W-2 Child Support Demonstration Evaluation

Technical Report 1

Experimental Design

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In the fall of 1997 Wisconsin initiated a radically different approach to assisting low-income families with children, Wisconsin Works (W-2).[1] W-2, Wisconsin's new program under the Temporary Assistance for Needy Families (TANF) block grant, replaced Aid to Families with Dependent Children (AFDC), the program that previously offered cash to low-income, primarily single-parent families. W-2 emphasizes immediate work or work-related activities as a prerequisite for cash assistance. The fact that assistance does not vary with family size and that it is directly tied for most participants to their hours of participation are examples of ways in which W-2 attempts to replicate the "real world of work." Consistent with this approach, resident parents participating in W-2 are allowed to keep all child support paid on behalf of their children, as they would were they working outside the program. This 100 percent "pass-through" of child support to the resident parent (and subsequent total disregard of the child support amount in the calculation of W-2 payments) is unique to Wisconsin. Some other states pass through only the first $50 per month of child support collected, retaining any additional amounts to offset TANF expenditures. The majority of states no longer distribute *any* child support paid on behalf of TANF recipients, retaining it all to offset expenditures.

Because child support retentions are shared between the federal and state governments, Wisconsin's policy of passing through all child support to the resident parent could have significant financial implications for the federal government as well as the state. The federal government gave Wisconsin a waiver of federal requirements that allowed Wisconsin to experiment with a full pass-through policy. The waiver allowed Wisconsin to use savings generated by previous welfare reforms to pay the federal share of any child support no longer retained.

The federal waiver requires an evaluation of the effects of a full pass-through. The Wisconsin Child Support Demonstration Evaluation (CSDE) uses an experimental design. Experimental designs are very powerful tools for evaluating policy: the random assignment of cases to an experimental and a control group means that the groups will be equivalent in all ways except the policy treatment. Because of this equivalence, comparisons between outcomes achieved by the experimental and control groups are an unbiased measure of the impact of the policy. In this design, individuals receiving AFDC payments when W-2 began and those individuals who requested assistance after the implementation of W-2 were randomly assigned to one of two pass-through eligibility statuses. Those assigned to the control group receive a portion of the amount of child support paid on their behalf. Those in the experimental group receive the full amount paid by the nonresident parent. The experimental group was randomly divided into a group expected to be included in the evaluation analysis, and a second group also receiving the full pass-through but originally not part of the evaluation, and therefore not eligible for the survey.

This report provides information on several topics related to the structure of this experimental evaluation. In Section 1, we provide more detail on W-2, describe the original evaluation design, problems faced in implementing this design, and the strategies used to overcome them. Section 2 discusses whether the experimental and control groups are equivalent, examining whether there was a difference in the rate of entry to W-2 between those in the experimental and control groups. Section 3 documents how we selected our final research population and compares our final sample to the entire W-

2 caseload. Section 4 compares the characteristics of the experimental and control groups in our final sample. In Section 5 we provide additional detail on our approach, including discussion of a variety of technical issues faced in implementing the evaluation, the precise definitions of related terms, and a discussion of the treatment of unusual cases. Section 6 includes a discussion of the method we use to evaluate the effects of the full pass-through. Section 7 provides our conclusions that the experiment was conducted properly, that the experimental and control groups are generally equivalent, and that regression-adjusted comparisons between the experimental and control groups will provide an unbiased estimate of the program's impact.

1.   Original Evaluation Design and Initial Difficulties

The philosophy and structure of W-2 emphasize immediate employment. Under W-2, all participants are placed in one of four tiers of employment or employment experience. The most job-ready applicants are provided case management (CM) services to help them find an Unsubsidized Job on the open market or improve their current job status. Trial Jobs (TJ) provide work experience in jobs for which the state provides a partial subsidy to the employer. Participants in these two upper tiers receive no cash payments from the state (but may receive a variety of ancillary services). Community Service Jobs (CSJ) are public service jobs for which participants receive a monthly W-2 payment of $673. W-2 Transition (W-2T) is for those least able to work, either because of their own disability or because of the need to care for a child with a disability. Its participants receive a monthly W-2 payment of $628. In addition to these four tiers, the Caretaker of Newborn category provides, for parents caring for a child younger than 13 weeks, a monthly payment of $673 and exemption from work requirements. Those who apply for the program meet with a Financial and Employment Planner (FEP), who places the applicant in one of these tiers, presumably after an individualized assessment of employability.

The original evaluation design called for 8,000 cases, half drawn from the stock of AFDC cases active in August 1997. The rest were to be drawn from the flow of cases applying for assistance after the implementation of W-2 in September 1997. The random assignment code was made by the automated management information system of the Wisconsin Department of Workforce Development, CARES.[2] Resident parents were to be informed of their experimental-group assignment, the meaning of that assignment, and the fact that the experiment existed, when they applied for W-2. The state prepared a brochure for each group explaining and providing an example of how child support would be handled, according to their assignment. In addition, cases receiving AFDC in August 1997 were sent a letter that notified them of the change and explained how child support would be handled, according to their assignment.

Because the rate of new entrants to W-2 was slower than anticipated, the assignment rates for new cases were changed over time. Among the initial AFDC cases in August 1997, and from September 1997 through March 16, 1998, 20 percent of cases were assigned to the control group, 20 percent to the experimental group, and the remainder to the experimental group not eligible for the survey. From March 17 to May 8, 30 percent of new applicants were assigned to the experimental group, 30 percent to the control group, and 40 percent to the experimental group not eligible for the survey. Beginning May 11, 50 percent of new applicants were assigned to the experimental and 50 percent to the control group. As described in Volume III, Technical Report 4, we have developed weights to account for these different assignment rates. These rates mean that this is an unusual experiment: in most designs, most cases receive the traditional policy, and only a small experimental group receives the "treatment." In the

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[2]For more information on CARES, see Volume III, Technical Report 3.

CSDE, in contrast, most cases receive the new policy, and a smaller group remains subject to policies similar to those in place prior to the evaluation.

Random assignment of new entrants continued through July 8, 1998, when a code error in the administrative data system caused all incoming W-2 cases in Milwaukee that should have been assigned to the control group to be assigned to the experimental group not eligible for the survey. This error meant that cases entering during a period when the W-2 program was working more smoothly could not be included in our analysis. Because of this, the decision was made to restart random assignment in Milwaukee on January 1, 1999, continuing through June 30, 1999. Only those cases that entered W-2 between September, 1997, and July 8, 1998, are considered part of the "original cohort" of the CSDE and are included in the analysis reported here.[3]

The analysis is based on a comparison of outcomes for the experimental and control groups. The control group receives a "partial pass-through" of the first $50 per month, or 41 percent of the amount paid, whichever is larger. By distributing the first $50 per month to control-group families the state guaranteed that no one was worse off than they would have been under the prior (AFDC) policy. We noted above that the amount of child support retained is split between the state and federal government; in Wisconsin the split is 41 percent for the state and 59 percent for the federal government. By distributing 41 percent of what was paid to control-group participants—the full state share—the state guaranteed that all recipients received the maximum allowed in the absence of a federal waiver or state reimbursement of the federal share.[4] Note also that control-group members receive the partial pass-through only when they are receiving a payment from W-2 (in a lower tier); control-group cases in a higher tier (Unsubsidized Job or Trial Job) receive the full amount paid because they are treated as non-TANF recipients (i.e., they receive no state or federal funds that could be offset by child support collections); similarly control-group cases receive the full amount paid during periods in which they are off W-2 altogether.

2.   Are the Experimental and Control Groups Equivalent at W-2 Entry?

Random assignment should make the experimental and control groups comparable at the time they were assigned. Random assignment of potential new W-2 cases generally took place when the individual first inquired about the program. However, our basic evaluation strategy is to compare experimental-group and control-group cases that actually enter W-2. In our view, a full pass-through is only relevant to those who actually enter W-2 and to those whose decision about entry was influenced by the full pass-through. Therefore, we first examine whether the entry decision of individuals was influenced by their research-group status. In the absence of an effect of experimental status on entry, comparisons between the experimental and control groups conditional on entering W-2 should be an appropriate measure of the effects of the full pass-through.

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[3]Cases that entered outside Milwaukee between July 9, 1998, and December 31, 1998, are referred to as the "second cohort," and cases entering statewide between January 1, 1999, and June 30, 1999, are referred to as the "third cohort." The Wisconsin DWD was recently awarded funding to extend the CSDE to allow for the analysis of the second and third cohorts.

[4]Experimental- or control-group status is relevant only to amounts of child support collected for *current* support. Amounts for past-due support, and amounts collected through intercepting tax refunds both follow different distribution rules, primarily going to benefit the government first.

<u>Potential "Diversion" Effects</u>

For a simple comparison of later outcomes between the experimental and control groups to be valid, the experiment must have been implemented properly and the two groups must have been similar at the beginning of the policy change. As discussed in Chapter 2 of Volume I (and Technical Report 2 of this volume), we believe the experimental design has, for the most part, been implemented appropriately. Thus, we expect that the two groups will be similar, other than differences that result from chance. However, there are two factors that could lead to differences between the experimental- and control-group members of our main samples (resident mothers demographically eligible for child support who enter W-2 within our time frame).

The first concern is that experimental- and control-group members *might have entered W-2 at different rates*. Consider three identical individuals, A, B, and C, all of whom anticipate receiving moderate amounts of child support. All individuals apply for W-2; A is told she is in the experimental group and thus will always receive all child support paid on her child's behalf. B is told she is in the control group and thus will receive only a portion of the child support paid on her child's behalf when she is in W-2's lower tiers; and C is in the control group but is not told (or does not understand) the implications for child support. Assume A and C proceed with the application and enter W-2. When B learns that she would be able to receive only a portion of the support paid, she makes alternative plans and does not enter W-2. If this occurs, simple comparisons of experimental-group members who entered W-2 with control-group members who entered W-2 would not be valid, as control-group members who anticipated moderate amounts of child support would have been diverted, and would not have entered W-2. Our first test of the comparability of the experimental and control groups, therefore, is to examine the percentage of experimental- and control-group cases that entered within 30 days of being told about W-2. We are particularly concerned about whether those who anticipated fairly high amounts of child support entered at a different rate if they were in the experimental group than if they were in the control group.

