

**The Long-Term Effects of the
Minnesota Family Investment Program
on Marriage and Divorce
Among Two-Parent Families**

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Executive Summary

In 1994, Minnesota began to test a major welfare reform initiative that emphasized financial incentives for work, a participation requirement for long-term recipients, and the simplification of rules and procedures for receiving public assistance. This program, called the Minnesota Family Investment Program (MFIP), was initially implemented in seven counties. MDRC conducted an in-depth evaluation of MFIP's effectiveness and impact on various populations served, using a random assignment design that placed over 14,000 families in either the MFIP or the Aid to Families with Dependent Children (AFDC) system. The evaluation has produced findings on participants' employment, earnings, welfare receipt, income, and other measures of children's and parents' outcomes over a three-year follow-up period for single- and two-parent families.¹ One of the striking findings of this evaluation was that a survey sample of two-parent recipient families assigned to MFIP was 19.1 percentage points, or 40 percent, more likely to be married at the three-year follow-up point than two-parent recipient families assigned to AFDC. The three-year follow-up evaluation left open a number of important questions: Did these increases in marital stability represent short-term delays in separation and divorce, or did they point to lasting effects? What were the effects on marital stability and divorce among subgroups of two-parent families, especially among those who were cohabiting versus those who were married at study entry? The specific implications of these findings for families and children depend on the answers to these questions.

Under subcontract to The Lewin Group, MDRC received funding from the Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services, to examine the effects on divorce and marriage outcomes over a seven-year follow-up period for the full sample of two-parent families who were part of the MFIP pilot study. Data for the analyses come from publicly available divorce and marriage certificate records.

¹Miller et al., 2000.

Key Findings

Two-parent recipient families are defined as families who were receiving or reapplying for welfare, and were either married, or living together with a shared biological child, when they entered the MFIP study. Among two-parent recipient families:

- **MFIP decreased divorce by 3.5 percentage points, or by about 25 percent, seven years after study entry. Effects on divorce primarily occurred late in the follow-up period, even after June 1998, when the MFIP pilot study ended and a statewide MFIP program was implemented.**
- **For two-parent recipients who were married at study entry, MFIP increased marital stability by decreasing divorce.**
- **Among cohabiting couples — coupled parents who shared a biological child at study entry — the cumulative rate of ever marrying during the seven-year follow-up period was similar for the MFIP and AFDC (control) groups.**
- **However, MFIP cohabiting couples were 66 percent less likely than AFDC cohabiting couples to get divorced during the follow-up period. Thus, the proportion of cohabiting couples that were married at the end of the follow-up was higher among MFIP families than among AFDC families.**
- **MFIP's effects on marital stability were most pronounced among black recipient families, reducing rates of divorce among black married couples by over 70 percent. Effects on marital stability did not vary by family size, prior marital status, prior employment history, or prior welfare history of the family.**

Two-parent applicants are defined as two-parent families who were newly applying for welfare at the time they entered the MFIP study. Among two-parent applicant families:

- **Within the AFDC (control) group, two-parent applicant families were more likely to divorce, and less likely to marry, than two-parent recipient families. Over the seven-year follow-up period, rates of divorce across two-parent applicant families in the control group, at about 19 percent, were five percentage points higher than rates of divorce among recipient families. Among cohabiters, rates of marriage for applicant**

couples in the control group, at 17 percent, were four percentage points lower than rates of marriage among recipient couples.

- **MFIP had no cumulative effect on divorce among two-parent applicant families, but did somewhat increase divorce late in the follow-up period.**

In the original MFIP evaluation, the effects of the program on marital stability were measured for 290 two-parent recipient families who were respondents to a 36-month follow-up survey. The new analysis presented here has expanded on these findings by providing long-term follow-up for the full sample of 1,515 two-parent recipient families and 731 two-parent applicant families who participated in the evaluation. Overall, the results indicate that the pilot MFIP program that began in 1994 continued to have effects on rates of divorce for two-parent families seven years after they entered the study. Reductions in divorce were concentrated among families who were already receiving welfare when they entered the study rather than new welfare applicants. Impacts were most pronounced for black parents who were already married at the time they entered the study, and for parents who were cohabiting when they entered the study.

Note that because this new analysis relies solely on public records of marriages and finalized divorces, it does not capture any effects that the program may have had on couples' likelihood of separating or living apart without formally divorcing. Nevertheless, these findings represent some of the best evidence to date about the potential for welfare policies to affect marital stability among two-parent families.

The results raise several important questions for future work. First, because most welfare reform evaluations in the 1990s did not collect information on two-parent families, there is little impact information available for two-parent families, making it important to replicate this type of evaluation in some additional geographic areas to determine whether these findings are generalizable beyond Minnesota. Second, to further understand the results presented here, future work will examine how MFIP affected the timing of marriages or divorces, particularly for cohabiting parents. In addition, the suggestion of some increase in divorce in some years, among applicant families, is worthy of further investigation.

Finally, the effects on divorce among MFIP's two-parent recipient families suggest that the program could have had important effects on the well-being of children in these families. With funding from various foundations, via administrative records (including child welfare records), MDRC is continuing to conduct long-term analyses on the effects of the pilot MFIP program on economic, family, and child outcomes among single-parent and two-parent families, with the expectation that additional findings will be available in 2004.

Introduction

In 1994, Minnesota began a major welfare reform initiative that emphasized financial incentives for work, a participation requirement for long-term recipients, and the simplification of rules and procedures for receiving public assistance. This program, called the Minnesota Family Investment Program (MFIP), was initially implemented in seven counties. MDRC conducted an in-depth evaluation of MFIP's effectiveness and impact on various populations served, using a random assignment design that placed over 14,000 families in either the MFIP or the Aid to Families with Dependent Children (AFDC) system. The evaluation has produced findings on participants' employment, earnings, welfare receipt, income, and other measures of children's and parents' outcomes over a three-year follow-up period for single- and two-parent recipient families.² One of the striking findings of this evaluation was that a survey sample of two-parent recipient families in MFIP was 19.1 percentage points, or 40 percent, more likely than two-parent recipient families in AFDC to be married at the three-year follow-up point.

Under subcontract to The Lewin Group, MDRC received funding from the Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services, to examine the effects on marriage and divorce outcomes over a seven-year follow-up period — using data from publicly available divorce and marriage certificate records — for the full sample of two-parent families who were part of the MFIP pilot program. These two-parent families included those who were married at study entry as well as those who cohabited and shared a biological child.

The MFIP Model and Evaluation

MFIP integrated several existing programs in the Minnesota welfare system.³ These included not only AFDC (the core of the traditional system), but also STRIDE, the state's employment and training program for AFDC recipients (which operated on a voluntary basis for certain targeted groups); the Family General Assistance (FGA) program, a state-run program which allowed some low-income families not eligible for AFDC to qualify for welfare; and the federally funded Food Stamp Program, which provided assistance in the form of food coupons. MFIP differed from the AFDC system in three fundamental ways: (1) it decreased the extent to which families' welfare grants were reduced when they went to work, thereby making work pay more effectively; (2) it required two-parent families who had received assistance for six months in a year to participate in employment and training activities in order to continue receiving their

²Miller et al., 2000.

³Miller et al., 2000.

full grants (though, because the job search/Community Work Experience Program was mandatory, the introduction of MFIP employment and training requirements was not a dramatic change for two-parent families); and (3) it simplified program rules by combining the benefits of AFDC, FGA, and the Food Stamp Program into a single program, giving food stamp benefits as part of the cash grant, and removing any work history requirements or work effort limitations that existed under the AFDC-Unemployed Parent (AFDC-UP) program.

For purposes of the evaluation, two-parent families were defined as those in which married or cohabiting parents (either biological parents or stepparents of at least one child in the family) were living in the home at the time of random assignment. These two-parent families were randomly assigned into either the MFIP group or the AFDC group at the time of recertification or application for receipt of welfare benefits. In each case, the second parent was defined by the Social Security number provided by the first parent when baseline forms were submitted at the time of recertification or application for receipt of welfare benefits.

All two-parent families assigned to the MFIP group received MFIP benefits, which, in addition to providing financial incentives similar to those for single-parent families, removed significant restrictions on eligibility in the AFDC-UP program, including the work history requirement and the 100-hour rule.⁴ When these families had received public assistance for 6 of the previous 12 months, at least one parent was required to participate in MFIP's employment and training services. Two-parent families in the AFDC group were eligible for the benefits and services of the AFDC system (primarily AFDC-UP)⁵ and the Food Stamp Program as described above.

Appendix Table 1 provides basic demographic information about the two-parent families who were members of the study sample. The majority of two-parent families in the MFIP pilot resided in urban counties in and around Minneapolis. Two-thirds of recipient families had received welfare for two years or more at the time they entered the study — a longer history on welfare than was true of the national caseload in 1995, of which less than 40 percent of two-

⁴In most two-parent families, both biological parents were present, and the family was evaluated for eligibility for AFDC-UP. To be eligible for AFDC-UP, the family had to document that the primary wage earner had worked in at least 6 of the previous 13 calendar quarters (the "work history" requirement) and had been unemployed for at least 30 days prior to approval for benefits. In addition to these restrictions, the two-parent family had to be financially eligible for benefits; if the primary wage earner worked while receiving AFDC-UP benefits, he or she was limited to working no more than 100 hours per month (the 100-hour rule).

⁵Families were also eligible for the AFDC-Incapacitated Program (AFDC-INCAP), if one parent was incapacitated. A small proportion of two-parent families in the AFDC group received cash assistance from the FGA program instead of from AFDC.

parent families had been continuously on welfare for two years or more.⁶ Characteristics of recipients also differed from those of applicants in the MFIP sample. For example, nearly 80 percent of the two-parent applicant families are white, compared with 60 percent of two-parent recipient families, and close to 80 percent of applicants were married at study entry, versus 69 percent of two-parent recipient families.

