0.04)	-0.021 (0.21)	0.068 (1.06)
<i>F</i> -test: current and lagged family cap and TANF variables jointly insignificant	0.76 [0.695]	2.03 [0.021]	3.37 [0.000]	2.55 [0.003]	1.79 [0.050]	3.54 [0.000]
Observations	382	382	382	382	382	357

A “#” means that the sum of the variable and its lag is significantly different from zero at the 5 percent level or better. *T*-statistics in parentheses, *p*-values for *F*-tests in brackets. Variables also included in each regression include: ln(population), ln(population aged<18), the fraction of the population aged 3–4, 5–12, and 13–17, the state’s unemployment rate, the fraction of children who live in urban areas, are black, are another non-white/non-black race, and have a mother with less than a high school degree. The regressions also include the waiver variable and its first lag, and the logarithm of the welfare benefit level. The regression for children in out-of-home care also include the logarithm of the foster care payment level. Each regression also includes a complete set of state and year dummies. Variable definitions and sample means are in Table 3.

state had a “refundable EITC” program that allowed low-income working families to receive a refundable tax credit. States that adopted EITC programs specify the benefit as a percentage of the federal EITC. Among the states with refundable EITC programs over the 1990–1998 period, the average credit was 15 percent of the federal credit. Large changes in the federal EITC occurred over the 1990s, but the effects of these changes were not examined since they came into effect in all states at the same time. The effect of an EITC on maltreatment is difficult to predict a priori: to the extent that an EITC reduces poverty, it might reduce some types of maltreatment, but to the extent that an EITC increases work by single mothers, it might increase some types of maltreatment; and, if these effects are offsetting, the effect might be neutral.

Another aspect of welfare policy post-PRWORA that may affect maltreatment is whether TANF and other welfare benefits are extended to immigrants. States have the option to permit or prohibit immigrants from receiving TANF if they were in the country prior to the passage of PRWORA. Immigrants who entered the country after the passage of PRWORA may not receive federally funded TANF for 5 years, but may receive state-funded benefits if the state opts to provide them. States also have options with regard to providing Food Stamp benefits and Medicaid to immigrants. Tumlin, Zimmermann, and Ost (1999) categorize the availability of state welfare benefits for immigrants from 1 to 4, with 1 being most available and 4 being least available. This measure does not vary over time within a state after its TANF plan is adopted, but permits examination of whether states that made benefits less available to immigrants experienced greater increases in measures of maltreatment than other states.

Table 7 shows the results of models that add a dummy variable for whether the state had an EITC program, and Tumlin, et al.’s (1999) measure of availability of benefits to immigrants (interacted with a dummy for whether a TANF plan was in effect). State EITC plans appear to have no effect on the measures of maltreatment. If a control for the fraction of the federal credit given by states was added, it too was not significantly related to measures of maltreatment. This result may indicate that state EITC policies have offsetting effects on maltreatment. The availability of benefits to immigrants is also not significantly related to the number of substantiated cases of maltreatment, or to the numbers of substantiated cases of physical abuse or neglect. However, states that make benefits less available to immigrants post-TANF (i.e., have higher values of the measure of availability), contrary to

Table 7. Maltreatment and welfare measures: EITC and immigrant benefits measures included. Ordinary least squares.

	Reports	Substan- tiation Rate	Substan- tiated Cases	Physical Abuse	Neglect	Out-of- Home Care
Availability of TANF benefits to immigrants (1=most available,..., 4=least available)	0.051 (1.30)	-0.021 (0.46)	0.030 (0.78)	0.045 (1.11)	0.049 (1.08)	-0.112 (3.66)
Refundable EITC	-0.055 (0.47)	0.100 (0.74)	0.045 (0.39)	0.093 (0.79)	0.198 (1.47)	-0.106 (1.31)
Observations	382	382	382	382	382	357

The models include all variables in the models shown in Table 6, plus the EITC and immigrant benefits variables shown in the Table. *T*-statistics in parentheses

expectation, have fewer children in out-of-home care. However, it is possible that immigrants who do not receive TANF or other welfare benefits are less likely to come into contact with caseworkers, and so maltreatment warranting placement into foster care is less likely to be detected. Adding the EITC and “availability to immigrant” measures leaves the other results unchanged.