Our second concern is that experimental- and control-group members *might have been assigned to different tiers*. Recall that those in the control group who are in lower tiers (Caretaker of Newborn, W-2T, CSJ) receive only a portion of the support paid on their behalf, whereas control-group members in an upper tier (TJ, CM) or off W-2 altogether and all experimental-group members, regardless of tier, receive all current support paid on their children's behalf. Continuing with the example, assume A and C have limited employment prospects, and are therefore potential candidates for a Community Service Job. If C, or her case manager, is concerned about her receiving all child support, she may be more likely to be placed in a Trial Job or Case Management; because C is in the control group, she would receive all support paid on her behalf only if she were placed in an upper tier. If this occurred, comparisons of experimental- and control-group cases that entered W-2 in a particular tier may not be valid. Our second test, therefore, is to examine those who entered W-2, comparing whether the experimental and control groups entered a lower or an upper tier. We are particularly concerned with whether those who anticipated high amounts of child support and who were in the control group were more likely to be placed in an upper tier than were experimental-group cases anticipating high amounts of child support.

To test each of these two concerns we compare the entire experimental group with the entire control group. We then check whether these experimental-control comparisons differ based on the amount of prior child support, our primary concern. Finally, we test whether the experimental and control groups entered at different rates within Milwaukee, other urban areas, and the rest of the state, given that the implementation analysis suggested that Milwaukee County cases may have been less likely to understand the implications of their experimental-group status.

Were Experimental-Group Cases More Likely to Enter W-2 than Control-Group Cases?

The first analysis considers whether cases entered W-2. Cases were randomly assigned to the experimental or control group either on August 31, 1997 (cases that were receiving AFDC on this date) or at application to W-2. We include all cases assigned before July 8, 1998. We divide those who received an assignment code into those who "entered" and those who were "diverted." Our definition of "diversion" is as follows: those not receiving AFDC on August 31 are considered diverted if they did not enter a W-2 tier (also called a "slot") within 30 days of their random assignment (which coincides with their initial request for assistance.) Those who were receiving AFDC on August 31 and assigned at that time could have been diverted in two ways: either they could have had a W-2 interview but not entered a W-2 slot within 30 days of that interview, or they could have stopped receiving AFDC for two or more months before they had a W-2 interview. We consider the latter group "diverted," because they had received a notice about their experimental-group status and may have chosen to enter or not enter W-2 based on their experimental or control status. Among those who were diverted, we separate those who "never" entered (by June 30, 2000) from those who did enter W-2, but not within the time frame required to be part of our analysis sample ("delayed").

Entry rates into W-2 were quite similar for the experimental and control groups: 59 percent of experimental- and 58 percent of control-group cases entered W-2. Some of the diverted cases were merely delayed, but most had not entered W-2 by the end of our data collection period. There is little difference between the experimental and the control group in the proportion delayed (10 percent of experimental group cases compared to 10 percent of control-group cases) or the proportion that never entered (31 percent of the experimental group compared to 32 percent of the control group).[5]

To test whether experimental and control group cases have differential rates of entry into W-2 while controlling for other characteristics of these cases, we conduct a multivariate probit analysis.[6] In the first model in Table TR1.1, we include an indicator for experimental group as well as a variety of other variables. The coefficient on the indicator variable shows no significant difference between the experimental and control group in the rate of entry. Somewhat surprisingly, those with a history of higher child support payments ($1,000 or more in the year prior to random assignment) are no less likely to enter than those without payments. Those in Milwaukee County are more likely to enter than those in other urban areas or rural areas. We expect that characteristics generally associated with labor market success will affect entry, as those most job-ready will be encouraged to try to find private-sector

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[5]We can further separate the "delayed" group into two parts: those who entered within six months of their assignment (for new cases), W-2 interview (for AFDC cases that did not have a two-month break from AFDC before their interview) or the last month of their AFDC receipt (for AFDC cases that did not have an interview), and those with a more extensive delay. Only 4 percent of each group had short-term delays, and 6 percent of each group had a more extensive delay.

[6]Appendix Table TR1.1 compares the characteristics of the 32,674 cases that received a research group assignment before July 8, 1998 with a subset of this group, the 19,280 cases that meet our definition of timely entry to W-2 (were not diverted). A comparison of the simple characteristics of these samples leads to conclusions similar to those from the multivariate analysis: control-group cases are as common in the group that entered as they are in the "all assigned" group. Subgroups that generally had worse employment prospects (young resident parents, African Americans, those with longer AFDC histories) were more likely to enter W-2 and were therefore more represented in the last columns.

Probit Estimates of the Probability of Entering W-2 among Cases Assigned August 31, 1997 – July 8, 1998

	Model 1			Model 2			Model 3		
	Coeff.	Std. Error	P-value	Coeff.	Std. Error	P-value	Coeff.	Std. Error	P-value
Intercept	0.27	0.04	**<0.0001**	0.27	0.04	**<0.0001**	0.25	0.04	**<0.0001**
Research Code (compared to control group)									
Experimental group	0.0003	0.02	0.988	0.0001	0.02	0.995	0.02	0.04	0.575
Experimental group with low child support				-0.04	0.05	0.388			
Experimental group with high child support				0.04	0.05	0.393			
Experimental group and Milwaukee County							-0.02	0.04	0.649
Experimental group and rural counties							-0.06	0.06	0.309
Child Support Paid in the Year prior to Assignment (compared to zero)									
Low ($1–$999)	0.01	0.02	0.718	0.03	0.05	0.562	0.01	0.02	0.717
High ($1,000 or more)	-0.03	0.02	0.150	-0.06	0.04	0.147	-0.03	0.02	0.151
Location of Resident Parent at Assignment (compared to other urban counties)									
Milwaukee County	0.31	0.02	**<0.0001**	0.31	0.02	**<0.0001**	0.32	0.04	**<0.0001**
Rural counties	-0.01	0.03	0.626	-0.01	0.03	0.622	0.03	0.05	0.529
Age of Resident Parent at Assignment (compared to <25)									
26–30	-0.11	0.02	**<0.0001**	-0.11	0.02	**<0.0001**	-0.11	0.02	**<0.0001**
31–40	-0.09	0.02	**<0.0001**	-0.09	0.02	**<0.0001**	-0.09	0.02	**<0.0001**
41+	-0.16	0.03	**<0.0001**	-0.16	0.03	**<0.0001**	-0.16	0.03	**<0.0001**
Sex of Resident Parent (compared to female)									
Male	-0.10	0.04	**0.013**	-0.10	0.04	**0.013**	-0.10	0.04	**0.013**

	Model 1			Model 2			Model 3		
	Coeff.	Std. Error	P-value	Coeff.	Std. Error	P-value	Coeff.	Std. Error	P-value
Race of Resident Parent (compared to white)									
African American	0.09	0.02	**<0.0001**	0.09	0.02	**<0.0001**	0.09	0.02	**<0.0001**
Hispanic	-0.25	0.03	**<0.0001**	-0.25	0.03	**<0.0001**	-0.26	0.03	**<0.0001**
Native American	-0.03	0.05	0.550	-0.03	0.05	0.556	-0.03	0.05	0.554
Asian	0.13	0.04	**0.003**	0.13	0.04	**0.003**	0.13	0.04	**0.003**
Other or unknown	-0.12	0.04	**0.005**	-0.12	0.04	**0.005**	-0.12	0.04	**0.005**
AFDC Receipt prior to Assignment (compared to 0 months)									
1–6 months	-0.02	0.03	0.443	-0.02	0.03	0.443	-0.02	0.03	0.446
7–18 months	0.08	0.03	**0.005**	0.08	0.03	**0.005**	0.08	0.03	**0.004**
19–24 months	0.26	0.03	**<0.0001**	0.26	0.03	**<0.0001**	0.26	0.03	**<0.0001**
Number of Children at Assignment (compared to one)									
None	-0.66	0.05	**<0.0001**	-0.66	0.05	**<0.0001**	-0.66	0.05	**<0.0001**
Two	0.01	0.02	0.669	0.01	0.02	0.668	0.01	0.02	0.671
Three or more	0.03	0.02	0.222	0.03	0.02	0.228	0.03	0.02	0.223
Age of Youngest Child at Assignment (compared to under 1)									
1	-0.17	0.03	**<0.0001**	-0.17	0.03	**<0.0001**	-0.17	0.03	**<0.0001**
2	-0.17	0.03	**<0.0001**	-0.17	0.03	**<0.0001**	-0.17	0.03	**<0.0001**
3–5	-0.15	0.02	**<0.0001**	-0.14	0.02	**<0.0001**	-0.15	0.02	**<0.0001**
6–12	-0.11	0.03	**<0.0001**	-0.11	0.03	**<0.0001**	-0.11	0.03	**<0.0001**
13–17	-0.24	0.04	**<0.0001**	-0.24	0.04	**<0.0001**	-0.24	0.04	**<0.0001**
Unknown	-1.57	0.07	**<0.0001**	-1.57	0.07	**<0.0001**	-1.57	0.07	**<0.0001**

Table TR1.1, continued

	Model 1			Model 2			Model 3		
	Coeff.	Std. Error	P-value	Coeff.	Std. Error	P-value	Coeff.	Std. Error	P-value
Case Type (compared to active AFDC on 8/31/97)									
Temporarily inactive AFDC on 8/31/97	0.75	0.04	**<0.0001**	0.75	0.04	**<0.0001**	0.75	0.04	**<0.0001**
Others assigned during 9/1/97 – 3/16/98	-0.51	0.02	**<0.0001**	-0.51	0.02	**<0.0001**	-0.51	0.02	**<0.0001**
Others assigned during 3/17/98 – 5/9/98	-0.13	0.04	**0.001**	-0.13	0.04	**0.001**	-0.13	0.04	**0.001**
Others assigned during 5/10/98 – 7/8/98	-0.17	0.04	**<0.0001**	-0.17	0.04	**<0.0001**	-0.17	0.04	**<0.0001**
N	32,169			32,169			32,169		
Log Likelihood	-19069.3			-19068.4			-19068.7		

Notes: Cases missing the resident parent's gender (N = 505) were excluded. Cases missing the resident parent's age were put in with the modal category (<25). Probability values of 0.05 or less are shown in bold type.

employment rather than enter W-2. The other variables in the model generally support this view. For example, mothers over age 25 are less likely to enter than those aged 18–25; whites are less likely to enter than African Americans or Asians, and those with longer AFDC histories are more likely to enter.[7]

Model 2 in Table TR1.1 addresses our primary concern: among those with high child support in the past, are experimental-group cases more likely to enter W-2 than control-group cases? To assess this effect, we add interaction terms between experimental-group status and high child support. The coefficients on the interaction terms are not significantly different from zero, nor is the main experimental-group term. Model 3 shows there is no interaction effect between being in the experimental group and region. Thus, we find no support for the hypothesis that differential diversion occurred.

