The Families Forward Program Final Evaluation Report

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Executive Summary

The State of Wisconsin Bureau of Child Support (BCS) and the Institute for Research on Poverty (IRP) at the University of Wisconsin–Madison began investigating policy options to address the problem of growing child support debt in Wisconsin in 2003. Following exploratory research on possible program features, a pilot program, Families Forward, was designed to reduce child support debt while increasing child support paid by noncustodial parents (NCPs). Racine County was chosen as the experimental site because of the substantial number of cases with high levels of debt and county demographics (e.g., race, income and poverty, employment rates, single parent families) that were comparable to other large urban U.S. counties (such as Milwaukee), where child support debt and enforcement challenges are considerable.

The Families Forward program included several features that are unique compared to other arrears forgiveness program models. Families Forward provided for gradual forgiveness of debt over time. For an NCP with state-owed debt, the state agreed to reduce the debt owed to the state by 50 cents for every dollar of current support the NCP pays. If the NCP had family-owed debt, the NCP was eligible to receive debt reduction of 50 cents for every dollar of current support paid, although reduction of family-owed debt required the consent of the custodial parent (CP). In cases where NCPs had both state-owed and family-owed debts, NCPs could receive reductions of state-owed debt, family-owed debt, or both. For all types of debt reduction, credit was applied quarterly, and applied to an NCP's interest balance first and then to the principal of the debt. Interest charging on debt was also suspended during program participation. Families Forward allowed NCPs to continue in the program for up to two years, unless they failed to make a current support payment in two consecutive quarters.

This final report on the Families Forward program presents findings from an experimental and nonexperimental evaluation of the program's effectiveness in reducing family and state child support debt balances, increasing the amount that NCPs pay monthly toward child support and/or arrears, and increasing the frequency of payments made toward current child support, family-owed arrears and state-owed arrears. With complete data on outcomes for all program participants during the period of their participation and more than a year prior to their enrollment, along with comparable information for control and comparison group members during a similarly-defined pre-program and pseudo-participation period, we are able to rigorously estimate how the Families Forward program changes NCP payment behavior and their resulting family and state child support debt balances.

The final evaluation sample includes 559 NCPs (with 1,976 IV-D cases) who contacted Racine County to try to enroll in Families Forward. Of these 559 NCPs, 376 (67 percent) had been randomly assigned to the experimental group and able to enroll, and 152 were assigned to the control group; 31 other NCPs sought to enroll after hearing about the program via public outreach or word-of-mouth. Among the experimental NCPs, however, participation in the Families Forward program was low; only 120 (32 percent) successfully enrolled. In estimating program impacts on participants, nonexperimental methods are essential for adjusting for selective differences between NCPs who actually enrolled and those who were willing to participate but did not.

Consistent with the preliminary findings presented in earlier reports, the Families Forward impact evaluation results indicate that NCPs participating in Families Forward (compared to nonparticipants) made larger payments toward current child support and debt balances, were more likely to pay and to pay more frequently, and significantly reduced their state- and family-owed debt balances. Our best, most conservative estimates from models that adjust for the fact that Families Forward participants were more disadvantaged than nonparticipants, and that precisely capture the timing of NCPs' first contact to express an interest in participating, their enrollment and end dates, and other seasonal and time-related changes in payments (e.g., after tax returns) suggest that participating NCPs paid (on average) \$105 more per month

toward their current support and/or debt during the program than NCPs who were not participating in Families Forward. Looking specifically at payments toward arrears, the probability of making a payment toward their state-owed debt was 13 percent higher for participants than nonparticipants, and 11 percent higher than for nonparticipants for family-owed debt. The frequency (or percent of months) that participating NCPs were paying increased by 9.4 percent more (than nonparticipants) for any type of payment (compared to their frequency of paying in 2004), by 8.2 percent more for payments toward family arrears, and by almost 23 percent more than nonparticipants for payments toward state-owed debt.

With Families Forward participants making larger payments more frequently and receiving extra credit toward their debt during program participation, it is not surprising that their state and family debt balances also decreased significantly compared to nonparticipants who were also interesting in signing up for the program. Our best estimates of changes in debt balances from the month of enrollment (or first contact for nonparticipants) to their last month of program participation (or approximately 24 months later for nonparticipants) indicate that the state-owed debt balances of participating NCPs declined by more than \$2,700 more than the state-owed debt balances of nonparticipating NCPs, and the family-owed debt balances of participating NCPs declined by more than \$2,500 more than those of nonparticipating NCPs.

The low and selective enrollment of NCPs into Families Forward may suggest concern about the program's potential to increase child support payments and reduce arrears among a broader population of NCPs with poor payment histories. The follow-up survey results, however, suggested very strong levels of interest in the program among the target NCP population, with more than 80 percent immediately willing to sign up for the program after becoming aware of it. In this report, we identify a number of reasons (related to program implementation) that actual take-up of the program was considerably lower. Given that allowing reductions of family-owed debt as well as state-owed arrears was a relatively unique feature of Families Forward, the low rate of custodial parent participation was particularly disappointing. Still, CPs and NCPs made some valuable suggestions in focus groups and follow-up surveys for increasing CP participation, as well as offers to provide testimonials of the program's effectiveness and benefits. In addition, low take-up rates are common to many other social program interventions (e.g., education, training, food stamps, housing, etc.), and given that the Families Forward program generated very positive responses from those who appear most in need of its benefits, we suggest that its promise for increasing NCP payments and reducing child support debt outweighs any potential limitations experienced in the pilot program.

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INTRODUCTION: THE CHILD SUPPORT DEBT PROBLEM AND POLICY RESPONSES

Despite policy efforts by federal and state governments to address the problem of nonpayment of child support, the amount of child support debt owed nationally remains at an alarming level, more than \$107 billion in Fiscal Year (FY) 2009 (USDHHS ACF, OCSE, 2010). Low-income noncustodial parents (NCPs) owe a disproportionate share of this debt (in particular, public assistance debt owed to states), raising the concern that a large share of this debt may ultimately prove "uncollectible" (Sorensen, 2004; Sorensen, Sousa and Schaner, 2007). At the same time, child support debt presents significant hardships for noncustodial parents and custodial families who are not receiving support, as well as for states that expend resources on collection and enforcement efforts and face consequences for non-collection under federal performance standards.

Child support payments are an increasingly important source of income for low income families. In 2007, approximately 25 percent of custodial parents and children had incomes below the federal poverty level, and for poor custodial parents who received full payments, child support represented approximately 48 percent of their average income (Grall, 2009). Approximately 31 percent of poverty-level families received no payments at all (Grall, 2009). In addition to the consequences triggered by reduced income, some hypothesize that non-payment of child support may also exacerbate conflict between custodial and noncustodial parents and reduce NCPs' contact with children (Bartfeld, 2003). For NCPs, debt may deter work, as the process of automatic wage withholding may encourage parents to go into the underground economy to avoid cooperating with the formal child support system (Waller and Plotnick, 2001). NCPs with delinquent payments may also be subject to enforcement actions, including loss of driver's license, liens against vehicles or property, and incarceration that may depress their earning

¹In contrast, using data from the Fragile Families study, Rich, Garfinkel and Gao (2007), found that stricter child support enforcement was associated with fewer hours of underground employment.

capacity and further exacerbate debt levels (Holzer, Offner and Sorensen, 2005; Pearson, 2004; Turetsky, 2007; Western 2002).

Federal law allows states to accept less than full payment of state-owed arrearages and also allows compromise of custodial-owed arrears if both parties agree (USDHHS ACF, OCSE, 2000). With this flexibility, state or local courts and/or state child support enforcement (CSE) agencies can accept reduced debt payments or expunge debt altogether in exchange for other desired behaviors, such as ontime payment of current support obligations, or participation in employment or parenting programs. Such policies allow states to reduce "uncollectible" debt and are motivated by the expectation that low-income obligors will be more willing to participate in the formal child support system and better able to comply with current support orders if relieved of some of their financial burden.

