

Financial Hardship and Child Maltreatment: Six Studies in Five States



Summary Paper 1

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Abstract

This is the first IARA summary paper on family financial hardship and child welfare. It is a summary of six multi-year, multi-method evaluation studies conducted by the authors of programs directed toward families reported for child maltreatment. The programs each involved intensive services to families, including increased financially related (material) services. They also involved greater flexibility in worker-family decision making regarding service needs and any assistance to be provided. Together the studies involved upwards of 20,000 families.

Five of the six were field experiments. In those studies, experimental families were provided with intensive and flexible services while control families were treated in the traditional manner by Child Protection Services (CPS) workers. The first two studies summarized were experiments in which workers were permitted to expend Title IV-E funds to address a broad array of family needs rather than simply payment for foster care. Those programs were focused on high-risk child protection cases. Two other experiments concerned lower-risk cases. In those, foundations provided extra funds that could be expended on experimental children and their families. In the fifth experiment, experimental families were directed into a state program designed to assist families experiencing financial hardships. The sixth study provided intensive services on a voluntary basis to families whose child maltreatment reports had not been accepted by CPS for further action and other families referred from other state agencies.

Families were impoverished and, in most cases, suffering financially. In each study material services increased for experimental families, and outcome measures demonstrated improvements in the long-term safety and welfare of the children. The present summary concludes by advocating reuniting income maintenance and child protection in the mold of family and child welfare work before state CPS agencies were established in the early 1970's.

This summary study is highly focused on particular subset of families suffering financial hardship. Summary Paper 2 (available on our website: www.iarstl.org) approaches the problem more broadly, focusing on poor and working class families generally. Subsequent summaries turn to solutions.

Introduction

This paper is a summary of six large-scale multiyear, multimethod studies of the effects of material assistance on families accused of child maltreatment (abuse or neglect). Four employed prospective experimental designs, and three of those were Random Control Trial (RCT) studies. One involved a retrospectively selected control group. The unique part of the designs in each of the experimental studies was the provision of additional financially related services to experimental families over and above those provided to control families. Thus, they all addressed the question:

Does relief of financial hardship in families alleged to have abused and neglected their children result in improved child safety and welfare?

The concepts underlying this question are embodied in what we refer to as the **Economic Hardship-Child Outcome (EHCO) Model**. This model combines two others: The Family Resource model and the Family Stress model, explained below.

The populations of families studied together covered the full spectrum of types of maltreatment reports received by state and local Child Protection Services (CPS) agencies. Two studies were focused on children either removed from their families or at risk of being removed. Their cases represented the most extreme and dangerous end of the CPS spectrum. Three of the five experiments concerned families served under a new approach in CPS that excluded child maltreatment reports alleging severe physical abuse, sexual abuse, and the most dangerous types of child neglect. Finally, a sixth non-experimental study is reviewed that involved increased material services to families with reports of child maltreatment that were *not accepted* by the CPS agency for further action.

The diagram in **Figure 1**, illustrates the process involved in the five experimental studies. Each of the studies involved large populations (see 1 in Figure 1) of families from which study groups were selected. The process of assigning families (2) to experimental or control status involved random assignment or other quasi-experimental methods. The assignment process produced similar groups, as we demonstrate in the following material. The experimental treatment (3 and 4) in each case involved both *intensive* and *flexible* financial assistance and material support. Enhanced and intensive assistance in two of the studies arose from utilizing Title IV-E foster care money for other family- and child-related needs beyond simply paying providers for residential care. In the two RCT DR studies intensive assistance arose from funds provided by large private foundations. In the fifth experimental study the enhancement was accomplished by redirecting experimental families into an intensive assistance program. Flexibility in each study was achieved by permitting social workers and families to determine jointly what the family and children

needed. This process revealed family needs, such as clothing, housing, transportation, utilities, and the like, beyond the traditional social work categories of education and counseling.

Experimental and control families were tracked for extensive periods (measured in years) in each of the studies (5 in Figure 1). Outcomes were compared at various points during this follow-up period and at the conclusions of the studies (6). The focus of the present summaries will be on final long-term comparisons, but in each case full study reports are available to readers who want to know how families, workers and agencies may have been affected over time.

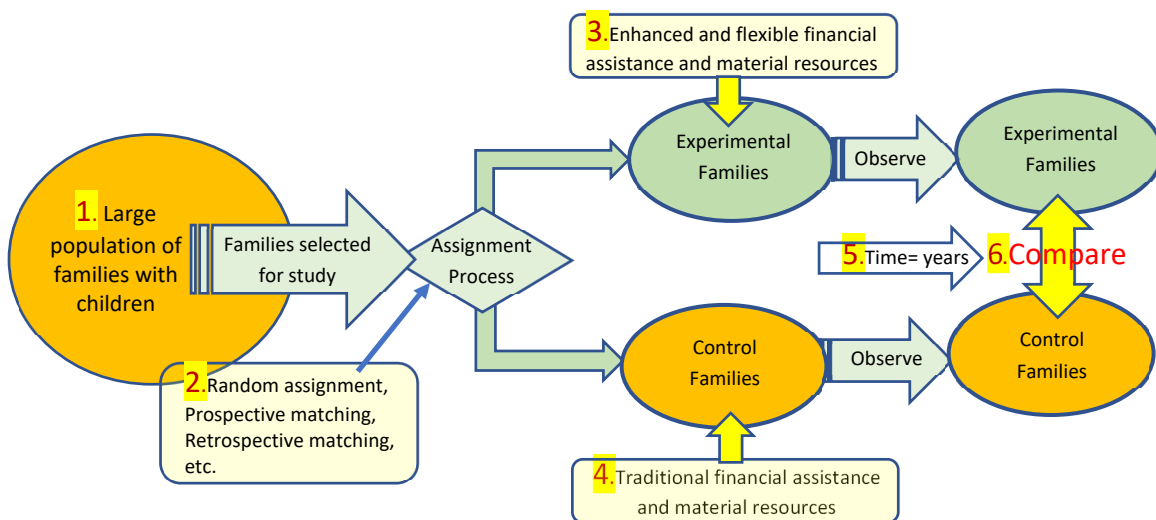


Figure 1. Experimental Design.

Poverty, Financial Hardship and Child Maltreatment

Example Studies of Poverty, Financial Hardship and Child Welfare. Two recent summary studies have considered the existing literature linking poverty and child maltreatment. Aislinn Conrad and associates were concerned with multiple questions about income maintenance and child welfare, including how cash and in-kind transfers impact families in the CPS system.¹ They reviewed eight studies showing that such transfers improved family wellbeing. A study by Ashley Landers and associates reviewed a list 86 publications for the ten-year period between 2008 and 2017.² One of their conclusions is that the studies show a link between poverty and maltreatment. A supplement to volume 72 of the journal *Children and Youth Services Review* was devoted completely to issues related to this topic: *Economic Causes and Consequences of Child Maltreatment*. It includes 15 research articles on this topic written from a variety of theoretical perspectives.³

The Correlation between Child Maltreatment Reporting and Financial Hardship.

The relationship of financial hardship and poverty to child maltreatment, and more generally, child welfare is well known. For example, Sedlak and her associates studied the relationship in the 2010 Fourth National Incidence Study (NIS) of Child Abuse and Neglect. They measured low socioeconomic status (SES) by combining measures of levels of income and education and participation in poverty programs. Low SES children were approximately five times more likely to experience maltreatment than children who were not in low SES families.⁴ We found this again and again in our studies. For instance, in the Ohio study considered below, we found that nearly seven in ten surveyed families reported for child maltreatment had 2008 incomes of \$15,000 or less compared to approximately 8% of the entire population of Ohio families (**Figure 2**).⁵

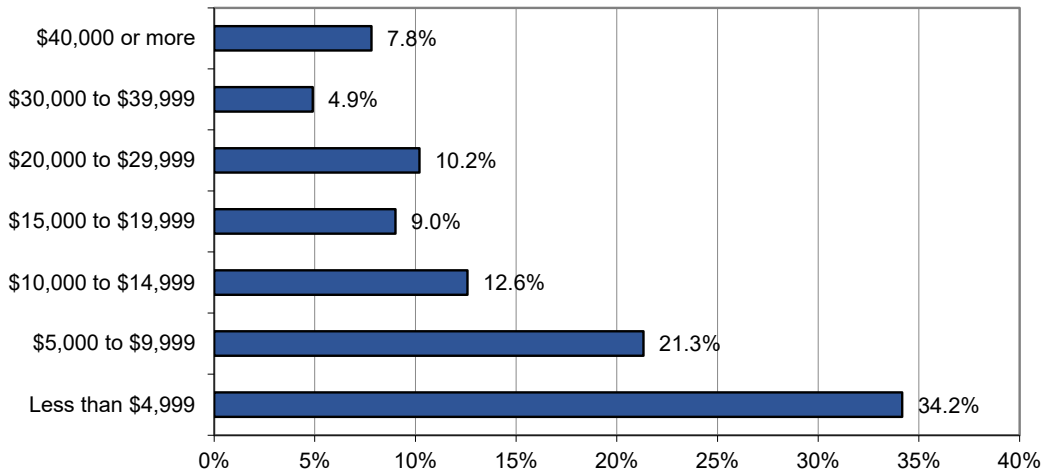


Figure 2. Family income during the previous 12 months (Ohio Alternative Response Evaluation, 2008 Incomes)

Similar results were observed in the sixth study examined in this paper, the Parent Support Outreach Program (PSOP).⁶ When workers assessed the financial condition of the families who accepted services, they found that 60% had inadequate incomes or were in poverty. In about 14%, the poverty was extreme and severe (**Table 1**).

Table 1. Household income during the past 12 months (Minnesota PSOP Study)

	Percent	Cumulative Percent
Less than \$5,000	20.0%	20.0%
\$5,000-\$9,999	22.5%	42.5%
\$10,000-\$14,999	18.9%	61.4%
\$15,000-\$19,999	11.4%	72.8%
\$20,000-\$29,999	13.4%	86.2%
\$30,000-\$39,999	7.5%	93.7%
\$40,000-\$49,999	3.4%	97.1%
\$50,000 or more	2.9%	100.0%

Thus, most families within the population reported for child maltreatment are experiencing financial hardship. Looking at data from the other direction, we can ask whether more reports of child maltreatment occur in financially distressed populations. Community and neighborhood comparisons have shown higher incidences of child maltreatment in areas of high and moderate child poverty compared to areas with low child poverty. Several studies have shown that maternal age and residence in neighborhoods of poverty strongly predicts substantiated reports of child maltreatment. For instance, Claudia Coulton and associates demonstrated the relationship in a Midwestern urban area. Brett Drake and Shanta Pandey did the same for an entire Midwestern state demonstrating a relationship by neighborhood. Another study based on family surveys showed that child abuse potential was predicted by neighborhood impoverishment and childcare burden.⁷

How is financial hardship related to potential child maltreatment or more generally threats to the safety, health, and general welfare of children? There are two ways. First, financial hardship and poverty are often misinterpreted as child maltreatment. Second, financial hardship may be a moderating cause of child maltreatment. The distinction hinges on the intentions of the parents.

Misinterpreting Financial Hardship as Child Maltreatment. This is nowhere better explained than in an article by Leroy Pelton on the role of material factors in child abuse and neglect.⁸ Pelton explains that injuries due to neglect are largely unintentional, that is, accidental. Because of the U.S. nationwide system of reporting child maltreatment, many incidents of severe injury or severe threats to child safety that might have once been attributed to mere accident are now labeled as parental neglect. This is a confusion of financial hardship and poverty with child neglect. Case examples rather than statistics are the best way to come to understand this. The following example is drawn from descriptions provided by a worker during our evaluation of the Minnesota project, discussed below.

Case Study 1. A report was received on a mother-only family living in a trailer home. The reporter alleged that the trailer was unsafe. A family assessment worker (rather than a traditional CPS investigator) was dispatched to determine whether the report was correct and what was needed. She called the mother and then went to visit her and the children at the house trailer. She observed that there were several rotten boards in the floor of the trailer. This was dangerous for the children, all of whom were preschool ages. In cases we have observed under the traditional child protection system this kind of problem sometimes led to removal of children from the home until the family corrected the problem. The mother acknowledged the problem but said she did not have enough money to fix it. She told the worker that she was handy and could fix the boards herself if only she could purchase them.

The worker returned to her office and explained the situation to her supervisor. So, the alternatives were to remove the children at a cost of hundreds of dollars in worker time, court personnel time, transportation costs, foster care home costs, etc. or fix the trailer. Fortunately, this state had the extra funds (as part of the Minnesota AR (differential response) project that we were evaluating) set aside for experimental families that could be legally used to remedy these kinds of situations. The worker suggested that a purchase order to the local hardware store might be provided to the mother. The supervisor agreed and it was done. The worker then returned to the home and the mother agreed to do the work. She went to the hardware store and purchased the materials she needed, returned, and replaced the rotten floorboards. Problem solved and case closed.

Here are two other examples drawn from the Mississippi IV-E study, outlined below. The first also considers inadequate housing. The second involved homelessness.

Case Study 2. A five-year-old boy was at risk of being removed from his parents who lived in a mobile home. The parents, both described as mentally challenged, had extremely limited financial resources. While the family had no prior case history, there were significant safety concerns for the child due to the uninhabitable condition of the mobile home. Part of the trailer had collapsed, and the hot water heater and commode had fallen out and into the back yard. Electric wires coming into the home ran through water beneath the trailer. Waiver funds were added to county funds to purchase construction material, a new hot water heater, windows, and a door. Through a family-team conference the grandparents became involved, taking temporary care of the boy, while members of the family's church provided volunteer labor to rehab the trailer.

Case Study 3. This case involved a two-parent family with an 11-year-old son and a 14-year-old daughter. The father was disabled and unable to work and the family had a history of instability and frequent moves that led to serious behavioral and emotional problems for the children. The family became homeless when they were unable to pay their rent and were forced out of their home. The children were taken into custody and placed in foster care, but the placement situations were unreliable. Through the waiver, the family received short-term assistance to pay rent and the parents found new living arrangements that allowed the son to live with them once again. Waiver funds were also used to pay for tutoring services for the boy to help him catch up for missed time at school. A placement with relatives was secured for the daughter through waiver funds which paid for a bed and medication prescribed to address her bouts of severe anxiety. Finally, the mother was helped to find a job and the family attained a level of stability it had lacked for several years.

Poverty and Financial Hardship as a (Moderating) Cause of Child Maltreatment.

The term *cause* is a dangerous one to use when discussing social phenomena. If someone says economic hardship causes child abuse or child neglect the implication is that families experiencing economic hardship will *always* engage in child maltreatment. This is obviously incorrect. Most families suffering financial hardship *do not* intentionally abuse or neglect their children. However, there is another more complex sense in which something can be a cause. We term it as *moderating*. As in the following diagram (**Figure 3**), some characteristic of a child or parent—for example, the practice of using physical punishment to discipline their child—is worsened because of the stress of financial hardship.