DISCUSSION AND CONCLUSIONS

The results in this paper suggest that the recent welfare reforms may increase maltreatment as measured by reports and substantiated cases of abuse and neglect and by number of children in foster care. One of the most robust results is that reduced welfare benefits are associated with increases in the number of children in out-of-home care. To the extent that reforms lead to benefit cuts, reforms would be expected to increase the number of children in out-of-home care. There is also some evidence that short lifetime limits for TANF, the use of full family sanctions, and the use of sanctions of longer duration, are associated with increases in measured maltreatment. However, these effects are not always consistent across the different maltreatment measures, and some are not robust to small changes in the sample.

The strongest evidence that welfare reforms matter comes from the results on the number of children in out-of-home care. This may well be the best measure of severe maltreatment, although (as discussed above) the movement of children into foster care with relatives (“kin care”) may also be a response to the financial incentives associated with welfare reform. The number of children in out-of-home care is negatively and significantly related to the level of welfare benefits. In addition, family caps, short lifetime limits, immediate work requirements, and “tough” sanctions for noncompliance are all positively and significantly related to the number of children in out-of-home care. Future research should examine these links between welfare reforms and foster care caseloads more specifically, to determine the extent to which these caseload effects are due to effects on entries or exits.

A useful way to summarize these results is to show, for an “average” state, predicted substantiated maltreatment levels and foster care levels under current TANF policies and under a counterfactual in which no TANF policies have been adopted. Specifically, the parameter estimates in Table 6 were used to predict the logarithm of the number of substantiated cases and the logarithm of children in out-of-home care for each state and year, and this predicted value was averaged over all states for each year in the sample. The exercise was then repeated but setting values for the family cap variable and all of the TANF variables to 0 (Figure 3). The upper two lines in the graph indicate that there is no overall effect of welfare reforms on the number of substantiated cases—if anything, the “average” package of TANF provisions that states have adopted have reduced cases of substantiated maltreatment. (The dashed line, which shows predicted substantiated maltreatment when reforms are in effect, lies below the solid line, which shows predicted substantiated maltreatment when the welfare reform variables are set to 0.) This result reflects the fact that the effects of the family caps, which are associated with lower maltreatment, outweigh the effects of stricter lifetime limits and sanctions, which are associated with higher substantiated maltreatment. However, the bottom two lines, which show results for children in out-of-home care, tell a different story. These indicate that, had family caps and TANF provisions not been adopted, the number of children in out-of-home care would have declined from 1995 to 1997, much in the same way that the number of substantiated cases of maltreatment declined over this period. These out-of-sample predictions are somewhat perilous—almost all states in our sample had adopted some kind of TANF provisions by 1998. Nevertheless, the