The Office of Child Support Enforcement (OCSE) does not formally track or monitor debt compromise programs, or issue formal guidelines for them; however, it has included information about such programs in its annual Compendium of Best Practices (USDHHS, OIG, 2007). Previous reviews have identified small-scale or pilot debt-forgiveness programs operating in a number of states, primarily at the county level (Bartfeld, 2003; Hennessey and Venohr, 2000; Pearson and Griswold, 2001), and a 2007 report by the Office of Inspector General (OIG) describes child support debt compromise programs operating in at least 20 states. To reduce or expunge debt, 19 states require NCPs to pay a lump sum toward the arrearage; 19 states require regular payments on arrearages and current support orders; 8 states require involvement with the child; 7 states require participation in fatherhood programs; 5 states require participation in a parenting program; and 4 states require maintenance of employment, or some

²According to the OIG survey, 12 states have CSE agencies that operate fully implemented debt compromise programs, and 8 states have agencies that are currently running pilot programs. Another 23 states allow debt compromise on a case-by-case basis, with individually determined amounts, eligibility criteria, and conditions. Eight states (AK, ID, IN, MS, MO, NY, TN, VA) reported that they do not allow compromise of debt owed to the state, although all states plus the District of Columbia acknowledge the legality of compromise of unassigned debt owed to custodial parents, per request and agreement between the two parties (USDHHS, OIG, 2007).

combination of these. Eligibility requirements, the potential amount of debt eligible for compromise, and the rate of debt compromise also vary across the states (USDHHS OIG, 2007).

Still, even as policy options for debt forgiveness expand, there is little rigorous, empirical evidence of their effectiveness (Bartfeld, 2003; USDHHS OIG, 2007). Only three other pilot programs have been evaluated more formally (with nonexperimental methods). Colorado's Arrears Forgiveness Demonstration Program provided forgiveness of all state-owed child support debt in Larimer County or up to \$5,000 of state-owed debt in Jefferson County for participants who paid their current support orders consistently and in full over a period of 10 months (Pearson and Davis, 2002). Minnesota's Debt Compromise Demonstration Program for low-income NCPs in Hennepin County also provided full forgiveness of state-owed public assistance arrears (either in two lump sums or more gradually) if participants paid existing child support orders on a regular basis over a period of 12 consecutive months (Pukstas et al., 2004). Maryland's Arrears Leveraging Pilot Project (ALPP) (operating in Baltimore City) enrolled obligors who were currently working with community-based organizations (CBOs) on employment issues and rewarded consistent current support payers by gradually reducing or eliminating their state-owed arrears (in five stages).

Each of these pilot programs reported some success in collecting more child support from participating NCPs. The Colorado and Minnesota programs experienced challenges, however, with low and selective enrollment, and the Maryland program participants encountered substantial delays between eligibility and actual debt forgiveness. Additionally, all Maryland participants who completed the first program stage also completed an employment program; therefore, as implemented, the evaluation could not distinguish between the impact of the employment program and the arrears leveraging component. In each of these programs, success in meeting program requirements was correlated with prior earnings and/or child support payments, which also contributed to difficulties in reaching definitive conclusions about their effectiveness.

THE FAMILIES FORWARD PROGRAM DESIGN

The Families Forward program was perhaps most distinctive relative to other arrears forgiveness programs in its gradual, conditional forgiveness of debt over time. Rather than forgiving child support debt in a lump sum after particular requirements were satisfied, Families Forward required NCPs to make payments toward current support or child support arrears, and the amount of debt forgiveness was directly tied to the amount paid by an NCP in a given quarter. Specifically, for NCPs with state-owed debt, the state agreed to reduce the debt owed to the state by 50 cents for every dollar of current support or arrears paid by the NCP. For NCPs with family-owed debt and the consent of the custodial parent (CP), the NCP was also eligible to receive debt reduction at the rate of 50 cents for every dollar of current support or arrears paid.³ In cases where NCPs had both state-owed and family-owed debts, the potential rate of debt reduction was one dollar for every dollar of current support or arrears paid (if the CP signed the stipulation to participate). If the CP of an NCP with both types of debt did not consent to reductions for family-owed debt, the NCP could still receive reductions of state-owed debts.

For many NCPs with high levels of child support debt owed, interest owed on their principal debt is a substantial portion of their total debt, and not infrequently, sometimes a larger portion than their principal debt. In Families Forward, credit was applied quarterly and first applied to the NCP's interest balance. Only after the interest balance was reduced to zero would any credits for current support or arrears paid be applied to the principal of the debt. In addition, another attractive program feature for NCPs was the suspension of interest charging during program participation. As long as enrolled NCPs continued to make payments toward current support or arrears, they were allowed to participate in the Families Forward and receive credit towards their debt for up to two years. However, for NCPs who failed to make any payment in two consecutive quarters, their participation ended and interest charging was reinstated.

³An NCP may pay more current support than he or she owes in a quarter. When such payments occur, the NCP receives debt reduction credit for the entire amount paid. However, for both state- and family-owed debt, NCPs do not receive credit for payments made via federal or state tax intercept.

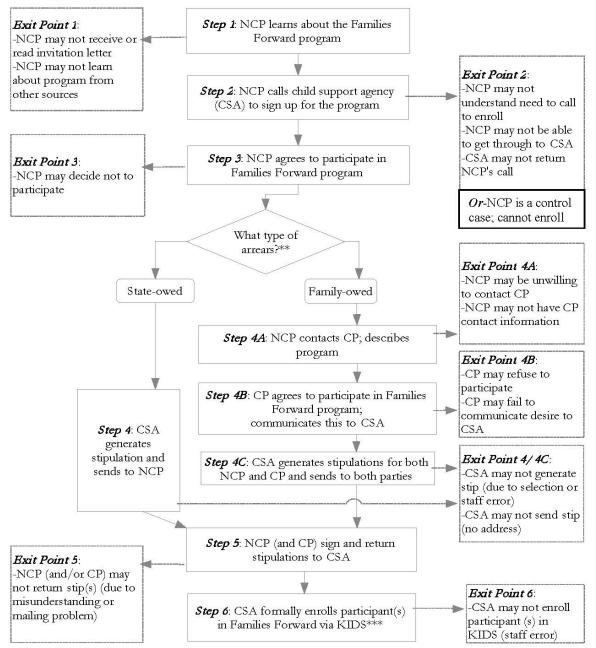
FAMILIES FORWARD PROGRAM ELIGIBILITY AND ENROLLMENT

To ensure that the size of the pilot program would be manageable, the eligible population for Families Forward was restricted to NCPs in Racine County with total debt burdens of at least \$2,000 owed to the state or the family on at least one child support case (excluding foster care, kinship, and interstate cases) and who had a recent history of non-payment, defined as: (a) no payment on current support in the past three months; (b) current support paid in less than 6 of last 12 months; or (c) paid less than one half of annual amount owed in current support over the past 12 months. In advance of the start of the pilot program, the eligible population was identified by applying these criteria to NCPs attached to Racine County IV-D cases open at the end of December 2004 (using data from the Kids Information Data System, or KIDS). To facilitate a rigorous evaluation of the impacts of Families Forward, these NCPs (and their IV-D cases, approximately 5,000 cases) were randomly assigned to the control or experimental group using the last two digits of the NCPs' social security numbers; 7 of every 10 eligible cases were assigned experimental status prior to the program roll-out. In addition, each quarter, any newly-eligible IV-D cases were similarly randomly assigned to the control or experimental groups.

Enrollment of eligible NCPs in the Families Forward pilot began in May 2005 and ended in November of 2007. Eligible NCPs had to go through a number of steps before enrolling and receiving debt reduction (see Figure 1). Because Families Forward was a new program, NCPs first had to learn of its existence. IRP mailed letters of invitation to eligible NCPs (both in the experimental and control group) and their CPs, and distributed posters and brochures at retail, government, and service provider locations in Racine County. In Steps 2 and 3, NCPs had to contact the child support agency to confirm their eligibility and express their willingness to participate; control cases were informed at Step 2 that they did not qualify for program participation at this time. An experimental NCP looking to receive reduction on state-owed debt then had to wait for the child support agency to generate and mail a

FIGURE 1: FAMILIES FORWARD ENROLLMENT PROCESS SHOWING "EXIT" POINTS

Enrollment Steps from the NCP's Perspective*



^{*:} It is possible for a CP to initiate contact with the child support agency. In these cases, Racine would generate a stipulation and send it to the NCP, even if s/he had not contacted the agency.

^{**:} An NCP may have both state- and family-owed debt. If the CP refuses to participate in Families Forward, the NCP cannot enroll for family-owed debt forgiveness but s/he may still enroll for state-owed debt forgiveness.
***: After enrollment, NCPs may be dropped from the program due to failure to pay child support over a period of six months. CPs may also voluntarily exit the program.

stipulation agreement outlining the terms of the debt forgiveness. An NCP also looking to receive reduction on family-owed debt faced additional steps. First (Step 4A), the NCP had to contact the CP and describe the program. If the CP agreed to participate in the program, he or she had to communicate that willingness to the child support agency (Step 4B). Both parties then had to wait for the child support agency to generate and mail the stipulation agreements (Step 4C). Upon receiving the stipulation agreement(s), the NCP (and CP) had to sign and return the forms to the agency (Step 5). Only then did the agency formally enroll the NCP and enable him or her to receive debt reduction, which would typically begin in the next quarter (Step 6).