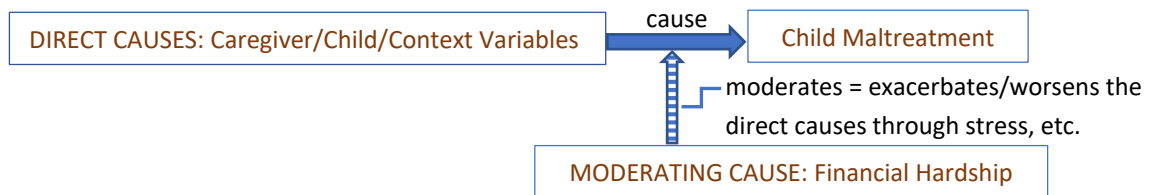


Figure 3. Diagram of direct and moderating causes

Rand Conger and Katherine Conger have outlined a causal sequence that illustrates the moderating cause process more fully, which they name The *Family Stress Model*.⁹ The model includes the following:

1. *Economic hardship* (low income, high debt, low assets, and negative financial events) leads to:
2. *Economic pressure* (unmet material needs, unpaid debts and painful cutbacks). These in turn lead to:

3. *Parent distress* (emotional and behavioral problems), which produces:
4. *Disrupted family relations* (inter-parental conflict or withdrawal and harsh or inconsistent parenting). Finally, this produces:
5. *Child and adolescent adjustments* (emotional problems, behavioral problems and impaired competence).

This implies that if economic hardships were relieved outcomes would be improved for families and children. The Rands also present the obverse of the stress model: *The Family Resource Model*. In that model family resources and the lack thereof are predicted to affect child outcomes. There are resources that are only indirectly related to finances but the critical ones such as health, education, housing, living arrangements, transportation, leisure activities, neighborhoods, safety, etc. are clearly produced or directly affected by income and wealth. This model may be regarded as describing the misinterpretation understanding outlined in the previous sub-section. The combination of these models might be called the ***Economic Hardship-Child Outcome Model, the EHCO Model***.

The EHCO model implies that lack money, that is, economic hardship, may directly harm children. However, it also suggests that such hardship may exacerbate negative traits, destructive behaviors and harmful human relationships that directly cause child maltreatment. On the other hand, the model predicts that sufficient money makes the expression of positive traits, supportive behaviors and beneficial relationships more likely. This might be called the *Aggravation from Deprivation-Alleviation through Relief*, the ADAR understanding of child welfare. Financial deprivation aggravates other problems in families and makes positive outcomes less likely while financial relief alleviates problems and makes positive outcomes more likely.

A recent study by Mi-Youn Yang shows the effects of relationship between material hardship, parent psychological states on investigated reports of child maltreatment among families receiving cash welfare.¹⁰ Material hardship was measured in four areas: sufficient food, adequate housing and homelessness, problems with utilities, and medical deficiencies. Yang demonstrated the correlation between future investigations of child maltreatment and problems in any one of these areas. The correlation was stronger when hardship was experienced in two or more areas. The study demonstrates the relationship of parental stress and depressive symptoms arising from material hardship on later reports, as well. Discussions of food insecurity, inadequate housing, and homelessness are discussed in greater detail in the second summary paper in this series (at www.iarstl.org).¹¹

Another recent paper focused on family income and child welfare by Greg Duncan and associates considers how economic disadvantage leads to stress in families and in turn

affects the development of children. For those who wish to immerse themselves further in the literature on this topic this study is abundantly referenced.¹²

Here are several case examples illustrating moderating causes. As you will see, some of these tend to shade over into the previously discussed category of misinterpretation. This might be argued in the following case, which is drawn from an earlier observational study we conducted. The mother's psychological state, her depression, may have been a causative factor in what occurred but and her unemployment and lack of income might have worsened her mental condition.

Case Study 4. This case arose from a report that two younger children (ages 3 and 5 years) were being cared for by a preteen child (age 10). After an investigation, it was substantiated as lack of proper supervision. The mother had recently lost her job and was suffering from depression. The family was currently living on the social security check that came to the older child, whose father had died the year before. When one of us visited the family with a service worker, the mother expressed guilt about using her daughter's check for food and rent. She had no alternative for childcare when she had to go out. Limited resources were a major part of the problem leading to the finding of lack of proper supervision.

The following case illustrates how depression, stress and poverty may interact in a family. This was voluntary case that we followed in the previously mentioned PSOP study.

Case Study 5. A referral was made by another agency for a young woman, who was requesting services. She had worked with the county previously and requested a specific worker, as she felt comfortable with her. She had just had a baby and was feeling overwhelmed financially and emotionally. She had recently begun working at a local grocery store but was still relying on welfare (TANF). In addition, she had been diagnosed with post-traumatic stress disorder, depression, and anxiety. She wanted help with parenting initially, but the PSOP worker primarily intervened to help manage crises that arose. The young woman had trouble maintaining employment. Indeed, she lost two jobs during the case period. She had several barriers to becoming financially independent: no high school diploma, no license, no vehicle, no child support, and trouble with childcare. The program was able to assist with rent, utilities, and other basic needs for a month. Her infant son had also been hospitalized twice in the previous month for a medical condition. The worker helped her think about how to manage the child's condition. She also encouraged her to work on developing her parenting skills. A monthly budget was developed. She was referred to a mental health agency for long term help. Chemical use was also a possible issue, and she was provided some education on substance abuse. A home-

based worker was recruited for the case to work more directly on mental health and parenting, and this allowed the worker to focus more on coordination and case management. During the case, a report was received regarding the mother's behavior and parenting, but nothing new or substantial was reported. Later, she became pregnant again and began having domestic incidents with her new boyfriend. However, she did secure employment and began to attend individual counseling. The workers continued to address the goals of safety, budgeting, and home management. The case was closed by mutual agreement after the mother felt she had adequate access to other services and was satisfied with her current situation.

The following is a case of a drug-addicted mother. It was part of an earlier observational study. The report was made by a policeman. In this instance a formal CA/N investigation was conducted resulting in the removal and placement of her children into relative care.

Case Study 6. An anonymous report was received that a mother had left her five children alone from 7:00 a.m. to 7:00 p.m. This was a mother-only family, as she was separated from the father of the children. The mother told the children that she was going to the grocery store, but when she returned, she had no groceries, because she had sold her food stamps in order to buy drugs. The reporter said that the children were left alone often and that the two youngest (ages one and two) usually played alone outside. The electricity had been turned off in the house the day before.

Following the report, a maternal aunt of the children took them in, but two more hotline reports were received two days later. The first may have been from the aunt, who reported that the children's maternal grandmother had come that morning and picked them up. The reporter claimed that the grandmother was not physically capable of caring for the children. The second hotline was from a policeman who was at the grandmother's home, saying that immediate action was needed because the mother was at the grandmother's home. She wanted to take the children, although she had no money, no food, and no home. The local shelters were not a resource, because the mother was on drugs and was extremely high at the time. The policeman confirmed that the mother had used all her welfare and food stamps to buy drugs. The policeman arrested the mother and took her to the county jail. He also took the children into protective custody and transported them to the family court. The investigator went to the family court, met the children, and interviewed them with a juvenile officer. They found the children highly active but

unresponsive to adults. All the children were aware that their mother had spent all the family's money on drugs and showed detailed knowledge of buying and using dope. Together the investigator and juvenile officer decided to place the three youngest children with the mother's sister and the two oldest children with their father. Whether the placement with the father was wise is debatable since we later heard that he was a drug dealer who had supplied the drugs to mother as she became addicted. However, this was hearsay. This arrangement was approved by the juvenile court, and at the detention hearing, custody and control was given to the child welfare agency. The investigator completed her report with a formal finding of child neglect.

About three months later, one of us accompanied the foster care worker and the children on a visit to the mother at a drug rehabilitation center. The mother had voluntarily agreed to undergo drug treatment and was doing well. She was well dressed and cheerful. The children obviously loved their mother and were taking turns being held. Later she was released and regained custody of her children.

This case illustrates how poverty and other mediating variables may interact. Whether and how poverty might have been involved in creating her addiction is unknown. That problem may have been more attributable to the influence of the children's father, but we did not confirm that. After the mother was addicted, her need for drugs contributed to her financial distress. Had she not been addicted she would probably have been simply another poor single mother. In this case, unlike many we have observed, she had the advantage of a supportive extended family that helped during her rehab.

Here is another case in which funds were used to prevent removal and placement of children. It was part of the Indiana IV-E project, discussed below.¹³

Case Study 7. A report came from the police regarding lack of supervision. A maintenance man who came to fix the stove reported finding a two-year-old child alone in the apartment. The mother arrived an hour later and stated that she had gone to the Trustee's office for some financial help and did not want to wake her child. She had left him alone with safety gates on the bedroom door and admitted to previously having left the child alone on several occasions. The report was substantiated, and a short-term Informal Adjustment case was opened.

The family consisted of a single mother and her two-year old son who was developmentally disabled. It appeared that the family was struggling financially, was socially isolated and that the mother was depressed. The mother had been unemployed for the last two months, in part due to attending to the disabilities of

her child. During those two months, the child had undergone two surgeries for clubfoot. The mother had been employed full-time prior to the operations, but she was forced to quit her job when she could not secure extended leave. The lack of regular income threatened imminent homelessness for the family. They did not have any family support in the area. The family had no prior history with the Department of Children's Services.

The mother agreed to cooperate with a parent aide and an in-home therapist, accepted home visits from First Steps, properly supervise her son, obtain adequate medical care, and administer medication he needed. Although the mother had two job prospects, she was waiting for appropriate daycare for her son. Past rent in the amount of \$677 was owed and the family was facing eviction. Despite support from Section 8, she had accrued a large past due balance on her rent, including late fees and eviction filing fees. The woman was provided with financial help for rent assistance, vouchers for daycare, counseling, and an in-home parent aide. The parent aide helped the mother with budgeting, looking for work and locating the nearest food pantry. The mother was compliant with DCS and all service providers. The waiver utilization included \$5,912 for rent assistance, home-based counseling and parent aide.

The case was assigned to waiver status to assist the family maintain its housing and avoid eviction. Without this assistance, the family may have lost their apartment and the case could have easily risen to a removal and placement due to the child's special needs. The mother successfully completed 90-days of in-home therapy and parent aide sessions. Great progress was made, and the assigned therapist concluded that the mother did not need continued services. All of the child's doctor's appointments were successfully attended and the mother also obtained consistent daycare. At case closure, the mother was employed and she and her child were living in a stable environment.

Here is another case of homelessness, something we observed in large numbers in the impoverished Mississippi counties in that IV-E study. Note here the reference to disabilities and frequent moves as direct causes.

Case Study 8. This case involved a two-parent family with an 11-year-old son and a 14-year-old daughter. The father was disabled and unable to work and the family had a history of instability and frequent moves that led to serious behavioral and emotional problems for the children. The family became homeless when they were unable to pay their rent and were forced out of their home. The children were taken

into custody and placed in foster care, but the placement situations were unreliable. Through the waiver, the family received short-term assistance to pay rent and the parents found new living arrangements that allowed the son to live with them once again. Waiver funds were also used to pay for tutoring services for the boy to help him catch up for missed time at school. A placement with relatives was secured for the daughter through waiver funds which paid for a bed and medication prescribed to address her bouts of severe anxiety. Finally, the mother was helped to find a job and the family attained a level of stability it had lacked for several years.

As noted, cases of extreme poverty were common. The approach was to try to meet basic and home-related needs so that children did not have to be removed and placed in foster care. Here is another example that would seem to fall into the previous category of poverty misinterpreted as child neglect.

Case Study 9. One such case involved a woman with four children between the ages 3 and 9. A boyfriend of the woman lived with her from time to time and was the father of the children, but he did not provide a steady source of support. A child protection case was opened on the family after the utilities had been turned off and there was little food in the house. To forestall the removal of the children until the situation could be more permanently addressed, waiver funds were used to purchase food and pay the utility bills so that power, heat, and water could be restored to the home.

The stop-gap nature of this case was replicated in many other cases we followed. The following is an example of the use of IV-E waiver funds and the hard work of a wonderful worker to assist in family reunification. Direct causes in this case means 'low functioning' parents.

Case Study 10. This example involved the case of a young family with low functioning parents and three children ages 2, 7 and 9. The family had been homeless until a brother gave them a small mobile home to use. But the trailer was unsafe and did not have functioning sanitary or electrical systems. The children were taken into custody, removed, and placed in foster care for neglect. The foster home was 100 miles from the parents; no closer foster placement could be found that would accept all three children. Waiver and county funds were used to purchase needed materials to repair the trailer. The parents took an active hand in the process and repaired the windows and fixed the leaking roof and had a septic tank installed. The county social worker, showing extraordinary commitment to her case family, laid the plumbing and did all the needed electrical work herself during her off

hours. Once repairs were completed, the Juvenile Court judge allowed the children to be released from paid foster care and reunited with their parents.

Increased Material Services Coupled with Flexible Decision-Making

Two changes were represented in the experimental approaches of each of the studies. The first involved increased funding for various services including material services, such as housing, rent, food, clothing, household items, transportation, and the like.

The approaches taken with the families in the following studies as illustrated in the previous case examples *were not representative* of what has happened traditionally in CPS. Urban CPS offices, for instance, receive thousands of reports of child maltreatment each year. Each requires a response. Only a minority are substantiated and opened as protection and service cases. In most instances, cash-strapped agencies are unable to do much more than simply monitor the family for a period. The bulk of agency funds in CPS is expended on foster care and expensive residential treatment services.¹⁴

An author who has written extensively on poverty and child maltreatment is Duncan Lindsey. He offers evidence in an older book, *The Welfare of Children*, that the fundamental problem that underlies most cases encountered by child protection agencies is child and family poverty.¹⁵ Lindsey also presents evidence in that book showing the ineffectiveness of social casework in producing changes in families. The reason is not so much that social work with families is a waste of time. Rather the problem is the restrictive ideology that traditionally surrounded social work with families accused of child maltreatment, which he called the *residual approach*. Under that way of thinking, only the most severe cases are given services while less severe cases are provided minimal or no assistance other than monitoring. In addition, the severe cases that do receive services are provided with only enough assistance to bring them back to a level of *minimally acceptable functioning*. Then the case is closed.

The six programs reviewed and summarized in this paper *were the opposite of the residual approach*. Those programs emphasized more *intensive services* aimed at remediating various family problems and preventing future problems, especially those related to financial hardship.

The second change in the programs reviewed here involved greater flexibility and democracy in the process of selecting and applying those services. In each of the projects, workers were directed to engage experimental families in assessing family needs and in the decisions surrounding how to address those needs. The previous example of the joint decision of the mother and worker to pay for boards to repair a dangerous floor in the

family house trailer rather than removing the children illustrates this process. This occurred not simply because of increased funds to pay for material services but because workers were instructed to take the opinions and desires of parents and children into account in making decisions, that is, joint worker-family decision-making.