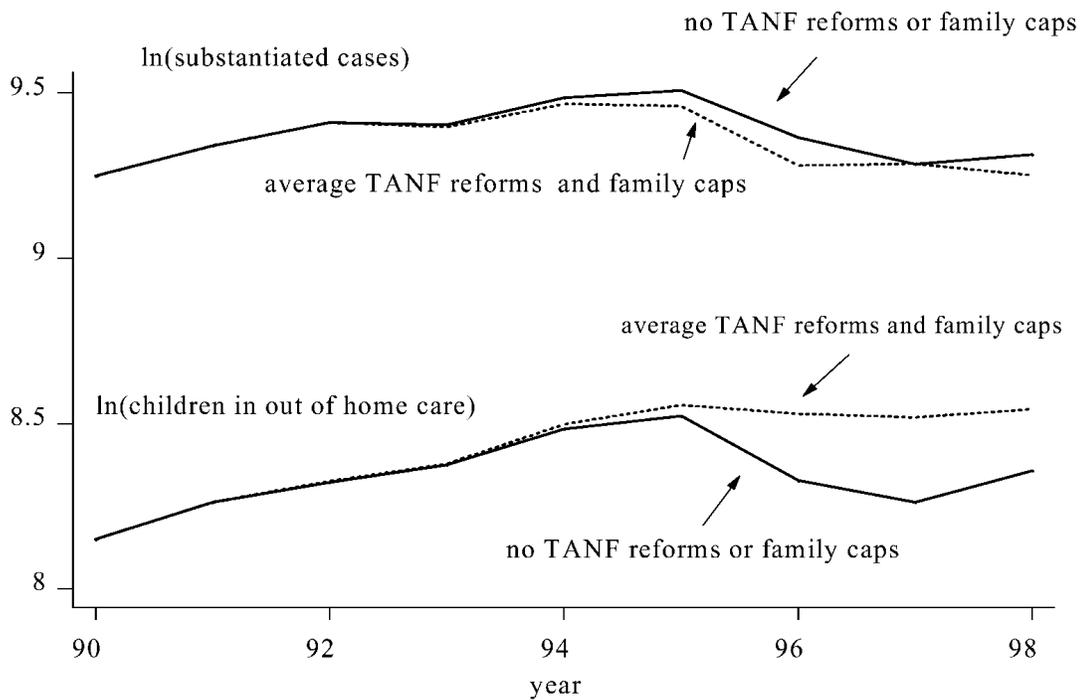


Figure 3. Predicted values of $\ln(\text{substantiated cases})$ and $\ln(\text{children in out-of-home care})$ with and without welfare reforms.

results provide a gauge of the overall size of our estimates, and also give a clue as to why children in out-of-home care did not fall in the second half of the 1990s.

As noted at the outset, this analysis is limited by the use of state-level, rather than household-level, data, and data on cases of maltreatment known to child protective services agencies rather than all instances of maltreatment occurring within homes, thus making it difficult to trace through the pathways by which these policy changes may affect the treatment of children within families. There are also some questionable observations within the state-level data; in future work, the authors intend to continue to check these. In spite of these limitations, however, the results clearly raise some red flags as to potential adverse effects of the recent welfare reforms on child maltreatment.

The fact that any evidence is found that welfare reforms result in increased maltreatment as measured by reports and substantiated cases of abuse and neglect and by numbers of children in foster care is troubling, especially given that the reforms have been in place for only a short time. In 1997, only 3 of 51 states had any families that had reached the lifetime TANF limits, and by 1998 this number had increased to only 11. In addition, the reforms have taken place against the backdrop of a very strong economy. These factors indicate that welfare reforms may have greater long-run effects on maltreatment than this evidence indicates.

We are grateful to the MacArthur Foundation, NICHD, and NIMH for financial support and to Lawrence Berger, Elizabeth Johnson, Amanda Lockshin, and Yan Jiang for research assistance. We thank James Ziliak for data on pre-TANF state waivers, and Lisa Sanbonmatsu for

useful information about the California maltreatment data. This paper was presented at the Association for Public Policy Analysis and Management 23rd Annual Research Conference, November 1-3, 2001, Washington, DC.

APPENDIX

Data Sources

1. Maltreatment data
The measures of reports, substantiated cases, and numbers of victims of physical abuse and neglect come from the National Center for Child Abuse and Neglect.
2. EITC data
Data on states' EITCs were provided by Nicholas Johnson, Center on Budget and Policy Priorities. The data for 1996–1998 are published in the 1996–1998 versions of "State Income Tax Burdens on Low-Income Families: Assessing the Burden and Opportunities for Relief."
3. Welfare rules (time limits, sanctions, family caps, and work requirements)
Data on states' welfare rules come from The Welfare Rules Database, <http://newfederalism.urban.org/WRD>
The Urban Institute © 2000
4. Welfare payments
 - a. AFDC and TANF benefit levels for a family of four were taken from various issues of the Green Book.
 - b. The dollar value of Food Stamps for a family of four was obtained from a spreadsheet provided by Chien Huang (1990–1996) and updated with data from the United States Department of Agriculture (1997–1998).
5. Foster care maintenance payments
State's basic foster care payments for children in three age-groups (age 2, 9, and 16) were obtained from the Urban Institute State Database (1990–1996) and the Child Welfare League of America (CWLA) National Data Analysis System (1997–1998).
Urban Institute State Database: <http://newfederalism.urban.org/nfdb>
National Data Analysis System: <http://ndas.cwla.org>
6. Children in out-of-home care
The number of children in out-of-home care on the last day of the year was obtained from the Voluntary Cooperative Information System (VCIS) (1990–1995) and the Child Welfare League of America (CWLA) National Data Analysis System (1996–1998). <http://ndas.cwla.org>
7. Welfare waivers (family caps, time limits, work incentives, and work requirements)
Data were provided by James Ziliak.
8. Benefits for immigrants
Summary ratings (ranging from 1 [most available] to 4 [least available]) of the availability of benefits for immigrants for 1996–1998 were obtained from Tumlin, Zimmermann, and Ost (1999).

CHRISTINA PAXSON is Professor of Economics and Public Affairs, Princeton University.