Brief Review of the Final Report's Key Findings at the 36-Month Follow-Up Point

The final report of the MFIP evaluation presents and summarizes MFIP's effects at the 36-month follow-up point on employment, income, marriage, and other family outcomes, for two-parent recipient and applicant families.⁷ All noted effects are estimated by comparing regression-adjusted outcomes between families who were randomly assigned, in a lottery-like process, to either the MFIP group or the AFDC group.⁸

In brief, the key findings from the 36-month follow-up were:

- Two-parent recipient families in MFIP were as likely as those in the AFDC group to have at least one parent work, but less likely to have both parents work, leading to lower combined earnings.
- MFIP two-parent recipient families were 40 percent more likely to be married and living together than their counterparts in the AFDC group.
- Compared with AFDC recipient families, MFIP two-parent recipient families had higher incomes, and twice as many of them owned a home at the end of the study's third year.

⁶Note, however, that the length of stay on welfare for recipients in the research sample is partly an artifact of the way random assignment was conducted. Because random assignment of recipients took place at annual recertification interviews, most recipients, by definition, should have been on welfare for at least one year at baseline.

⁷Miller et al., 2000; Knox et al., 2000.

⁸All effects or impacts were estimated using ordinary least squares techniques and regression-adjusted, for precision, with the following baseline and pre-random assignment covariates: county of residence, recipient status, marital status, number of children, receipt of high school degree or General Educational Development (GED) certificate, race/ethnicity, age, quarter of random assignment, current employment of primary parent, prior welfare receipt, and prior employment of each parent. Prior work suggests that impacts on marriage outcomes estimated using other nonlinear techniques, such as probit or logit techniques, are similar (e.g., see Harknett and Gennetian, in press). Effects were tested for statistical significance using a two-tailed t-test. Unless otherwise noted, only statistically significant effects are discussed.

- Two-parent applicant families in MFIP were as likely to have at least one parent work, but less likely to have both parents work, leading to lower combined earnings.⁹

The effects of MFIP on marriage from the 36-month follow-up were estimated for a survey sample of 290 two-parent recipient families and were based on the survey measure “In the prior month, were you married and living with a spouse?” In addition, effects on marriage were confirmed via manually collected, publicly available divorce records data for the subset of the survey sample married at study entry. The survey sample of two-parent applicant families was too small to evaluate program impacts on marriage or other family outcomes.

Overview of Data Collection for Long-Term Follow-Up Analyses on Marriage and Divorce

The data collection for the long-term follow-up analyses occurred in two phases. First, in early September 2001, MDRC obtained, via electronic files, publicly available divorce records — names and dates of divorces that took place in the state of Minnesota from January 1994 until August 2001 — from the Minnesota Supreme Court.¹⁰ Second, in March 2003, upon completion of a contract with the Minnesota Department of Health, MDRC obtained, via electronic files, certificate records of marriages that took place in the state of Minnesota from January 1989 until December 2001. Approximately 96 percent of MFIP two-parent family recipients were randomly assigned from April 1994 to March 1995, and thus, analyses with these two data sources cover a roughly 6.5-year to 7.5-year follow-up period. The average follow-up period is shorter among MFIP two-parent family applicants, because two-parent family applicants were randomly assigned from April 1994 to March 1996, with nearly 30 percent being randomly assigned from April 1995 to March 1996.

The marriage and divorce records data were checked, cleaned, and substantially reformatted by MDRC’s information specialists in order to match the names of each spouse in the marriage or divorce records data to the names of each spouse or partner in the pilot MFIP two-parent family sample. Names of respondents and their spouses in the pilot MFIP evaluation, and any variation in the spelling of these names, were obtained from Background Information Forms (BIFs) and Unemployment Insurance earnings records (from Minnesota’s Department of

⁹As noted in Miller et al., 2000, the survey sample of two-parent applicant families was too small to analyze other family outcomes at the 36-month follow-up point, such as material hardship, health insurance coverage, home ownership, and marital stability.

¹⁰One key benefit of obtaining the divorce records data electronically is that all resulting analyses capture any divorce that occurred in any county in the state rather than the seven counties that participated in the pilot MFIP evaluation. The availability of state data eliminates any bias that may have been generated by intra-state moves by sample members during the follow-up time period.

Economic Security). The first and last name of each spouse in an MFIP two-parent family was then matched to the first and last name of each spouse in the marriage and divorce records data. In addition, information about the birth date and Social Security number of the bride — when available and valid — was used to confirm matches in the marriage records analysis.

Reports about marital status in the BIF (completed by staff in the welfare offices via client interview just prior to random assignment) and successful matches with the marriage certificate records were used to construct the marriage records file.^{11,12} Both sources were relied upon because many marriages may have taken place prior to the time period in which marriage certificates data were available for analysis, i.e., before 1989. After numerous quality checks on the data and on the matches, a total of 329 finalized divorces were found from April 1994 to August 2001 for the entire two-parent family sample (2,246 two-parent families) in the MFIP pilot evaluation, including all program and control group families. This translates to an overall divorce rate of approximately 15 percent over a roughly seven-year period for this sample. Approximately 195 finalized divorces occurred within the sample of 1,515 two-parent recipient families, for an overall divorce rate of about 13 percent, and 134 finalized divorces occurred within the sample of 731 two-parent applicant families, for an overall divorce rate of 18 percent.

Key Findings on the Effects of MFIP on Marriage and Divorce During a Seven-Year Follow-Up Period

The effects of MFIP on marriage and divorce during a seven-year follow-up period, using marriage certificate records data and publicly available divorce records data, are presented in Tables 1 to 5 and Figures 1 to 6.¹³ Effects of MFIP on marriage and divorce, as measured by

¹¹Note that each sample family's marital status was checked for consistency using information from divorce and marriage records, and the BIF. With these three sources of information, the following coding decisions were implemented: (1) ten sample members with missing baseline information about marital status are excluded from the analysis; (2) three sample members who had two dates of marriage documented in the marriage certificates data were coded as married at the first noted date, unless a divorce was also documented; (3) four couples who were recorded on the BIF as cohabiting were recoded as married at baseline. In addition, one family who was recorded on the BIF as married, and for whom a divorce was recorded with divorce records data at around the time of random assignment, was coded as divorced one month after random assignment. The findings do not change if we assume that this divorce occurred at a different time (i.e., at or much later than the time of random assignment).

¹²No record of marriage was found for 13 cohabiting two-parent families who were divorced according to the match with the divorce records data. This may be because the marriages took place out of the state of Minnesota or because the quality of information was not adequate to secure a match with the Minnesota marriage records.

¹³Note that these findings are not based on the same measure as the findings reported from the 36-month follow-up: Prior findings were based on a survey respondent's stating that she and her partner were "married and living together," while the current findings are based on data from marriage certificates and divorce records.

differences between families in the program group and families in the control group, are shown for the total sample of two-parent recipient families and two-parent applicant families. Effects are presented according to marital status at the time of study entry for recipient families and then applicant families, and by various other subgroups according to characteristics of the families at the time of study entry; those characteristics include race/ethnicity, number of children in the family, age of youngest child in the family, and prior welfare and employment history.

Note that for those who were married at baseline, the primary outcome examined is the program's impact on their likelihood of divorcing during the follow-up period. However, for those who were cohabiting at baseline, we are interested in both the likelihood of marriage and the likelihood of subsequent divorce. We present the program's impacts on marriage from two different perspectives. One is to estimate the couple's likelihood of ever marrying during the follow-up period, a proportion that cumulates over time as more marriages are observed. The second is to estimate the couple's likelihood of being married at a given point in time, particularly the end of the follow-up period. When estimating the percentage who are married at a point in time, couples are not counted as "married" in the time period after a divorce has been observed. Thus, the program's impact on cohabiters' likelihood of ever marrying may differ from its impact on the percentage who are married at the end of the follow-up period.

Effects on two-parent recipient families overall

- **MFIP decreased divorce by 3.5 percentage points, or by about 25 percent, seven years after study entry, indicating a lasting reduction in divorce.**

Table 1 shows that 13.8 percent of AFDC recipient families had a finalized divorce by the seven-year follow-up point, compared with 10.4 percent of MFIP recipient families, a 3.5 percentage point difference, or a 25 percent reduction. These findings confirm that MFIP's effects on divorce held up for the full sample of two-parent recipient families. That is, effects were not limited to the 36-month follow-up survey sample of 290 families.¹⁴ In addition, the effects have lasted well beyond the time period covered in the final evaluation report. Note that because virtually no couples who divorced were remarried to one another by the end of the fol-

¹⁴Long-term follow-up results for the sample of 290 two-parent recipient families who were surveyed at the 36-month follow-up point (see Miller et al., 2000, for a more detailed description of this survey sample) are as follows: Approximately 18.2 percent of AFDC recipient families had a finalized divorce at the seven-year follow-up point, compared with 12.4 percent of MFIP recipient families, for a 5.8 percentage point difference, or 46.8 percent reduction. This effect is not statistically significant at the seven-year follow-up point ($p=0.20$), very possibly due to the small sample size. Note also that the general magnitude of this effect is quite similar to what was reported for this survey sample at the five-year follow-up point (see Table 6.6, page 173, in Miller et al., 2000).