In the following summaries of the four prospective experimental studies we first show the similarity between experimental and control groups. Then we demonstrate that services of various kinds increased for experimental families. For this we depend mainly on worker reports and agency databases. Study families were only contacted several weeks after case closure and survey response rates were low because these impoverished families are typically very residentially unstable. Nonetheless, responses of families about the nature and level of services were similar to those of the workers who served them. Finally, we illustrate outcome differences reflecting the safety and welfare of children that we were able to measure.

Two Title IV-E Waiver Experiments

Title IV-E of the Social Security Act provides states and tribes with funding to assist with the costs of foster care maintenance for eligible children; administrative expenses to manage the program; and training for staff, foster parents, and certain private agency staff. Eligibility varies somewhat from state to state but generally the families and children served are in or near official poverty levels. State's must provide a percentage match to the federal dollars. In the present studies the federal contribution amounted to around two-thirds of the total foster care cost. Thus, for every \$100 spent to provide foster care for a qualifying child the states received \$60-70 in compensation. In the projects considered here, Mississippi and Indiana were granted waivers from the standard IV-E spending rules. The states were permitted to spend monies more broadly and flexibly. These are examples of what we earlier referred to as *intensive services*. Funds that traditionally could only be spent to pay for foster care could now be used to address family needs of various kinds. There was also greater *flexibility* in utilizing available funds, including addressing the material needs of involved families. In both states, the waiver programs included children who had been removed from their families and placed in out-of-home care as well as children who were in danger of being removed but were permitted to remain in their homes. For the former group of children, a primary goal was shortening the length of time that the child remained in foster care. For the latter, it was preventing removal.

As noted, the children in the studies represented the most extreme side of the child protection/child welfare spectrum, that is, children considered to be at high risk to their ongoing safety and welfare.

Study 1: The Mississippi Title IV-E Waiver Experiment

This study took place during a 42-month period from April 2001 through September 2004 in six Mississippi counties.¹⁶ To get a sense of the population of families included in the study, Mississippi ranked first in child poverty among the 50 states in 2000, first in the percent of families in poverty, first in the number of households headed by single women, and 47th in median household income.

Initially families and children in existing Title IV-E eligible cases were identified and submitted to a random assignment program on portable computers we supplied to the local offices. New cases continued to be assigned during subsequent months. Experimental children and their families were eligible for intensive services paid for with IV-E funds; control cases were not. By the time of the final analysis, 777 experimental children in 346 families and 772 control children in 321 families were available for analysis. Experimental

and Control groups were similar. No statistically significant differences were found in the following demographic or case characteristics (**Table 2**).

Table 2. Characteristics of experimental and control children and families

Children	Experimental (n=777)	Control (n=772)
Risk Level		
High	61.1%	60.0%
Medium	35.6%	37.6%
Low	2.4%	2.5%
Gender		
Male	47.2%	50.3%
Female	52.8%	49.7%
Race		
White (Caucasian)	48.5%	42.6%
Black (African American)	38.5%	44.0%
Asian American	.2%	.1%
Unindicated	12.8%	13.1%
Families	Experimental (n=346)	Control (n=321)
Children		
One	35.1%	37.6%
Two	21.8%	25.9%
Three or more	43.1%	36.5%
Race		
White (Caucasian)	51.9%	45.0%
Black (African American)	34.5%	44.1%
Mixed	9.3%	8.4%
Household		
Female Present	92.2%	91.9%
Male Present	44.9%	42.2%
Female and Male Present	39.1%	37.2%
Initial Maltreatment Finding		
Physical abuse	19.3%	17.3%
Emotional abuse	6.2%	9.5%
Neglect	58.3%	59.0%
Sexual Abuse	12.1%	9.2%

Nearly all the children were rated as high or medium risk at the time of entry into the random assignment program. This is a confirmation that this study concerned CPS cases from the more dangerous end of the child safety spectrum. Differences in racial designations between children and families illustrate inaccuracies and inconsistencies in such designations in the state’s data system, something we have found many times in other

states. A mother was present in the large majority of families but only about four in ten were two-parent. About six in every ten families involved child neglect, and in many of those cases the neglect was actually family poverty along the lines the case examples presented above.

Services. Figure 3 shows the differences in services during the months the families and their children were on the waiver.

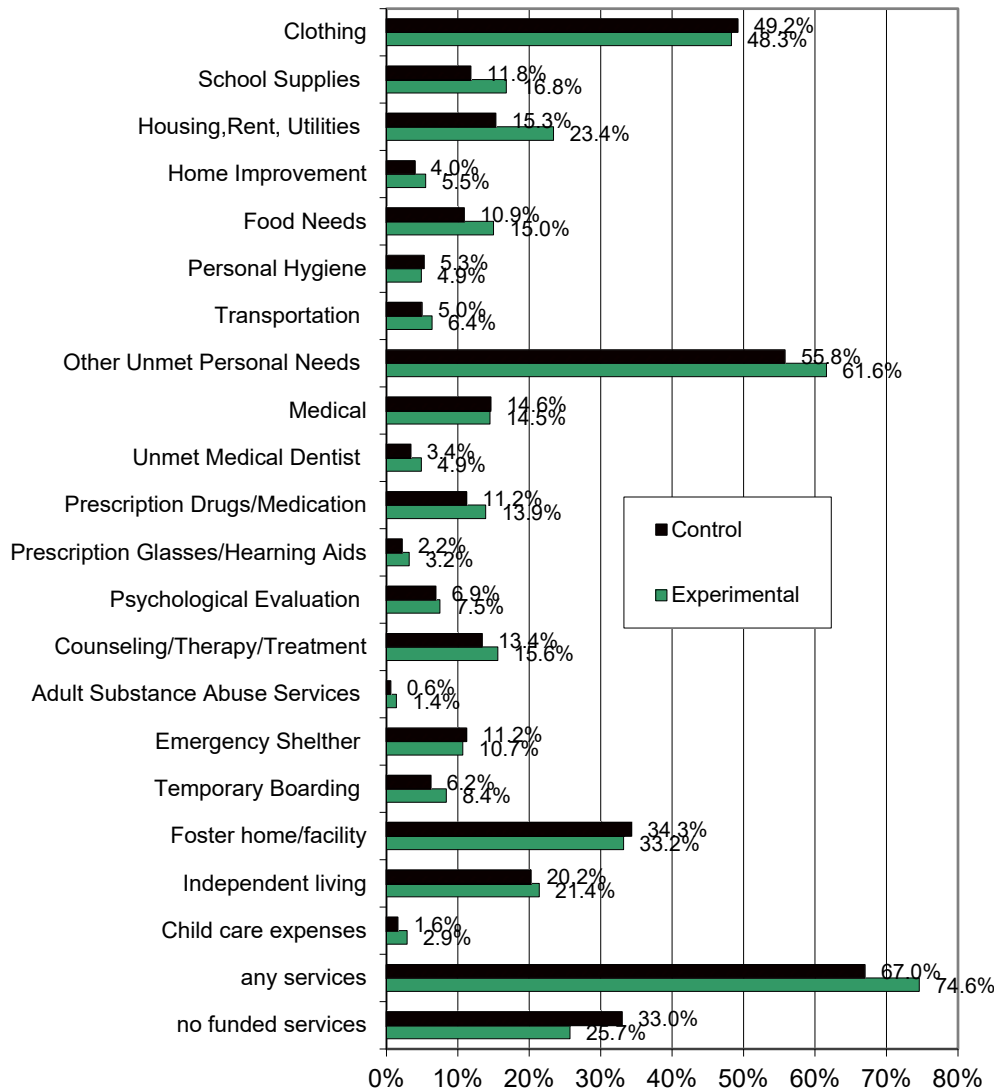


Figure 3. Services provided to the experimental and control groups during the Mississippi waiver

The service increases were modest overall. Total funded services increased for experimental families (Experimental (E): 75%; Control (C): 67%). Here are some examples: Money for housing, rent and utilities (E: 23%; C: 15%); Food needs (E: 15%; C: 11%);

Prescription drugs and medications (E: 14%; C: 11%); Other personal needs (E: 62%; C: 56%); School supplies (E: 17%; C: 12%). Looking across all services received, experimental families and children received an average of 3.2 different services compared to 2.8 for control families.

Outcomes. We examined whether these increases in mainly material services had any positive effects. We found that subsequent new child maltreatment reports occurred in 19.7% of control cases compared to 14.5% of Experimental cases (**Figure 4**). This difference was substantial considering the short time frames involved (less than two years for most cases) and was statistically significant ($p = .004$).

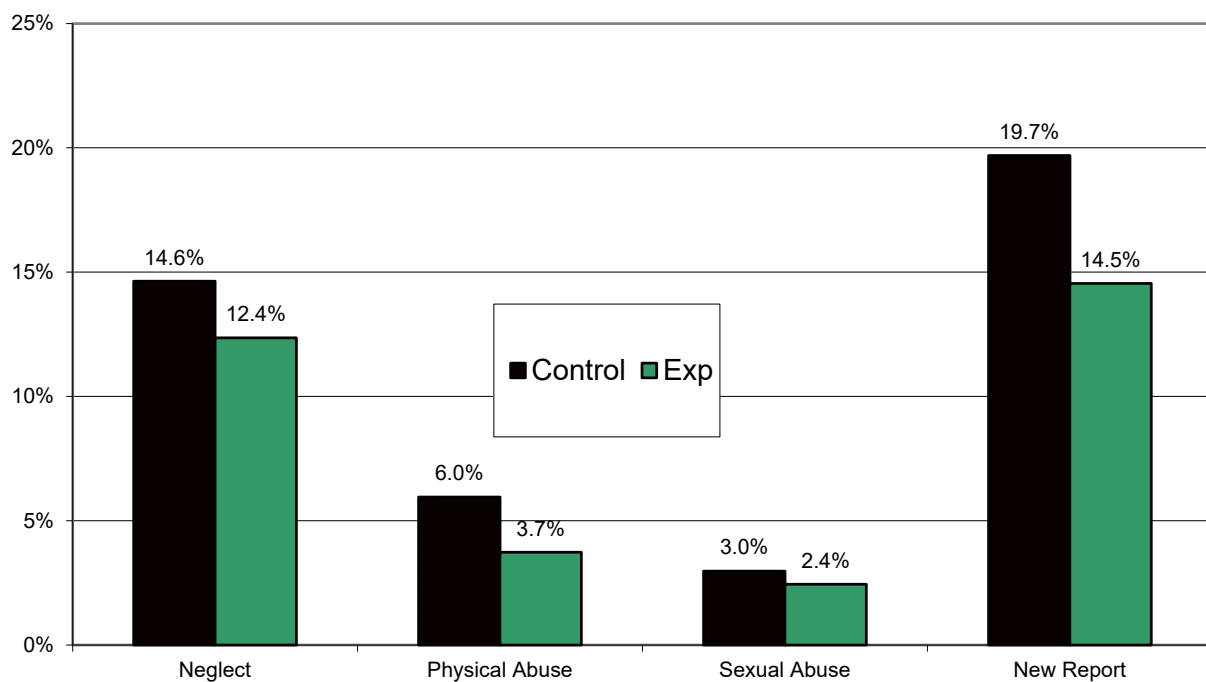


Figure 4. Percentages of new reports of maltreatment in experimental and control groups (Mississippi evaluation)

When considering specific types of maltreatment (see Figure 11), a statistically significant difference was found in new reports of physical abuse: 3.7 percent of experimental children had new incident reports of physical abuse compared with 6.0 percent of control children ($p=.02$). Differences between the two groups in new reports of neglect or sexual abuse were not significant, although the differences were in the hypothesized direction: 12.4 percent of experimental children had new neglect reports compared to 14.6 percent of control children; and 2.4 percent of experimental children had new reports of sexual maltreatment compared to 3.0 percent of control children. The pattern seen in **Figure 4** of more reports for control children was found for both pre-existing

cases and new cases. It was also found for cases that had closed prior to the end of data collection and those that remained open.

A survival analysis was conducted that considered variations in time after each target case had closed. This method considers both *whether* new reports occur and *how long it was* before they occurred. This time period is referred to as *survival time*, that is, how long the family “survives” until a terminal event occurs. In this case the event was a new accepted report of child maltreatment.¹⁷ Control children experienced new reports sooner. Thus, more reports were recorded for this group during the follow-up period. The experimental-control differences are shown in **Figure 5** and were statistically significant ($p = .03$).

Perhaps most importantly, we were able to show that the greatest differences occurred for children *who received services*. The reduction in new reports of child maltreatment in such cases amounted to 5.6% (E: 15.8%; C: 21.4%; $p = .04$). The increase in material services had positive effects on families.

In addition, under the waiver program children who remained with their parents were less likely to be removed (9.1%) than similar control children (14.1%). Again, and most importantly, the effects were powerful in families that received services. Among those families 33.1% of children were later removed compared to 57.2% in control families. This also was shown to be a real difference when variations in time were considered. A survival analysis confirmed that control children experienced out-of-home placement more often *and sooner* than experimental children ($p = .025$)

The Mississippi IV-E experiment demonstrated that spending money on poor families improved the subsequent welfare and safety of the children. Intensive services to

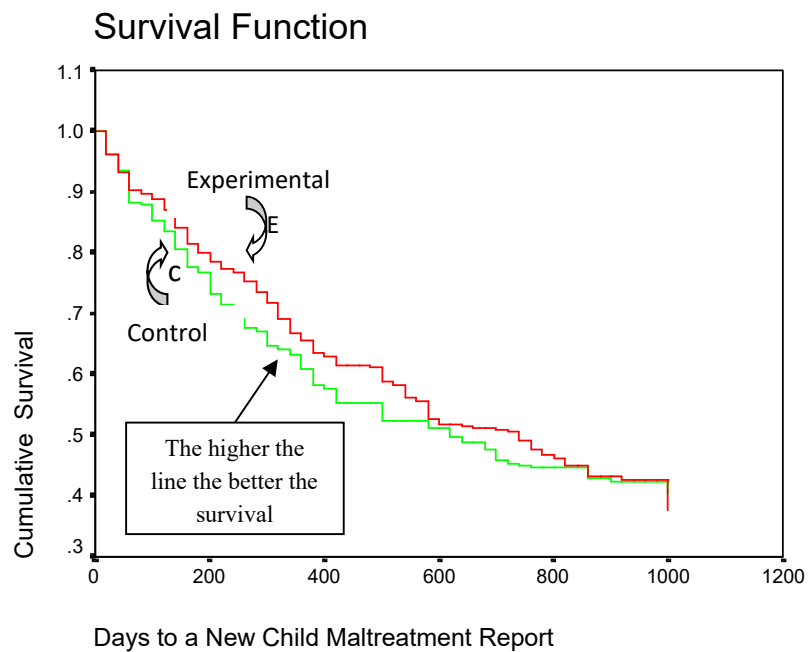


Figure 5. Survival of experimental and control families until a new child maltreatment report (20-day intervals)

such families enhanced their stability and reduced the likelihood that children would later be taken into state custody.