In practice, these steps to enrollment were sometimes difficult to navigate, and many eligible, experimental NCPs (who could have enrolled) failed to complete the process. Figure 1 illustrates the variety of "exit points" at which NCPs could fall out of the enrollment process. For example, we know (exit point 1) that some NCPs (and CPs) did not receive or read the invitation letter and would therefore not be aware of the opportunity to participate. However, we also know that others who read the letter and made some effort to enroll were unsuccessful in their efforts to reach the appropriate contact at the child support agency (exit point 2). At the start of Families Forward, there was a designated phone line at the Racine County child support agency that eligible NCPs could call. However, sometime near the end of 2005 or beginning of 2006 (after letters of invitation went out and outreach materials were circulated), the Racine County dedicated line was discontinued, and all calls were re-routed to a Milwaukee call center.

Consistent with reports we received on the IRP-operated, Families Forward toll-free information line, a

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⁴The Racine County Child Support Agency did not provide NCPs with assistance in locating or contacting CPs. In order to gain CP consent, an NCP either had to personally persuade the CP to participate or the CP may have proactively contacted the child support agency to give consent (perhaps in response to an invitation letter from IRP).

⁵One NCP, who participated in a focus group, described his experience in trying to get enrolled as follows: "Well, like [name], same thing: call, call, call, nothing happened. And I finally went down to the child support office, and they said, you have to call this number. I said, 'But nobody answers this number.' And it's very frustrating."

Wisconsin Department of Health Services study showed that only 5 percent of phone calls to the Milwaukee call center were being answered during this time.⁶

In addition, CP cooperation was an obstacle to enrollment for some NCPs with CP-owed debt (exit points 4A and 4B in Figure 1). Some NCPs who had CP-owed debt *and* state-owed debt were not enrolled to receive forgiveness on state-owed arrears after their unsuccessful efforts to secure CP participation. And at one point during active enrollment (in 2006), a Racine County Child Support Agency staff person new to the program explained that they were not enrolling eligible NCPs with a poor payment history (exit points 4/4C and 6 in Figure 1). Poor payment history, as indicated above, was a criterion for eligibility for the Families Forward program. Furthermore, the follow-up survey (with a sample of eligible NCPs) found that some NCPs did not follow through with the entire enrollment process, as they mistakenly thought that they had already been enrolled (exit point 5 in Figure 1).

In the end, a total of 559 NCPs (with 1,976 IV-D cases) contacted Racine County to try to enroll in Families Forward, indicating that they wanted to participate. Of these 559 NCPs, 376 (67 percent) had been randomly assigned to the experimental group; 152 had been randomly assigned to the control group, and the eligibility and enrollment of the other 31 NCPs who contacted Racine County was determined by child support program staff. Ultimately, participation in the Families Forward program was low; 116 NCPs assigned to the experimental group, 2 NCPs originally assigned to the control group, and 2 other NCPs who made contact with Racine County were enrolled in the program (a total of 120 NCPs, or about 32 percent of those eligible to participate). Of the 120 *participants*, nearly three-quarters (88) received forgiveness on state-owed arrears only; 25 received forgiveness on family-owed arrears only, and 7 received forgiveness on both state- and family-owed arrears.

⁶Information provided in an interview with Jim Jones, Deputy Medicaid Budget Director, State of Wisconsin Department of Health Services, October 7, 2010.

⁷CPs with multiple child support cases could have different debt reduction arrangements across cases (e.g., debt reductions for state-owed debt for case A, state- and family-owed debt for case B, or neither in case C). If an NCP made a payment that was divided among multiple child support cases, arrears were reduced only for the portion of the payment that was applied to the enrolled case(s).

Prior to the start of the program and evaluation, BCS and IRP decided that the evaluation sample would be defined as any eligible NCP who made contact with the child support agency to enroll in the program (rather than using the list of eligible NCPs to whom letters of invitation were sent). In a January 2005 training session with Racine County Child Support staff, the importance of recording all contacts with NCPs and comparing experimental and control cases from the *same* step of the enrollment process was emphasized. As it was not possible to know which NCPs received the letter of invitation or not (e.g., some had incorrect address information), we chose to focus on eligible NCPs at Step 2 rather than Step 1 in the process (see again Figure 1).

Table 1 presents descriptive information on the individual characteristics of three groups of NCPs who contacted Racine County: those assigned experimental status, those randomly assigned to the control group, and those who participated. As expected (see the first two columns), there are no statistically significant differences in the characteristics of NCPs who were randomly assigned to the experimental group and contacted Racine County to enroll vs. those assigned to the control group who made contact to enroll. In other words, the random assignment process worked as planned, and if the 376 experimental NCPs had enrolled in the program as intended, Families Forward impacts could have been calculated simply as the average difference in outcomes between the experimental NCPs and the control group members.

However, all willing, experimental NCPs did not complete all steps required to enroll in Families Forward, and those who did enroll were not fully comparable to NCPs in the control group. The third column in Table 1 shows that comparing Families Forward *participants* with NCPs assigned to the control group, statistically significant differences are evident in their age (Families Forward participants are older), and importantly, Families Forward participants had significantly higher levels of child support debt owed to the family and the state in the month before they enrolled. In addition, although these differences are not statistically significant, participating NCPs were more likely to be minorities and had lower average earnings in 2004 (the year before the program began). In light of these differences, we are

Table 1
Characteristics of Noncustodial Parents in Families Forward Evaluation

Noncustodial Parent Characteristics	Experimental (Willing to Participate) Group (N=376)	Control (Willing to Participate) Group (N=150)	Experimental Group and Participating (N=120)
Age in years	37.9	38.2	40.5*
Percent female	5.3	5.0	2.5
Percent white	36.0	35.0	27.5
Paternity case	70.0	68.6	73.1
UI earnings in 2004	\$4970 (9,060)	\$5059 (11,822)	\$4630 (8,644)
Number of children (across all cases)	3.2	3.1	3.5
State child support debt balance March 2005	\$10,823 (17,875)	\$9,847 (18,227)	\$16,907* (17,924)
Family child support debt balance March 2005	\$24,399 (24,013)	\$21,087 (21,572)	\$27,987* (25,502)
Percent with no child support paid in 2004	11.4	11.3	10.8
Number of months made payment in 2004	6.2	6.1	6.6

^{*}A t-test or chi-square test confirmed that the difference between this value for participating experimentals and that for those in the control group was statistically significant at p < 0.05.

Standard deviations are in parentheses below the measures of earnings and state and family debt balances.

not able to calculate with *experimental* methods the impact of the Families Forward program *on those* who participated.

Fortunately, the use of random assignment in the Families Forward program evaluation, along with fairly rich data on the characteristics of NCPs, also facilitates the application of rigorous nonexperimental evaluation methods that allow us to adjust for selective factors that influenced who participated in the program. In the nonexperimental analyses, we compare the Families Forward participants with NCPs who did not participate (i.e., combining nonparticipants who were originally assigned to the experimental and control groups), and we also estimated alternative models that compared participants with control group members only. We provide more details on these methods below as well as in Appendix 1.

FAMILIES FORWARD PROGRAM OUTCOME MEASURES AND EVALUATION METHODS

The KIDS data used by the State of Wisconsin Bureau of Child Support for tracking child support orders and payments provides the primary data for the impact analysis. The KIDS data contain information on child support orders, payments, receipts and arrearages; the method of payment (wage withholding, tax intercepts) and destination of the payment (custodial parent, state); and demographic information about the parents and children in the cases (including birth dates, residential location of both parents, and dates of marriage, divorce, and paternity establishment). These data were merged with Unemployment Insurance (UI) Wage Record Files, which track the wages of workers eligible for state unemployment insurance. Measures were constructed with these data to control for the employment and earnings histories of NCPs, in addition to other characteristics of parents and children involved in the child support cases, in nonexperimentally estimating program impacts.

⁸Generally, exceptions from UI wage reporting (about 9 percent) include the self-employed, federal employees, church employees, employees of small nonprofit organizations, and wages that are earned outside of Wisconsin.

Appendix 2 presents a summary of the data—from KIDS, focus groups, follow-up surveys and meetings—that was used in the impact evaluation. It also includes a list of all reports and presentations that were developed to disseminate the evaluation findings.