MFIP's Long-Term Effects on Marriage and Divorce

Table 1
Effects on Marriage and Divorce for Two-Parent Families over a Seven-Year Follow-Up Period

| | Sample Size | Ever Divorced (%) | | | | Ever Married (%) | | | |
|---------------------------------|-------------|-------------------|------|---------------------|-------------------|--------------------|------|---------------------|-------------------|
| | | MFIP | AFDC | Impact ^a | Percentage Change | MFIP | AFDC | Impact ^a | Percentage Change |
| Recipient families ^b | 1,515 | 10.4 | 13.8 | -3.5 ** | -25.0 | | | | |
| Married at baseline | 1,043 | 13.8 | 16.8 | -2.9 | -17.5 | { Not applicable } | | | |
| Cohabiting at baseline | 472 | 2.7 | 8.0 | -5.3 ** | -66.2 | 20.6 | 20.8 | -0.3 | -1.3 |
| Applicant families ^c | 731 | 21.0 | 18.8 | 2.2 | 11.7 | | | | |
| Married at baseline | 577 | 25.0 | 23.5 | 1.5 | 6.3 | { Not applicable } | | | |
| Cohabiting at baseline | 154 | 6.7 | 3.5 | 3.1 | 89.9 | 23.4 | 16.8 | 6.6 | 39.1 |

SOURCES: Calculations using public divorce and marriage certificate records from the State of Minnesota.

NOTES: The sample includes members randomly assigned from April 1, 1994 to March 31, 1996, excluding the small percentage who were receiving or applying only for food stamps at random assignment. Approximately 96 percent of two-parent recipient families were randomly assigned from April 1994 to March 1995.

A two-tailed t-test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as ***= 1 percent; **= 5 percent; *= 10 percent.

Rounding may cause slight discrepancies in sums and differences.

^aThe difference is the impact of the financial incentives, mandatory services, reinforced incentive messages, and elimination of the 100-hour rule and work history requirement.

^bRecipients have an average of 7.3 years of follow-up for marriage and an average of 6.9 years for divorce.

^cApplicants have an average of 7.0 years of follow-up for marriage and an average of 6.7 years for divorce.

low-up period, any differences between the impacts on divorce in Tables 1 and 2 are caused by a drop in the sample that had the full years of follow-up required for the point-in-time estimates presented in Table 2.

- **MFIP’s effects on divorce primarily occurred late in the follow-up period, even after June 1998, when the MFIP pilot study ended and a statewide MFIP program was in place.**

Figure 1 shows that rates of finalized divorces in MFIP families were lower from month 26 to month 50, and from month 60 to month 83, compared with the same rates for AFDC families, with these differences being significant in the sixth and seventh year of the follow-up (see Appendix Table 2). Figure 2 further shows that reductions in the rates of finalized divorces primarily occurred after June 1998, when the MFIP pilot ended and a statewide MFIP program was in place.¹⁵ After June 1998, all two-parent families in the pilot MFIP evaluation were subject to the benefits and requirements of the new statewide MFIP program.¹⁶

Given that the MFIP pilot program ended in 1998, how could it have such prolonged effects? Although few previous evaluations have found impacts on marriage, one might expect that MFIP and AFDC families would look similar four years after the end of the pilot program; an analogy to this situation would be the common occurrence of control group catch-up in employment impacts, in which a control group experiences the same effects as a program group after the program group no longer receives a given intervention. The complication in this example is that both groups in the pilot program were subjected to the benefits and requirements of a new program, MFIP-S (Minnesota’s current welfare reform program).

There are a number of possible explanations for the persistence of the impacts. First, the pilot program (with its streamlined eligibility rules, generous earnings disregard, and consolidation and cashing out of welfare benefits) could have prompted a permanent change in two-parent recipient families that set them on a different path. Second, statewide MFIP — with relatively less generous benefits than the original MFIP — may not have provided an environment that allowed AFDC families to stabilize or increase marriage rates. Third, even if statewide MFIP has the potential to affect two-parent families positively, it may be that timing matters, and that it was too late for the marriages of AFDC families in the pilot program to be significantly affected by the changes instigated by the statewide program. Fourth, many of the two-

¹⁵MFIP-S, the statewide program, was implemented in January 1998. However, MFIP pilot study members were exempt from the statewide program until June 1998. For this analysis the data were converted back into calendar months. Thus, the “relative” length of follow-up differs slightly for each two-parent family because most of the two-parent recipient families were randomly assigned over a 12-month period.

¹⁶Some aspects of MFIP-S that applied to MFIP pilot families were implemented in July 1997. For example, the elimination of the 100-hour rule applied to all MFIP pilot and AFDC families starting in July 1997.

MFIP's Long-Term Effects on Marriage and Divorce

Table 2
Effects on Marriage and Divorce Status for Two-Parent Families at the End of the Follow-Up Period

| | Sample Size | Divorced at End of Year 6 (%) | | | | Married at End of Year 6 (%) | | | |
|------------------------|-------------|-------------------------------|------|---------------------|-------------------|------------------------------|------|---------------------|-------------------|
| | | MFIP | AFDC | Impact ^a | Percentage Change | MFIP | AFDC | Impact ^a | Percentage Change |
| Recipient families | 1,498 | 8.7 | 11.7 | -3.0 ** | -29.5 | { Not applicable } | | | |
| Married at baseline | 1,038 | 11.7 | 15.0 | -3.3 | -21.7 | | | | |
| Cohabiting at baseline | 467 | 1.7 | 5.5 | -3.8 ** | -68.9 | | | | |
| | | Divorced at End of Year 5 (%) | | | | Married at End of Year 5 (%) | | | |
| Applicant families | 731 | 16.2 | 11.9 | 4.3 * | 35.8 | { Not applicable } | | | |
| Married at baseline | 577 | 19.8 | 14.2 | 5.6 * | 39.1 | | | | |
| Cohabiting at baseline | 154 | 4.4 | 4.0 | 0.4 | 10.4 | | | | |

SOURCES: MDRC Calculations using public divorce and marriage certificate records from the State of Minnesota.

NOTES: The sample includes members randomly assigned from April 1, 1994 to March 31, 1996, excluding the small percentage who were receiving or applying only for food stamps at random assignment. Approximately 96 percent of two-parent recipient families were randomly assigned from April 1994 to March 1995.

A two-tailed t-test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as ***= 1 percent; **= 5 percent; *= 10 percent.

Rounding may cause slight discrepancies in sums and differences.

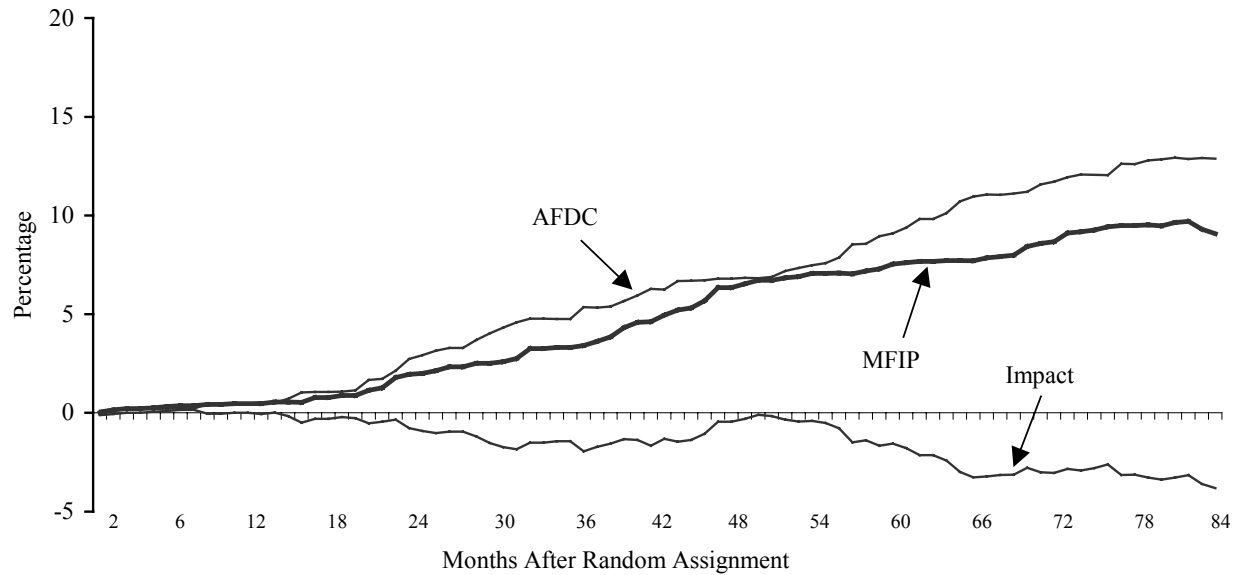
Because of the long intake period, this table excludes recipients who did not have data for six full years and applicants who did not have data for six full years.

^aThe difference is the impact of the financial incentives, mandatory services, reinforced incentive messages, and elimination of the 100-hour rule and work history requirement.

MFIP's Long-Term Effects on Marriage and Divorce

Figure 1

Cumulative Percentage Ever Divorced for Two-Parent Recipient Families over a Seven-Year Follow-Up Period



-10-

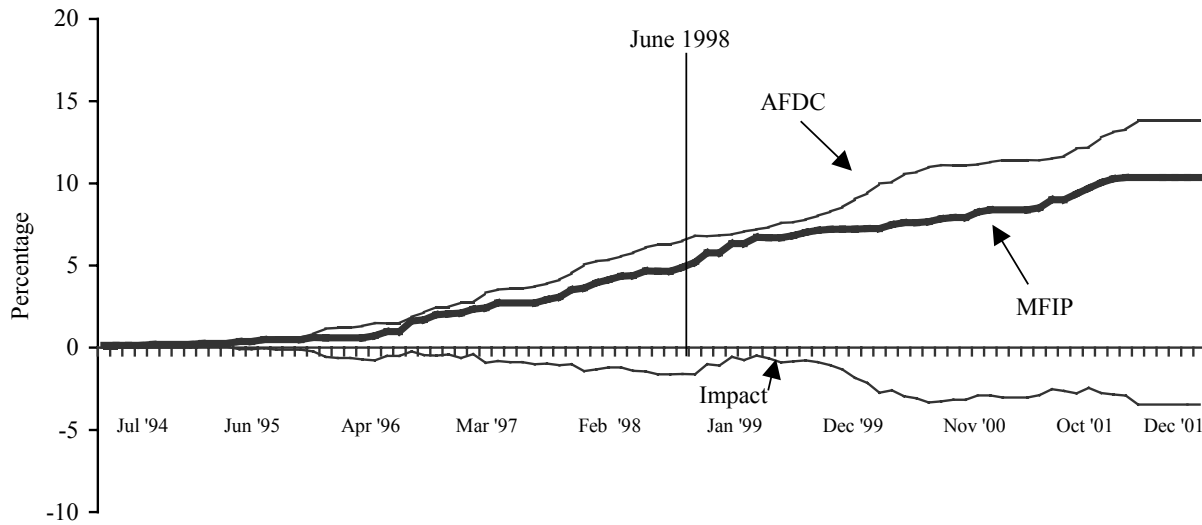
SOURCES: MDRC calculations using public divorce and marriage certificate records from the State of Minnesota.