Study 2: The Indiana Title IV-E Waiver Experiment

We conducted a similar intensive and flexible services experimental study in Indiana over a five-year period (2005-2010).¹⁸ Because the state would not permit random assignment to experimental and control groups, a child-matching design was developed. This is a weaker assignment method than random assignment but has been utilized in many past experimental studies.¹⁹ The object was not to produce matched pairs for analytic purposes but to produce matched group for final group comparisons. The numbers eventually assigned were exceptionally large and by the conclusion of the study there 9,475 experimental (waiver) children in closed cases and 9,358 similar control children available for comparison.

As a part of the waiver program design, Indiana was permitted to assign up to half of children to the program who *were not eligible* for Title IV-E services. This was permitted so long as the state maintained cost-neutrality, that is, so long as no greater expenditures took place than would have taken place under the traditional IV-E program.²⁰ Characteristics of experimental (waiver) and control children can be seen in **Table 3**.

The two groups were highly similar on a variety of characteristics suggesting that the matching procedures were accurate and effective. Differences can be seen in some initial case types but these types shifted and changed in the period following case opening. As can be seen this study included delinquent youths as well as children in CPS cases. Delinquents were, of course, older as a group. The placement statistics illustrate the high-risk nature of most of the cases.

Services. Services to families and children expanded significantly and substantially for many types (**Figure 6**).

The information in this figure came from workers.²¹ They had had direct and ongoing contact with both the children and their families. Workers in experimental cases were more likely to report that families had received services to prevent placement (89.3%) than workers in control cases (75.0%) ($p < .0001$). They were also more likely to report that families had received services in the home after a reunification took place (76.5% versus 50.7%, $p < .0001$).

Table 3. Characteristics of Indiana experimental and control children

	Experi- mental	Control		Experi- mental	Control
Title IV-E Eligible	47.9%	49.3%	<i>Case Type at Assignment</i>		
Title IV-E Not Eligible	52.1%	50.7%	CHINS (Child in Need of Services)	54.7%	61.5%
Male	53.9%	53.7%	Informal Adjustment	21.5%	16.2%
Female	46.1%	46.3%	Service Referral	3.1%	2.2%
Mean Age (all children)	8.6 yrs.	8.8 yrs.	Service	8.5%	6.8%
Mean Age CPS children	7.7 yrs.	7.7 yrs.	Juvenile Delinquent	12.2%	13.1%
Mean Age of Delinquents	15.48	15.57	<i>Placement History</i>		
<i>Household Characteristics</i>			Placed at waiver assignment	36.6%	40.4%
Mean household size	5.2	5.1	Placed prior to waiver assign.	54.3%	66.8%
Two or more adult caregivers	64.4%	63.7%	2 or more prior removals	10.3%	9.4%
One adult caregiver	35.5%	36.1%	<i>Placed in:</i>		
Single mother households	30.6%	30.1%	Foster care	65.6%	70.4%
<i>Special Needs</i>			Relative care	29.4%	20.0%
Psychological Problems	10.5%	11.5%	Institutional care	25.3%	32.0%
Medical Conditions	0.3%	0.3%	Correctional facilities	4.2%	6.4%
MR/DD	4.8%	5.2%	Other facilities/settings	17.8%	13.4%
Physical Disabilities	2.9%	2.8%	One type of facility	59.8%	61.1%
Any Special Need	14.7%	15.7%	Two or more types of facilities	40.1%	38.8%
Multiple Conditions	3.3%	3.4%			

As can be seen in **Figure 6**, worker reports of services received were higher for waiver cases in most categories (25 of 34). Service categories with the strongest differences were those that addressed financial insecurity or family integrity. Help with basic needs, housing, homemaking, and family preservation were all provided to waiver families at least 12 percent more often than to matched control families. Assistance with household needs, such as small purchases for the home or cleaning supplies, was provided nearly 30 percent more often for waiver families.

Workers also wrote in additional services that were provided to waiver families. Other services that were mentioned included adoptive and custody related assistance; specific financial purchases, such as a washer/dryer and car repair; specific therapeutic services, such as home-based counseling and drug screens; and support services for children, such as mentoring. The waiver also led to the provision of a greater number of different services in individual cases. On average, waiver families received 5.4 services each, while control families received 4.4 services ($p < .001$).

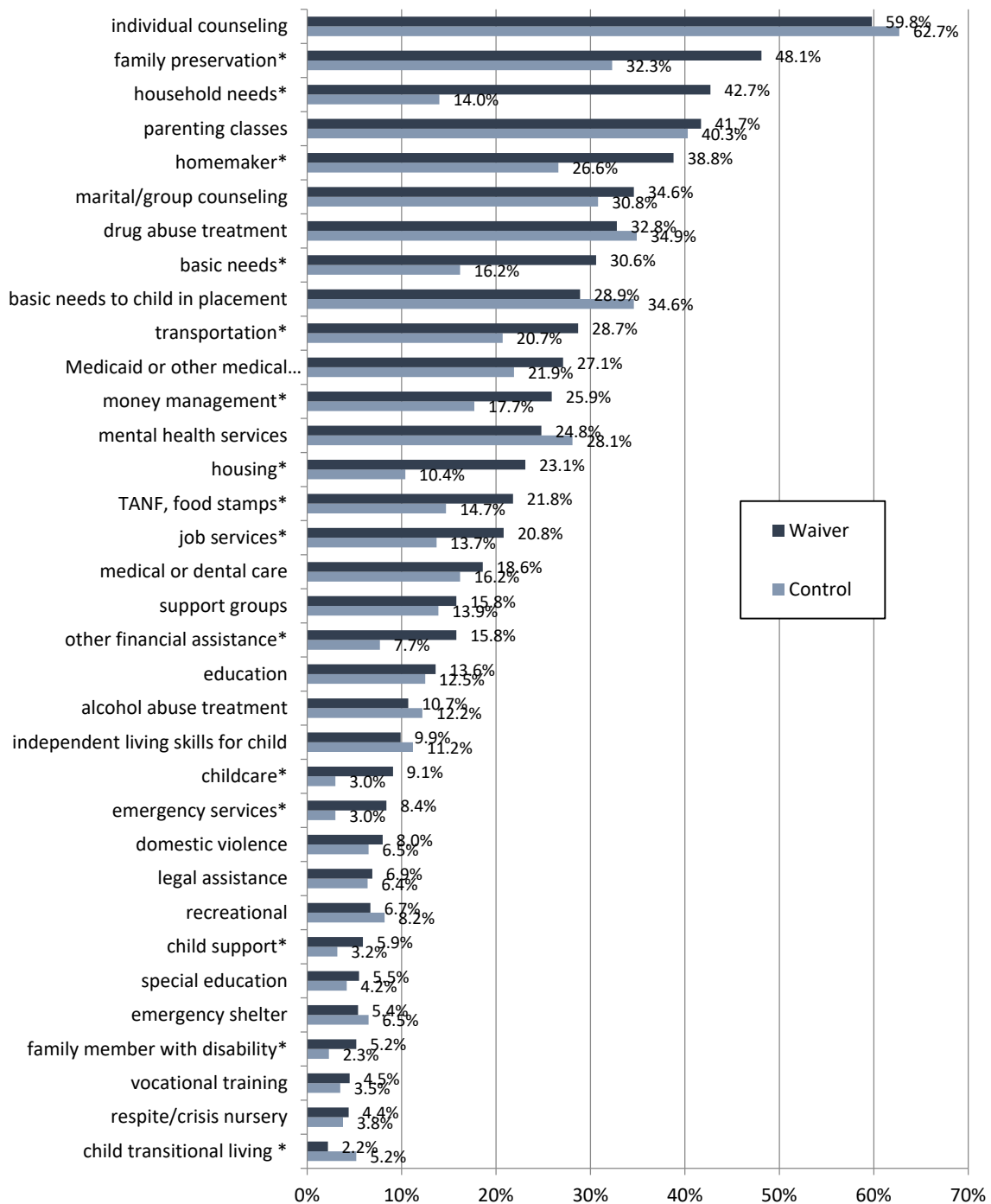


Figure 6. Types of services or referrals received by experimental and control families and children

Referrals to community-based services outside the CPS agency jumped as well. These included many financially-related categories such as: transportation (E: 16.1%, C:

10.7%; $p = .004$), household needs (E: 15.2%, C: 9.0%; $p = .001$), housing (E: 13.5%, C: 6.7%; $p < .001$), other financial assistance (E: 9.0%, C: 3.5%; $p < .001$), and many others.

Families were also surveyed in this study. While response rates were substantially lower among families in comparison to workers, family responses were consistent with those of workers indicating substantial increases in services of various kinds, including material services and community-based referrals. Experimental families were more likely to indicate that services received were the kind they really needed and were enough to help.²²

Within the experimental group, we compared reports of services of CPS families receiving food stamps (as a proxy for low income) with families that did not. The latter amounted to only 30% of responding families (**Table 4**).

Table 4. Service levels reported by experimental families in CPS cases receiving and not receiving food stamps

	Food stamp recipients	Other CPS families	
Help in obtaining housing	16.4%	4.0%	$p < .001$
Food or clothing	29.3%	10.3%	$p < .001$
Money to pay rent	21.4%	5.6%	$p < .001$
Appliances/furniture/home repair	18.4%	7.1%	$p = .003$
Help paying utilities	24.0%	11.9%	$p = .005$
Help in getting TANF or food stamps	25.7%	6.4%	$p < .001$
Help in managing your money	14.1%	7.1%	$p = .043$
Childcare or day care	14.8%	6.3%	$p = .015$
Help with employment /changing jobs	17.8%	4.8%	$p < .001$
Car repair or transportation assistance	17.1%	4.8%	$p = .001$
Job/ vocational training	6.3%	0.8%	$p = .014$
Alcohol or drug treatment	28.3%	15.1%	$p = .004$
Assistance at home	12.5%	3.2%	$p = .003$

Within the experimental group various financially related services were provided significantly more often to poorer families. This difference was expected and was found repeatedly in intensive services and flexible spending programs that we evaluated.

Looking at state financial records, we found that overall spending on services averaged \$2,472 per experimental child compared to \$708 per control child. Among control children 26.7% received a service purchased by the state compared to 64.3% of experimental children.

Based on this evidence there can be no doubt that experimental children and their families received more services than corresponding control children.

Outcomes. Outcomes were also tracked. The major goals of the demonstration were: 1) preventing/reducing out-of-home placements; 2) reducing lengths of stay in out-of-home care; 3) decreasing the incidence and recurrence of child maltreatment; and 4) enhancing child and family well-being.

We examined removals and out-of-home placements of children after the original child maltreatment investigation and case opening. Beginning at the time of assignment and tracking forward until the end of the case (or the end of current data collection), 15.7% of experimental children had subsequently been removed and placed in out-of-home care compared to 18.0% of control children, a difference that was statistically significant ($p = .003$). Time in out-of-home placement was reduced for waiver children (E: 314 days, C: 427 days; $p < .001$).

Among closed CPS cases substantially more experimental children ($n = 4,076$) were reunified with their families (E: 63.5%, C: 46.9%; $p < .001$) whereas more control children ($n = 4,177$) were not reunified but were adopted into other families (E: 14.2%, C: 30.1%; $p < .001$). In addition, more experimental children were placed in guardianship (E: 10.6%, C: 8.2%; $p < .001$).²³ Regarding reunification with family, similar results occurred among delinquents (315 experimental cases with 75.2% reunification, 439 control cases with 68.3% reunification ($p = .02$). A more sophisticated analysis showed that various kinds of family support, including increased material services, led to higher reunification of children with their families.²⁴

We found a small but statistically significant difference in new substantiated child abuse and neglect reports (E: 23.2%, C: 24.3%; $p = .045$). Because children in the five-year tracking period had varying opportunity for new reports to occur, a survival analysis was conducted. In this case, a more powerful method, proportional hazards analysis, was utilized. It permitted the introduction of risk level and services as covariates in the analysis. The results showed statistical significance for risk level ($p < .001$) and the introduction of *any* services in the case ($p < .001$) and experimental-control group membership ($p < .001$).

The differences in the survival analysis are illustrated graphically in **Figure 7**. The first thing to be noticed is that as the risk level increased the number of later substantiations increased as well (the bars grow in length). Another thing that is obvious from the table is that when services were delivered the overall levels of substantiations *were greater*. This is a common finding within service delivery systems with limited-service funding. Services are a proxy measure of family need and risk of child maltreatment. The services in the traditional CPS system tend to go to the most difficult cases, as discussed earlier regarding the *residual approach* in child welfare. The most important aspect of the figure, however, is the reversal that takes place in waiver-control percentages as the eye moves from no services down to some services. Under the no service category, experimental children actually had increased proportions of later substantiations in several risk categories. Under the “some service” category, however, this pattern reverses and waiver children had fewer investigations.

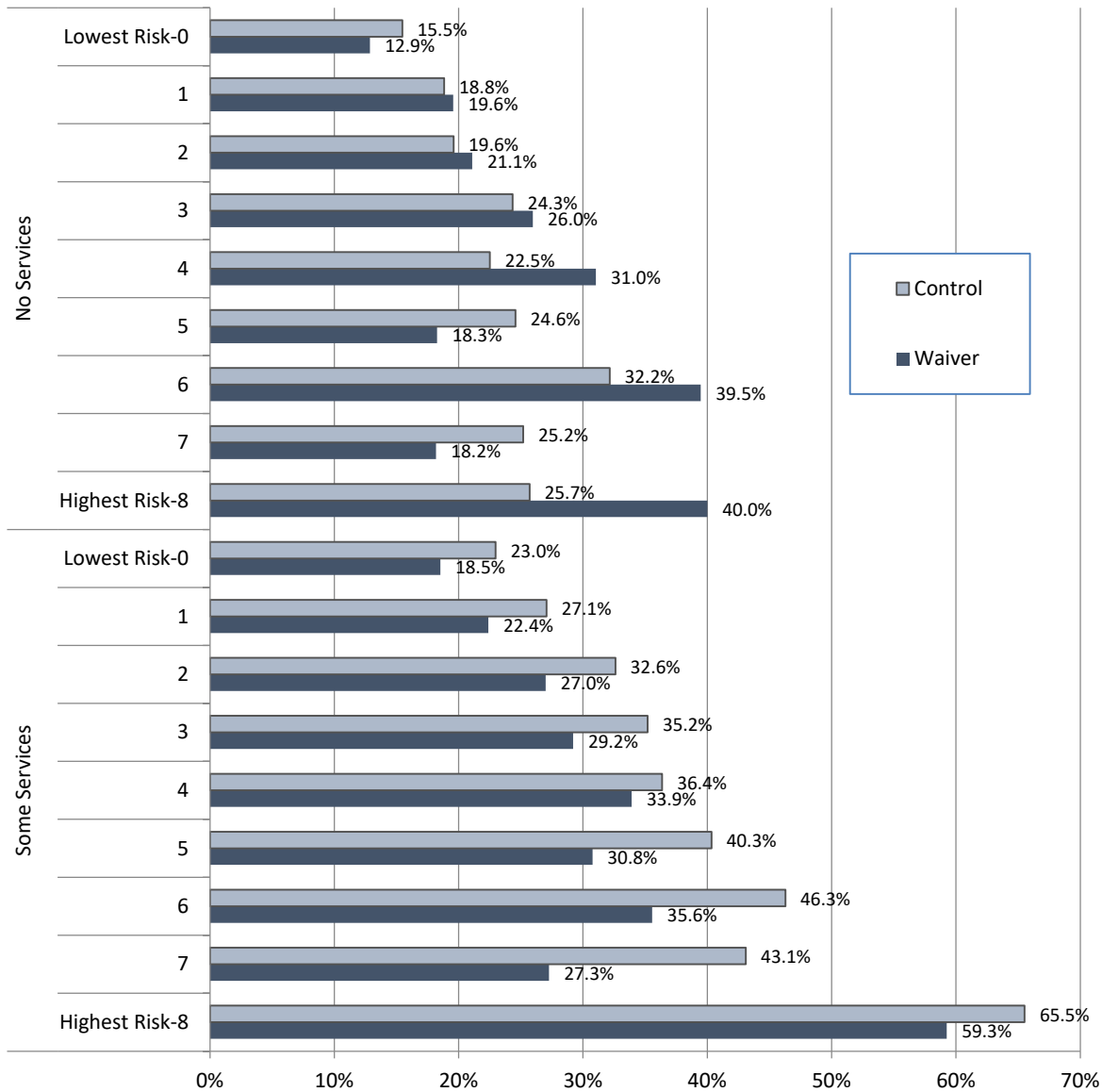


Figure 7. Percent of waiver and control children with a subsequent substantiated investigation by risk level and delivery of preventative or remedial services

As noted, experimental families were more likely to report that the kinds of assistance received were what they needed and enough to really help. Relief of these conditions in families generally has positive effects on the relationships of family members and in turn on child development. We found that reported school performance improved among experimental children ($p = .037$). Waiver families more often reported that their children were much or somewhat better off because of the experience (E: 75.8%, C: 68.4%;

p = .017) and similarly that their families were much or somewhat better off (E: 74.5%, C: 66.1%; p = .027).