Outcome Measures

As the overarching goals of the Families Forward program were to reduce state- and family-owed debts while simultaneously increasing NCP payments toward current support and/or arrears, the following measures, constructed using KIDS data, were identified as the primary outcome measures in this study:

- (1) Change in the *family* child support debt balance from the month of the NCP's enrollment to the end of the final month of program participation;
- (2) Change in the *state* child support debt balance from the month of the NCP's enrollment to the end of the final month of program participation;
- (3) Change in the *average* monthly (amount of) payments made by the NCP toward current support or debt accounts⁹ from the period prior to their program enrollment (going back to 2004, the pre-intervention year) and the two years of NCP participation in the program;
- (4) Change in the percent of months and change in probability that *any* payment was made by the NCP toward current support or debt accounts from the period prior to NCP program enrollment and the two years of NCP participation in the program;
- (5) Change in the percent of months and change in probability that any payment toward *family arrears* was made from the period prior to NCP program enrollment and the two years of NCP participation in the program;
- (6) Change in the percent of months and change in probability that any payment toward *state* arrears was made from the period prior to NCP program enrollment and the two years of NCP participation in the program.

For each of these outcomes, program impacts are measured as "differences in differences"; that is, the change in these outcomes for Families Forward participants is compared to changes in these outcomes for the control or comparison groups of nonparticipating NCPs. For the control/comparison group members, the "pseudo-participation" period over which changes in their outcomes is measured

⁹This monthly payment measure includes payments made by the NCP that were extracted from the ALOC transactions in the KIDS data.

begins with their first contact in which they expressed their interest in participating in the program and continues for the ensuing 24 months (given the two-year time limit on participation). For Families Forward participants, the participation period starts with their enrollment date and ends with their program termination date, which is two years later for most participants. Of the 120 participants, 12 (10 percent) participated for one year or less; another quarter participated from 13–20 months, and the remaining two-thirds participated for 21 or more months.

The period prior to program (or "pseudo-program") participation is defined in the following ways in the analysis of program impacts. For the first two measures of changes in family and state debt balances, we simply use the balance in the month of enrollment (or first contact) as the pre-program measure. For the other outcome measures (focusing on NCP payments), we compare changes in the outcomes during the participation period to changes in payments during all months prior to the NCP's program enrollment month (or first contact month if in the control/comparison group), going back to January 2004. In the multilevel models (discussed below), the structure of the data and models (with time nested within individual NCPs) allows us to use all months prior to the month of program enrollment (or first contact for comparison group members) going back to January 2004, as well as months following their participation, to measure changes in average monthly payments made by NCPs toward current support or arrears. In other words, pre-program payment behavior will be measured over a longer period for some NCPs who enroll later in the program (as more pre-program data points are available for them).

Statistical Methods for Impact Estimation

We employ both experimental and nonexperimental methods in evaluating the Families Forward program impacts. The primary advantage of an experimental approach to evaluation that randomly assigns NCPs to the experimental (treatment) or control group is that it assures that participation in the program is the *only* factor that differs between those in the treatment group and those excluded from participating (the control group). Our analysis confirmed that the experimental NCPs who were invited to enroll and indicated their interest in participating were statistically equivalent to those randomly assigned

to the control group who also indicated their interest in participating. For these NCPs—what evaluators typically call the "intent to treat" sample—we calculate Families Forward program impacts as the average difference in outcomes between experimental and control group members.

As shown in Table 1, experimental NCPs who made it through the subsequent stages of enrollment (after expressing an interest in participating) are different (with larger debts) than all experimental NCPs. The implication for impact analysis is that the calculation of average program impacts includes only 120 actual participants, or only 32 percent who were actually getting credit toward their debt for current support payments made. If actual participants are not distinguished from experimentals who did not participate in the analysis, this will inevitably "dilute" the measurement of any program response and impacts. Furthermore, calculations made to compare Families Forward participants with those in the control group need to adjust for their selective differences, which requires nonexperimental analysis techniques.

One of the nonexperimental methods that we use to adjust for the selective differences between participants and non-enrollees is called propensity score matching (PSM). In the simplest form of statistical matching, we would first pair each Families Forward participant with an NCP who did not enroll but who looks similar based on characteristics we observe, and then we would compare how their outcomes change, assessing if the "difference in differences" are statistically significant. Propensity score matching reduces this process of matching to a single dimension—a propensity score, estimated as the predicted probability that an NCP participates in the program. In the first stage of the PSM analysis, we estimate the propensity score using the combined sample of experimental and control group members (and the information on their characteristics and random assignment status). The propensity score is subsequently used to match program participants with the nonparticipants who are most like them, so that the distribution of their characteristics is the same, or balanced, in the estimation of impacts.

The specific PSM approach that we apply to adjust for selective differences between the Families Forward participants and nonparticipants is among the most rigorous available. First, because the outcome variables for the child support debt balances and payments are defined as the difference between

a pre-program and participation period measure for each NCP, we are able to use a panel form of the matching estimator that allows for time-invariant, unobserved differences between participants and nonparticipants to be present without biasing our estimates of program impacts. Second, we can take into account (include in the propensity score model) the use of random assignment to determine experimental and control groups in the evaluation, which is (the analysis confirms) the most important factor in predicting participation in Families Forward. In evaluation terminology, random assignment status (to the experimental or control group) contributes an exogenous source of variation in participation that helps to identify the causal (true) impact of the program. ¹⁰ In addition, the particular matching algorithm we use, radius matching, specifies a "caliper" or maximum propensity score distance by which a match can be made. It uses not only the nearest neighbor (NCP) within each caliper, but all comparison cases within the caliper (based on the specified distance), and a "common support" condition is imposed to exclude poor matches from the analysis. ¹¹ We also perform balancing tests to check for statistically significant differences in characteristics between participants and nonparticipants after matching, an essential step to verify the success of the matching approach. We calculate standard errors for the impact estimates using bootstrapping procedures.

In addition to PSM, we employ multilevel longitudinal models (Singer and Willett, 2003) that allow us to examine changes over time (72 months) in the payment outcome variables and their relationship to the timing of important events, such as the first expression of interest and enrollment in the program, while controlling for other time-varying and stable characteristics of NCPs. An advantage of this statistical modeling approach is that both the number of measurement occasions and their timing may vary across individual NCPs and need not be balanced in the sample. NCPs invited to participate in the

¹⁰Given that there is still debate in the econometric literature about the specification of these models, we estimate the program's impact using models that include the random assignment status in predicting participation as well as models that exclude this variable.

¹¹We also employ a nearest-neighbor matching procedure with bias adjustment, developed by Abadie et al. (2004), and assess the sensitivity of our results to the choice of matching estimator.

Families Forward program, for example, responded to this opportunity over a period of 33 months, so that the timing of a key event (their first contact to express their willingness to participate) and the period of their participation (or pseudo-participation for comparison group members) varied considerably across those included in this study.

Our choice of multilevel model specification is informed largely by our contextual knowledge of child support and related programs and our experience in monitoring the implementation of the Families Forward Program. For example, given the new incentives offered by the program to encourage NCPs to pay more support, we expect that there may be a noticeable increase in the amount that they are paying once enrolled. We also anticipate that there might be lags in the timing of NCP responses to these new incentives, particularly if prospective participants hold off on making any or bigger payments (after their first contact to express interest in the program) until they are enrolled and getting extra credit toward their debt for each dollar paid. Finally, we anticipate possible drop-offs in payments over time, as participants exhaust financial reserves or reach the end of program participation (limited to two years). Again, see Appendix 1 for further, more technical details on both the PSM and multilevel modeling methods.

Follow-Up Survey with NCPs

Between March 2007 and April 2008, we conducted a follow-up telephone survey of NCPs to gather in-depth information about those eligible for Families Forward, enrollees' experiences with and attitudes about Families Forward, and potential effects of the program not identifiable in the KIDS data. The sample frame for the survey included NCPs in the experimental group who had enrolled by February 2007 (n=79), NCPs assigned to the experimental group who did not enroll in Families Forward (n=192), and all willing NCPs in the control group (n=123). This resulted in an original sample frame of 394

unique NCPs who were attached to 604 IV-D child support cases.¹² From this original sample frame we excluded NCPs who had addresses listed as prisons or jails or no address listed in the KIDS database, resulting in an eligible sample frame of 327 NCPs: 68 participants, 151 willing but unenrolled experimentals, and 108 willing controls. Of these, 108 eligible NCPs responded to letters of invitation by calling to schedule a telephone survey, and 97 of these completed a survey.¹³ Overall, 30 percent of the 327 NCPs in the eligible sample frame completed a survey, forming the analytic sample.