JANE WALDFOGEL is Associate Professor of Social Work and Public Affairs, Columbia University School of Social Work.

REFERENCES

- Acs, G., & Loprest, P. (2000). *Studies of welfare leavers: Methods, findings, and contributions to the policy process*. Washington, DC: Urban Institute.
- American Association for the Protection of Children. (1987). *Highlights of official child abuse and neglect reporting—1986*. Denver: American Humane Association.
- Bainbridge, J., Meyers, M., & Waldfogel, J. (2000, November 2). *Child care reform and the employment of single mothers*. Paper presented at the Association for Public Policy Analysis and Management, Seattle, WA.
- Berger, L. (2001, November 2). *Income, family structure, and physical violence toward children*. Paper presented at the Association for Public Policy Analysis and Management, Washington, DC.
- Besharov, D. (1997, April). *Child protective services under welfare reform*. Eighth Annual Nanette Dembitz Memorial Lecture, New York.
- Bureau of the Census. (2000). *Poverty in the United States 1999*. P-60-210. Washington, DC: U.S. Government Printing Office.
- Camasso, M.J., Harvey, C., Jagannathan, R., & Killingsworth, M. (1998a). *A final report on the impact of New Jersey's family development program: Experimental-control group analysis*. New Brunswick: Rutgers University School of Social Work.
- Camasso, M.J., Harvey, C., Jagannathan, R., & Killingsworth, M. (1998b). *A final report on the impact of New Jersey's family development program: Results from a pre-post analysis of case heads from 1990–1996*. New Brunswick: Rutgers University School of Social Work.
- Committee on Ways and Means, U.S. House of Representatives (2000). *2000 Green book*. Washington, DC: U.S. Government Printing Office.
- Council of Economic Advisors. (1997). *Technical report: Explaining the decline in welfare receipt, 1993–1996*. Washington, DC: Council of Economic Advisors.
- Council of Economic Advisors. (1999). *Technical report: The effects of welfare policy and the economic expansion on welfare caseloads: An update*. Washington, DC: Council of Economic Advisors.
- Courtney, M. (1997). *Welfare reform and child welfare services*. In A. Kahn & S. Kamerman (Eds.), *Child welfare in the context of welfare "reform"* (pp. 1–35). New York: Columbia University School of Social Work.
- Deaton, A. (1985). *Panel data from time series of cross-sections*. *Journal of Econometrics*, 30, 109–126.
- DHHS [U.S. Department of Health and Human Services]. (2000a). *Change in welfare caseloads since enactment of new welfare law: Total TANF recipients by state*. Washington, DC: DHHS.
- DHHS [U.S. Department of Health and Human Services]. (2000b). *Dynamics of children's movement among the AFDC, Medicaid, and foster care programs prior to welfare reform: 1995–96*. Washington, DC: DHHS.
- DHHS [U.S. Department of Health and Human Services], National Center for Child Abuse and Neglect. (2000). *Child maltreatment 1998*. Washington, DC: U.S. Government Printing Office.
- Duncan, G.J., & Chase-Lansdale, P.L. (2002). *Welfare reform and child well-being*. In Duncan and Chase-Lansdale (Eds.), *For better and for worse: Welfare reform and the well-being of children and families* (pp. 3–8), New York: Russell Sage Foundation.
- Ellwood, D. (2000). *The impact of the earned income tax credit and social policy reforms on work, marriage, and living arrangements*. *National Tax Journal*, 53(4), 1063–1106.
- Fein, D., Long, D., Behrens, J., & Lee, W. (2001). *The ABC evaluation. Turning the corner: Delaware's A Better Chance Welfare Reform Program at four years*. Cambridge, MA: Abt Associates.