Conclusions Regarding Title IV-E Waiver

The Indiana and Mississippi experiments concerned the highest risk families and children in the CPS system. They each illustrate the benefits of increased spending for financially related services and addressing material needs. The welfare and safety of children were enhanced in each study. Subsequent reports of child maltreatment decreased significantly in frequency in both projects. The need for removal and placement of children dropped significantly. Time that children had to remain in foster or residential care decreased as well. There were indications of greater family satisfaction with services, improvements in family life, and improvement in school performance of children. Now we can turn to two other studies within the CPS system.

Studies 3 and 4: The Minnesota and Ohio Differential Response Experiments

We conducted two other prospective experimental studies that addressed financial hardship of families. In each family and child welfare and child safety improved. The Ohio study was essentially a replication of the Minnesota study utilizing a similar design and data collection methods. For this reason, they will be considered together in this section. Results in both states were subsequently published in professional journals.²⁵

The Minnesota study began in 2001 and ran through 2005.²⁶ It involved over 5,000 families reported to Child Protection Services (CPS) in 20 Minnesota counties. However, the experiment was limited to 14 counties that agreed to random assignment of control cases. For this analysis, 3,861 families are considered: 2,605 experimental families and 1,256 control families. Families were assigned randomly but a weighting was used to keep control numbers to approximately half the size of experimental.²⁷ Because we were doing other studies in Minnesota, we continued to receive data on study families. The analysis in this paper is based on family data from 1999 through 2010.²⁸

The Ohio study began in 2008 and ran through 2013 in 10 Ohio counties.²⁹ Over 4,500 families were involved and tracked. Again, random assignment was utilized with 2,383 families assigned to the experimental group and 2,247 in the control group.

Both studies involved a new approach in CPS that has come to be called Differential Response (DR). Briefly, the approach excluded families accused of severe physical abuse and neglect or any allegations of sexual abuse. Thus, compared to the two IV-E studies

reviewed, these experiments were focused on lower risk cases, usually involving families accused of child neglect of various kinds and less severe physical abuse, such as oversevere discipline.

Under the traditional CPS approach, *all* families with accepted reports alleging child maltreatment were subjected to a forensic and adversarial investigation. The term *adversarial* refers to investigatory behavior similar to that of law enforcement with the objective of determining whether the allegations of the report (or any other maltreatment) actually occurred. The families assigned to the control group received this kind of traditional investigation. Investigations were concluded by either substantiating maltreatment or not. Substantiated investigations led to opening and maintaining CPS cases on these families. By contrast, the experimental families were *not investigated*. Instead, they received a non-adversarial *family assessment (FA)*, which included a full child-safety assessment but then focused on broader family needs. In some instances, ongoing cases were opened on these families as well, especially if initial assessments of child safety and family needs led to concerns about the welfare and safety of the children. Please refer to the online reports if you want greater details about DR. However, there was another dimension to the experimental treatment in these studies. In each state a private foundation provided extra funding for services *to experimental cases only*. The differential response approach provided *flexibility and family involvement* in decision-making regarding service needs. The additional funding permitted more *intensive services*. In this way the approach in these two experiments resembled the approach utilized in the IV-E studies.

The random assignment process was successful in both studies. **Table 5** illustrates a select few statistics showing the similarity of the groups. More detailed tables are available in the two journal articles previously referenced.³⁰

Services. The additional funding led to higher levels of services for experimental families. The differences are illustrated in **Table 6**, which shows workers reports of services provided to experimental and control families. The data for these table came from case-specific sample surveys of workers responsible for cases. Like surveys described for the IV-E studies, response rates of workers were high (greater than 85%), with lack of response attributable to worker turnover and worker leave.

Table 5. Select Demographic and Cases Characteristics of Study Groups

Experimental (E) – Control (C)		Minnesota		Ohio	
		E	C	E	C
Number		2605	1256	2383	2247
Family Characteristics					
Race	Caucasian	71.4%	69.8%	62.2%	63.5%
	African American	17.3%	16.2%	24.9%	24.7%
	American Indian	3.3%	3.9%		
	Other or Unknown	8.0%	11.1%	12.4%	11.7%
Persons	Mean number of adults	2.2	2.3	1.72	1.72
	Mean number of children	2.5	2.5	2.01	2.04
Initial Allegations	Neglect	58.1%	58.1%	53.0%	53.9%
	Physical Abuse	42.2%	42.3%	44.1%	44.0%

As can be seen in **Table 6**, experimental families received more help in nearly every service area but much more in material services of various kinds, such as food and basic household needs (furniture, appliance, clothing, etc.). Also, families were provided cash for rent, childcare, respite care as well as other kinds of financial assistance. The differences in some categories were substantial and in many were statistically significant.

Many of these were services directed toward problems of financial hardship. The FA approach with its emphasis on the underlying needs of families helped FA workers to discover such problems more often than traditional investigators.

FA workers also had more flexibility to address needs that were much more rarely addressed under the traditional *residual approach*. This is not at all surprising. Workers were confronted with families generally ranging in income from extreme poverty to near official poverty levels. They had the means to help, so they helped. Analyses showed that the more the need of the family, the more likely services were provided.

Table 6. Worker reports of services provided to families in the Minnesota and Ohio Alternative Response studies (Case review samples)

Service Categories	Minnesota			Ohio		
	Control	Experi- mental	p	Control	Experi- mental	p
Help with rent/house payments	2.4%	11.0%	<= .001	3.5%	9.3%	< .05
Housing services	3.9%	9.5%	< .05	3.9%	7.2%	< .10
Help with basic home needs	2.9%	16.1%	<= .001	6.1%	20.3%	<= .001
Emergency food	0.0%	9.9%	<= .001	1.7%	6.8%	< .05
Assistance with transportation	1.9%	8.8%	<= .001	3.9%	7.6%	
TANF, SSI or food stamps	2.9%	7.3%	< .05	2.6%	6.8%	< .05
Medical or dental care	8.2%	9.5%		2.2%	5.9%	< .05
Assistance with employment	1.9%	5.5%	< .05	2.2%	3.8%	
Vocational/skill training	0.5%	4.8%	< .05	0.9%	1.3%	
Educational services	5.3%	7.7%		0.9%	2.5%	
Legal services	4.8%	6.6%		5.2%	4.7%	
Childcare/daycare services	5.3%	12.8%	< .05	2.6%	8.9%	<= .001
Homemaker/home management	1.4%	5.8%	< .05	1.7%	2.1%	
Respite care/crisis nursery	3.9%	7.3%		1.3%	1.7%	
Emergency shelter	1.9%	2.6%		2.2%	2.1%	
Parenting classes	11.6%	18.3%	< .05	4.8%	6.4%	
Marital/family/group counseling	14.5%	18.6%		4.4%	9.3%	< .05
Individual counseling	15.5%	24.2%	< .05	16.2%	18.6%	
Mental health/psychiatric services	10.1%	15.3%		9.2%	10.6%	
Drug abuse treatment	6.3%	2.9%		5.2%	1.7%	< .05
Alcohol abuse treatment	4.8%	4.0%		2.2%	3.0%	
Domestic violence services	9.7%	9.5%		4.8%	2.5%	
Assistance from support groups	4.3%	6.6%		1.3%	3.0%	
Disability services	1.9%	2.2%		0.4%	0.8%	
Recreational services	1.4%	5.9%	< .05	0.9%	2.1%	
Family preservation services	3.9%	4.8%		2.6%	1.7%	
Total Families	227	220		207	273	

Outcomes. Did these differences in financial and material aid make a difference in long-term outcomes for families? One important outcome was the percentage of families in the experimental group that were the subject of later reports of child maltreatment. Random assignment made for great similarity between the two groups, and other things being equal, we would expect to see families re-reported at about the same rate. However, this is not what happened. Subsequent child maltreatment reports and investigations occurred significantly *less often* for experimental families. Analysis showed that the risk of new child abuse and neglect investigations in Minnesota was *28% greater for control*

families.³¹ We also looked at subsequent removals and out-of-home placements of children, which was also significantly lower among experimental families. Subsequent analysis of the data through 2010, some five years after the original follow-up study showed similar results for the full samples of families.³² However, in that analysis we were able to show that material services to both low-risk and high-risk families were effective in reducing later child maltreatment reports and subsequent child removals.³³

Here is an example chart from the Ohio study (**Figure 8**). The lines in the chart show the cumulative survival rates, where survival indicates the length of time until a new child maltreatment report was received (the hazard referenced in the chart title). The higher the line the better the survival rate.³⁴

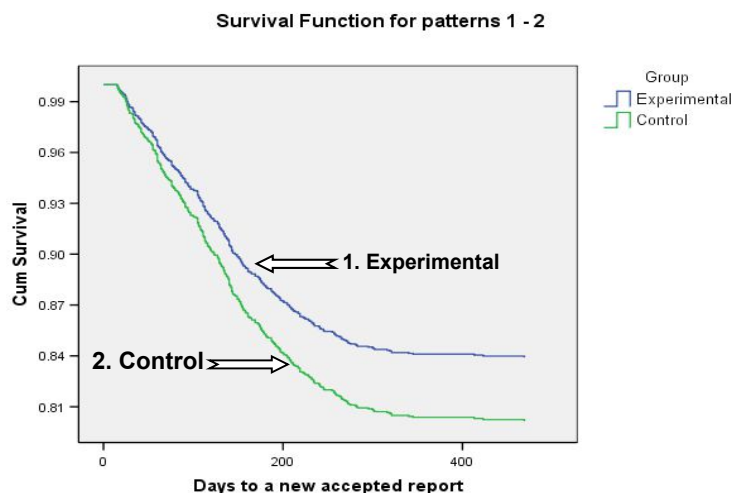


Figure 8. Ohio proportional hazards analysis of new accepted reports of child maltreatment

Another set of outcomes were indicative. In Ohio, new assessments of child safety and risk were conducted over a five-year period following the original intervention. In analyzing subsequent child safety and risk assessments associated with new child maltreatment reports, we found the following:

- Children in experimental families were judged to have received serious inflicted harm less often.
- Children in experimental families were judged to be less often in danger from an adult who was mentally or physically ill.
- Children in experimental families were judged to be less often in danger of neglect, including lack of supervision, food, clothing or shelter.
- Children in experimental families were less often in families that refused access to the child or were likely to flee.

- Children in experimental families were less often found in situations of failure to meet their serious physical or mental health needs.³⁵

Conclusions Regarding the Two DR Studies.

These RCT studies used the strongest experimental design, random assignment, creating virtually identical groups of families. Significantly more material supports were provided to families in experimental groups. Outcome analysis indicated that the risk and actual occurrence of subsequent child abuse and neglect reports and child removals were substantially reduced over a period of years. The later safety of children, as measured by child safety assessments, was also demonstrated. They provide strong evidence that financial assistance to families experiencing financial hardship can significantly improve the welfare of such families and the safety and welfare of children.

Study 5: The Nevada Differential Response (DR) Evaluation

This study tracked families in a special statewide differential response (DR) program in Nevada.³⁶ While no extra money was provided for families that entered the program, the structure of the program ensured that they were provided with substantially more material (financially related) services than standard cases. Families that entered the program had been reported to Child Abuse and Neglect county hotlines. Only those in which there were no children younger than five years could be referred to DR. The types of reports included educational neglect, environmental neglect, physical or medical neglect, improper supervision, or inappropriate discipline with non-severe physical harm. Reports of these kinds, if selected, did not receive a traditional CPS investigation (as described previously) but in this project were instead referred to a Family Resource Center (FRC) office.

The FRCs were in the business of assisting families in neighborhoods that lacked ‘the basic necessities of life’ and in which various services were unavailable. FRCs operated as Nevada’s child welfare agency. The law establishing FRCs stated: “Nevada's most vulnerable families and children live in these neighborhoods [and] many such families not only live in poverty, but also experience divorce or are headed by a single parent.... [Furthermore,] children who are raised in such neighborhoods frequently experience physical and mental abuse.”

Services. The Nevada study did not involve a prospectively selected control group. Thus, comparisons of services provided to highly similar groups of experimental and control families, like those in the four previously discussed experiments were not possible. However, we conducted surveys of workers involved with samples of DR families and other workers involved with samples of families that were traditionally investigated. These

surveys comparing services typically provided by FRCs in comparison to CPS can be found in the final evaluation report. They show that the FRCs provided substantially more services of all kinds, including material, than CPS. These included emergency food supplies, assistance with transportation, help with household needs (such as utilities, furniture, appliances, etc.), housing, and help with rent or house payments.³⁷ This is shown in **Figure 9**.