Are Experimental-Group Cases More Likely to Enter Lower Tiers than Control-Group Cases?

Our second analysis compares the initial tier placement of cases that enter. There is virtually no difference in initial tier statewide: 70 percent of cases enter the lower tiers and 30 percent enter the upper tiers within both the experimental and control groups. We again examine this question with a multivariate model. We examine all cases that enter W-2 (using the same definition of "entry" as in the diversion analysis), and model whether these cases enter in an upper or lower tier. Table TR1.2 shows the estimates from the probit models. Model 1 includes a single indicator for experimental status. The results suggest that experimental-group cases do not differ from control-group cases in the likelihood of upper-tier placement. Those with higher child support in the past are more likely to enter a higher tier, whereas those in Milwaukee County are less likely to enter in an upper tier. The other variables are generally as expected. Somewhat surprisingly, those with more AFDC history are more likely to enter an upper tier, perhaps because new entrants include those who have just had a child (and are placed in the Caretaker of Newborn tier, a lower tier), or perhaps because new entrants are particularly disadvantaged.

We also test for differential tier assignment for the experimental and control groups among those with higher levels of child support in the year prior to assignment. Results for Model 2 in Table TR1.2 show that among those who had received high child support, experimental-group members were less likely to be placed in an upper tier than control-group members. Finally, in the last columns we examine whether there was differential tier placement across regions. We find no significant difference in the probability of entering in the upper tier in rural counties or in Milwaukee, relative to other urban counties.

Overall, it is our assessment that these results suggest that comparisons between experimental and control group cases that enter W-2 provide an appropriate measure of the impact of the experiment. On the other hand, our analysis of tier of entry suggests that evaluations of the experimental impact conditional on entry in the lower tiers should be interpreted with caution. A focus on cases entering the lower tiers was suggested by the initial evaluation plan, and is consistent with the policy—since only those in the lower tiers are potentially subject to a reduced pass-through. However, there is some evidence that initial tier assignment may be endogenous.

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[7]New W-2 cases are less likely to enter than those who were receiving AFDC on August 31, 1997. Perhaps this is because our definition of "diversion" gives new cases only 30 days to enter, but allows cases that were receiving AFDC on August 31, 1997 thirty days from the W-2 interview, which could be long after random assignment. AFDC cases that were temporarily inactive on August 31 (see section 5 below) are most likely to enter, perhaps because those not interested in W-2 did not have a W-2 interview and thus were never randomly assigned and have been excluded from our analysis. Therefore, among the temporarily inactive cases, only those particularly interested in W-2 were assigned and are included in our analysis, which may result in their high rate of entry.

Table TR1.2

Probit Estimates of the Probability of Entering W-2 in an Upper Tier among Cases That Were Assigned August 31, 1997 – July 8, 1998, and That Enter into the Research Population

	Model 1			Model 2			Model 3		
	Coeff.	Std. Error	P-value	Coeff.	Std. Error	P-value	Coeff.	Std. Error	P-value
Intercept	-0.49	0.05	**<0.0001**	-0.50	0.05	**<0.0001**	-0.44	0.06	**<0.0001**
Research Code (compared to control group)									
Experimental group	0.001	0.02	0.950	0.01	0.03	0.680	-0.06	0.05	0.265
Experimental group with low child support				0.08	0.07	0.241			
Experimental group with high child support				-0.14	0.06	**0.032**			
Experimental group and Milwaukee County							0.10	0.06	0.100
Experimental group and rural counties							-0.09	0.09	0.325
Child Support Paid History prior to Assignment (compared to zero)									
Low ($1–$999)	0.10	0.03	**0.000**	0.04	0.06	0.479	0.10	0.03	**0.000**
High ($1,000 or more)	0.06	0.03	**0.024**	0.17	0.06	**0.003**	0.06	0.03	**0.024**
Location of Resident Parent at Assignment (compared to other urban counties)									
Milwaukee County	-0.31	0.03	**<0.0001**	-0.31	0.03	**<0.0001**	-0.38	0.05	**<0.0001**
Rural counties	0.005	0.04	0.909	0.005	0.04	0.907	0.07	0.08	0.365
Age of Resident Parent at Assignment (compared to <25)									
26–30	0.08	0.03	**0.003**	0.08	0.03	**0.003**	0.08	0.03	**0.004**
31–40	0.005	0.03	0.874	0.01	0.03	0.869	0.004	0.03	0.890
41+	-0.28	0.05	**<0.0001**	-0.28	0.05	**<0.0001**	-0.29	0.05	**<0.0001**
Sex of Resident Parent (compared to female)									
Male	0.14	0.06	**0.021**	0.14	0.06	**0.021**	0.14	0.06	**0.022**

Table TR1.2, continued

	Model 1			Model 2			Model 3		
	Coeff.	Std. Error	P-value	Coeff.	Std. Error	P-value	Coeff.	Std. Error	P-value
Race of Resident Parent (compared to white)									
African American	-0.25	0.03	**<0.0001**	-0.25	0.03	**<0.0001**	-0.25	0.03	**<0.0001**
Hispanic	-0.09	0.04	**0.037**	-0.09	0.04	**0.037**	-0.09	0.04	**0.037**
Native American	-0.03	0.07	0.644	-0.03	0.07	0.643	-0.03	0.07	0.669
Asian	-0.25	0.06	**<0.0001**	-0.25	0.06	**<0.0001**	-0.24	0.06	**<0.0001**
Other or Unknown	-0.10	0.06	0.099	-0.10	0.06	0.105	-0.10	0.06	0.098
AFDC Receipt prior to Assignment (compared to 0 months)									
1–6 months	0.09	0.05	**0.049**	0.09	0.05	**0.050**	0.09	0.05	**0.047**
7–18 months	0.21	0.04	**<0.0001**	0.21	0.04	**<0.0001**	0.21	0.04	**<0.0001**
19–24 months	0.15	0.05	**0.002**	0.15	0.05	**0.002**	0.15	0.05	**0.002**
Number of Children at Assignment (compared to one)									
None	0.63	0.09	**<0.0001**	0.63	0.09	**<0.0001**	0.63	0.09	**<0.0001**
Two	0.12	0.03	**<0.0001**	0.12	0.03	**<0.0001**	0.12	0.03	**<0.0001**
Three or more	0.09	0.03	**0.002**	0.09	0.03	**0.002**	0.09	0.03	**0.002**
Age of Youngest Child at Assignment (compared to under 1)									
1	0.19	0.03	**<0.0001**	0.19	0.03	**<0.0001**	0.19	0.03	**<0.0001**
2	0.20	0.04	**<0.0001**	0.20	0.04	**<0.0001**	0.20	0.04	**<0.0001**
3–5	0.22	0.03	**<0.0001**	0.22	0.03	**<0.0001**	0.22	0.03	**<0.0001**
6–12	0.18	0.03	**<0.0001**	0.18	0.03	**<0.0001**	0.18	0.03	**<0.0001**
13–17	0.06	0.05	0.273	0.06	0.05	0.282	0.06	0.05	0.271
Unknown	-0.24	0.19	0.200	-0.24	0.19	0.197	-0.24	0.19	0.198

	Model 1			Model 2			Model 3		
	Coeff.	Std. Error	P-value	Coeff.	Std. Error	P-value	Coeff.	Std. Error	P-value
Case Type									
(Compared to active AFDC on 8/31/97)									
Temporarily inactive AFDC on 8/31/97	-0.02	0.04	0.491	-0.03	0.04	0.476	-0.02	0.04	0.482
Others assigned during 9/1/97 – 3/16/98	-0.03	0.03	0.293	-0.03	0.03	0.293	-0.03	0.03	0.301
Others assigned during 3/17/98 – 5/9/98	-0.30	0.06	**<0.0001**	-0.30	0.06	**<0.0001**	-0.30	0.06	**<0.0001**
Others assigned during 5/10/98 – 7/8/98	-0.38	0.06	**<0.0001**	-0.38	0.06	**<0.0001**	-0.39	0.06	**<0.0001**
N	19280			19280			19280		
Log Likelihood	-11354.45			-11350.84			-11350.90		

Note: Cases missing resident parent's age were put in with the modal category (<25). Probability values of 0.05 or less are shown in bold type.

3.   Comparisons between Our Research Population and the Entire W-2 Caseload

In the previous section we addressed the issue of the equivalency of the control and experimental groups, and the implications for the validity of simple comparisons of outcomes as measures of experimental effects. We now turn to the issue of the representativeness of the full research population, which includes the 15,977 cases analyzed as part of the control and experimental groups. The first column of Table TR1.3 shows the characteristics of the 23,347 cases that entered W-2 within our sample frame—that is, before July 9, 1998. (It also includes a few cases who were given a random assignment code before July 9 and who entered a W-2 slot within 30 days of their random assignment.) In this sample, 14 percent of cases had no AFDC experience in the prior 24 months and 73 percent were in Milwaukee County.

The next columns show exclusions made in defining our basic research population. Of the 23,347 cases that entered W-2 by July 9, 1998, about 1,100 did not receive a research-group assignment due to a programming error. These cases, which were eliminated from our population, are shown in column 2. We also eliminated about 800 cases that were not eligible for child support (column 3). This group includes about 700 cases that were not referred to the child support office, presumably because both parents were living together or perhaps because the nonresident parent was known to be dead. In another 48 cases, the nonresident parent is known to have died. In the remaining 37, the resident parent had a good-cause exemption from pursuing child support (primarily because of domestic violence). Because the group of cases not eligible for child support includes a large number of Hmong two-parent families, the characteristics of this group differ from all cases that entered.