NOTE: The sample includes members randomly assigned from April 1, 1994 to March 31, 1996, excluding the small percentage who were receiving or applying only for food stamps at random assignment. Approximately 96 percent of two-parent recipient families were randomly assigned from April 1994 to March 1995.

MFIP's Long-Term Effects on Marriage and Divorce

Figure 2

**Cumulative Percentage Ever Divorced for Two-Parent Recipient Families in Calendar Months:
Comparing Pre-June 1998 with Post-June 1998,
When the Pilot Study Ended and MFIP-S Was Implemented**



- 11 -

SOURCES: MDRC calculations using public divorce and marriage certificate records from the State of Minnesota.

NOTE: The sample includes members randomly assigned from April 1, 1994 to March 31, 1996, excluding the small percentage who were receiving or applying only for food stamps at random assignment. Approximately 96 percent of two-parent recipient families were randomly assigned from April 1994 to March 1995.

parent recipient families may have left welfare after four years or more, limiting the possibility for the statewide program to have any effects. Some of these possibilities will be investigated in future work examining the long-term economic impacts of the program.

It is likely that the persistence of effects was caused by some combination of all of these factors. Furthermore, because one would expect some control group catch-up to occur after June 1998, it may be that the current estimates on divorce are a lower bound of what may have happened had statewide MFIP not been implemented: Movement of the control group into the statewide MFIP program may have decreased the differences that would have occurred had the treatment difference continued indefinitely.

- **MFIP particularly reduced rates of divorce among families whose youngest child, at study entry, was less than 6 years old.**

Table 3 presents MFIP's effects on divorce for two-parent recipient families over a seven-year follow-up, for various subgroups. The first panel of Table 3 shows the effects of MFIP on divorce by the number of children in the recipient family. One hypothesis is that if MFIP's streamlined eligibility rules (e.g., the elimination of the 100-hour rule) were an important policy component driving MFIP's effects on marital behavior, we should see larger reductions in divorce for large families than small families. Under the 100-hour rule, large families — who may have found it difficult to make enough income working part time in a low-wage job — have a larger incentive than small families to divorce in order to maintain welfare eligibility while working more than 100 hours per month. MFIP's effects on divorce were slightly more pronounced for families who had three or more children at study entry, reducing divorce from 12.3 percent for AFDC families to 7.0 percent for MFIP families. However, effects on divorce for families with three or more children were not significantly different from effects on divorce for families with fewer than three children, weakening the evidence that streamlined eligibility rules were primarily responsible for MFIP's impacts.¹⁷

The second panel of Table 3 shows that recipient families in MFIP who had a young child at study entry were less likely to divorce, compared with their AFDC counterparts, by 5.0 percentage points, or 35 percent. In contrast, MFIP had no effect on divorce for families who, at study entry, had a child aged 6 or older.

- **MFIP reduced rates of divorce among black recipient families by 59 percent by the end of the seven-year follow-up period.**

¹⁷A similar conclusion was drawn based on the 36-month survey data on 290 recipient families (see Chapter 6, Miller et al., 2000).

Table 3
Effects on Divorce for Two-Parent Recipient Families
over a Seven-Year Follow-Up Period, by Subgroup

| | Sample Size | Ever Divorced (%) | | | | P-Value for Subgroup Differences |
|--|-------------|-------------------|------|---------------------|-------------------|----------------------------------|
| | | MFIP | AFDC | Impact ^a | Percentage Change | |
| All recipient families | 1,515 | 10.4 | 13.8 | -3.5 ** | -25.0 | |
| Number of children | | | | | | 0.52 |
| Fewer than 3 children | 789 | 12.4 | 15.5 | -3.1 | -20.0 | |
| 3 or more children | 699 | 7.0 | 12.3 | -5.2 ** | -42.8 | |
| Age of youngest child | | | | | | 0.10 |
| Less than 6 years old | 1,152 | 9.4 | 14.4 | -5.0 *** | -34.7 | |
| 6 years old or older | 336 | 13.2 | 11.2 | 2.0 | 17.8 | |
| Race/Ethnicity | | | | | | 0.10 |
| White, non-Hispanic | 895 | 14.0 | 16.1 | -2.1 | -13.1 | |
| Black, non-Hispanic | 243 | 6.8 | 16.7 | -9.9 ** | -59.4 | |
| Asian/Pacific Islander | 239 | 6.1 | 5.1 | 1.0 | 19.7 | |
| Other ^b | 125 | 3.7 | 15.4 | -11.7 * | -76.1 | |
| Employment 1 year prior to study entry | | | | | | 0.84 |
| One parent employed | 544 | 11.2 | 14.5 | -3.4 | -23.1 | |
| Both parents employed | 450 | 14.5 | 20.3 | -5.9 | -28.9 | |
| No parent employed | 521 | 5.5 | 9.0 | -3.5 | -39.3 | |
| Welfare receipt prior to study entry | | | | | | 0.41 |
| Less than 2 years | 518 | 13.0 | 14.4 | -1.4 | -9.9 | |
| 2 years to 5 years | 455 | 7.6 | 14.6 | -7.0 ** | -48.0 | |
| More than 5 years | 526 | 10.1 | 13.3 | -3.1 | -23.7 | |

SOURCES: Calculations using public divorce and marriage certificate records from the State of Minnesota.

NOTES: The sample includes members randomly assigned from April 1, 1994 to March 31, 1996, excluding the small percentage who were receiving or applying only for food stamps at random assignment. Approximately 96 percent of two-parent recipient families were randomly assigned from April 1994 to March 1995.

A two-tailed t-test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as ***= 1 percent; **= 5 percent; * =10 percent.

Rounding may cause slight discrepancies in sums and differences.

Information at baseline on some subgroup characteristics was missing for some sample members. Therefore, the average impact across subgroups does not always replicate the impact for all recipients.

^aThe difference is the impact of the financial incentives, mandatory services, reinforced incentive messages, and elimination of the 100-hour rule and work history requirement.

^bHispanic, American Indian, and Alaskan.

Nearly 60 percent of recipient families identify themselves as white, non-Hispanic; 16 percent as black, non-Hispanic; 16 percent as Asian/Pacific Islander; and about 10 percent as other ethnicities. Table 3 shows that 16.7 percent of black AFDC families had a finalized divorce compared with 6.8 percent of black MFIP families over the seven-year follow-up period, a 9.9 percentage point, or 59 percent, reduction. Though the sample is small, rates of divorce were also significantly reduced for the combined group of Hispanic, American Indian, and Alaskan families; in this group, 15.4 percent of AFDC recipient families divorced, compared with 3.7 percent of MFIP recipient families. There were no impacts on rates of finalized divorces among white, non-Hispanic and Asian/Pacific Islander AFDC and MFIP recipient families.

Effects on married two-parent recipient families

- **MFIP somewhat increased marital stability, by decreasing divorce among two-parent recipients who were married at study entry.**

Table 1 shows that approximately 17 percent of AFDC families who were married at study entry were divorced by the seven-year follow-up point, compared with 14 percent of MFIP families. Figure 3 shows that rates of finalized divorce during the seven-year follow-up period were generally lower for MFIP families than for AFDC families, with significant reductions occurring during the seventh year (see Appendix Table 2).

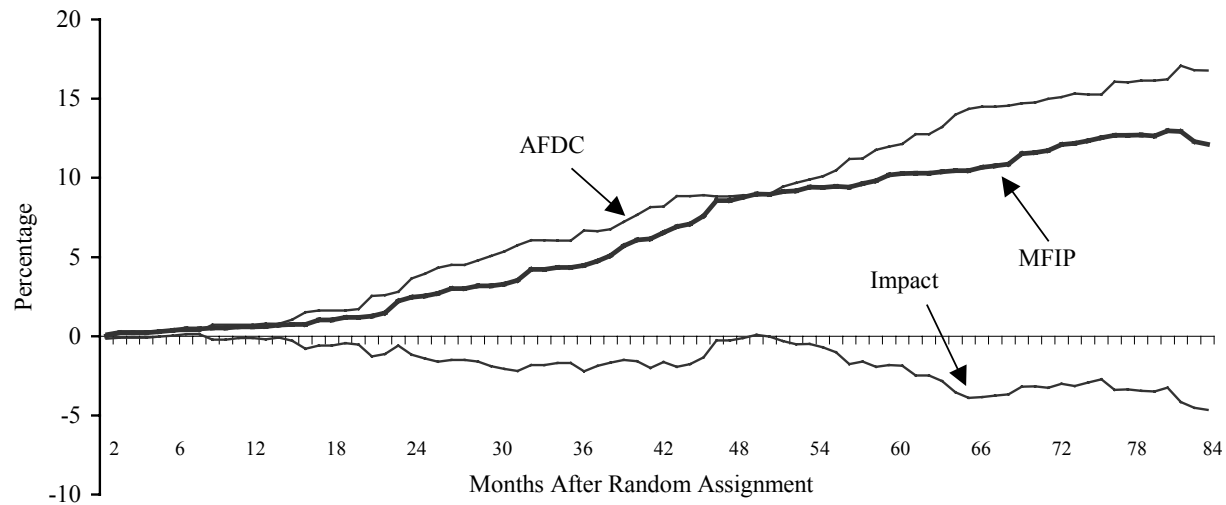
- **MFIP's effects on marital stability were most pronounced among black recipient families, reducing rates of divorce among black married couples by over 70 percent. Effects on marital stability did not vary by family size, prior marital status, prior employment history, or prior welfare history of the family.**

Table 4 expands on the analyses presented in Table 3, examining MFIP's effects on finalized divorces over a seven-year follow-up period across subgroups (those with adequate sample sizes), for two-parent recipients who were married at study entry. The variation in divorce rates for members of the control group provides helpful context for interpreting the program's impacts on divorce for these subgroups. In particular, within the control group, the rate of divorce over the seven-year follow-up was substantially higher for families who were black, non-Hispanic compared with whites or Asian/Pacific Islanders. MFIP particularly increased marital stability for this group. Table 4 shows that 28.2 percent of black married AFDC families ever divorced during the follow-up period, compared with 7.8 percent of black married MFIP families, for a 21 percentage point, or 73 percent, reduction. MFIP's effects on divorce for married recipients did not vary by family size or by the prior marital, employment, or welfare history of the family.