We used data from KIDS and UI wage data to compare the surveyed NCPs (analytic sample) with the other (nonrespondent) NCPs in the eligible sample frame. T-tests of differences in means showed no systematic differences between the groups in terms of their current support orders, family-owed debt balances, state-owed debt balances, amount of state- or family-owed debt reduction, total child support payments, or wages. There were also no differences between the groups in terms of sex, race, or experimental status (treatment vs. control). Survey respondents are therefore representative of the larger analytic sample on these key variables.

Information about NCPs eligible for Families Forward from the follow-up survey (on characteristics not available in KIDS) confirmed that this is a profoundly disadvantaged group of NCPs. In addition to their high child support debt balances, we observed high rates of limiting health conditions and incarceration; most (84 percent) had been incarcerated in prison or jail since they were first ordered to pay child support, with a majority of these incarcerated at some time for non-payment of child support. They also had low rates of personal assets (car, house, etc.) and savings, as well as other debts and responsibilities beyond their child support obligations.

¹²The survey was designed to reference one specific IV-D child support case per NCP. Yet, 116 of the 394 NCPs had multiple cases. The rules used to select one focal case for each NCP with multiple cases prioritized cases in which a CP had enrolled with the NCP and cases with higher debt balances.

¹³We offered \$25 for completing a survey during the first six months of the invitation process and subsequently increased the compensation to \$35 to increase the incentive to participate in the survey.

EVALUATION FINDINGS AND CONCLUSIONS

Experimental Estimates

The first row in Table 2 presents the results of experimental calculations of Families Forward program impacts; that is, the simple difference in means between the experimental, "intent to treat" group (interested NCPs assigned experimental status, regardless of whether they participated) and the control group. As expected, given that only 32 percent of the experimental NCPs were actually getting debt reduction credits through program participation, there are no statistically significant differences in the changes in outcomes (debt balances, payments, rates of payment) between the experimental and control group NCPs. For example, the first estimated difference shows that the change in state debt balances for experimental NCPs (from the month of enrollment to the final month of participation) was approximately \$353 more (lower) than the change in state debt balances for control group NCPs. That is, the state debt balances of experimental NCPs declined more than those of control group NCPs during the period of participation (or the 24 months after first contact for the control group NCPs), but the difference in the change in outcomes was not statistically significant. Indeed, the standard errors of all of the experimental differences are large, suggesting that we cannot draw conclusions about the direction of these impact estimates.

Propensity Score Matching Estimates

The second set of program impact estimates in Table 2, generated using propensity score matching methods, compares Families Forward participants with the other NCPs who were interested in participating in the program (but did not participate), while adjusting for differences in their individual characteristics. In Appendix 3, we present the results of the after-matching balancing tests, which show that before matching, participating NCPs were significantly less likely to be white and never married, were significantly more likely to be older and to have lower earnings in 2004 and higher pre-program state and family debt balances, but also more likely to have made a payment in the first quarter of 2005.

Table 2
Families Forward Program Impact Estimates from Experimental and Matching Method Analyses

Method and Outcome Measure		Δ in Debt Balance: Month of Enrollment to Program End Month		Δ in Average Monthly Payment	Δ in % Months Made Any Payment	Δ in % Months Made Household Arrears Payment	Δ in % Months Made State Arrears Payment
		State-Owed	Family-Owed	During Participation†	Δ from 2004 Ave	ticipation Average	
Experimental	Mean difference	-\$353.36	\$840.43	-\$14.93	0.012	0.015	0.003
	Std. error	512.44	948.27	24.26	0.030	0.031	0.023
Propensity	Coefficient	-\$2,742.70	-\$2,564.20	\$70.44	0.093	0.083	0.229
score matching	Std. error	643.00	1047.32	29.49	0.036	0.040	0.034

†Difference in average monthly payments made during program participation (or pseudo participation period) and months not participating.

Notes:

Coefficients in bold are statistically significant at α <0.05.

Experimental calculations (N=526) compare 376 experimental NCPs willing to participate with 150 NCPs in the control group and willing to participate. The two NCPs originally assigned to the control group who subsequently became participants are excluded from the experimental calculations.

Propensity score matching estimation (N=530) compares 120 participants with 410 nonparticipants. The two NCPs originally assigned to the control group who subsequently became participants are included as participants in this analysis, along with two other NCPs who were enrolled but were not originally assigned to either the experimental or control group.

After propensity score matching, which adjusts for these differences, there are no statistically significant differences in measurable characteristics between participating NCPs and nonparticipants.

Returning to Table 2, the PSM results clearly show that the estimated (adjusted) differences in changes in outcomes between these two groups are large and statistically significant. Specifically, the state-owed debt balances of participating NCPs declined by more than \$2,700 more than the state-owed debt balances of nonparticipating NCPs from the month of enrollment (or first contact) to their last month of program participation (or approximately 24 months later). Similarly, family-owed debt balances of participating NCPs declined by more than \$2,500 more than those of nonparticipating NCPs (again, between the month of enrollment to their last month of program participation). The PSM models also show that participating NCPs paid on average \$70 per month more during the months of their participation than during the months prior to their enrollment (compared to nonparticipating NCPs). In addition, the frequency (or percent of months that they were paying) increased by 9.3 percent more (than nonparticipants) for any type of payment, by 8.3 percent more for payments toward family arrears, and by almost 23 percent more than nonparticipants for payments toward state-owed debt, compared to their rate of payments in 2004. This latter finding is not unexpected, given that a majority of enrolled NCPs received forgiveness on state-owed arrears only. In addition, reductions (or slower growth) in debt balances were also expected in part because interest charged was stopped during program participation. All of these differences in changes in outcomes between participating and nonparticipating NCPs are statistically significant with 95–99.99 percent confidence.

Multilevel Longitudinal Model Estimates

As indicated above, we also estimated multilevel longitudinal models that better allow us to capture the timing of NCP events—their first contact to express interest in participating and the months prior to their actual enrollment date, the program end date, other seasonal/time-related changes such as increased payments after tax returns, and possible cohort effects given that NCP enrollment took place over 33 months and with different staff involved, etc.— for the four payment outcomes (average monthly

payment made, the probability of making a payment in a given month, and the probability of making a payment toward state-owed debt or family debt). The results of these models are presented in Table 3, with the key parameter of interest highlighted in bold (identifying the program participation period or pseudo-participation period for nonparticipants).

Looking at the statistically significant findings of interest for monthly payments made (column 1, Table 3), the first two variables suggest that in the months before NCPs made contact to enroll in the program, as well as in the months after that first contact, NCP payments were increasing by \$2 and \$1 per month, respectively. To interpret the key estimate of interest in the impact evaluation, the coefficient for participation in Families Forward, the interactions of this variable with the post-contact growth rates and cohort indicators also need to be assessed. The participant growth rate just below the Families Forward participation variable (i.e., the interaction between the post-contact growth rate and the participation indicator) was intended to measure differences in the rate of change in payments by participants (vs. nonparticipants) following their first contact, although this coefficient estimate is not statistically significant. Likewise, the interactions between participation and the first three months post contact and second three months post contact, included to capture possible delays in participant responses to the program incentives as they waited for stipulations to become effective, are not statistically significant. Looking to the interactions with cohort indicators, only one interaction, with cohort 3, is statistically significant (and negative), suggesting that the impact was significantly smaller for participants who began the program in the first or second quarters of 2006. Specifically, for NCPs in the first, second, fourth and fifth cohorts, the Families Forward participation coefficient estimate suggests that across the months NCPs were participating in the program, on average, they paid \$105 more per month toward their current support or debt than NCPs who were not participating in Families Forward. 14 All NCPs in the third cohort paid approximately \$53 more per month toward their current support or debt than NCPs in other

¹⁴Any extra credit toward debt received by participating NCPs (the program incentive) was *not* included in this payment measure.