These exclusions leave us with 21,447 cases that entered W-2, had a research group assignment, and were potentially eligible for child support. We then eliminate another 5,059 cases from our basic analysis sample. About 45 percent of this group was excluded due to extended post-assignment delays prior to entering W-2. Thirty-six percent had a child receiving SSI, which made them ineligible for the reduced pass-through. (Federal law does not allow the government to retain a portion of the child support paid on behalf of children receiving Supplemental Security Income (SSI).) Another 9 percent had children less than age 18 when then entered W-2 (a requirement for eligibility), but had no child who would be under age 18 on December 31, 1999; these cases were excluded because they were not demographically eligible for child support for the full period of the evaluation. The characteristics of the cases excluded at this step are shown in column 4. In this group 18 percent had no recent AFDC experience and 76 percent were in Milwaukee County, percentages a little higher than the all-entrant sample in column 1. As is consistent with the inclusion in this group of cases with only older children and children receiving SSI, the resident parents and children in this group are somewhat older, and the resident parents are more likely to be placed in W-2T, a tier that can be used for those caring for child with a disability.

Finally, we eliminate 411 cases in which the resident parent is the father (and the mother is the nonresident parent) because these cases are relatively rare and are systematically different from the cases in which the mother is the resident parent. (We do provide selected information on the child support these resident fathers receive in Volume I, Section 4.1, but in general there are too few to conduct a parallel set of analyses). Resident fathers are more likely to have no recent AFDC experience and are less likely to be in Milwaukee County.

This leaves a final research population of 15,977 resident mothers who received a research-group assignment and are potentially eligible for child support (column 6). Our research population is generally quite similar to all W-2 entrants. For example, in our research population, 13 percent had no recent

Table TR1.3
Initial Characteristics of All Cases Entering W-2

	(1) All Entered Cases		(2) Entered Cases Without an Assignment		(3) Entered Cases Ineligible for Child Support		(4) Entered Cases—Other Exclusions		(5) Entered Cases— Male Resident Parents		(6) Research Population	
	N	%	N	%	N	%	N	%	N	%	N	%
All Cases	23,347		1,096		804		5,059		411		15,977	
Case Type												
AFDC	14,728	63.1			524	65.2	2,633	52.0	238	57.9	11,333	70.9
W-2	7,241	31.0			279	34.7	2,145	42.4	173	42.1	4,644	29.1
Unable to determine	1,378	5.9	1,096	100.0	1	0.1	281	5.6				
AFDC Receipt before Entry												
None	3,182	13.6	16	1.5	154	19.2	899	17.8	108	26.3	2,005	12.6
1–18 months	7,775	33.3	441	40.2	217	27.0	1,639	32.4	146	35.5	5,332	33.4
19–24 months	12,390	53.1	639	58.3	433	53.9	2,521	49.8	157	38.2	8,640	54.1
Initial Tier												
Lower tier	14,147	60.6	407	37.1	513	63.8	3,322	65.7	271	65.9	9,634	60.3
Caretaker of Newborn	1,847	7.9	36	3.3	18	2.2	394	7.8	7	1.7	1,392	8.7
Upper tier	6,969	29.9	562	51.3	252	31.3	1,071	21.2	133	32.4	4,951	31.0
Missing	384	1.6	91	8.3	21	2.6	272	5.4				
Location of Resident Parent												
Milwaukee County	17,018	72.9	701	64.0	373	46.4	3,842	75.9	246	59.9	11,856	74.2
Other urban counties	4,330	18.6	302	27.6	319	39.7	864	17.1	99	24.1	2,746	17.2
Rural counties and tribes	1,998	8.6	92	8.4	112	13.9	353	7.0	66	16.1	1,375	8.6
Missing	1	0.0	1	0.1								

	(1)		(2)		(3)		(4)		(5)		(6)	
			Entered Cases Without an Assignment		Entered Cases Ineligible for Child Support		Entered Cases—Other Exclusions		Entered Cases— Male Resident Parents		Research Population	
	All Entered Cases											
	N	%	N	%	N	%	N	%	N	%	N	%
Age of Resident Parent at Entry												
16–25	9,841	42.2	406	37.0	120	14.9	1,764	34.9	38	9.3	7,513	47.0
26–30	4,695	20.1	237	21.6	90	11.2	1,016	20.1	76	18.5	3,276	20.5
Over 30	8,803	37.7	453	41.3	593	73.8	2,275	45.0	296	72.0	5,186	32.5
Missing	8	0.0			1	0.1	4	0.1	1	0.2	2	0.0
Race of Resident Parent												
White	5,802	24.9	377	34.4	221	27.5	1,076	21.3	127	30.9	4,001	25.0
African American	13,757	58.9	543	49.5	108	13.4	3,280	64.8	186	45.3	9,640	60.3
Other	3,788	16.2	176	16.1	475	59.1	703	13.9	98	23.8	2,336	14.6
Education of Resident Parent												
Less than high school	12,698	54.4	499	45.5	533	66.3	2,871	56.8	190	46.2	8,605	53.9
HS degree	8,330	35.7	441	40.2	193	24.0	1,702	33.6	165	40.2	5,829	36.5
Beyond high school	2,319	9.9	156	14.2	78	9.7	486	9.6	56	13.6	1,543	9.7
Number of Children at Entry												
None or one	7,798	33.4	333	30.4	240	29.9	1,710	33.8	201	48.9	5,314	33.3
Two	6,476	27.7	290	26.5	171	21.3	1,229	24.3	109	26.5	4,677	29.3
Three or more	9,073	38.9	473	43.2	393	48.9	2,120	41.9	101	24.6	5,986	37.5
Age of Youngest Child at Entry												
0–2	12,312	52.7	500	45.6	310	38.6	2,133	42.2	85	20.7	9,284	58.1
3–5	4,321	18.5	248	22.6	150	18.7	963	19.0	88	21.4	2,872	18.0
6 or older	6,566	28.1	342	31.2	320	39.8	1,884	37.2	219	53.3	3,801	23.8
Missing	148	0.6	6	0.6	24	3.0	79	1.6	19	4.6	20	0.1

| | (1) | | (2) | | (3) | | (4) | | (5) | | (6) | |
| | All Entered Cases | | Entered Cases Without an Assignment | | Entered Cases Ineligible for Child Support | | Entered Cases—Other Exclusions | | Entered Cases— Male Resident Parents | | Research Population | |
	N	%	N	%	N	%	N	%	N	%	N	%
Average Annual Pre-Entry Earnings of Highest-Earning Nonresident Parent												
None	4,336	18.6	199	18.2	27	3.4	1,055	20.9	89	21.7	2,966	18.6
$1–$5,000	7,133	30.6	320	29.2	22	2.7	1,508	29.8	139	33.8	5,144	32.2
$5,000–$15,000	4,239	18.2	201	18.3	11	1.4	888	17.6	52	12.7	3,087	19.3
$15,000–$25,000	1,723	7.4	88	8.0	4	0.5	367	7.3	17	4.1	1,247	7.8
$25,000 or more	829	3.6	36	3.3	2	0.3	171	3.4	9	2.2	611	3.8
No nonresident parent	4,405	18.9	219	20.0	733	91.2	909	18.0	82	20.0	2,462	15.4
Nonresident parent missing SSN	682	2.9	33	3.0	5	0.6	161	3.2	23	5.6	460	2.9
Child Support Paid prior to Entry												
None	16,016	68.6	705	64.3	778	96.8	3,451	68.2	368	89.5	10,714	67.1
$1–$999	3,477	14.9	180	16.4	15	1.9	741	14.7	22	5.4	2,519	15.8
$1,000 or more	3,854	16.5	211	19.3	11	1.4	867	17.1	21	5.1	2,744	17.2
Quarters of Employment prior to Entry												
None	5,138	22.0	117	10.7	408	50.8	1,278	25.3	108	26.3	3,227	20.2
1–6 Quarters	13,694	58.7	718	65.5	293	36.4	2,874	56.8	201	48.9	9,608	60.1
7–8 Quarters	4,505	19.3	260	23.7	99	12.3	903	17.9	102	24.8	3,141	19.7
Missing social security number	10	0.0	1	0.1	4	0.5	4	0.1			1	0.0
Number of Legal Fathers												
None	7,447	31.9	317	28.9	719	89.4	1,530	30.2	83	20.2	4,798	30.0
One	11,560	49.5	570	52.0	83	10.3	2,507	49.6	324	78.8	8,076	50.6
Two or more	4,309	18.5	207	18.9			995	19.7	4	1.0	3,103	19.4
Missing	31	0.1	2	0.2	2	0.2	27	0.5				

	All Entered Cases (1)		Entered Cases Without an Assignment (2)		Entered Cases Ineligible for Child Support (3)		Entered Cases—Other Exclusions (4)		Entered Cases— Male Resident Parents (5)		Research Population (6)	
	N	%	N	%	N	%	N	%	N	%	N	%
Relationship of Resident Parent with Nonresident Parents												
Marital only	1,973	8.5	119	10.9	11	1.4	542	10.7	118	28.7	1,183	7.4
Other	21,374	91.6	977	89.1	793	98.6	4,517	89.3	293	71.3	14,794	92.6
Resident Parent Has Child Support Order at Entry												
No	11,040	47.3	469	42.8	767	95.4	2,410	47.6	341	83.0	7,053	44.1
Yes	12,307	52.7	627	57.2	37	4.6	2,649	52.4	70	17.0	8,924	55.9

AFDC experience (compared to 14 percent in column 1), 60 percent enter either in the W-2T tier or a CSJ tier (compared to 61 percent in column 1), 74 percent are from Milwaukee (compared to 73 percent in column 1). The distribution of the research population is graphically depicted in Figures TR1.1 and TR1.2.

4.   Are the Experimental and Control Groups Equivalent in Our Final Research Population?

        In Table TR1.4 we examine the comparability of the experimental and control groups in the final research population. The groups could differ by chance at random assignment, they could differ if there were differential rates of entry onto W-2, or they could differ if we differentially excluded experimental-group cases in the construction of the final sample. The first two sets of columns show the characteristics of the experimental group and the control group. The final columns show the results of a multivariate test of the statistical significance of any difference. Specifically, we conduct a probit analysis in which the dependent variable is being a member of the experimental group. On most dimensions we examine, the distributions for the experimental and control groups are not significantly different, as indicated by the lack of statistically significant coefficients in the final column. The primary exceptions are case type/assignment periods, mother's age, and mother's child support history. Those in the experimental group are more likely to have transitioned from AFDC, are older, and are more likely to have had $1,000 or more of child support paid on their behalf in the previous year. In addition, those marginally more likely to be in the experimental group are African Americans, those with two children (but not three or more), and those whose ex-partner's earnings are in one of the middle categories. Because of these differences in initial characteristics, we conduct regression analyses to estimate the effect of the policy, as discussed below.