MFIP's Long-Term Effects on Marriage and Divorce

Figure 3

Cumulative Percentage Ever Divorced for Two-Parent Recipient Families Who Were Married at Baseline, over a Seven-Year Follow-Up Period



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SOURCES: MDRC calculations using public divorce and marriage certificate records from the State of Minnesota.

NOTE: The sample excludes the small percentage who were receiving or applying only for food stamps at random assignment. Approximately 96 percent of two-parent recipient families were randomly assigned from April 1994 to March 1995.

MFIP's Long-Term Effects on Marriage and Divorce

Table 4

Effects on Divorce for Two-Parent Recipient Families Who Were Married at Baseline, over a Seven-Year Follow-Up Period

| | Sample Size | Ever Divorced (%) | | | Percentage Change | P-Value for Subgroup Differences |
|---|-------------|-------------------|------|---------------------|-------------------|----------------------------------|
| | | MFIP | AFDC | Impact ^a | | |
| All recipient families | 1,043 | 13.8 | 16.8 | -2.9 | -17.5 | |
| Number of children | | | | | | 0.6 |
| Fewer than 3 children | 519 | 17.8 | 20.0 | -2.2 | -11.1 | |
| 3 or more children | 504 | 9.0 | 13.3 | -4.4 | -32.6 | |
| Marital history prior to study entry ^b | | | | | | 0.6 |
| Married within 5 years | 189 | 29.9 | 29.1 | 0.8 | 2.7 | |
| Married 5 years or more | 854 | 10.7 | 13.8 | -3.1 | -22.6 | |
| Race/Ethnicity | | | | | | 0.03 ** |
| White, non-Hispanic | 587 | 20.7 | 19.3 | 1.3 | 6.8 | |
| Black, non-Hispanic | 155 | 7.8 | 28.2 | -20.5 *** | -72.5 | |
| Asian/Pacific Islander | 229 | 5.4 | 5.1 | 0.3 | 6.2 | |
| Age of youngest child | | | | | | 0.2 * |
| Less than 6 years old | 724 | 13.7 | 18.1 | -4.5 | -24.7 | |
| 6 years old or older | 299 | 14.1 | 12.1 | 2.0 | 16.6 | |
| Employment 1 year prior to study entry | | | | | | 0.4 |
| One parent employed | 348 | 17.8 | 15.8 | 2.0 | 12.8 | |
| Both parents employed | 292 | 20.9 | 26.8 | -6.0 | -22.2 | |
| No parent employed | 403 | 7.1 | 10.5 | -3.3 | -31.8 | |
| Welfare receipt prior to study entry | | | | | | 0.4 |
| Less than 2 years | 365 | 15.9 | 17.3 | -1.4 | -8.2 | |
| 2 years to 5 years | 313 | 11.2 | 19.0 | -7.8 * | -41.1 | |
| More than 5 years | 354 | 14.4 | 14.7 | -0.3 | -2.2 | |

SOURCES: MDRC calculations using public divorce and marriage certificate records from the State of Minnesota.

NOTES: The sample includes members randomly assigned from April 1, 1994 to March 31, 1996, excluding the small percentage who were receiving or applying only for food stamps at random assignment. Approximately 96 percent of two-parent recipient families were randomly assigned from April 1994 to March 1995.

A two-tailed t-test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as ***= 1 percent; **= 5 percent; * =10 percent.

Rounding may cause slight discrepancies in sums and differences.

Information at baseline on some subgroup characteristics was missing for some sample members. Therefore, the average impact across subgroups does not always replicate the impact for all recipients.

Subgroups with fewer than 150 families are not reported.

^aThe difference is the impact of the financial incentives, mandatory services, reinforced incentive messages, and elimination of the 100-hour rule and work history requirement.

^bMarital history is determined based on matches with the marriage certificate records and thus may not precisely capture the timing of every marriage as reported on the Background Information Form.

Effects on cohabiting recipient families

- **For MFIP cohabiting couples — coupled parents who shared a biological child at study entry — the proportion who ever married during the follow-up period was similar to that for AFDC cohabiting couples.**

Table 1 and Figure 4 show that cumulative rates of marriage (i.e., the percentage who ever married, without adjusting for subsequent divorce) among MFIP cohabiting couples and AFDC cohabiting couples were similar through the seven-year follow-up period.

- **However, MFIP cohabiting couples were 66 percent less likely than AFDC cohabiting couples to divorce at some point during the follow-up period. As a result, the proportion of cohabiting couples that were married at the end of the follow-up was higher among MFIP families than among AFDC families.**

As shown in Table 1, approximately 8 percent of AFDC cohabiting families had a finalized divorce by the seven-year follow-up point, compared with 2.7 percent of MFIP cohabiting families, for a 5.3 percentage point, or 66 percent, reduction in divorce. Beginning about two years after random assignment, rates of finalized divorces were consistently higher through most of the follow-up period for AFDC cohabiting families, compared with MFIP cohabiting families (see Figure 6). Consequently, as shown in Figure 5, the proportion of cohabiting couples that were married at the end of the follow-up was slightly higher among MFIP families than among AFDC families. The ultimate effect of MFIP on marriage among cohabiting couples — an increase in marital stability — is similar to MFIP's effect for married two-parent recipient families.

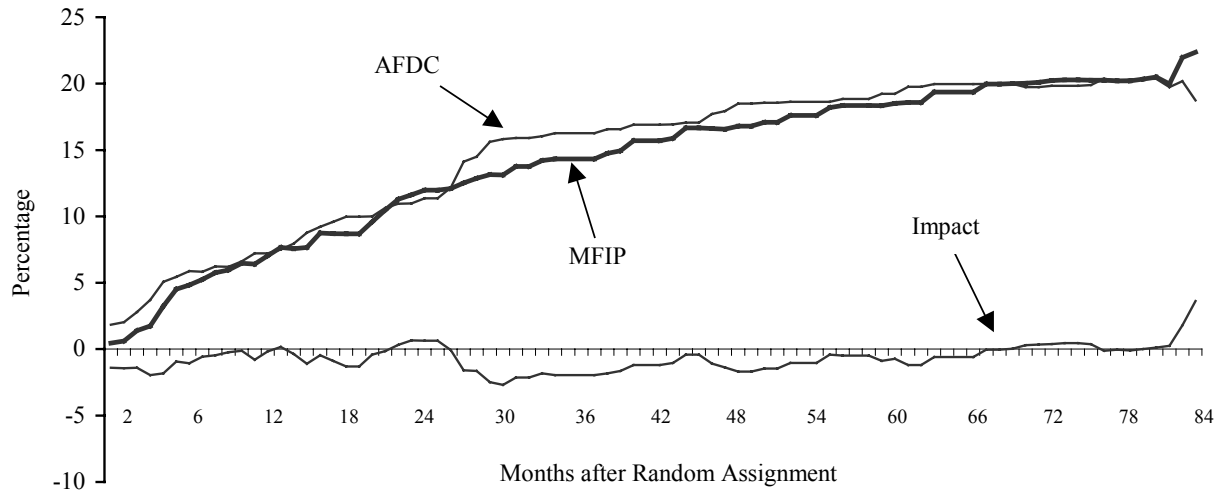
- **MFIP's effects on marriage and on subsequent divorce among couples who were cohabiting at study entry did not vary by race/ethnicity, age of children, or prior employment or welfare history of the family. However, MFIP cohabiting couples with three or more children were 52 percent less likely than AFDC cohabiting couples ever to marry.¹⁸**

¹⁸The increase in marriage among cohabiting recipients for families in which both parents had been employed prior to study entry (5.1 percentage points, or a 26 percent increase) is worth noting because of its magnitude; the same is true for cohabiting short-term welfare recipients (7.8 percentage points, or a 46 percent increase). These effects may not have achieved statistical significance because of their small sample size, particularly for the subgroup in which both parents had been previously employed. Effects on marriage among the subgroup in which both parents had been employed prior to study entry overall (N=450) were statistically significant at 6.7 percentage points.

MFIP's Long-Term Effects on Marriage and Divorce

Figure 4

Cumulative Percentage Ever Married for Two-Parent Recipient Families Who Were Cohabiting at Baseline, over a Seven-Year Follow-Up Period



SOURCES: MDRC calculations using public divorce and marriage certificate records from the State of Minnesota.