Table 3
Multilevel Longitudinal Estimates of Families Forward Program Impacts

Outcome Measure	1. Monthly Payment Amount		2. Made <i>Any</i> Payment		3. Made Payment On State-Owed Arrears		4. Made Payment On Family-Owed Arrears	
Predictor	Coef	Std Error	Coef	Std Error	Coef	Std Error	Coef	Std Error
Intercept	-220.37	47.7432*	-0.157	0.0676*	-0.1574	0.03435*	-0.090	0.053
Growth rate before first <i>contact</i> to initiate								
program enrollment	2.18	0.85*	0.0037	0.0007*	0.003	0.001*	0.007	0.001*
Post-contact growth rate	1.26	0.41*	0.001	0.000*	0.000	0.000*	0.002	0.000*
First 3 months post-contact indicator	8.72	25.69	0.015	0.009	-0.005	0.007	0.006	0.012
Second 3 months post-contact indicator	-18.82	25.84	-0.001	0.010	-0.012	0.007	0.012	0.012
March–May 05	47.71	22.11*	0.012	0.008	0.014	0.006*	0.014	0.010
March-May 06	37.12	22.59	0.011	0.008	0.005	0.006	0.014	0.010
March–May 07	61.93	21.86*	0.014	0.008	0.000	0.006	0.005	0.010
March-May 08	46.64	21.80*	0.005	0.008	0.002	0.006	0.004	0.010
March–May 09	72.62	22.55*	0.018	0.008*	0.014	0.006*	-0.010	0.010
Participating in Families Forward	104.56	40.58*	0.035	0.023	0.130	0.017*	0.109	0.028*
Participant post-contact growth rate	-2.31	1.30	0.000	0.001	-0.002	0.001*	-0.002	0.001*
Participant first 3 months post contact	-96.20	59.28	-0.020	0.024	-0.052	0.018*	-0.034	0.029
Participant second 3 months post	4.71	57.60	0.023	0.021	-0.002	0.016	0.000	0.027
White	70.70	15.64*	-0.017	0.023	-0.020	0.011	0.065	0.017*
Non-white	45.33	20.79*	-0.022	0.030	-0.021	0.015	0.008	0.023
Male	36.31	30.08	0.030	0.043	0.048	0.022*	0.015	0.033
Age in years	4.13	0.85*	0.010	0.001*	0.004	0.001*	0.005	0.001*
Never married	-23.56	20.75	-0.041	0.030	-0.013	0.015	-0.041	0.023
Log of 2004 earnings	2.53	1.12*	-0.005	0.002*	0.001	0.001	0.000	0.001
Number of children	17.71	3.27*	0.011	0.005*	0.007	0.002*	-0.006	0.004
Monthly earnings	9.64	1.00*	0.007	0.000*	0.003	0.000*	0.010	0.001*
Current support order	266.16	10.75*	0.843	0.004*	0.049	0.003*	0.252	0.005*
Cohort 2-first contact July–Dec 05	21.34	19.62	0.022	0.026	0.015	0.014	0.022	0.021
Cohort 3-first contact Jan–July 06	52.86	20.30*	0.013	0.027	0.013	0.014	0.030	0.022
Cohort 4-first contact July–Dec 06	68.77	22.95*	0.061	0.032	0.033	0.016*	0.075	0.025*
Cohort 5-first contact in 07	67.14	34.58	-0.006	0.062	0.108	0.027*	0.136	0.044*
Cohort 2 participants	-42.62	44.69	-0.036	0.026	-0.040	0.020*	-0.013	0.031
Cohort 3 participants	-94.73	45.71*	0.043	0.030	0.041	0.022	0.037	0.035
Cohort 4 participants	-79.67	59.57	-0.026	0.041	0.026	0.031	-0.134	0.048*
Cohort 5 participants	-75.57	107.23	-0.085	0.073	0.108	0.053*	0.114	0.084

Notes: key parameter of interest is highlighted in bold. * indicates coefficient is statistically significant at α <0.05. Italicized variables are interactions between a participant indicator and other covariate in the model. N=530, as defined in Table 2 notes.

cohorts, but the NCPs who were participating in Families Forward paid just \$10 per month more than nonparticipants in the third cohort, (i.e., \$104.56 + \$52.86 - \$94.73=\$62.29), so the differential impact is smaller. The results in column 1 also show that NCPs paid more per month during the months in which tax returns arrive each year, and those with a current support order, with more children and higher monthly earnings (and higher annual earnings in 2004) also paid significantly more each month.

The model results in the other three columns in Table 3 show the probability that an NCP made a payment in a given month (any payment or specifically toward state- or family-owed debt). It is important to note that before any payments are applied to arrears, the money paid by an NCP first goes toward current support; that is, current support has to be paid in full before any part of the payment is applied to arrears (if the NCP has a current support order). The results in column 2 suggest that the probability any NCP made a payment after first contact to enroll (the post-contact growth rate) was increasing by just 0.01 percent; the coefficient for the probability of making any payment during program participation suggests an increase of 3.5 percent for participants, although it is not statistically significant. Alternatively, the coefficients showing the probability of making payments toward state-owed arrears and family-owed arrears for Families Forward participants suggest large, statistically significant responses to program incentives. For all NCPs, there was no change (0 percent growth rate) in the probability of making a payment toward state arrears after their first contact to enroll, but the probability that Families Forward participants made payments toward their state-owed arrears in a given month was 13 percent higher during participation. Likewise, for all NCPs, the probability of making payments toward familyowed debt was increasing by just 0.02 percent in the months following their first contact to enroll, whereas the probability that Families Forward participants made payments toward their family-owed debt

¹⁵The first two quarters of 2006 encompassed the period of program implementation with the most extensive administrative problems. As discussed earlier, the direct line at the county child support agency for enrolling in the program was unexpectedly discontinued, and one of the agency staff persons who was new to the program was turning away eligible NCPs with a poor payment history, contrary to the rules and intent of the program. Given that these problems were subsequently corrected, and it is not surprising that the third cohort of participating NCPs may have been different or have had a different experience in the program than the others.

was 11 percent higher on average (than for nonparticipants). The larger estimated effects for payments toward arrears suggest that the program impact is probably driven less by differences in rates of payments toward monthly current support owed, and more so by the increase in participating NCPs who were paying above and beyond their current support order (relative to nonparticipants). These findings affirm those of the PSM models that showed significantly higher *frequencies* of paying debt (especially stateowed debt) among Families Forward participants.

In summary, the comparisons of NCPs participating in Families Forward to non-participants (using propensity score matching and multilevel longitudinal methods) showed important effects of the program: program participants made larger payments toward current child support and debt balances, were more likely to pay and to pay more frequently, and reduced their state- and family-owed debt balances.

Additional Findings from Follow-Up Surveys and Focus Groups

One concern (given the experimental results) is that these findings, based on models that statistically adjusted for the selective nature of program take-up, may overstate the potential to increase child support payments and reduce arrears across the *population of NCPs with poor payment histories*. The follow-up survey results suggested that Families Forward was a program capable of generating high levels of interest among the target population; many of the experimental NCPs were very enthusiastic about Families Forward, and the vast majority of NCPs (82.5 percent) said that they were immediately willing to sign up for the program upon learning about it. However, for a variety of reasons discussed earlier in this report, actual take-up of the program was considerably lower. In fact, low take-up is a problem common to many important social program interventions. An MDRC survey (Wallace, 2002) reported that relatively small percentages of eligible, low-income families avail themselves to work supports such as education and training (23 percent) and food stamps (43 percent), and studies of housing programs have shown that take-up rates never rise above 25 percent, and take-up rates are lowest among the poorest eligible households (Currie, 2006).

As the State of Wisconsin plans for an expansion of the program (the Payment Incentive Program), it is considering modifications to the program eligibility criteria, outreach and implementation that will likely change who enrolls but also make it easier for interested NCPs to enroll. It is important to keep in mind, therefore, that if participation increases and the characteristics of who enrolls changes, the results of an expanded program may be different than the pilot program, particularly given the geographic expansion as well.

Custodial parent participation rates in Families Forward were generally disappointing (only 34 CPs signed stipulation agreements to participate). In focus groups, some CPs indicated that they experienced the same challenges as NCPs in attempting to reach Racine County Child Support to find out more about the program and to enroll. Others did not have current contact information for the NCP. For example, one CP explained that she wrote a letter to encourage the father to participate, but she didn't know if it reached him: "But I wrote a letter to ex-, which is the kids' dad, and I said, you know, this is a very nice program; this would help you get out from debt, and a little mothering letter, and I haven't seen him for like, 16 years." Another CP described her reaction to the letter inviting her to participate as follows:

"I got that letter, too. And I read it and re-read it for purpose. I need to know what is the purpose? Why? You know, why do they wanna help? I mean, are they really trying to help, or you know? But then I read it and, you know, started lookin' at it outside of myself. And I said, well you know, I am getting something now, but there are times when I wasn't. So if this is gonna help him—you have be to mature in order to look at it and say, you know, if this is gonna help him to continue to work, and not look at this big lump sum that it doesn't seem like it's going anywhere, then why not? Somethin' is better than nothin'. You know, so if this is gonna encourage him to do the best he can, and it looks like, you know, he's gonna work on a regular basis and stay employed. Hey. It's happened, you know. And it's not like he, if he doesn't pay right away, you know, it's like a three month period, you know. If they don't pay in that three months; say he loses his job, or whatever, they give them leeway. So I saw it as the State was interested in families. That they were trying to do something to help. ... I'd say that I think it's potentially a great program. I stopped looking at myself and my relationship with the children's father, and just said, well, at least we're getting some child support, and it helps him to maintain a steady income so that the children will benefit and receive child support payments. When in the past they didn't receive them."