5.   Timing, Unusual Cases, and Other Technical Issues
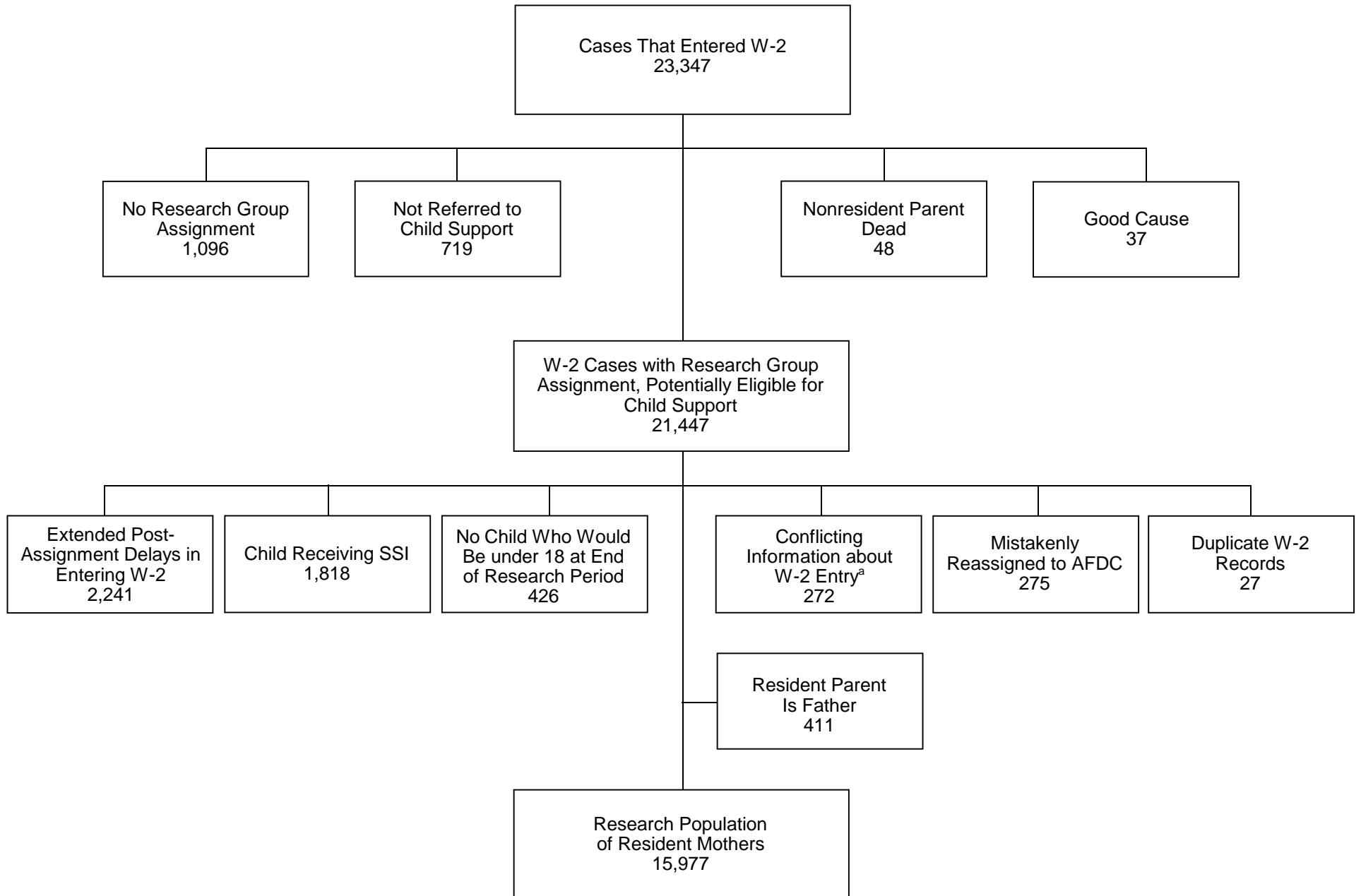
Definition of Baseline/Entry into the Experiment

        We view the intervention we are testing as the *combination* of a full pass-through and the other features of the W-2 program. For this reason, we include in our analysis only those cases that enter the W-2 program. Our approach is influenced by the finding that experimental status does not appear to have large effects on the decision to enter.

        This approach has implications for the period we consider in evaluating the effects of the intervention. If we were interested only in the effects of a full pass-through without considering W-2, we could examine all changes that occur after a case is randomly assigned. For existing AFDC cases our analysis would then start on August 31, 1997 (when these cases were initially assigned) rather than at first entry to W-2 (which was as much as seven months later). We have not taken this approach, in part because W-2 began gradually, and it is not clear whether individuals who were receiving AFDC on August 31, 1997 understood anything about their pass-through status. Therefore, for cases receiving AFDC on August 31, we set the baseline at the time they have an interview with a W-2 caseworker, and track changes that occur *after* that time (i.e., after they learned about the full intervention). "New" cases (those not receiving AFDC on August 31) who applied for assistance were told about the W-2 program and the pass-through, and assigned to the experimental or control group in their initial interview.[8] Thus for these cases we set the baseline at the time of their assignment and track changes after this date. The
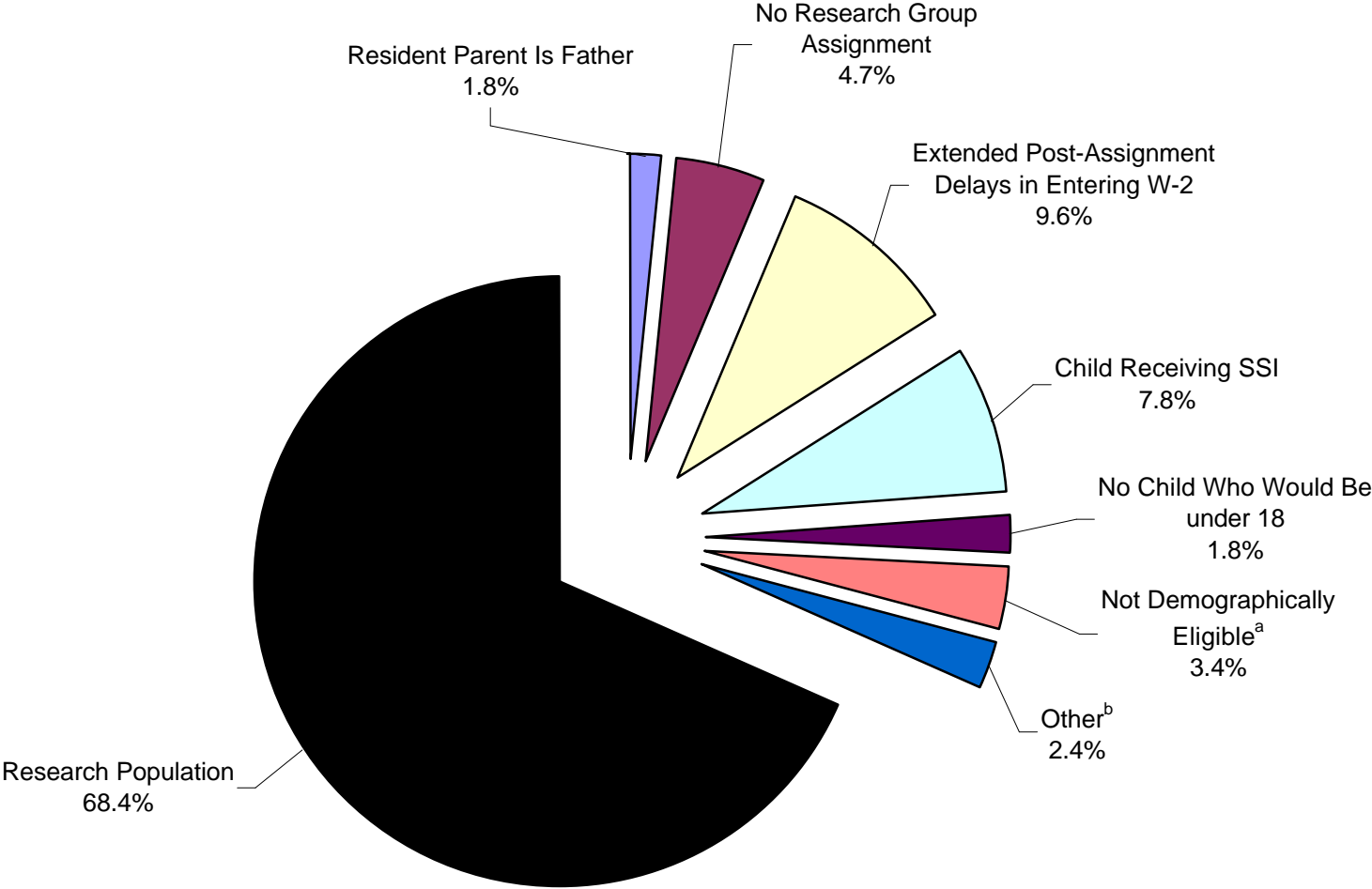
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        [8]Or at their "request for assistance," which may have been by phone prior to an in-person "interview."

Figure TR 1.1
Derivation of CSDE Research Population, Phase 1

```
                          ┌──────────────────────────┐
                          │   Cases That Entered W-2  │
                          │         23,347            │
                          └──────────────────────────┘
```

| No Research Group Assignment 1,096 | Not Referred to Child Support 719 | | Nonresident Parent Dead 48 | Good Cause 37 |

```
                    ┌──────────────────────────────────┐
                    │  W-2 Cases with Research Group     │
                    │  Assignment, Potentially Eligible  │
                    │  for Child Support                 │
                    │           21,447                   │
                    └──────────────────────────────────┘
```

| Extended Post-Assignment Delays in Entering W-2 2,241 | Child Receiving SSI 1,818 | No Child Who Would Be under 18 at End of Research Period 426 | Conflicting Information about W-2 Entry[a] 272 | Mistakenly Reassigned to AFDC 275 | Duplicate W-2 Records 27 |

```
                    ┌──────────────────────────┐
                    │    Resident Parent        │
                    │    Is Father              │
                    │       411                 │
                    └──────────────────────────┘

          ┌──────────────────────────┐
          │   Research Population      │
          │   of Resident Mothers      │
          │        15,977              │
          └──────────────────────────┘
```

[a]Some administrative data indicated that these cases entered W-2. However, they never received a payment or participated in any W-2 activities.