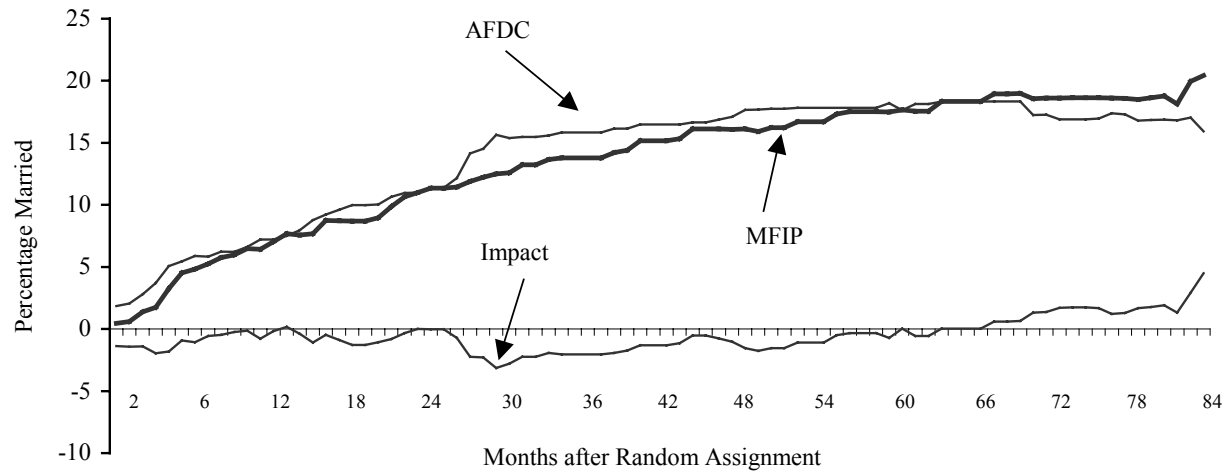
NOTES: The sample includes members randomly assigned from April 1, 1994 to March 31, 1996, excluding the small percentage who were receiving or applying only for food stamps at random assignment. Approximately 96 percent of two-parent recipient families were randomly assigned from April 1994 to March 1995.

Marriage outcome includes any match with the marriage certificate record over time. The analysis does not adjust for divorce and excludes marriages to individuals other than the partner identified at study entry.

MFIP's Long-Term Effects on Marriage and Divorce

Figure 5

Marital Status in Each Month of Follow-Up for Two-Parent Recipient Families Who Were Cohabiting at Baseline



SOURCES: MDRC calculations using public divorce and marriage certificate records from the State of Minnesota.

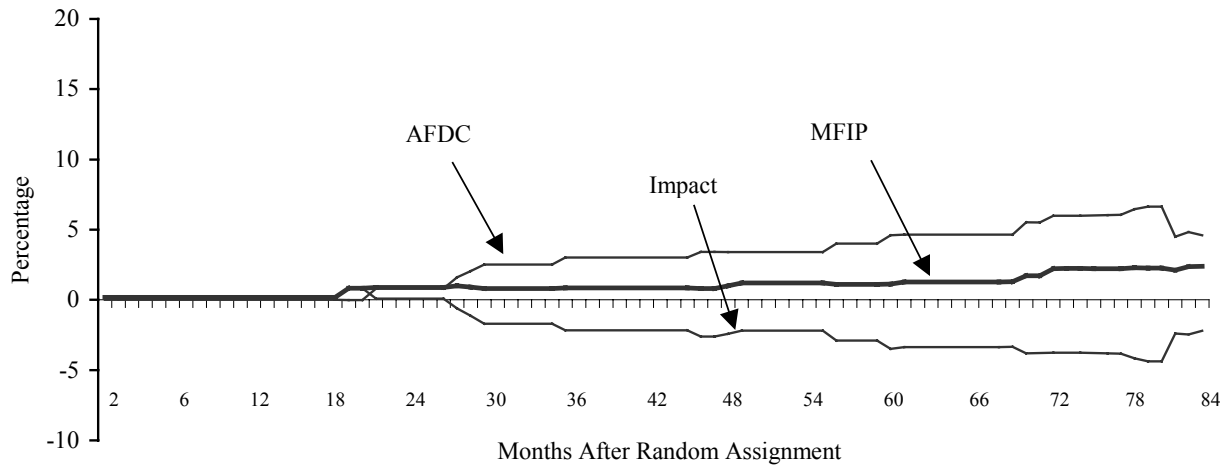
NOTES: The sample includes members randomly assigned from April 1, 1994 to March 31, 1996, excluding the small percentage who were receiving or applying only for food stamps at random assignment. Approximately 96 percent of two-parent recipient families were randomly assigned from April 1994 to March 1995.

Marriage outcome adjusts for documented divorces based on divorce records data. The analysis excludes marriages to individuals other than the partner identified at study entry.

MFIP's Long-Term Effects on Marriage and Divorce

Figure 6

Cumulative Percentage Ever Divorced for Two-Parent Recipient Families Who Were Cohabiting at Baseline, over a Seven-Year Follow-Up Period



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SOURCES: MDRC calculations using public divorce and marriage certificate records from the State of Minnesota.

NOTE: The sample includes members randomly assigned from April 1, 1994 to March 31, 1996, excluding the small percentage who were receiving or applying only for food stamps at random assignment. Approximately 96 percent of two-parent recipient families were randomly assigned from April 1994 to March 1995.

Table 5 presents MFIP's effects on divorce and on ever being married among cohabiting couples at study entry across various subgroups (those with adequate sample sizes). MFIP cohabiting recipient couples with three or more children were 12.6 percentage points, or 52 percent, less likely to marry, compared with AFDC cohabiting recipient couples with three or more children. In contrast, MFIP cohabiting recipient couples with fewer than three children were more likely to marry (by 7.9 percentage points, though not statistically significant). MFIP's effects on marriage and on subsequent divorce among cohabiting recipient couples did not significantly vary within any other subgroups. However, two noteworthy patterns did emerge. First, MFIP's effects on divorce among cohabiting recipient couples consistently occurred across a variety of subgroups. Second, though effects on divorce were quite consistent across subgroups, the pattern of effects on marriage varied across subgroups. For example, MFIP appeared to reduce marriage and significantly reduced subsequent divorce among cohabiting recipient couples who were long-term welfare recipients, but appeared to increase marriage with no noted difference in subsequent divorce rate among cohabiting recipient couples who were short-term welfare recipients. Future analyses of long-term effects on economic outcomes may help explain some of these differing patterns in marriage and divorce across these subgroups.

Effects on two-parent applicant families

- **MFIP had no average effect on divorce among two-parent applicant families, but did somewhat increase divorce later in the follow-up period.**

Table 1 shows that the rate of divorce over the seven-year follow-up period was similar for MFIP and AFDC two-parent applicant families. However, MFIP two-parent applicant families were slightly more likely to have divorced during the fourth through sixth year of follow-up, with a statistically significant increase in divorce occurring in year five (see Table 2 and Appendix Table 3).

- **A trend showed increased marriage and increased subsequent divorce among cohabiting applicant families. These effects, however, were not statistically significant during most years of the follow-up period, possibly due to the small sample size of cohabiting applicant families.**

Table 1 shows that for cohabiters, the pattern of results is different for applicants than for recipient families. Compared with their control group counterparts, MFIP cohabiting applicant families were more likely to be married by the end of the follow-up, though this pattern is not statistically significant. MFIP cohabiting applicant families were also somewhat more likely to ever divorce by the end of the follow-up. Although neither of these overall effects were statistically significant over the seven-year follow-up period (as shown in Table 1), significant

MFIP's Long-Term Effects on Marriage and Divorce

Table 5

Effects on Marriage and Divorce for Two-Parent Recipient Families Who Were Cohabiting at Baseline, over a Seven-Year Follow-Up Period

| | Sample Size | Ever Married (%) | | | | P-Value for Subgroup Differences | Ever Divorced (%) | | | | P-Value for Subgroup Differences |
|--|-------------|------------------|------|---------------------|-------------------|----------------------------------|-------------------|------|---------------------|-------------------|----------------------------------|
| | | MFIP | AFDC | Impact ^a | Percentage Change | | MFIP | AFDC | Impact ^a | Percentage Change | |
| All recipient families | 472 | 20.6 | 20.8 | -0.3 | -1.3 | | 2.7 | 8.0 | -5.3 ** | -1.3 | |
| Number of children | | | | | | 0.01 ** | | | | | 0.29 |
| Fewer than 3 children | 270 | 26.5 | 18.6 | 7.9 | 42.4 | | 3.5 | 6.4 | -3.0 | -45.9 | |
| 3 or more children | 195 | 11.7 | 24.3 | -12.6 ** | -51.9 | | 2.0 | 10.1 | -8.1 ** | -80.1 | |
| Race/Ethnicity | | | | | | | | | | | |
| White, non-Hispanic | 308 | 25.9 | 23.6 | 2.3 | 9.8 | | 4.0 | 9.9 | -6.0 * | -60.1 | |
| Age of youngest child | | | | | | | | | | | |
| Less than 6 years old | 428 | 21.1 | 22.0 | -0.9 | -4.0 | | 2.6 | 8.4 | -5.8 ** | -69.4 | |
| Employment 1 year prior to study entry | | | | | | 0.63 | | | | | 0.82 |
| One parent employed | 196 | 25.9 | 30.5 | -4.6 | -15.2 | | 3.8 | 9.4 | -5.5 | -59.1 | |
| Both parents employed | 158 | 24.9 | 19.8 | 5.1 | 25.7 | | 2.0 | 11.0 | -8.9 ** | -81.4 | |
| Welfare receipt prior to study entry | | | | | | 0.23 | | | | | 0.17 |
| Less than 2 years | 153 | 24.8 | 17.1 | 7.8 | 45.7 | | 6.3 | 7.2 | -1.0 | -13.2 | |
| More than 5 years | 172 | 12.2 | 21.1 | -8.9 | -42.1 | | 0.1 | 12.1 | -12.0 *** | -99.4 | |

SOURCES: MDRC calculations using public divorce and marriage certificate records from the State of Minnesota.