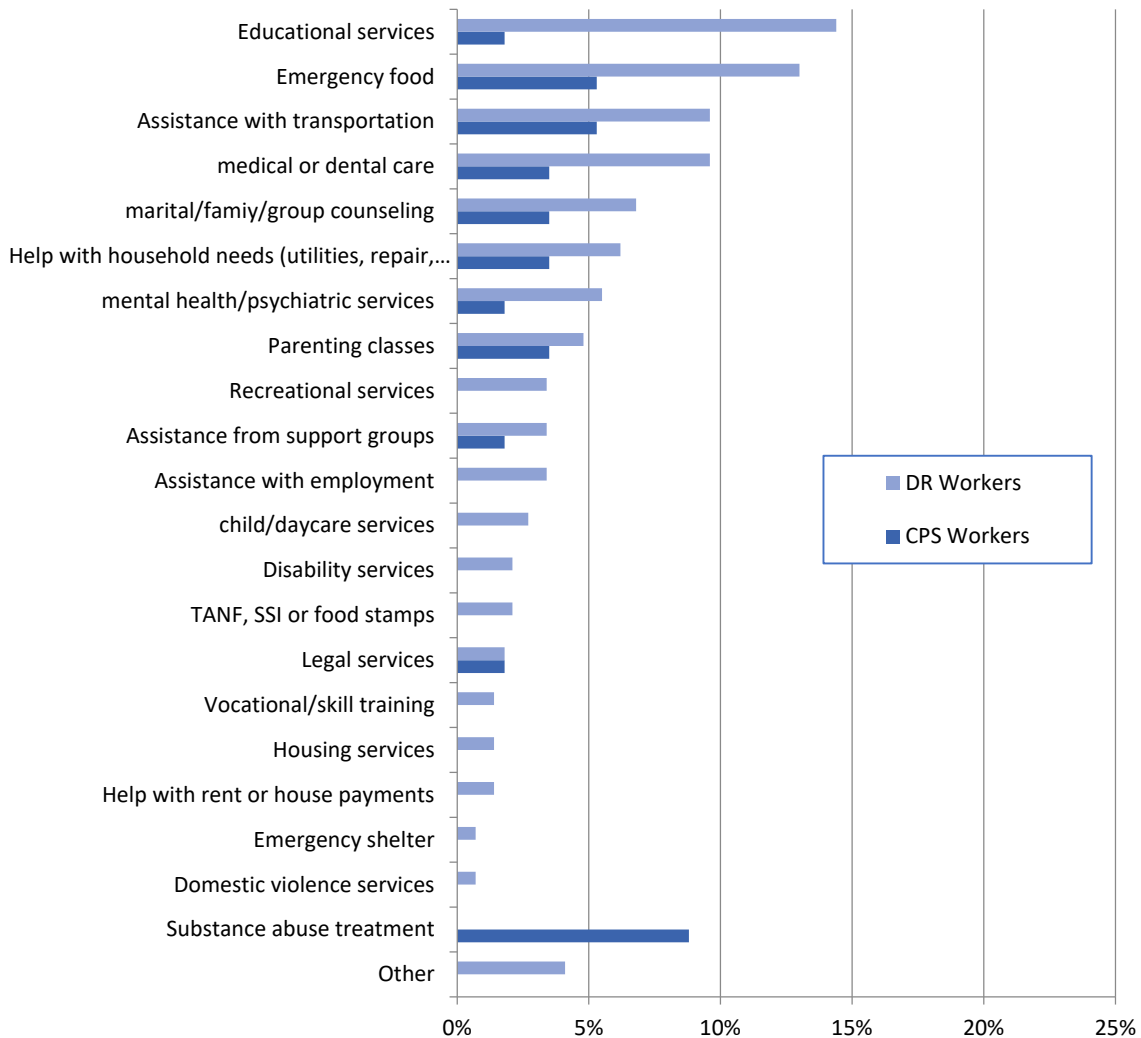


Figure 9. Percent of families provided specific services according to DR and CPS workers

Outcomes. It was not possible to create a contemporaneous control group in the Nevada study. However, at the end of the study, we were able to create a retrospective control group. This occurred because several thousand cases that could have been referred to FRCs were not referred. The selection method matched families that were appropriate for referral to FRC but were not referred on a variety of characteristics recorded in the state

child welfare data system. There were 1,861 families referred to FRCs during the study for which full data were available for comparison.³⁸ This constituted the *experimental group* for subsequent analysis. Only families with a disposition of *investigation* were included in the pool of potential control cases. Initially, two matches were selected for each DR family from among the pool of investigated cases based on paired similarity. These paired cases had child maltreatment reports within 60 days (plus or minus) of the matching experimental family. This group of 3,722 families was submitted to a computer program designed to produce greater *group similarity* between experimental and control families. This was weighted procedure that set families aside in successive steps while comparing experimental and control groups as wholes at each step.

The most important factor in this type of selection process is risk of future child maltreatment.³⁹ The control group selected was on average equivalent on these measures: previous reports leading to an investigation over about eight years before the initial report in the study (mean per group: E: 1.21, C: 1.26) and previous child removals (mean per group: E: .33, C: .26). Neither of these differences were statistically significant.

No significant differences were found for most areas of allegations associated with previous reports: sexual abuse, severe physical abuse, physical abuse, drug-exposed infant, severe neglect, emotional abuse, medical neglect, unmet medical needs, and lack of supervision. Experimental families were more likely to have been previously reported for neglect of basic needs, such as food, clothing and housing (mean reports, E: mean of .75, C: mean of .57; $p = .002$) and educational neglect (E: .12, C: .07; $p = .005$).

Control families on average had slightly more children (E: mean of 2.8 children; C: mean of 3.2 children; $p < .001$) but slightly more two-parent households (E: mean of 1.74 parents, C: mean of 1.8 parents; $p = .003$). The former makes comparison families at slightly higher risk for new reports while the latter reduces their risk slightly. In addition, control parents were slightly older. For example, the primary parents/caregivers for experimental families averaged 35.7 years while the same for control families averaged 36.6 years ($p < .001$). While these differences were statistically significant, the sizes of the differences were small.

There were positive outcomes. Experimental and control families had identical rates of previous investigations (E: 42.5%, C: 42.4%), but experimental families experienced 8.6% fewer subsequent investigations (E: 15.7%, C: 24.3%; $p < .001$). A survival analysis was conducted in which subsequent investigations of experimental and control families were compared while controlling the level of past investigations (that is, setting the groups equal in terms of risk). This showed a statistically significant difference ($p < .001$). The same kind of analysis was conducted for any report, whether investigated or not. This analysis also showed improvement for experimental families ($p < .001$). The analysis showed a reduced

relative risk of new reports of any kind for experimental families of .73. This means that for every 100 reports on control families 73 were received on experimental families.⁴⁰

Subsequent removals and placements of children because of new child maltreatment reports after experimental and control case closings occurred at very low rates. There were only 10 children removed from 1,861 experimental families (.05%) compared to 12 children from 1,105 control families (1.1%). The difference in a survival analysis controlling for past removals was statistically significant ($p < .001$), but because of the small numbers, the results should be regarded with caution.

Conclusions Regarding Nevada. This was the weakest of the studies from an experimental design perspective. Nonetheless, substantial reductions in future reports and investigations of child maltreatment were found for families provided with FRC services.

Study 6: The Minnesota Parent Support Outreach Program (PSOP)

The final study we consider was not a controlled experiment. It was an evaluation study we conducted in Minnesota of the Parent Support Outreach Program (PSOP).⁴¹ The PSOP operated from 2005 to 2008.

In family-oriented field experiments, like the five considered above, control groups are possible when comparable data can be collected on characteristics of families and family members for all potential experimental and control cases. In addition, it must be possible to collect information on members of both groups about program participation and subsequent changes (outcomes) that take place in families. As will be evident in the following, collecting these kinds of data on potential control families was virtually impossible in PSOP study.

On the other hand, the data collected on families that did participate in PSOP was more consistent and detailed than in the previous five. Furthermore, various correlational analyses indicated that providing material resources to families experiencing financial hardship had positive effects on family life and on the safety and welfare of the children. We hope to show that the PSOP program addressed the problems arising in the Family-Stress Model and the Economic-Resource Model of the Congers presented above or as we have combined them in the EHCO model and the ADAR understanding of child welfare.

The PSOP targeted families who had been reported for child maltreatment. However, in these cases the reports *were not accepted* by CPS for further action. When child maltreatment telephone hotline reports are received, intake workers question the reporters about what they have observed or heard to determine whether the problems

being reported correspond to the state statutes governing child abuse and neglect.⁴² For these families, workers determined that the report did not qualify for further action.

The basic idea underlying PSOP was to contact these families to determine whether they needed help and solicit their voluntary participation in services. After the first year of the program the referral process was expanded, permitting families to be referred to the program from other programs, such as the Minnesota Family Investment Program (MFIP), Minnesota's welfare to work program.

The same Minnesota foundation (McKnight) that funded the original Minnesota DR project referenced above, provided extra money for PSOP. Thirty-eight counties participated. In each, a target number of families to be served was set. Each county received \$1,000 per target family that could be spent in various ways.

By the conclusion of the study PSOP services had been offered to 7,752 (unduplicated) families of which 3,841 (49.5%) decided to participate. Families with past reports to CPS and/or open CPS cases were *more likely* to accept PSOP services (34.7% of accepters versus 27.7% of decliners). More generally, families that had received services from other agencies such as the Minnesota Child Welfare program, childcare services, services related to developmental disabilities of children and various other adult services tended to accept PSOP services more often.

County program procedures utilizing the funds varied greatly. The analyses of approaches in the 38 participating counties were instructive.⁴³ One of the most interesting findings is that contacted families accepted PSOP services substantially more often (64.3%) in counties that relied on workers from private agencies compared to about half (49.6%) in counties relying on public CPS agency workers. Rates of acceptance among families with previous CPS reports and cases was higher in counties utilizing private agency workers. Nonetheless, the majority of families who participated received services that they would not have received without the outreach program.

The income status of participating families was shown above in **Table 1** of the present report. The underlying data came from reports of 608 families responding to surveys after their cases were closed.⁴⁴ There were other indicators of financial hardship. Nearly two-thirds of families (65.3%) were receiving food stamps. More than half had participated in WIC (52.6%). Families who responded to surveys indicated stress about their financial outlook (A lot: 45.7%, Some: 36.7%).

Workers provided assessment data on families. As noted above (see text before **Table 1**), they reported that 59.7% had inadequate incomes or were in poverty. In 13.6%, workers judged that the poverty was extreme and severe. Workers indicated problems associated with employment in 48.6% of families served (underemployment: 13.8%,

unemployment: 34.8%). They also noted *chronic* emotional health to be a problem for over a quarter (28.1%) of an adult in families.

Services. The average (mean) number of contacts made with or on behalf of families was 16. Four or more face-to-face contacts were made with 54 percent of families and 11 or more with 18 percent of families. Workers indicated that services were provided directly in many areas related for financial hardship and poverty (for example: basic household needs: 28.3%, emergency food: 15.1%, transportation assistance: 18.8%, medical/dental: 5.3%). In addition, the large majority of families (87.3%) were referred to at least one community service provider (for example: childcare/Head Start: 30.3%, emergency food: 28.9%, mental health: 32.8%, community action agency: 14.2%, legal services: 12.5%, domestic violence shelter: 9.8%, and many others). Families indicated many areas of such service reception (for example: food or clothing 30.2%, money for rent: 19.1%, help paying utilities: 15.3%, childcare: 15.0%, housing: 12.7%, appliance/furniture/home repair: 8.8%, and many others).⁴⁵

Outcomes. Both workers and families generally agreed that the assistance provided fit the needs of families and was effective. Among families responding to surveys, 42.5% indicated that they were much better off because of the PSOP experience and another 36.9% said they were somewhat better off. A minority indicated that they were somewhat worse off (17.8%). Concerning needs that they were able to address workers responded that they observed marked improvement in numerous areas. These can be seen in **Figure 10**. Workers indicated that they observed improvements in family income (25.3%) and employment (20.9%), in parent-child relationships (14.8%) and parenting skills (15.3%) and in numerous other areas. Overall, workers noted that marked improvement had occurred in 62.1% of families for at least one if the issues listed in **Figure 10**.

We developed an outcome assessment approach that we called the *dosage model* (see **Figure 11**). The model was based on the assumption that in a program of the magnitude of PSOP, families with similar sets of needs could be found that for different reasons received variable levels of services addressing those needs. If the services were effective, then families that received and utilized more (higher doses) might be expected to have better outcomes than families with less or none. The model was utilized because service and outcome information were collected in sufficient detail along with views of workers and family caregivers concerning the benefits and detriments of the PSOP service approach.

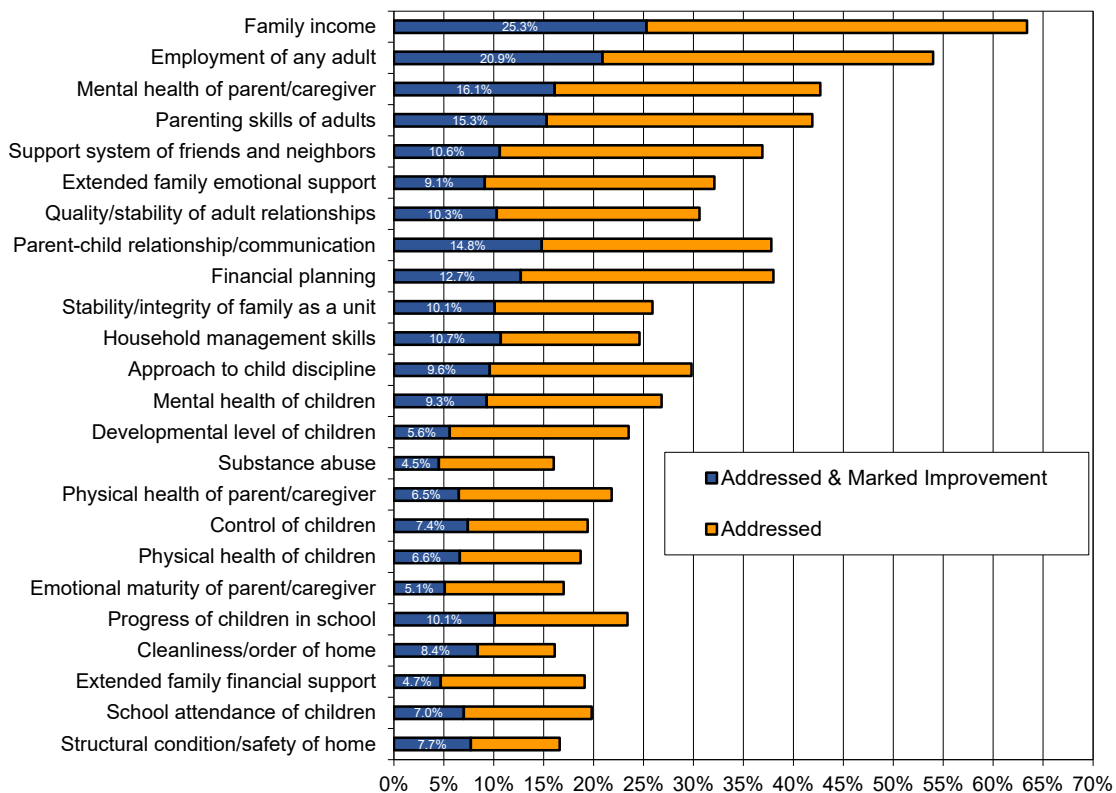


Figure 10. Family Functioning Issues Addressed while the PSOP Case was Open and the Proportion in which the Worker Felt there was Marked Improvement

The diagram in **Figure 11** shows the approach to analysis in the dosage model. This may be compared to the approach encapsulated in the experimental design as shown in **Figure 1**. While three levels of service participation are shown in the diagram, the number is arbitrary and as few as two could be analyzed as well as many more than three levels and even continuous measures across a range of participation. Needs and services were considered and matched in three critical areas: 1) serious basic needs deficiencies and poverty-related services, 2) under-

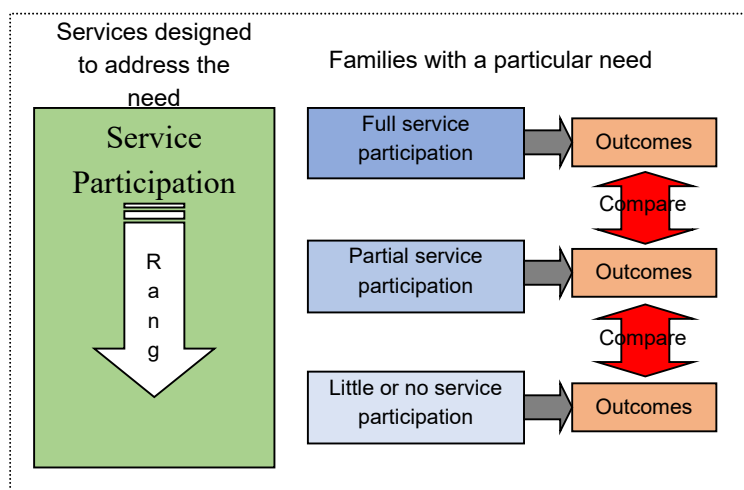


Figure 11. The Dosage Model

employment/unemployment and assistance with welfare and employment and training, 3) substance abuse and substance abuse treatment.