Figure TR 1.2
W-2 Participants: Research Population and Excluded Categories, Phase 1

No Research Group
Assignment
4.7%

Resident Parent Is Father
1.8%

Extended Post-Assignment
Delays in Entering W-2
9.6%

Child Receiving SSI
7.8%

No Child Who Would Be
under 18
1.8%

Not Demographically
Eligible[a]
3.4%

Other[b]
2.4%

Research Population
68.4%

[a]Not referred to Child Support (719), Nonresident Parent Dead (48), and Good Cause (37).
[b]Mistakenly Reassigned to AFDC (275), Conflicting Information about W-2 Entry (272), and Duplicate W-2 Records (27).

Table TR1.4
Comparison of the Experimental and Control Groups in the Final Research Population
(Weighted Percentages)

	Experimental Group		Control Group		P-value in Probit Model of E Status (vs. C Status)[a]
	N	%	N	%	
Total Cases	12,502		3,475		
Case Type					
AFDC	9,172	71.4	2,161	68.6	omitted
W-2	3,330	28.6	1,314	31.4	**<0.001**
AFDC Receipt before Entry					
None	1,430	12.4	575	13.2	omitted
1–18 Months	4,162	33.5	1,170	33.1	0.982
19–24 Months	6,910	54.1	1,730	53.7	0.790
Initial Tier					
Lower tier	7,554	60.3	2,080	60.1	omitted
Caretaker of Newborn	1,036	8.7	356	9.1	0.918
Upper tier	3,912	31.0	1,039	30.8	0.875
Location of Resident Parent					
Milwaukee County	9,330	74.3	2,526	74.0	omitted
Other urban counties	2,118	17.1	628	17.3	0.716
Rural counties and tribes	1,054	8.6	321	8.7	0.402
Age of Resident Parent at Entry					
16–25	5,819	46.6	1,694	48.3	omitted
26–30	2,569	20.6	707	20.7	0.161
Over 30	4,113	32.8	1,073	31.0	**0.018**
Missing	1	0.0	1	0.0	0.626
Race of Resident Parent					
White	3,066	24.9	935	26.0	omitted
African American	7,596	60.5	2,044	59.5	0.065
Other	1,840	14.6	496	14.5	0.384
Education of Resident Parent					
Less than high school	6,784	54.0	1,821	52.9	omitted
High school degree	4,521	36.3	1,308	37.5	0.178
Beyond high school	1,197	9.7	346	9.7	0.488
Number of Children at Entry					
None or one	4,141	33.5	1,173	32.4	omitted
Two	3,630	29.0	1,047	30.2	0.071
Three or more	4,731	37.4	1,255	37.4	0.138

Table TR1.4, continued

	Experimental Group		Control Group		P-value in Probit Model of E Status (vs. C Status)[a]
	N	%	N	%	
Age of Youngest Child at Entry					
0–2	7,240	58.1	2,044	58.3	omitted
3–5	2,258	18.0	614	18.0	0.570
6 or older	2,989	23.9	812	23.5	0.112
Missing	15	0.1	5	0.1	0.866
Average Annual Pre-Entry Earnings of Highest-Earning Nonresident Parent					
None	2,325	18.6	641	18.5	omitted
$1–$5,000	3,970	31.7	1,174	34.1	0.300
$5,000–$15,000	2,469	19.7	618	18.0	0.346
$15,000–$25,000	956	7.6	291	8.4	0.067
$25,000 or more	478	3.9	133	3.7	0.654
No nonresident parent	1,932	15.6	530	14.8	0.789
Nonresident parent missing SSN	372	3.0	88	2.5	0.231
Child Support Paid prior to Entry					
None	8,342	66.9	2,372	67.9	omitted
$1–$999	1,960	15.6	559	16.4	0.903
$1,000 or more	2,200	17.6	544	15.8	**0.004**
Quarters of Employment prior to Entry					
None	2,550	20.3	677	19.7	omitted
1–6 quarters	7,546	60.0	2,062	60.8	0.998
7–8 quarters	2,405	19.7	736	19.5	0.983
Missing SSN	1	0.0			
Number of Legal Fathers					
None	3,738	30.2	1,060	29.4	omitted
One	6,331	50.5	1,745	50.6	0.774
Two or more	2,433	19.3	670	20.1	0.504
Relationship of Resident Parent with Nonresident Parents					
Marital only	929	7.5	254	7.1	0.240
Other	11,573	92.5	3,221	92.9	omitted
Resident Parent Has Child Support Order at Entry					
No	5,485	44.3	1,568	43.4	omitted
Yes	7,017	55.7	1,907	56.6	0.488

[a]Model also includes time period of assignment. Probability values of 0.05 or less are shown in bold type.

baseline date, which for convenience we generally term "entry into W-2," is also the point at which we measure initial demographic characteristics.[9]

Treatment of Experimental Cases Originally Ineligible for the Evaluation

In all analyses using administrative data, we include those experimental-group cases that by the original process of random assignment were ineligible for the evaluation and were not included in any survey analysis. But because these cases were subject to the same policy treatment as the experimental group that *was* eligible for the survey, and because our implementation research suggests that the two groups were generally treated identically, we combine these two groups in the analysis that uses administrative data only. Comparisons of characteristics of the two groups generally show few differences (there are, for example, fewer older mothers in the original experimental group; see Table TR1.5), and we control for the characteristics that differ in a regression context.[10] Including the full set of experimental cases improves the accuracy of our estimates for those subject to the full pass-through. For simplicity, we generally refer to the combined group simply as the "experimental" group. The results we show have been weighted to account for the different assignment rates in different time periods.

Determining the Research Population

In this section we describe six types of cases in which a decision about their inclusion in the basic research population is not straightforward. In each case we present information on the number of cases affected and our rationale for including or excluding the cases.

A. Cases receiving AFDC on August 31, 1997. These cases, given an assignment code on August 31 (experimental, control, or experimental group not eligible for the survey), were sent a letter explaining their assignment status, and they began receiving the amount of child support consistent with their assignment (partial amounts for control-group cases receiving W-2 payments; the full amount for all others). Individuals in this group were scheduled for W-2 interviews at various points over the next six months. Prior to the W-2 interview, they may (or may not) have understood the implications of their group assignment. Those in this group who made a transition directly from AFDC to W-2 are included in our analysis; as discussed above, we consider their baseline date to be the date they interviewed for W-2. Those who left AFDC and did not begin a W-2 slot within two months are treated as "diverted." These diverted cases are included in our diversion analysis above (Tables TR1.1 and TR1.2), but are not included in our research population. If these individuals did not understand their assignment until they had a W-2 interview, the appropriate time to begin a diversion analysis for them would have been after the interview. Had we pursued this approach, these cases would have been classified as diverted only if

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[9]Another date that we considered using as the baseline is the slot date; that is, the date shown on CARES as the beginning of the first W-2 assignment. However, it appears that workers routinely back-dated the slot date in order to insure continuity of payments for those receiving AFDC. As the slot date is therefore an unreliable indicator, the interview date, which falls near the actual time of tier placement, was selected as the best available date to serve as baseline. Cases assigned on August 31, 1997 were immediately subject to the pass-through policy corresponding to their research code. But since there were no tiers in AFDC, all controls were subject to the same $50 or 41 percent policy during the remainder of their tenure on AFDC (which could have ended no later than March 1998). This period between August 31, 1997 and their W-2 interview date is considered pre-baseline for the purposes of the analyses in this report.

[10]The p-values are the result of a probit in which the dependent variable is being in the original experimental group.

Comparison of the Two Experimental Groups (Weighted Percentages)

	First Assignment Period					Second Assignment Period				
	Original Experimental Group		Experimental Group Not Originally in Evaluation		P-value in Probit Model of E Status	Original Experimental Group		Experimental Group Not Originally in Evaluation		P-value in Probit Model of E Status
	N	%	N	%	(vs. N Status)	N	%	N	%	(vs. N Status)
Total Cases	2,859		8,601			259		357		
Case Type										
AFDC	2,291	80.1	6,859	79.8	omitted	9	3.5	12	3.4	n/a
W-2	568	19.9	1,742	20.3	0.703	250	96.5	345	96.6	n/a
AFDC Receipt before Entry										
None	241	8.4	699	8.1	omitted	119	46.0	158	44.3	omitted
1–18 months	902	31.6	2,841	33.0	0.234	105	40.5	145	40.6	0.392
19–24 months	1,716	60.0	5,061	58.8	0.310	35	13.5	54	15.1	0.303
Initial Tier										
Lower tier	1,729	60.5	5,221	60.7	omitted	162	62.6	199	55.7	omitted
Caretaker of Newborn	196	6.9	607	7.1	0.697	46	17.8	80	22.4	0.341
Upper tier	934	32.7	2,773	32.2	0.253	51	19.7	78	21.9	0.290
Location of Resident Parent										
Milwaukee County	2,198	76.9	6,493	75.5	omitted	169	65.3	216	60.5	omitted
Other urban counties	436	15.3	1,427	16.6	0.113	53	20.5	98	27.5	0.352
Rural counties and tribes	225	7.9	681	7.9	0.820	37	14.3	43	12.0	0.594
Age of Resident Parent at Entry										
16–25	1,315	46.0	3,978	46.3	omitted	132	51.0	192	53.8	omitted
26–30	603	21.1	1,760	20.5	0.552	55	21.2	55	15.4	0.360
Over 30	941	32.9	2,863	33.3	**0.040**	72	27.8	110	30.8	0.235
Missing										