NOTE: The sample includes members randomly assigned from April 1, 1994 to March 31, 1996, excluding the small percentage who were receiving or applying only for food stamps at random assignment. Approximately 96 percent of two-parent recipient families were randomly assigned from April 1994 to March 1995.

A two-tailed t-test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as ***= 1 percent; **= 5 percent; * =10 percent.

Rounding may cause slight discrepancies in sums and differences.

Information at baseline on some subgroup characteristics was missing for some sample members. Therefore, the average impact across subgroups does not always replicate the impact for all recipients.

Subgroups with fewer than 150 families are not reported.

^aThe difference is the impact of the financial incentives, mandatory services, reinforced incentive messages, and elimination of the 100-hour rule and work history requirement.

increases in divorce did occur for cohabiting applicant families during the first two years of follow-up (see Appendix Table 3).

- **Although there were no effects on divorce among all married two-parent applicant families, MFIP increased divorce among a few subgroups of two-parent applicant families.**

Appendix Table 4 presents findings on MFIP's effects on divorce among subgroups of all two-parent applicant families and subgroups of married applicant families.¹⁹ MFIP increased divorce by 11.6 percentage points among two-parent applicant families with three or more children at study entry, an effect that appears to be clustered among those two-parent applicants with three or more children who were married at study entry (see bottom panel of Appendix Table 4). This effect on divorce is significantly different from MFIP's effects on divorce among two-parent applicant families with fewer than three children. MFIP also increased divorce by 10 percentage points among two-parent applicant families in which only one parent was employed prior to study entry. However, this effect was not significantly different from MFIP's effects on divorce among two-parent applicant families in which both parents were employed prior to study entry.

Conclusions

In the original MFIP evaluation, effects of the program on marital stability were measured for 290 two-parent recipient families who were respondents to a 36-month follow-up survey. The new analysis presented here has expanded on these findings by providing long-term follow-up for the full sample of 1,515 two-parent recipient families and 731 two-parent applicant families who participated in the MFIP evaluation. Overall, the results indicate that the pilot MFIP program that began in 1994 continued to have effects on rates of divorce for two-parent families seven years after they entered the study. Reductions in divorce were concentrated among families who were already receiving welfare when they entered the study rather than new welfare applicants. Impacts were most pronounced for black parents who were already married at the time they entered the study, and for parents who were cohabiting when they entered the study.

Note that because this new analysis relies solely on public records of marriages and finalized divorces, it does not capture any effects that the program may have had on couples' likelihood of separating or living apart without formally divorcing. Nevertheless, the findings represent some of the best evidence to date about the potential for welfare policies to affect marital stability among two-parent families.

¹⁹The sample of two-parent cohabiting couples was too small to pursue comparable subgroup analyses.

The results raise several important questions for future work. First, because most welfare reform evaluations in the 1990s did not collect information on two-parent families, there is little impact information available for two-parent families, making it important to replicate this type of evaluation in some additional geographic areas to determine whether they are generalizable. Second, to further understand the results presented here, future work will examine how MFIP affected the timing of marriages or divorces, particularly for cohabiting parents. In addition, the suggestion of increased divorce among two-parent applicant families in certain years of follow-up is worthy of further investigation.

Finally, the effects on divorce among MFIP's two-parent recipient families suggest that the program could have had important effects on the well-being of children in these families. A finalized divorce is almost always preceded by marital conflict and a period of separation, both of which are likely to extend over a long period of time. The effects on divorce presented here very likely understate the duration and extent of marital strife imposed upon the children in these families. With funding from various foundations, via administrative records (including child welfare records), MDRC is continuing to conduct long-term analyses on the effects of the pilot MFIP on economic, family, and child outcomes among single-parent and two-parent families, with the expectation that additional findings will become available in 2004.

Appendix

Appendix Table 1
Selected Characteristics of Two-Parent Sample Members,
by Welfare Status at Random Assignment

| Characteristic | Recipients | Applicants |
|---|------------|------------|
| <u>Demographic characteristics</u> | | |
| Geographic area (%) | | |
| Hennepin County (Minneapolis) | 52.4 | 37.2 |
| Anoka/Dakota counties | 20.3 | 24.2 |
| Rural counties | 27.3 | 38.6 |
| Gender of respondent (%) | | |
| Female | 90.7 | 78.0 |
| Male | 9.3 | 22.0 |
| Average age (years) | 31.2 | 30.6 |
| Race/Ethnicity (%) | | |
| White, non-Hispanic | 59.5 | 79.7 |
| Black, non-Hispanic | 16.2 | 7.2 |
| Hispanic | 2.7 | 4.3 |
| Native American/Alaskan Native | 5.6 | 2.2 |
| Asian/Pacific Islander | 16.0 | 6.6 |
| <u>Family status</u> | | |
| Marital status (%) | | |
| Never married | 24.2 | 17.4 |
| Married, living with spouse | 68.7 | 78.8 |
| Married, living apart | 1.8 | 0.7 |
| Separated | 0.2 | 0.1 |
| Divorced | 5.2 | 3.0 |
| Widowed | 0.1 | 0.0 |
| Age of youngest child in years (%) | | |
| Under 3, or client pregnant at the time of random assignment | 55.2 | 61.1 |
| 3-5 | 22.3 | 12.8 |
| 6-18 | 22.5 | 26.1 |
| Number of children (%) | | |
| One | 20.8 | 39.4 |
| Two | 31.1 | 28.1 |
| Three or more | 46.3 | 30.7 |
| <u>Labor force status</u> | | |
| Worked full time for 6 months or more for one employer (%) | 52.4 | 73.5 |
| Any earnings in past 12 months (%) | 59.2 | 21.2 |
| Currently employed (%) | 15.1 | 30.6 |
| Average hourly wage ^a (\$) | 6.41 | 7.38 |
| Average hours worked per week ^b (%) | | |
| 1-19 | 36.7 | 36.4 |
| 20-29 | 24.3 | 15.5 |
| 30 or more | 38.9 | 48.2 |
| Never worked (%) | 16.6 | 3.6 |

(continued)

Appendix Table 1 (continued)

| Characteristic | Recipients | Applicants |
|---|------------|------------|
| <u>Education status</u> | | |
| Highest credential earned (%) | | |
| GED certificate ^c | 12.6 | 10.4 |
| High school diploma | 38.9 | 51.1 |
| Technical/2-year college degree | 9.2 | 12.7 |
| 4-year college degree or higher | 2.1 | 7.0 |
| None of the above | 37.2 | 18.9 |
| Highest grade completed in school (average) | 11 | 12 |
| <u>Prior welfare receipt</u> | | |
| Total prior AFDC receipt ^d (%) | | |
| None | 3.7 | 74.4 |
| Less than 4 months | 4.5 | 2.6 |
| 4 months or more but less than 1 year | 13.0 | 8.7 |
| 1 year or more but less than 2 years | 13.4 | 4.3 |
| 2 years or more but less than 5 years | 30.5 | 6.4 |
| 5 years or more but less than 10 years | 23.0 | 2.4 |
| 10 years or more | 12.1 | 1.2 |
| <u>Housing status</u> | | |
| Current housing status (%) | | |
| Public housing | 7.6 | 2.1 |
| Subsidized housing | 17.8 | 3.4 |
| Emergency or temporary housing | 3.7 | 3.4 |
| None of the above | 70.8 | 91.1 |
| Number of moves in the past 2 years (%) | | |
| None | 34.8 | 34.2 |
| 1 or 2 | 45.6 | 50.1 |
| 3 or more | 19.6 | 15.8 |
| <u>Current and recent education and training activities</u> | | |
| Currently enrolled in education or training ^e (%) | | |
| Any type | 20.3 | 12.3 |
| GED preparation | 2.6 | 0.7 |
| English as a Second Language | 5.7 | 1.6 |
| Adult Basic Education | 1.2 | 0.6 |
| Vocational education/skills training | 4.5 | 2.2 |
| Post-secondary education | 3.4 | 4.0 |
| Job search/job club | 3.0 | 2.1 |
| Work experience | 0.5 | 0.4 |
| High school | 0.7 | 1.5 |
| Enrolled in any type of education or training during the previous 12 months (%) | 28.4 | 16.0 |
| Sample size (total = 2,256) | 1,523 | 733 |

(continued)

Appendix Table 1 (continued)

SOURCE: Calculations using data from Background Information Forms.

NOTES: The sample includes AFDC and MFIP group members who were randomly assigned from April 1, 1994 to March 31, 1996, excluding the small percentage who were receiving or applying only for food stamps at random assignment.

This table includes eight recipient families and two applicant families who were excluded from the rest of the analysis because they did not provide information at baseline on their marital status.

^aCalculated for those employed at the time of random assignment who reported an hourly wage. Twenty percent of those employed were excluded because they did not report an hourly wage.

^bCalculated for those employed at the time of random assignment.

^cThe General Educational Development (GED) certificate is given to those who pass the GED test and is intended to signify knowledge of basic high school subjects.

^dThis refers to the total number of months an individual or her spouse has spent on AFDC at one or more periods of time as an adult. It does not include AFDC receipt under a parent's name.

^eTotals may not equal all categories summed because some sample members may be in more than one category.