In addition, there were some CPs in the focus groups who made it clear that they did not want to do anything that would help the NCP. As one CP expressed this view: "I don't care about their debt. My kids' dad don't do nothing for 'em. You know, don't come to none of their athletic activities. It's my mother and father that run my kids everywhere. Why should I give him a break? I want everything I'm owed."

Allowing reductions of both state- and family-owed debt was a relatively unique feature of the Families Forward pilot program, and we suggest that even though relatively few of the participants received debt reduction on family-owed debt, this is a promising feature that can be improved upon in a statewide expansion. Focus groups with CPs conducted in the early stages of the program suggested two means of increasing CP participation. First, outreach should clearly state what the CP might reasonably hope to gain from participating (i.e., increased current support payments), and the State could take up the offer from CPs who have benefited from the program to provide testimonials. Second, there needs to be a way to facilitate contact with CPs through a third party (such as child support agencies). We learned that NCPs and CPs often did not have updated contact information for the other parent, and others indicated that they had a hard time explaining the details of the program to the other parent (or were concerned about heightening conflict). If CP participation can be increased, the incentives for NCPs to make payments will likewise increase (as they receive additional credit for payments toward family obligations) and more NCPs (with family-owed debt) will enroll in the program.

Finally, even if our expectation that aggregate participation levels could be increased and that new participants would respond like the participants in the Families Forward pilot program would not fully pan out, the low take-up rates of many other social program interventions suggest that this alone is not a reason to discard the program, particularly in this case, when it appears to be generating positive responses from those most in need of its benefits. The evaluation findings offer not only promising indications of potential impacts in reducing debt balances and increasing NCP payments, but also some guidance for achieving greater take-up among eligible NCPs in the future through improvements in the enrollment process and outreach to CPs. Additionally, Racine County represented a particularly

challenging test case for this pilot debt reduction program. We are confident that the non-experimental estimates of program impacts in this study are valid for informing ongoing policy efforts to reduce the persistent, high levels of child support debt in Wisconsin and elsewhere in the United States.

Appendix 1: Additional Details on Statistical Methods

PROPENSITY SCORE MATCHING

In applying matching methods, we invoke the conditional independence assumption, which implies that after controlling for observable characteristics (*X*), a person's actual treatment status is not related to what his or her outcome would have been in the absence of treatment.

$$Y_0 \perp \!\!\! \perp D' \mid X$$

The validity of this assumption depends largely on the set of variables (*X*) available for the estimation and how the comparison group is chosen. We expect that there may be some unmeasured factors that influence Families Forward program *participation*; what is important is that participation not be predictive of the outcome that would have occurred without the program. That is, conditional on measured characteristics, there should be no unmeasured factors that affect *both* participation and relevant nonparticipant outcomes. If this assumption is valid, the effect of the program on participants conditional on *X* can be written as:

$$E(Y_1 - Y_0 | D'=1, X) = E(Y_1 | D'=1, X)$$
 - $E(Y_0 | D'=0, X)$.

All regression and matching adjustment methods make this same assumption, although they differ in the methods used to estimate $E(Y_1|D'=1,X)$ and $E(Y_0|D'=0,X)$.

The common application of matching we use, propensity score matching (PSM), is a two-step process in which we first estimate the probability of participation based on the conditioning variables. By generating predicted probabilities of participation (i.e., propensity scores), we reduce the matching process to a one-dimensional problem of comparing treated and untreated NCPs with similar propensity scores (rather than requiring matches on all of the X variables). In the combined sample of participants and comparison group members, let P(X) be the probability that an individual with characteristics X is a participant. If participants and comparison group members have the same P(X), the distribution of X across these groups will be the same (Rosenbaum and Rubin, 1983):

$$Y_0 \perp \!\!\!\!\perp D \mid X \Longrightarrow Y_0 \perp \!\!\!\!\perp D \mid P(X),$$

and individual cases can be compared on the basis of their propensity scores alone. We estimate:

$$E(\Delta | D'=1) = E_{X|D'=1} (E(Y_1 | P(X), D'=1) - E(Y_0 | P(X), D'=0)),$$

where $E_{X|D=1}$ is the expectation across all values of X for participants. A probit or logit function is used in estimating the first-stage model that produces the propensity scores P(X).

In estimating the PSM models, we include all eligible NCPs who expressed an interest in participating in Families Forward, whether assigned to treatment or control status. We know from the descriptive statistics that there were no statistically significant differences between NCPs who were assigned experimental status and wanted to enroll and those who were assigned control status and wanted to enroll; however, those who were assigned experimental status and did participate are significantly different than NCPs who wanted to enroll but did not. Thus, we adjust for differences between participants and nonparticipants in estimating the program impact. In addition, given that only one-third of eligible NCPs with experimental status participated, we are able to use a model specification that includes random assignment to treatment as an exogenous predictor variable. (As expected, random assignment to the experimental group is the most influential predictor of participation in Families Forward). However, as there is still debate in the literature as to whether or not matching on covariates that satisfy instrumental variables assumptions improves or biases impact estimation (Heckman and Navarro-Lozano, 2004; Wooldrige, 2009), we also estimated PSM models without using random assignment status as a control variable. We achieved balanced covariates and comparable results with both approaches (see the aftermatching balancing test results in Appendix 2 below.)

In addition, as indicated in the text, we employ "difference-in-differences" matching to allow for time-invariant, unobserved differences between participants and nonparticipants to be present without biasing estimates of program impacts. One of the matching techniques we apply, radius matching, specifies a "caliper" or maximum propensity score distance by which a match can be made. As an alternative specification, we also used a nearest-neighbor matching procedure with bias adjustment, which was recently developed in response to concerns that even after removing the conditional bias, matching estimators with a fixed number of matches may not reach the semiparametric efficiency bound for average treatment effects. For nearly every outcome, the differences in the results from alternative specifications were negligible. For the change in family-owed debt balances, the difference in estimates was larger (more than 10 percent of the estimated impact), and thus, we report the more conservative estimate (from radius matching without experimental status as a control variable).

MULTILEVEL LONGITUDINAL MODELS

In the multilevel models we estimate, Y_{ti} is the response at measurement occasion t (t=1,..., T_i) for individual i (i=1,...,n). At level one, we use time trend and indicator variables to model outcomes using a piecewise linear function to account for the effects of time in months (nested within individual participants or comparison group members). We model the average slope in pre- and post-program (first contact) periods (π_{1i} and π_{2i}) with time trend variables, and we use several indicator variables to capture shifts (increments or decrements) in outcomes (π_{3i} and π_{4i}) at specific times after the first contact and the three-month periods (March–May) each year when tax returns are typically received (π_{5i} to π_{9i}):

$$Y_{ti} = \pi_{0i} + \pi_{1i} Time_pre_{ti} + \pi_{2i} Time_post_{ti} + \pi_{3i} 1st3mos_post_{ti} + \pi_{4i} 2nd3mos_post_{ti} + \pi_{5i} taxtime05_{ti} + \pi_{6i} taxtime06_{ti} + \pi_{7i} taxtime07_{ti} + \pi_{8i} taxtime08_{ti} + \pi_{9i} taxtime09_{ti} + r_{ti}.$$

Note that the tax time indicators will be the same calendar time periods for all individuals in the sample, while calendar time of the other indicators will differ across individuals according to the timing of their first contact to express an interest in Families Forward.

In level two of the model, the intercept (π_{0i} , where time=0, i.e., initial status) from the level one model is specified as random and a function of individual characteristics (demographic, number of children,

monthly earnings, whether a current support order is in effect, and their cohort as defined by timing of first contact) and treatment status (d=1 for participants):

$$\pi_{0i} = \beta_{00} + \beta_{01}d_i + \beta_{02}X_{i(1)} + ... + \beta_{0n}X_{i(n)} + u_{0i.}$$

The time trend (growth rate) variables and indicators for capturing post-contact shifts (π_{1i} to π_{4i}) are also specified as random and a function of treatment status, for example:

$$\pi_{1i} = \beta_{10} + \beta_{11}d_i + u_{1i},$$

and correspondingly for π_{2i} to π_{4i} , where the left subscript on the β coefficients indicates the level-one parameter, and the right subscript denotes the level-two parameter. The random effects equations (π_{1i} to π_{4i}) model the effects of the program on the outcome trajectories of participants (relative to those who were eligible and expressed an interest in the program but did not participate); π_{5i} to π_{9i} are modeled as fixed effects.