| | First Assignment Period | | | | | Second Assignment Period | | | | |
| | Original Experimental Group | | Experimental Group Not Originally in Evaluation | | P-value in Probit Model of E Status | Original Experimental Group | | Experimental Group Not Originally in Evaluation | | P-value in Probit Model of E Status |
	N	%	N	%	(vs. N Status)	N	%	N	%	(vs. N Status)
Race of Resident Parent										
White	656	23.0	2,041	23.7	omitted	85	32.8	116	32.5	omitted
African American	1,801	63.0	5,250	61.0	0.495	147	56.8	190	53.2	0.822
Other	402	14.1	1,310	15.2	0.382	27	10.4	51	14.3	0.156
Education of Resident Parent										
Less than high school	1,544	54.0	4,768	55.4	omitted	124	47.9	161	45.1	omitted
HS degree	1,042	36.5	3,041	35.4	0.076	101	39.0	163	45.7	0.212
Beyond high school	273	9.6	792	9.2	0.203	34	13.1	33	9.2	0.366
Number of Children at Entry										
None or one	902	31.6	2,738	31.8	omitted	127	49.0	168	47.1	omitted
Two	785	27.5	2,547	29.6	0.289	74	28.6	100	28.0	0.744
Three or more	1,172	41.0	3,316	38.6	0.118	58	22.4	89	24.9	0.323
Age of Youngest Child at Entry										
0–2	1,627	56.9	4,961	57.7	omitted	154	59.5	226	63.3	omitted
3–5	510	17.8	1,597	18.6	0.796	35	13.5	54	15.1	0.803
6 or older	720	25.2	2,033	23.6	**0.036**	70	27.0	75	21.0	0.082
Missing	2	0.1	10	0.1	0.505			2	0.6	0.999
Average Annual Pre-Entry Earnings of Highest-Earning Nonresident Parent										
None	560	19.6	1,575	18.3	omitted	44	17.0	65	18.2	omitted
$1–$5,000	913	31.9	2,756	32.0	0.324	83	32.1	101	28.3	0.162
$5,000–$15,000	573	20.0	1,709	19.9	0.459	51	19.7	63	17.7	0.328
$15,000–$25,000	215	7.5	659	7.7	0.480	19	7.3	32	9.0	0.909
$25,000 or more	94	3.3	337	3.9	0.100	12	4.6	13	3.6	0.377
No nonresident parent	420	14.7	1,302	15.1	0.696	45	17.4	74	20.7	0.831
Nonresident parent missing SSN	84	2.9	263	3.1	0.491	5	1.9	9	2.5	0.845

	First Assignment Period					Second Assignment Period				
	Original Experimental Group		Experimental Group Not Originally in Evaluation		P-value in Probit Model of E Status	Original Experimental Group		Experimental Group Not Originally in Evaluation		P-value in Probit Model of E Status
	N	%	N	%	(vs. N Status)	N	%	N	%	(vs. N Status)
Child Support Paid prior to Entry										
None	1,884	65.9	5,719	66.5	omitted	181	69.9	253	70.9	omitted
$1–$999	484	16.9	1,352	15.7	0.093	29	11.2	45	12.6	0.290
$1,000 or more	491	17.2	1,530	17.8	0.775	49	18.9	59	16.5	0.961
Quarters of Employment prior to Entry										
None	647	22.6	1,744	20.3	omitted	43	16.6	48	13.5	omitted
1–6 quarters	1,726	60.4	5,306	61.7	**0.005**	125	48.3	192	53.8	0.405
7–8 quarters	486	17.0	1,550	18.0	**0.004**	91	35.1	117	32.8	0.671
Missing SSN			1	0.0	0.998					
Number of Legal Fathers										
None	800	28.0	2,507	29.2	omitted	98	37.8	151	42.3	omitted
One	1,491	52.2	4,371	50.8	0.207	124	47.9	154	43.1	0.315
Two or more	568	19.9	1,723	20.0	0.568	37	14.3	52	14.6	0.569
Relationship of Resident Parent with Nonresident Parents										
Marital only	209	7.3	615	7.2	0.986	22	8.5	38	10.6	0.084
Other	2,650	92.7	7,986	92.9	omitted	237	91.5	319	89.4	omitted
Resident Parent Has Child Support Order at Entry										
No	1,216	42.5	3,659	42.5	omitted	142	54.8	216	60.5	omitted
Yes	1,643	57.5	4,942	57.5	0.293	117	45.2	141	39.5	0.496

Note: The first assignment period includes cases assigned from September 1, 1997 to March 16, 1998. The second assignment period includes cases assigned from March 17, 1998 to May 8, 1998. Probability values of 0.05 or less are shown in bold type.

they had failed to enter a slot within 30 days of the interview.[11] A sensitivity test of our diversion analysis using this alternate method revealed a diversion differential nearly identical to the results reported in Tables TR1.1 and TR1.2 and does not change the conclusion that there was no substantial differential diversion.[12]

   B. Temporarily inactive AFDC cases. The second problematic type includes about 1,800 cases not receiving payments on August 31, but receiving AFDC some time in August, and again some time before September 30. Because these cases were not active on August 31, they did not receive an assignment code when they did return to AFDC. The computer system assumed all of these cases should receive the full pass-through since they had no research code. When these individuals later had a W-2 interview, they were given a random assignment code, and then their pass-through status varied accordingly. About 90 percent of these cases entered W-2, in part because most women who had a W-2 interview followed through with entry. Within this group, there was no significant difference between the experimental group and the control group in the likelihood of entry. Still, these cases differ somewhat from the other cases, so we included an indicator variable for them in a variant of our basic diversion analysis and tested whether those who were in the control group had a different rate of entry to W-2 than those assigned to the experimental group. This sensitivity test showed no significant difference in the rate of entry between experimental and control-group cases that were temporarily inactive. We therefore have kept these cases in our basic research sample as long as they entered W-2 within 30 days of their random assignment.[13]

   C. Erroneous placements. About 300 cases were incorrectly placed in the AFDC program after October 1. These cases were not receiving AFDC on August 31 nor did they receive AFDC in September. Program rules state that they should have entered W-2, rather than returning to AFDC. We eliminated these cases from our analysis because of the mistake in program status and their relatively small number.[14]

   D. Confusion over child support eligibility. There are cases for which CARES records suggest child support eligibility and referral to the child support enforcement system, but for which we find no

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[11]We originally included these cases in our research sample as long as they entered by July 9, 1998. Because they were part of our original research sample, some of these cases were selected to be surveyed, and some of these completed surveys. We now believe it is more appropriate to consider these cases as "diverted" and thus have excluded them from both administrative and survey analyses.

[12]More specifically, in this variant we took cases receiving AFDC on August 31that were then off AFDC for two or more months, and counted them as entering W-2 (and our analysis population) as long as they (1) had an interview prior to July 9, 1998, when our sample ended, and (2) entered a W-2 slot within 30 days of their interview. This change in treatment means that 496 cases that we treat as "diverted" in our main analysis are treated as "entered" in this alternate analysis. Under these alternate rules, 61 percent of the experimental group and 60 percent of the control group entered W-2, compared to 59 percent and 58 percent in our main analysis.

[13]Cases without a two-month break in payments were classified as "transitioned from AFDC" rather than "new W-2" cases for the purpose of defining the survey sample. Cases with a two-month break in payments were still included in our research population as long as they entered within 30 days of receiving a random assignment code (received when they requested information on W-2). For the purpose of the survey sample, we counted these as "new W-2 cases."

[14]Moreover, these cases did not receive an assignment code unless they had a W-2 interview. These cases did not differ in their rate of entry: an unweighted analysis shows that of those assigned, 91 percent of the experimental group entered, compared to 87 percent of the control group.

matching record within KIDS, the child support data system. Our investigation of these cases showed that most are appropriately included in our population as having no child support activity. Although a small number of the cases are errors and should have been excluded from the population, it is not feasible to distinguish the erroneous cases. Since most of the nonmatching cases are in fact cases in which child support was not pursued, and since we are unable to distinguish those with a mismatch, we have included all the cases in this category.

E. Cases that rapidly became ineligible for child support. Our basic rule for case inclusion was to keep all cases that were eligible for child support, received a research code, had at least one child in the home who would be younger than age 18 on January 1, 2000, and entered W-2 during the sample intake period. In some cases, either the nonresident father or the mother of all the children in the case died after the children entered W-2; in others all children died or went to live with someone else shortly after entry. Because these affect a very small number of cases, and because we are not always certain that deaths are appropriately recorded in the administrative record, we have not deleted these cases from the research population. These cases remained in the administrative-data sample, but most were not eligible for inclusion in the survey sample. One subgroup that we can identify with more precision is cases in which there was only an older child who would turn 18 during our follow-up period. Because in general child support is *not* due or paid after a child's eighteenth birthday, we eliminated these cases from our research population.

F. Cases that entered W-2 but appeared to have no children in the home. In most of these cases, the mother was pregnant at entry into W-2, and there were no other children in the case.[15] Since W-2 is only for families with children, we believe that these cases exist mainly because of quirks in how dates are recorded on CARES; in most of these cases, the child was born very soon after entry into W-2. In all of these cases, we included the unborn child in the analyses. In cases that had both an unborn child and other children present at entry into W-2, we included only those children already born at entry into W-2, excluding any children born after entry into W-2.

Unit of Analysis

A final issue is the appropriate unit of analysis in complicated cases. We examine the resident parent as our primary unit of analysis, further limiting our examination to resident mothers, the vast majority of cases. Random assignment was based on a resident parent, so it is appropriate to compare resident parents in the experimental group with those in the control group. But the full pass-through could affect the nonresident parent as well as the resident parent, so we also want to examine effects on nonresident parents. For some resident parents, there was no legal nonresident parent associated with the case (legal paternity had not been established for the children in the case); for others, there was one, and for others, more than one.

Our basic strategy for nonresident parents is to count each couple once. When a mother in our research population is associated with more than one father, we count each father once, so that a single mother may be implicitly counted more than once when we examine fathers (and couples). In the less common case, when a father is associated with more than one mother in our population, we count a

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[15]Others appear to be data errors. Because the presence of children is an eligibility requirement for receiving W-2 (except for first-time pregnancies), we assume that in these cases there are children in the home who are missing from the household grid in CARES.

single father as many times as he is part of a couple.[16] About 30 percent of the 15,977 mothers in our sample had only nonmarital children who had not had paternity established, so no fathers are associated with these mothers are in our population. Of the remaining 11,179 mothers, 28 percent are associated with more than one legal father. Of the 13,339 fathers, 7 percent are associated with more than one mother in our population, and thus are counted more than once, bringing the total to 14,343 couples. To the extent that multiple fathers associated with one mother are not independent, a simple count of fathers overstates the number of independent observations. This might be expected to lead to downwardly biased estimates of standard errors. Huber-White standard errors were estimated for selected direct effects and measured effects were robust to this alternative approach. We hope to explore this issue further in future analysis.