Appendix Table 2
Effects on Marriage and Divorce for Two-Parent Recipient Families
over a Seven-Year Follow-Up Period, Year by Year

| | Sample Size | Divorced at End of Year (%) | | | | Married at End of Year (%) | | | |
|---|-------------|-----------------------------|------|---------------------|-------------------|----------------------------|------|---------------------|-------------------|
| | | MFIP | AFDC | Impact ^a | Percentage Change | MFIP | AFDC | Impact ^a | Percentage Change |
| Full recipient sample | 1,515 | | | | | | | | |
| Year 1 | | 0.5 | 0.5 | 0.0 | 0.7 | | | | |
| Year 2 | | 2.0 | 2.7 | -0.8 | -28.3 | | | | |
| Year 3 | | 3.3 | 4.8 | -1.4 | -30.2 | | | | |
| Year 4 | | 6.3 | 6.8 | -0.4 | -6.6 | { Not applicable } | | | |
| Year 5 | | 7.5 | 9.1 | -1.6 | -17.1 | | | | |
| Year 6 | | 8.7 | 11.7 | -3.0 ** | -25.9 | | | | |
| Year 7 | | 9.1 | 12.9 | -3.8 ** | -29.5 | | | | |
| Among those who were married at baseline | 1,043 | | | | | | | | |
| Year 1 | | 0.6 | 0.7 | -0.1 | -16.6 | | | | |
| Year 2 | | 2.5 | 3.6 | -1.2 | -32.2 | | | | |
| Year 3 | | 4.3 | 6.0 | -1.7 | -28.1 | | | | |
| Year 4 | | 8.6 | 8.8 | -0.3 | -3.0 | { Not applicable } | | | |
| Year 5 | | 10.2 | 12.0 | -1.8 | -15.1 | | | | |
| Year 6 | | 11.7 | 15.0 | -3.3 | -21.7 | | | | |
| Year 7 | | 12.1 | 16.8 | -4.6 ** | -27.7 | | | | |
| Among those who were cohabiting at baseline | 472 | | | | | | | | |
| Year 1 | | 0.2 | 0.0 | 0.2 | N/A | 6.4 | 7.2 | -0.8 | -11.0 |
| Year 2 | | 0.9 | 0.8 | 0.1 | 10.0 | 11.0 | 11.0 | 0.0 | 0.0 |
| Year 3 | | 0.8 | 2.5 | -1.7 | -67.4 | 13.8 | 15.8 | -2.0 | -12.9 |
| Year 4 | | 0.8 | 3.4 | -2.6 * | -76.2 | 16.1 | 17.1 | -1.0 | -6.0 |
| Year 5 | | 1.1 | 4.0 | -2.9 * | -72.4 | 17.5 | 18.2 | -0.7 | -3.9 |
| Year 6 | | 1.7 | 5.5 | -3.8 ** | -68.9 | 18.6 | 17.3 | 1.4 | 7.8 |
| Year 7 | | 2.4 | 4.6 | -2.2 | -48.0 | 20.4 | 15.9 | 4.5 | 28.2 |

SOURCES: Calculations using public divorce and marriage certificate records from the State of Minnesota.

NOTES: The sample includes members randomly assigned from April 1, 1994 to March 31, 1996, excluding the small percentage who were receiving or applying only for food stamps at random assignment. Approximately 96 percent of two-parent recipient families were randomly assigned from April 1994 to March 1995.

A two-tailed t-test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as ***= 1 percent; **= 5 percent; * =10 percent.

Rounding may cause slight discrepancies in sums and differences.

Because of the long intake period, the full sample size was not available for follow-up Year 7; the sample size at the end of Year 7 was 1,235.

^aThe difference is the impact of the financial incentives, mandatory services, reinforced incentive messages, and elimination of the 100-hour rule and work history requirement.

Appendix Table 3
MFIP's Effects on Marriage and Divorce for Two-Parent Applicant Families
over a Six-Year Follow-Up Period, Year by Year

| | Sample Size | Divorced at End of Year (%) | | | | Married at End of Year (%) | | | |
|---|-------------|-----------------------------|------|---------------------|-------------------|----------------------------|------|---------------------|-------------------|
| | | MFIP | AFDC | Impact ^a | Percentage Change | MFIP | AFDC | Impact ^a | Percentage Change |
| Full applicant sample | 731 | | | | | | | | |
| Year 1 | | 0.6 | 1.7 | -1.1 | -63.3 | | | | |
| Year 2 | | 3.1 | 2.9 | 0.2 | 7.2 | | | | |
| Year 3 | | 5.7 | 6.8 | -1.1 | -16.3 | | | | |
| Year 4 | | 12.3 | 8.9 | 3.5 | 39.1 | { Not applicable } | | | |
| Year 5 | | 16.2 | 11.9 | 4.3 * | 35.8 | | | | |
| Year 6 | | 19.0 | 15.8 | 3.3 | 20.6 | | | | |
| Among those who were married at baseline | 577 | | | | | | | | |
| Year 1 | | 0.5 | 2.1 | -1.6 | -74.5 | | | | |
| Year 2 | | 4.1 | 3.4 | 0.7 | 19.6 | | | | |
| Year 3 | | 7.2 | 8.0 | -0.8 | -9.7 | | | | |
| Year 4 | | 15.0 | 10.5 | 4.5 | 42.7 | { Not applicable } | | | |
| Year 5 | | 19.8 | 14.2 | 5.6 * | 39.1 | | | | |
| Year 6 | | 23.2 | 19.2 | 3.9 | 20.5 | | | | |
| Among those who were cohabiting at baseline | 154 | | | | | | | | |
| Year 1 | | 1.9 | 0.0 | 1.9 * | 0.0 | 7.9 | 4.3 | 3.6 | 82.2 |
| Year 2 | | 1.9 | 0.0 | 1.9 * | 0.0 | 13.8 | 10.2 | 3.6 | 35.2 |
| Year 3 | | 0.5 | 3.0 | -2.5 | -82.2 | 16.0 | 10.7 | 5.3 | 49.2 |
| Year 4 | | 3.8 | 2.7 | 1.0 | 37.0 | 19.5 | 12.5 | 7.0 | 55.4 |
| Year 5 | | 4.4 | 4.0 | 0.4 | 10.4 | 20.1 | 13.8 | 6.3 | 46.0 |
| Year 6 | | 4.9 | 4.3 | 0.6 | 15.1 | 21.5 | 15.0 | 6.6 | 44.0 |

SOURCES: Calculations using public divorce and marriage certificate records from the State of Minnesota.

NOTES: The sample includes members randomly assigned from April 1, 1994 to March 31, 1996, excluding the small percentage who were receiving or applying only for food stamps at random assignment.

A two-tailed t-test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as ***= 1 percent; **= 5 percent; * =10 percent.

Rounding may cause slight discrepancies in sums and differences.

Because of the long intake period, the full sample size was not available for follow-up Year 6; the sample size at the end of Year 6 was 696.

^aThe difference is the impact of the financial incentives, mandatory services, reinforced incentive messages, and elimination of the 100-hour rule and work history requirement.

MFIP's Long-Term Effects on Marriage and Divorce

Appendix Table 4

**Effects on Divorce for Two-Parent Applicant Families
over a Six-Year Follow-Up Period**

| | Sample Size | Ever Divorced (%) | | | P-Value for Subgroup Differences | |
|--|----------------|-------------------|------|---------------------|--|----------------------|
| | | MFIP | AFDC | Impact ^a | | Percentage Change |
| Overall | | | | | | |
| All applicant families | 731 | 21.0 | 18.8 | 2.2 | 11.7 | |
| Number of children | | | | | | 0.08 * |
| Fewer than 3 children | 494 | 17.3 | 18.6 | -1.3 | -7.1 | |
| 3 or more children | 224 | 31.3 | 19.7 | 11.6 * | 58.8 | |
| Race/Ethnicity | | | | | | 0.16 |
| White, non-Hispanic | 575 | 21.9 | 21.0 | 0.8 | 3.9 | |
| Age of youngest child | | | | | | 0.21 |
| Less than 6 years old | 530 | 23.6 | 19.7 | 3.8 | 19.3 | |
| 6 years old or older | 188 | 13.2 | 17.8 | -4.7 | -26.3 | |
| Employment 1 year prior to study entry | | | | | | 0.12 |
| One parent employed | 226 | 24.4 | 14.3 | 10.1 * | 70.6 | |
| Both parents employed | 373 | 20.2 | 24.8 | -4.6 | -18.6 | |
| Welfare receipt prior to study entry | | | | | | |
| Less than 2 years | 650 | 21.7 | 19.1 | 2.5 | 13.2 | |
| Married at Baseline | | | | | | |
| All applicant families | 577 | 25.0 | 23.5 | 1.5 | 6.3 | |
| Number of children | | | | | | 0.09 * |
| Fewer than 3 children | 362 | 21.3 | 24.2 | -2.9 | -11.9 | |
| 3 or more children | 208 | 33.0 | 21.8 | 11.1 | 50.9 | |
| Race/Ethnicity | | | | | | 0.40 |
| White, non-Hispanic | 454 | 25.2 | 26.9 | -1.7 | -6.4 | |
| Age of youngest child | | | | | | 0.40 |
| Less than 6 years old | 388 | 28.7 | 27.0 | 1.7 | 6.4 | |
| 6 years old or older | 182 | 13.7 | 18.5 | -4.8 | -26.0 | |
| Employment 1 year prior to study entry | | | | | | 0.10 * |
| One parent employed | 191 | 27.2 | 16.0 | 11.2 | 70.4 | |
| Both parents employed | 277 | 25.9 | 33.6 | -7.7 | -22.9 | |
| Welfare receipt prior to study entry | | | | | | |
| Less than 2 years | 512 | 25.3 | 23.6 | 1.8 | 7.5 | |

SOURCES: MDRC calculations using public divorce and marriage certificate records from the State of Minnesota.

NOTES: The sample includes members randomly assigned from April 1, 1994 to March 31, 1996, excluding the small percentage who were receiving or applying only for food stamps at random assignment.

A two-tailed t-test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as ***= 1 percent; **= 5 percent; * =10 percent.

Rounding may cause slight discrepancies in sums and differences.

^aThe difference is the impact of the financial incentives, mandatory services, reinforced incentive messages, and elimination of the 100-hour rule and work history requirement.

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