- Figlio, D., & Ziliak, J. (1999). Welfare reform, the business cycle, and the decline in AFDC caseloads. In S. Danziger (Ed.), *Economic conditions and welfare reform* (pp. 17–48), Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.
- Geen, R., Fender, L., Leos-Urbel, J., & Markowitz, T. (2001). Welfare reform's effect on child welfare caseloads. Washington, DC: Urban Institute.
- Geen, R., & Waters, S. (1997). The impact of welfare reform on child welfare financing. *New Federalism Issues and Options for States, Series A, No. A-16*, November. Washington, DC: Urban Institute.
- Horvath, A., & Peters, H.E. (1999). *Welfare waivers and nonmarital childbearing*. Chicago: Joint Center for Poverty Research.
- Huang, C.-C., Garfinkel, I., & Waldfogel, J. (in press). Child support and welfare caseloads. *Journal of Human Resources*.
- Lindsey, D. (1994). *The welfare of children*. New York: Oxford University Press.
- McKernan, S.-M., Lerman, R., Pindus, N., & Valente, J. (2000, May 4–5). The relationship between metropolitan and non-metropolitan locations, changing welfare policies, and the employment of single mothers. Paper presented at the Joint Center for Poverty Research Conference on Rural Dimensions of Welfare Reform, Washington, DC.
- Meyer, B.D., & Rosenbaum, D.T. (2001, August). Welfare, the earned income tax credit, and the labor supply of single mothers. *Quarterly Journal of Economics*, CXVI, 1063–1114.
- Meyer, B.D., & Rosenbaum, D.T. (2000). Making single mothers work: Recent tax and welfare policy and its effects. *National Tax Journal*, 53(4, part 2), 1027–1062.
- Moffitt, R. (1998). The effects of welfare on marriage and fertility. In R. Moffitt (Ed.), *The effect of welfare on the family and reproductive behavior* (pp. 50–97), Washington, DC: National Research Council.
- Moffitt, R. (1999). The effect of pre-PRWORA Waivers on AFDC caseloads and female earnings, income, and labor force behavior. Mimeo, Johns Hopkins University.
- Needell, B., Cuccaro-Alamin, S., Brookhart, A., & Lee, S. (1999). Transitions from AFDC to child welfare in California. *Children and Youth Services Review*, 21, 815–841.
- Paxson, C., & Waldfogel, J. (1999). Parental resources and child abuse and neglect. *American Economic Review Papers and Proceedings*, 89, 239–244.
- Paxson, C., & Waldfogel, J. (2002). Work, welfare, and child maltreatment. NBER Working Paper 7343. *Journal of Labor Economics*, 20(3), 435–474.
- Pelton, L. (1994). The role of material factors in child abuse and neglect. In G. Melton & F. Barry (Eds.), *Protecting children from abuse and neglect* (pp. 131–181). New York: Guilford Press.
- Primus, W., Rawlings, L., Larin, K., & Porter, K. (1999). The initial impacts of welfare reform on the incomes of single mother families. Washington, DC: Center on Budget and Policy Priorities.
- Schoeni, R.F., & Blank, R.M. (2000). What has welfare reform accomplished? Impacts on welfare participation, employment, income, poverty, and family structure. Working Paper DRU-2268. Santa Monica, CA: RAND.
- Shook, K. (1999). Does the loss of welfare income increase the risk of involvement with the child welfare system? *Children and Youth Services Review*, 21, 781–814.
- Tumlin, K., Zimmermann, W., & Ost, J. (1999). State snapshots of public benefits for immigrants: a supplemental report to “patchwork policies.” Washington, DC: Urban Institute.
- Turturro, C., Benda, B., & Turney, H. (1997). *Arkansas Welfare Waiver Demonstration Project: Final report*. Little Rock: University of Arkansas.
- Waldfogel, J. (1998). *The future of child protection: How to break the cycle of abuse and neglect*. Cambridge, MA: Harvard University Press.

- Waldfoegel, J. (2000). Child welfare research: How adequate are the data? *Children and Youth Services Review*, 22, 705–741.
- Waldfoegel, J., Danziger, S.K., Danziger, S., & Seefeldt, K. (2001). Welfare reform and lone mothers' employment in the U.S. In J. Millar and K. Rowlingson (Eds.) *Lone parents, employment and social policy: Cross-national comparisons* (pp. 37–60), Bristol: Policy Press.
- Wallace, G., & Blank, R. (1999). What goes up must come down? In S. Danziger (Ed.), *Economic conditions and welfare reform* (pp. 49–90). Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.
- Wells, K., & Guo, S. (2000, July 29–August 2). The impact of welfare reform on foster care and child welfare: a case study of reunification of foster children in the first entry cohort. Paper presented at the National Association for Welfare Research and Statistics, Scottsdale, AZ.
- Wiseman, M. (2000). *Welfare's children*. Discussion paper 1212–00. Madison, WI: Institute for Research on Poverty.
- Ziliak, J., Figlio, D., Davis, E., & Connolly, L. (1997). Accounting for the decline in AFDC caseloads: welfare reform or economic growth? Discussion paper 1151–97. Madison, WI: Institute for Research on Poverty.