Services addressing financial hardship are included in the following list. We considered these to be the strongest contributors to the measure. The needs associated with these services are highly interrelated and arise in part from low income and unemployment.

Rent/house payments	Emergency food	Housing
Basic household needs	Transportation	Employment
Emergency shelter	TANF/SSI/FS	

We also decided to use these because the component services were offered to more PSOP clients than any other kinds of services. Families with high scores on this measure participated in several of these services. Families with lower scores participated in fewer or none of these services. The emphasis was primarily on *participation in services*, which, of course, can only occur after *provision of services*. There were families that were offered many services in this list but that had lower scores on this measure because they used the services at low levels or not at all. This is an important distinction: *only families that utilized services at high levels had high scores on the services measures*. The focus was on something *actually* delivered to and utilized by a family that might produce a change.

As we have noted, the majority of families accepting PSOP services were in or near poverty and a subset of these were deeply in poverty. There are, however, various mitigating factors. For example, families may have low incomes but some financial support from their extended families or families may receive support from various non-cash programs. The important consideration for this analysis is not poverty *per se* but *need* for the kinds of services in the preceding list of services. Thus, we decided to use the measure of needs for basic services that workers completed for each family. For this analysis, the first two and the last two were each collapsed into a single category. There were 1,541 families (86.0 percent) in the *adequate or some problems* category and 250 families (14.0 percent) in the *serious/chronic basic needs deficiency* category.

Families entering PSOP during the first year had two to three years for tracing and follow-up compared to only a few months for most families entering during the third year. As we noted in regard to the experimental studies, a survival analysis is the stronger approach in studies of this kind in which varying time exists for families to experience a negative outcome—in this case one or more subsequent reports to CPS of child maltreatment. The following chart (**Figure 12**) illustrates this analysis. The lines represent the survival patterns (cumulative survival for each of the four groups over the entire follow-

up period (a maximum of approximately 1,150 days). Survival in this case indicates the proportion of families remaining without a new CPS report. *The higher the line the better the outcome.* The difference of interest in this diagram is that between the bottom line representing the group of families with *serious/chronic basic needs with no (or low) basic services* and the other three groups. The difference was statistically significant, as is shown by the variable listing near the bottom of the figure in which the difference between the last variable (the bottom line in the graph) and the other variables is statically significant ($p = .05$). The analysis indicates that serious or chronic basic needs families did as well as families with fewer needs *when services addressing those needs were utilized* and did significantly worse *when such services were not made available or were not utilized.* The latter had significantly more subsequent CA/N reports screened-in to CPS and the reports were received sooner.

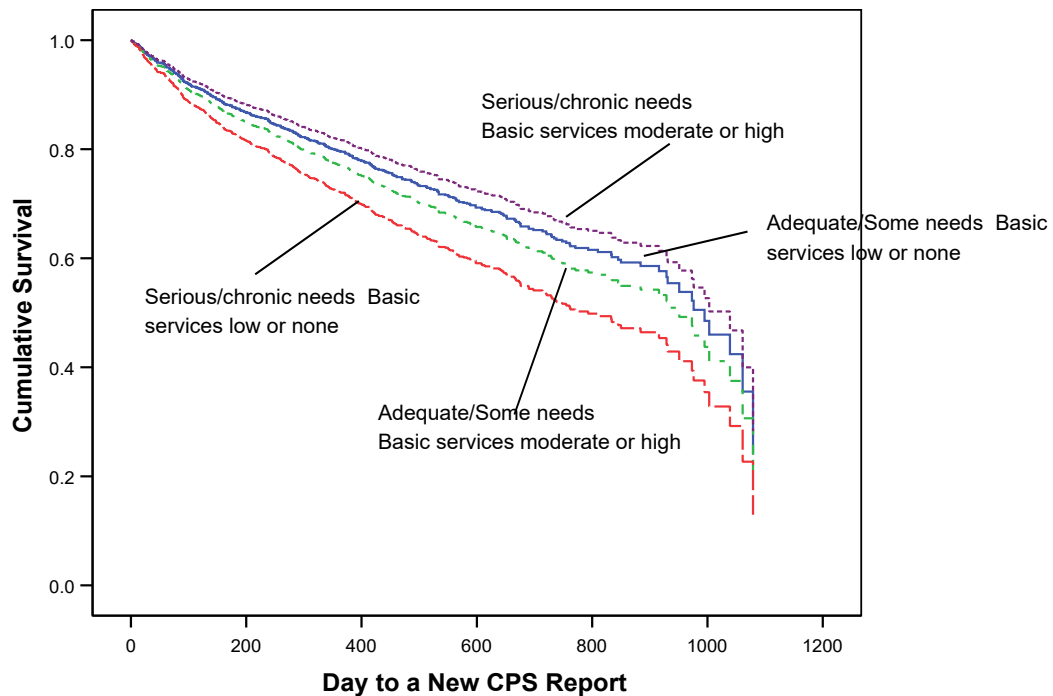


Figure 12. Survival Analysis (Proportional Hazards) Low and High Basic Needs by Low and High Poverty-Related Services

This was a correlational analysis, and alternative explanations of the results are possible. Dividing the PSOP families into those with adequate or some basic needs versus those with serious or chronic basic needs certainly has an empirical basis in the judgments of workers that visited and assisted the families. However, within each of these groups the division into service groups of low or none versus moderate or high was based in part on

the choice of families to accept and utilize such services and in part on barriers to services beyond their control. It is possible that their willingness and their capacities to overcome barriers reflected other characteristics of families (e.g., attitudes, skills, social support, environmental) that explain to some extent the differences observed.

A similar analysis was conducted based on the much smaller sample of families that responded to the family survey. We divided the families into four groups based on combining those with incomes above and below the \$10,000 threshold who received or did not receive poverty related services. We conducted a proportional hazards analysis for these four groups. We controlled for the social isolation of the family and the quality of the neighborhood in which they lived but found no effects on either of these variables on report recurrence. Satisfaction with their PSOP worker was also analyzed and this was associated with a statistical trend ($p = .08$): families more satisfied with their worker returned less often. Controlling for these three variables a significant relationship was found between poverty-related services and later reductions in subsequent child maltreatment reports ($p = .04$). The most impoverished families with the least services fared the worst. They were more likely to have new reports and to have them more quickly. Those with higher incomes, who participated in no services fared best. The other two other groups fell in between.

Similar analyses were conducted for employment status and employment related services as well as for substance abuse in the family and substance abuse treatment services. Both these analyses were concluded with similar results.⁴⁶

Summary and Conclusions

We have examined six studies. Five were experimental. Of these three involved Randomized Control Trials (RCT) and the other two involved matching, one prospective in nature and the other retrospective. The sixth was a correlational study included because it involved detailed information from workers about characteristics of families and the types of services delivered to them.

The programs being evaluated in each case involved substantial increased in material services for experimental families and greater flexibility in the application of those services, particularly greater participation of families in the decision-making process. Material services refer to *financially related services*, that is, more money was available in each case to make sure that effects of financial hardship and poverty were addressed. These were the major difference in the experimental studies between experimental and control groups. Thus, any differences observed during years of follow-up on families was almost certainly due to this experimental treatment.

The studies were large, each involving thousands of families. The follow-up periods were long consisting of years for the majority of cases. These two factors add to the strength and validity of study findings.

In each study the levels and types of services that constituted the experimental treatment were measured in various ways. In some cases, state data systems were used to view services delivered. In others the reports of workers and families concerning level and types of services were collected.

Positive outcomes occurred in each study.

- Concerning the safety and welfare of children, each of the studies demonstrated statistically significant reductions in child maltreatment reports that must be attributed to the financial assistance that was offered.
 - In several cases, the level of financial assistance was shown to produce stronger effects, that is, reductions in subsequent reports were greater among families receiving higher levels of material services.
- In two studies in which the safety of children was such that imminent removal from their homes was possible significantly reduced out-of-home placement was subsequently observed.
 - In addition, length of stays of children in out-of-home placement were reduced among children in placement.
- Statistically significant reductions in subsequent removal and out-of-home placement of children were also observed in four of the studies.
- In one study, evidence of improved family relations and general child welfare was found, including parents reports of improved child development and school performance along with a sense that their children were better off.
- One of the RCT studies considered subsequent safety assessments of children and found:
 - Children in experimental families were judged to have received serious inflicted harm less often.
 - Children in experimental families were judged to be less often in danger from an adult who was mentally or physically ill.
 - Children in experimental families were judged to be less often in danger of neglect, including lack of supervision, food, clothing or shelter.
 - Children in experimental families were less often in families that refused access to the child or were likely to flee.
 - Children in experimental families were less often found in situations of failure to meet their serious physical or mental health needs.

These studies validate the **Economic Hardship-Child Outcome (EHCO)** model of child welfare. The EHCO model shows that financial hardship and poverty are implicated in child abuse and neglect and more generally in child welfare problems and are manifested in two ways:

1. Reports of child maltreatment that are in reality reports of the effects of poverty, and
2. Reports of child maltreatment in which financial hardship is a moderating cause that exacerbates neglectful and abusive behavior of caregivers toward children.

In each of these types of reports relieving financial deprivation led to improvements in the welfare and safety of children.

Implications. The implication of this research is that income maintenance and child protection services should be recombined. This was the approach some 60 years ago before the introduction of the Child Abuse Prevention and Treatment Act (CAPTA) in 1972, when these functions were separated. Workers before those changes were responsible for both functions. When we first began our differential response studies in Missouri in the 1990s, there were still older workers around that remembered the pre-1972 period. They often commented the DR felt like a return to those days when they were concerned with family welfare generally as well as protecting children.

In addition, these studies suggest that financial resources controllable by CPS workers should be expanded to enable financial hardship and poverty to be addressed in families in the less risky end of the current CPS spectrum. Services should definitely continue to address particular child safety issues (for example, reducing the use of corporal punishment, improvement parenting skills generally, and the like) and removal of children when their lives and health are seriously threatened. However, they should also focus on more basic areas of family needs that are found in large proportions of CPS caseloads, such as housing safety and cleanliness, rent assistance, adequate food and clothing, household items, appliances, transportation assistance, childcare, respite care, and many similar needs and services.

A just rejoinder to this is that CPS and income maintenance are targeted programs. A much broader set of families have similar needs who were never reported to CPS and will never be reported. Yet they also would likely benefit from similar assistance. We agree and we support such general initiatives as a Federal Jobs Guarantee and Universal Basic Income. (See our second summary paper on financial hardship and child welfare more generally.)⁴⁷

We would only say the following regarding CPS:

1. CPS agencies are one of the most broadly distributed agencies in the U.S. with workers in virtually every city and county in the country.

2. Hundreds of thousands of families are reported to CPS each year in the United States. Most reports are not accepted for further action and of those that are only the most extreme receive any assistance, and often that assistance does not address the kinds of needs we have examined in this paper.
3. Expanding the resources available to workers and permitting greater flexibility in decision-making (with families) and in the kinds of needs that can be legitimately addressed could have immense benefits, significantly improving the welfare of U.S. children.

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³ Here is the web access address: <https://www.sciencedirect.com/journal/children-and-youth-services-review/vol/72/suppl/C>. Unfortunately the articles are not open access. Universities and many public libraries offer access. Otherwise readers have to purchase them. Many of us would like to see academic and professional publishing taken out of the hands of for-profit businesses. Authors are paid no money for these sales, only the publishers. They should be free to the public. Here are the titles of the articles in this volume: Child welfare involvement and contexts of poverty: 1. The role of parental adversities, social networks, and social services. 2. Economic predictors of child maltreatment in an Australian population-based birth cohort. 3. The influence of concrete support on child welfare program engagement, progress, and recurrence. 4. Out-of-home placement and regional variations in poverty and health and social services spending: A multilevel analysis. 5. Intersections of individual and neighborhood disadvantage: Implications for child maltreatment. 6. Pathways of risk and resilience between neighborhood socioeconomic conditions and parenting. 7. Money matters: Does the minimum wage affect child maltreatment rates? 8. The Great Recession and risk for child abuse and neglect. 9. The effect of lowering welfare payment ceilings on children's risk of out-of-home placement. 10. The impact of income on reunification among families with children in out-of-home care. 11. Making parents pay: The unintended consequences of charging parents for foster care. 12. The effect of

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⁶ The full PSOP report is available at <http://www.iarstl.org/papers/PSOPFinalReport.pdf>. The third chapter (pages 25-40) contains a variety of charts showing characteristics of families from state data systems, worker assessments and family feedback. Those interested might also examine Figure 3.6 (page 32), which show participation in financial assistance programs.

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⁸ Leroy H. Pelton. (2015). The continuing role of material factors in child maltreatment and placement. *Child Abuse and Neglect*, 41, 30-39.

⁹ Rand Conger & Katherine Conger. (2008). Understanding the Processes through which Economic Hardship Influences Families and Children. Chapter 5 in *Handbook of Families and Poverty*, ed. Crane, D., & Heaton, T. Los Angeles: Sage Publications.

¹⁰ Mi-Youn Yang. (2015). The effect of material hardship on child protective service involvement. *Child Abuse & Neglect*, 41, pages 113-125.