These level one and level two models are estimated simultaneously, with an autoregressive error structure (within-person error covariance) of lag one, AR(1). The choice of error structure imposed on the model residuals should correspond to the data, accounting for autocorrelation and heteroskedasticity as necessary. We tested a standard (variance components) specification, as well as six other error covariance structures that other researchers (Singer and Willett, 2003) have found most useful (unstructured, compound symmetric, heterogeneous compound symmetric, autoregressive, heterogeneous autoregressive and Toeplitz). Comparing goodness-of-fit statistics across models, we concluded that the AR(1) structure was the best fit.

Appendix 2:

Families Forward Program Evaluation Data Sources and Dissemination of Findings

Data Sources

Focus groups

3 focus groups in June 2004 to inform program design

- CPs (5 participants)
- NCPs (6 participants)
- Mixed group (13 participants)

3 focus groups on 8/9/05 to understand implementation issues, particularly low take-up

- Nonparticipant CPs (3 participants)
- CP and NCP nonparticipants (9 participants)
- CP and NCP participants (6 participants)

3 focus groups on 5/25/06 to understand implementation issues and perceived program impacts

- FF participants (9 participants)
- Willing and unwilling CPs (11 participants)
- Interested but not enrolled NCPs (7 participants)

Data extracts for impact analysis

- 1. Financial data (*finanlz7*) October 24, 2007 Supplemental data (*supplq7*) – December 12, 2007
- 2. Financial data for survey participants (*finanlz_ffsvy8*) Financial data (*finanlz8*) August 4, 2008

Supplemental data (supplq8) – August 7, 2008

Event history data (evthist8) – October 3, 2008

3. Supplemental data (supplq9) – November 13, 2008

Financial data (*finanlz9*) – November 18, 2008

Event history data (evthist9) – November 19, 2009

Financial data redo (finanlz9 redo) – March 16, 2009

4. Final financial data (*finanlzf*) – August 3, 2010

Supplemental data (*supplf*) – August 3, 2010

Event history data (evthistf) – August 3, 2010

Follow-up Survey with NCPs

97 NCPs (out of 333) completed FF follow-up survey between March 2007 and April 2008

Meetings/Conference calls with Racine and/or BCS

- November 4, 2004 meeting with BCS
- January 3, 2005 project overview and training for Racine staff by IRP/BCS
- October 18, 2005 conference call with Racine and BCS
- January 6, 2006 conference call with Racine and BCS
- March 3, 2006 conference call with Racine and BCS
- May 25, 2006 meeting with Racine
- June 2, 2006 meeting with BCS

Dissemination of Evaluation Findings

Reports

- July 2004 Findings of a Focus Group Study to Inform the Design of a Child Support Arrears Forgiveness Pilot Program in Wisconsin. Authors: Maria Cancian, Carolyn Heinrich, David Pate, and Ingrid Rothe; with assistance from Alan Paberz and Hilary Shager.
- December 2005 Families Forward: Child Support Arrears Forgiveness Program and Evaluation. Authors: Carolyn Heinrich, Hilary Shager, Ingrid Rothe, and Maria Cancian.
- July 2006 Families Forward (Child Support Debt Reduction) Program: Issues for Discussion and Recommendations Following the First Year of Program Operations. Authors: Carolyn Heinrich, Brett Burkhardt, and Hilary Shager.
- December 2006 Families Forward: Child Support Arrears Forgiveness Program and Evaluation Report. Authors: Maria Cancian, Carolyn Heinrich, Ingrid Rothe, Hilary Shager, and Brett Burkhardt.
- January 2008 *The Families Forward Program: Preliminary Evaluation Findings and Recommendations*. Authors: Carolyn Heinrich, Brett Burkhardt, and Hilary Shager.
- December 2008 *The Families Forward Program: Interim Evaluation Findings and Recommendations*. Authors: Carolyn Heinrich, Brett Burkhardt, and Hilary Shager.
- March 2010 (paper submitted for publication, currently in process of final revisions) *Reducing Child Support Debt and Its Consequences: Can Forgiveness Benefit All?* Authors: Carolyn Heinrich, Brett Burkhardt, and Hilary Shager.
- January 2011 *The Families Forward Program Final Evaluation Report.* Authors: Carolyn Heinrich, Brett Burkhardt, Hilary Shager, and Lara Rosen.

Appendix 3: After-matching Balancing Test Results

(For models including experimental status as a control variable)

		Mean			%	t-test	
NCP Characteristics	Sample	Treated	Control	%Bias	Reduction in bias	t	p> t
Number of	Unmatched	3.4454	3.1206	15.2		1.51	0.133
Children	Matched	3.4454	3.3132	6.2	59.3	0.49	0.626
White	Unmatched	.27731	.38515	-23.0		-2.17	0.030
	Matched	.27731	.28232	-1.1	95.4	-0.09	0.932
Age	Unmatched	40.58	37.179	43.1		4.02	0.000
	Matched	40.58	40.476	1.3	97.0	0.11	0.913
Age Squared	Unmatched	1700.9	1452.3	39.3		3.77	0.000
	Matched	1700.9	1689.6	1.8	95.5	0.14	0.885
Never Married	Unmatched	.07563	.14617	-22.6		-2.02	0.044
	Matched	.07563	.07511	0.2	99.3	0.02	0.988
Female	Unmatched	.02521	.06032	-17.4		-1.52	0.130
	Matched	.02521	.02805	-1.4	91.9	-0.14	0.892
Log of 2004	Unmatched	1.8846	3.2851	-21.5		-2.10	0.036
Earnings	Matched	1.8846	2.8531	-14.9	30.9	-1.13	0.258
Family Debt	Unmatched	27418	21898	23.4		2.34	0.020
Balance 1/05	Matched	27418	26663	3.2	86.3	0.24	0.811
State Debt Balance 1/05	Unmatched	17001	8148.2	51.7		5.14	0.000
	Matched	17001	14515	14.5	71.9	1.00	0.320
Months Made Payment 2004	Unmatched	6.6134	6.1067	12.6		1.22	0.223
	Matched	6.6134	6.2635	8.7	30.9	0.67	0.506
Paid Any 1st Quarter 2005	Unmatched	.83193	.6891	33.9		3.09	0.002
	Matched	.83193	.82216	2.3	93.2	0.20	0.843
Experimental	Unmatched	.96639	.59397	100.5		8.11	0.000
Case	Matched	.96639	.9489	4.7	95.3	0.67	0.505

After-matching balancing test results for models without experimental status as a control variable

		Mean			%reduct	t-test	
Variable	Sample	Treated	Control	%bias	bias	t	p> t
Number of	Unmatched	3.475	3.0683	19.0		1.88	0.061
children	Matched	3.475	3.3742	4.7	75.2	0.35	0.729
White	Unmatched	.275	.39512	25.6		2.41	-0.016
	Matched	.275	.2887	-2.9	88.6	-0.23	0.814
Age	Unmatched	40.542	37.351	40.2		3.73	0.000
	Matched	40.542	40.381	2.0	95.0	0.17	0.868
Age squared	Unmatched	1697.5	1466.7	36.3		3.46	0.001
	Matched	1697.5	1687.5	1.6	95.6	0.13	0.900
Never	Unmatched	.075	.14146	-21.5		-1.93	0.054
Married	Matched	.075	.08119	-2.0	90.7	-0.18	0.859
Female	Unmatched	.025	.06098	-17.8		-1.55	0.122
	Matched	.025	.03052	-2.7	84.6	-0.26	0.796
Log of 2004	Unmatched	1.8305	3.0315	-18.4		-1.79	0.074
earnings	Matched	1.8305	2.3812	-8.4	54.1	-0.65	0.518
Family debt	Unmatched	27538	22298	22.2		2.21	0.027
balance 1/05	Matched	27538	27092	1.9	91.5	0.14	0.888
State debt	Unmatched	16907	8758.5	46.4		4.52	0.000
balance 1/05	Matched	16907	14645	12.9	72.2	0.90	0.370
Months made payment 2004	Unmatched	6.6583	6.0463	15.2		1.48	0.140
	Matched	6.6583	6.5996	1.5	90.4	0.11	0.911
Paid any 1st	Unmatched	.83333	.68049	36.1		3.29	0.001
quarter 2005	Matched	.83333	.81262	4.9	86.4	0.42	0.676

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