6.   Methods of Analysis

The random assignment of cases to an experimental and a control group provides a powerful tool to evaluate the effects of a policy. In theory, given random assignment, simple comparisons between the experimental and control groups should provide unbiased measures of the impact of the policy. This comparison is appropriate if the groups are comparable, differing only in the pass-through policy they face. The implementation analysis, discussed in Technical Report 2 of this volume, suggests that the initial random assignment worked appropriately. The analysis of diversion, above, suggests there are no overall significant differences in the proportion of cases in the experimental and control groups that entered W-2 (and our research sample). The analysis of the initial characteristics of the experimental and control groups largely confirms our expectation that they are equivalent.

Although the experimental and control groups are not significantly different in most respects, the results in Table TR1.4 suggest that there are some differences in initial characteristics. For this reason, we present regression-adjusted means, rather than simple means, in the analysis of experimental effects.[17] This approach has a number of advantages. First, even if random assignment worked perfectly, there will be some chance difference in the initial characteristics of the experimental and control groups. Regression-adjusted means adjust for chance variation in characteristics included in the regression. The regression-adjusted difference reflects the estimated effect of experimental status (i.e., the coefficient on the indicator for experimental or control status) after accounting for differences in characteristics at entry into W-2. This approach will also adjust for any nonrandom differential assignment based on observable characteristics included among the control variables. Finally, to the extent control variables account for the variance in the outcome of interest, we are more likely to be able to discern the effect of the experiment.

Most of the analyses of experimental effects, discussed in Volume I, Chapter 4, use one of two standards sets of control variables. The first set of control variables includes assignment rate, mother's age and race, and whether the mother had a history of high child support payments on her behalf. The second, more extensive set includes additional measures of AFDC and employment history, initial W-2 tier, location, education and family structure. The first set of control variables was generally used in the

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[16]Random assignment was based explicitly on resident parents (mothers in the samples we consider). Thus each mother is in only one of the three groups (experimental, control, or experimental group not eligible for the survey), but an individual father could be in more than one if he had children with more than one mother who entered W-2.

[17]We thank participants in the CSDE National Advisory Board Meeting, especially Greg Duncan, for their comments and suggestions regarding these issues.

analysis of survey data because of the limited sample size. The more extensive list was used in most analyses of administrative data. A full list of the variables and details of their specifications are included in Appendix TR1.1.

The regression-adjusted means reported in the experimental-impact analyses were generated as follows. First, the outcome was estimated as a function of one of the two standard sets of control variables, with an indicator variable for experimental status.[18] All observations—from both experimental and control groups—were included in the regression analysis.[19] Second, weighted mean values for each control variable were calculated, and a predicted value for the outcome variable was generated by evaluating the estimated regression coefficients at these means. The experimental impact (and associated p-value) was measured with the indicator variable for experimental status.

7.   Conclusions

The evaluation design assumes that the experimental-group cases that entered W-2 are equivalent to the control-group cases that entered W-2. The multivariate analysis of W-2 entry and diversion suggests no significant difference by experimental status. This result holds even among resident parents with a history of higher child support payments, a group that could be expected to be more likely to have differential diversion. When we examine only those who entered, we find some evidence that those with higher child support in the past were more likely to be placed in the upper tiers. Finally, when we examine our research population (those who enter W-2 and are eligible for the experiment), we find that the full pass-through group and the partial pass-through group are generally quite similar, but have a few statistically significant differences.

These findings lead to our basic approach in the impact analyses in this report. Because there is no differential diversion, comparisons between the random assignment groups who enter are valid. Because there are some differences between the experimental and control groups in our research population, our estimates of the effects of the policy control for these differences through a multivariate regression approach. Finally, because there may be some difference in initial tier assignment depending on experimental status, our research population includes all those who entered W-2, though we also report results separately for those who entered in the lower tiers.

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[18]In a few cases additional control variables were included, and are noted in the discussion of that particular analysis in Chapter 4 of Volume I.

[19]For administrative-data analysis the regressions were unweighted, since administrative-data weights are designed to adjust for assignment rate, which was included as a control variable. For outcomes measured using survey data, regressions were weighted. Survey weights account for assignment rate, differential sampling, and nonresponse. Given the limited survey sample size, it was not feasible to include all the variables used in generating the weights as control variables.

Appendix TR1.1

Lists of Control Variables Used in Volume I Regressions

All control variables are dummy variables. The basic list was used, at minimum, in all analyses. Some analyses also used all or part of the extended list.

Basic List

- Assignment rates

    – 20% experimental group, 20% control group, 60% not in experiment (omitted)

    – 30% experimental group, 30% control group, 40% not in experiment

    – 50% experimental group, 50% control group

- Higher child support history (more than $1,000 paid on behalf of the mother in the one-year period October 1996 through September 1997)

- Mother's age 31 or greater

- Mother is African American

Extended List

- Assignment rates

    – 20% experimental group, 20% control group, 60% not in experiment (omitted)

    – 30% experimental group, 30% control group, 40% not in experiment

    – 50% experimental group, 50% control group

- Child Support history; amount paid on behalf of the mother in the one-year period October 1996 through September 1997

    – $0 (omitted)

    – $1–$999

    – $1,000 or more

- Mother's age

    – 25 or younger (omitted)

    – 26–30 years

    – 31 or older

- Mother's race/ethnicity

    – White (omitted)

    – African American

    – Other

- Months of AFDC receipt during the 24-month period October 1995 through September 1997
    - 0 months (omitted)
    - 1–18 months
    - 19–24 months
- Region
    - Milwaukee County
    - Other urban counties
    - Rural counties (omitted)
- Initial W-2 tier
    - Upper tier (omitted)
    - Lower tier
    - Caretaker of Newborn
- Age of child; for the mothers and fathers, this is the age of the youngest child. For the mothers, this variable is based on the natural and adoptive children of the mother; for the fathers, it is based on the natural and adoptive children of the couple. For nonmarital children, this is the age of each child.
    - 0–2 years (omitted)
    - 3–5 years
    - 6 or older
- Mother's education
    - Grade 11 or less
    - High school diploma or equivalent
    - Post high school (omitted)
- Father's average annual earnings during the two-year period October 1995 through September 1997; for the mothers, if there is more than one father, this is based on the highest-earning father.
    - $0–$14,999 (omitted)
    - $15,000 or more
- Mother's employment history; number of quarters employed during the two-year period October 1995 through September 1997 (not included in analyses of fathers' sample)
    - 0 quarters (omitted)
    - 1–6 quarters
    - 7–8 quarters

- Divorce or paternity case

  - Paternity (omitted category for fathers only)

  - Paternity or a combination of divorce and paternity (omitted category for mothers only)

  - Divorce

- Number of legal fathers associated with mother

  - 0 (omitted category for mothers only)

  - 1 (omitted category for fathers, included category for mothers)

  - 2 or more

- Whether child support order existed at entry; for mothers this is any order among all the fathers associated with the case; for fathers this is an order for that particular father

  - No (omitted)

  - Yes

- Number of children; for mothers this is count of natural or adopted children in that case, for fathers this is number of those children that are the couple's natural or adopted children

  - 1 (omitted)

  - 2

  - 3 or more

	All Assigned Cases		Assigned Cases Who Entered W-2	
	N	%	N	%
All Cases	32,674		19,280	
Research Code				
Control	7,315	22.4	4,174	21.7
Experimental	7,259	22.2	4,233	22.0
Experimental cases originally ineligible for evaluation	18,100	55.4	10,873	56.4
Age of Resident Parent at Assignment				
Under 26	13,036	39.9	8,200	42.5
26–30	6,376	19.5	3,866	20.1
31–40	8,609	26.4	5,150	26.7
Over 40	4,653	14.2	2,064	10.7
Sex of Resident Parent				
Female	30,647	93.8	18,711	97.1
Male	1,522	4.7	569	3.0
Race of Resident Parent				
White	9,409	28.8	4,692	24.3
African American	16,960	51.9	11,467	59.5
Hispanic	2,781	8.5	1,465	7.6
Native American	768	2.4	408	2.1
Asian	1,069	3.3	664	3.4
Other	38	0.1	18	0.1
Location of Resident Parent at Assignment				
Milwaukee County	21,548	66.0	14,209	73.7
Other urban counties	7,187	22.0	3,439	17.8
Rural counties and tribes	3,939	12.1	1,632	8.5
Case Type				
Active AFDC on 8/31/97	18,068	55.3	12,460	64.6
Temporarily inactive AFDC on 8/31/97	1,817	5.6	1,633	8.5
Others assigned 9/1/97 – 3/16/98	9,016	27.6	3,334	17.3
Others assigned 3/17/98 – 5/9/98	1,834	5.6	920	4.8
Others assigned 5/10/98 – 7/8/98	1,939	5.9	933	4.8
AFDC Receipt prior to Assignment				
None	7,035	21.5	2,501	13.0
1–6 months	3,559	10.9	1,919	10.0
7–18 months	7,570	23.2	4,500	23.3
19–24 months	14,510	44.4	10,360	53.7
Child Support Paid History prior to Assignment				
None	22,737	69.6	13,204	68.5
Low ($1–$999)	4,635	14.2	2,930	15.2
High ($1,000 or more)	5,302	16.2	3,146	16.3

	All Assigned Cases		Assigned Cases Who Entered W-2	
	N	%	N	%
Number of Children at Assignment				
None	698	2.1	216	1.1
One	10,380	31.8	6,134	31.8
Two	8,621	26.4	5,348	27.7
Three or more	11,471	35.1	7,526	39.0
Age of Youngest Child at Assignment				
Under 1	7,618	23.3	4,873	25.3
1	4,638	14.2	2,902	15.1
2	3,228	9.9	1,987	10.3
3–5	6,455	19.8	3,990	20.7
6–12	6,651	20.4	4,123	21.4
13–17	2,380	7.3	1,328	6.9