¹¹ L. Anthony Loman. (2021). *Relieving Financial Hardship Improves Child Welfare*. St. Louis, MO: IAR Associates. Available at: <http://www.iarstl.org>

¹² Duncan G.J., Magnuson K., Votruba-Drzal E. 2014. Boosting family income to promote child development. *The Future of Children*, 24(1): 99–120. Available at: <https://escholarship.org/uc/item/5rv2k936>

¹³ The full research report can be found at: <http://www.iarstl.org/papers/Indiana%20IV-E%20Final%20Evaluation%20Report-2011.pdf>. This case is taken from a second final report on the project: Lina Sapokaite, Christine Shannon Filonow & Gary L. Siegel. (2010). *Case Studies, The Use of Flexible Funding in Indiana's Child Welfare Demonstration*. Institute of Applied Research. Available at: <http://www.iarstl.org/papers/IN-IVE%20Special%20Project%20Case%20Studies%20Report-final.pdf> The primary work on this report was conducted by two talented researchers: Lina Sapokaite (now Millett) and Christine Filonow and finally edited by Gary Siegel. Many of the cases in the report are more complex with multiple family problems, often including drug and alcohol abuse and emotional and other psychological problems.

¹⁴ Our analysis of chronic abuse and neglect shows this. See: L. Anthony Loman. (2006). *Families Frequently Encountered in Child Protection Services: A Report on Chronic Child Abuse and Neglect*. Institute of Applied Research. Pages 43ff. Available at: <http://www.iarstl.org/papers/FEfamiliesChronicCAN.pdf>.

¹⁵ Duncan Lindsey. (1994). *The Welfare of Children*. New York: Oxford University Press.

¹⁶ Gary L. Siegel & L. Anthony Loman. (2005). *State of Mississippi Title IV-E Child Welfare Waiver Demonstration Project*. Institute of Applied Research. Available at: <http://www.iarstl.org/papers/MSIVEFinalReport.pdf>

¹⁷ This was a simple life-table analysis. It involved no statistical controls. The analysis is described and shown graphically in the original report (Siegel and Loman, *ibid.*, pages 64-65). Survival analysis as applied to the recurrence of reports of child abuse and neglect is concerned with the period of time until a new report occurs. The main problem that arises in most evaluations of time-to-a-terminal-event is that tracking of cases is cutoff at the end of the study. Cases that do not experience the event before the study ends are called *censored cases* in survival analysis. We assume that some of the censored cases would have been observed to experience a report had data collection continued, but we cannot know which. Nonetheless, all cases, both censored and uncensored are used in computing life tables. Life tables use a particular technique to determine the number of cases *exposed to risk* of the terminal event while at the same time considering the censored cases. In this study, we determined how many families were exposed to the risk of new CA/N reports while also considering families tracked to the very end of data collection with no new reports. In constructing a life table, the tracking time is divided into fixed intervals. For example, in this analysis 20-day intervals were chosen. The maximum tracking time was 45 months, which means there were 67 such intervals to consider. The rate of new reports in each interval can be thought of as a probability, with a value ranging from 0 (no terminal events) to 1 (every case experienced a terminal event). The probabilities can be accumulated until at the end of the last time interval to give a total probability. Finally, in an experimental study, separate life tables can be constructed for the experimental and control groups. Then the survival times of cases in the experimental group can be compared to those in the control group to see if, as a whole, they are different. If the overall difference is great enough to be unlikely to have occurred by chance, we can assert that the experiment was a success.

¹⁸ L. Anthony Loman, Christine Shannon Filonow & Gary L. Siegel. (2011). *Indiana IV-E Child Welfare Waiver Extension: Final Evaluation Report*. Institute of Applied Research. Available at: <http://www.iarstl.org/papers/Indiana%20IV-E%20Final%20Evaluation%20Report-2011.pdf>

¹⁹ Children assigned to the waiver were pair-matched on a monthly basis with children not assigned. Care was taken that control-group children were never a part of past or present *families* assigned to the waiver. The following 12 characteristics were utilized. Weights were assigned to each of the 12 variables (shown in parentheses). Summated scores were developed for each newly assigned waiver child and for all non-waiver children. For each waiver child, the child with the highest matching weighted score from the potential match pool was then assigned as a match. Weighting: 1. IV-E eligibility (100); 2. Case Type, including service (voluntary, court request, court ordered), service (adoption, AG, DOC, IL), SRA, IA, CHINS, and Delinquent (64); 3. Special Needs: psychological, medical, developmental disabilities and disabilities (64); 4. Case Begin Data (50); 5. Placement / Removal status (36); 6. Case County (32); 7. Age (16); 8. Physical Abuse (12); 9. Sexual Abuse (12); 10. Neglect (8); 11. Gender (8); 12. Number of Caregivers (8).

²⁰ The evaluators were responsible for the cost-neutrality calculations during the entire demonstration period and regularly demonstrated to Federal authorities that indeed no excess spending occurred during the demonstration.

²¹ Random samples of cases were selected as they closed and workers in the cases were surveyed. The survey instrument was completed online. Response rates were high (> 85%). Exceptions were workers who had left the agency or were on leave.

²² The full table of community-based services can be found on page 99 of the previously cited final report: L. Anthony Loman, Christine Shannon Filonow & Gary L. Siegel. (2011). *Indiana IV-E Child Welfare Waiver Extension: Final Evaluation Report*. Institute of Applied Research. Available at:

<http://www.iarstl.org/papers/Indiana%20IV-E%20Final%20Evaluation%20Report-2011.pdf>

The full listings of reports from workers and families concerning direct and indirect services from community-based providers can be found pages 94-113 The full outcome/impact analysis is on pages 114-140.

²³ For those interested in experimental design, the substantially higher rates of adoption might indicate a bias in the matching method, since the child and family characteristics underlying this alternative could not be taken into account. However virtually no delinquent child (n = 1) was adopted, which argues against this interpretation.

²⁴ This factorial analysis can be found on page 125 to 127 of the previously cited Loman, Filonow & Siegel 2011 report. Pay particular attention to the graphic representation of the interaction effect between study group and family support on reunification (p 127).

²⁵ Long-term analysis of the Minnesota DR project: L. Anthony Loman & Gary L. Siegel. (2012). Effects of anti-poverty services under the differential response approach to child welfare. *Children and Youth Services Review*, 34, 1659–1666. Five-year follow-up of the Ohio DR project: L. Anthony Loman & Gary L. Siegel. (2015). Effects of approach and services under differential response on long term child safety and welfare.

Child Abuse and Neglect, 39, 86-97. Available at:

<https://www.sciencedirect.com/science/article/pii/S0145213414002099>

²⁶ The original final report was : L. Anthony Loman and Gary L. Siegel. (2004). *Minnesota Alternative Response Evaluation: Final Report*. Institute of Applied Research. Available at:

<http://www.iarstl.org/papers/ARFinalEvaluationReport.pdf> . There was also a two-year follow-up report: Gary L. Siegel and L. Anthony Loman. (2006). *Extended Follow-up Study of Minnesota's Family Assessment Response: Final Report*. Institute of Applied Research. Available at:

<http://www.iarstl.org/papers/FinalMNFARReport.pdf>

²⁷ This was necessary to ensure that the 14 participating counties assigned sufficient numbers of children to the waiver so as to collect all foundation monies available. Counties received a set amount for each waiver child assigned. However, the received funds could be spent on any currently active waiver case.

²⁸ This is the analysis recounted in the above cited article: L. Anthony Loman & Gary L. Siegel. (2012). Effects of anti-poverty services under the differential response approach to child welfare. *Children and Youth Services Review*, 34, 1659–1666.

²⁹ The original final report: L. Anthony Loman, Christine Shannon Filonow & Gary L. Siegel. (2010). *Ohio Alternative Response Evaluation: Final Report*. Institute of Applied Research. Available at:

<http://www.iarstl.org/papers/OhioAREvaluation.pdf> . The extended follow-up report: L. Anthony Loman & Gary L. Siegel. (2014). *Ohio Alternative Response Evaluation Extension: Final Report*. Institute of Applied Research. Available at:

<http://www.iarstl.org/papers/OhioARFinalExtensionReportFINAL.pdf>

³⁰ Minnesota: L. Anthony Loman & Gary L. Siegel. (2012). Effects of anti-poverty services under the differential response approach to child welfare. *Children and Youth Services Review*, 34, 1659–1666. Ohio: L. Anthony Loman & Gary L. Siegel. (2015). Effects of approach and services under differential response on long term child

safety and welfare. *Child Abuse and Neglect*, 39, 86-97. Available at:

<https://www.sciencedirect.com/science/article/pii/S0145213414002099>

³¹ This analysis comes from the MN Follow-Up report. Gary L. Siegel and L. Anthony Loman. (2006). *Extended Follow-up Study of Minnesota's Family Assessment Response: Final Report*. Institute of Applied Research, pages 30-1. Available at: <http://www.iarstl.org/papers/FinalMNFARReport.pdf>

³² L. Anthony Loman and Gary L. Siegel. (2004). *Minnesota Alternative Response Evaluation: Final Report*. Institute of Applied Research, page 143. Available at: <http://www.iarstl.org/papers/ARFinalEvaluationReport.pdf> 'Hazard' refers to the relative risk of an undesired outcome, which in this case refers to a child removal.

³³ Minnesota: L. Anthony Loman & Gary L. Siegel. (2012). Effects of anti-poverty services under the differential response approach to child welfare. *Children and Youth Services Review*, 34, 1659–1666. For this study, the Cox Proportional Hazards analysis, discussed in reference to Table 3 demonstrated the effect of such services.

³⁴ L. Anthony Loman, Christine Shannon Filonow & Gary L. Siegel. (2010). *Ohio Alternative Response Evaluation: Final Report*. Institute of Applied Research, page 138. Available at: <http://www.iarstl.org/papers/OhioAREvaluation.pdf>

³⁵ L. Anthony Loman & Gary L. Siegel. (2014). *Ohio Alternative Response Evaluation Extension: Final Report*. Institute of Applied Research, page 34. Available at: <http://www.iarstl.org/papers/OhioARFinalExtensionReportFINAL.pdf> These findings are also discussed in a subsequent journal article: L. Anthony Loman & Gary L. Siegel. (2015). Effects of approach and services under differential response on long term child safety and welfare. *Child Abuse and Neglect*, 39, 86-97. Available at: <https://www.sciencedirect.com/science/article/pii/S0145213414002099>

³⁶ Gary L. Siegel, Christine Shannon Filonow & L. Anthony Loman. (2010). *Differential Response in Nevada: Final Report*. Institute of Applied Research. Available at: <http://www.iarstl.org/papers/NevadaDRFinalReport.pdf>

³⁷ *Ibid.* pages 78-84.

³⁸ A total of 1,903 unduplicated families were referred. Of these, incomplete data were available for 52 families from the Nevada SACWIS system (UNITY) as provided to evaluators.

³⁹ In this study we were not dealing with the general population but with families already identified in the state CPS system. So, the question was whether we could identify families that were likely to reappear in the system at a later time. In this sense, risk refers to the probability of being *reported again* for child maltreatment. What characteristics of families are associated with high or low risk? There are certain demographic characteristics such as the caregiver's age, the number of children in the home, single-parent status that are associated with repeat child maltreatment. Note that each of these characteristics is associated with financial stress. However, it turns out that key variables in determining risk of being re-reported are those showing past involvement with the CPS system. Thus, a family in the system currently who has had several previous child maltreatment reports, after leaving the system this time, is more likely to reappear than a family who had no previous contacts. Thus, the number of past child maltreatment reports, past investigations and previous removals of children to be placed out-of-home are risk measures. We examined standard risk measures extensively in another Minnesota study: L. Anthony Loman & Gary L. Siegel. (2004). *An Evaluation of the Minnesota SDM Family Risk Assessment: Final Report*. Institute of Applied Research. Available at: <http://www.iarstl.org/papers/FinalFRAREport.pdf> Relevant analyses can be found on pages 11-24. We recommend reading the discussion on page 20 of that report. In the risk scale studied, the strongest predictor item of future child maltreatment reports was the *number of past reports*. The discussion

of services on pages 60ff considers the effects of services. Traditionally, the most services were offered to the highest risk families. But the analysis in this report shows how services to low-risk families reduce maltreatment report recurrence.

⁴⁰ This analysis is highly detailed in the full report. *Ibid.*, pages 121-126. While experimental and control families had virtually identical rates of past investigations, experimental families had significantly more past reports that included those that *were not* investigated. Looking at reports of neglect of basic needs (food, clothing, shelter), experimental families had received many more over about eight years in the past (E: 75 of every 100 families, C: 57 of 100) but these kinds of reports subsequently received during the follow-up period were reduced to equivalent levels (E: 15 per 100, C: 13 per 100; $p = ns$).

⁴¹ L. Anthony Loman, Christine Shannon, Lina Sapakaite & Gary L. Siegel. (2009). *Minnesota Parent Support Outreach Program Evaluation. Institute of Applied Research*. Available at <http://www.iarstl.org/papers/PSOPFinalReport.pdf>.

⁴² Examples of reports that do not are: accidents that clearly did not involve parental negligence or malice; family situations that are not dangerous enough to pose safety hazards for children; second-hand knowledge of abuse or neglect incidents; crimes that are real (such as rape) that do not involve neglect or are not perpetrated by relative or family members. There are many others. The acceptance of reports varies significantly in the states we have studied. In some states very few reports are rejected, leaving decisions about child safety to the judgment of CPS investigators and assessment workers. In others, like Minnesota, intake workers are more likely to make that decision and larger numbers of reports are not accepted.

⁴³ Pages 9-24 of the previously cited PSOP report (note 38).

⁴⁴ Like many of our surveys of families (both telephone and mail) the response rate was low (15.8%). Worker response rates were much higher, however, since they completed family strengths and needs (FSN) assessment instruments (along with child safety scales and an evaluator created extension of the FSN instrument) on most accepting families (2,624 cases by the conclusion of the study). That information was available for the study. In the appendix of the PSOP report (cited above in note 38, pages 91ff) we conducted a comparative analysis considering any biases in the family survey sample. The analysis indicated relatively small differences between descriptions provided by responding families compared to those given by workers for the entire population of PSOP accepting families. A difference that was found indicated a slight bias among responders toward families that were slightly better off in terms of basic needs and social support.

⁴⁵ See the above cited final report (note 38). Extensive discussions can be found on pages 45-51, followed by several case examples.

⁴⁶ These analyses can be found on pages 78-83 in the above cited report.

⁴⁷ In case you cannot read the second summary report, a paper we found very useful in that summary is: Kerris Cooper & Kitty Stewart. (2017). *Does Money Affect Children's Outcomes? An Update*. London: Centre for Analysis of Social Exclusion, London School of Economics. We highly recommend the paper. It cannot be read without coming away convinced of the effects of financial hardship on child welfare generally and the power of relieving those conditions. Available at: <https://www.jrf.org.uk/report/does-money-affect-children%E2%80%99s-outcomes>