JOBS, CASH TRANSFERS, AND MARITAL INSTABILITY: A REVIEW OF THE EVIDENCE

John Bishop

SR19

Written testimony to the Welfare Reform Subcommittee of the Committees on Agriculture, Education and Labor, and Ways and Means, of the U.S. House of Representatives, October 14, 1977

This research was supported in part by funds granted to the Institute for Research on Poverty, University of Wisconsin-Madison by the U.S. Department of Health, Education, and Welfare pursuant to the Economic Opportunity Act of 1964 and by funds from MPRE Grant No. 51-55-73-04 from the Employment and Training Administration of the Department of Labor. The opinions expressed and any remaining errors are solely the responsibility of the author.

Table of Contents

Jobs, Cash Transfers, and Marital Instability: A Review of the Evidence

A major objective of the executive branch's welfare reform package is to "provide strong incentives to keep families together rather than tear them apart, (1) by offering the dignity of useful work to family heads and (2) by ending rules which prohibit assistance when the father of the family remains within the household." (White House Message, August 7, 1977)

To what extent are the claims that welfare reform will stabilize marriages supported by the results of recent social science research on marital stability? The conclusion is that while there is strong empirical support for the first claim--that providing jobs will reduce instability--there is none for the second. In fact, the best available evidence is that expanding eligibility for welfare to include two-parent families will increase marital splits rather than decrease them. This evidence has been available for only 18 months and, therefore, has not yet been subject to the full scrutiny of the research community. However, decisions about income maintenance policy are being made now. Consequently Congress and the public must be made aware of the current state of the social scientific knowledge about the likely effects of universal income maintenance on marital stability.

If keeping families together is an objective, the policy implications of these findings are that President Carter's emphasis on providing jobs rather than stipends is correct and needs to be carried further. Intact families with an able-bodied worker should be aided by providing jobs and by raising their after tax earnings not by putting them on welfare.

The jobs component of the Program for Better Jobs and Income (PBJI) is designed to provide an effective guarantee of employment to heads of

families with children. This is to be accomplished by creating 1.4 million public service jobs and assigning heads of families with children priority in any queue that may develop in the application for these jobs. Tax relief would be extended to families with low earnings by liberalizing the earned income tax credit. Workers in private and nonsubsidized public employment would continue to receive the current 10% credit on earnings up to $4000 a year and would, in addition, receive a 5% credit on earnings between $4000 and the family's tax threshold (roughly $9000 for a family of four). If implemented, these components of PBJI will accomplish the double purpose of eliminating involuntary unemployment and raising the take-home pay of workers in low and middle income families with children. The results of half a century of social science research support the proposition that accomplishing these objectives will help keep families together.

1. EVIDENCE ON THE EFFECT OF UNEMPLOYMENT AND THE EARNINGS OF HUSBANDS ON MARITAL STABILITY

The classic studies of the impact of unemployment on marriages are the studies of adjustment to long-term unemployment during the 1930s done by Bakke (1940) and Komarovsky (1940). A pattern of progressive deterioration in the husband's authority and involvement in family ritual was common.[1] When family heads were able to obtain work relief, the process of disintegration was arrested. Bakke concluded, "The job of the head of the family provides not only an income but a social role for which there is no adequate substitute in a working class culture [Quoted in Stone et al., 1975, p. 148]."

One of the best ways to study marital disruption is to follow a large sample of couples over a long period of time and examine how characteristics measured early in the marriage relate to later disruption. Two large nationally representative data sets of this type currently exist: the Panel Study of Income Dynamics (PSID) and the National Longitudinal Survey (NLS). Hoffman and Holmes (1976) found that in the PSID when no other variables are controlled marital dissolution measured over a 7-year period is negatively associated with the husband's hourly wage and average hours of work per week. When, however, a great number of demographic and other economic variables were controlled (including home ownership, savings, hours worked and unemployment), the wage rate no longer had a consistent effect. Hours worked had an important though curvilinear effect. Husbands working 48 hours per week were found to have the lowest split rate with significant increases in splitting occurring for those working more than 60 or less than 40 hours a week. Husbands who had recently been experiencing unemployment or high job turnover were more likely to experience a marital dissolution. Owning a home and having substantial savings lowered the probability of separation. These results suggest that it may be the stable life style (as reflected by owning a home and having substantial savings) made possible by a husband's high wage rate that contributes to stable marriages.

The Sawhill et al. (1975) analysis of PSID data obtained similar results. If the husband in a poor or near-poor family had experienced serious unemployment problems, the probability of a separation over the next 4 years rose by more than 16 percentage points. A typical low-income white family's probability of dissolution rose from 7.6% to 24%. The typical low-income

black family's probability of dissolution rose from 12% to 30%. Declines in income also caused statistically significant increases in marital dissolution.

Cherlin's (1976) study of marital separations of 30- to 44-year-old women in the National Longitudinal Survey also found that marriages were more stable when the husband worked throughout the year and/or had a high wage rate. Moore's (1977, p. 80) study of marital splits over a four-year period using the National Longitudinal Survey's sample of young women (14 to 24% in 1968) also found the likelihood of a marital separation was higher when the husband's earnings were low.

The evidence for the proposition that families whose head experiences unemployment are more likely to split seems quite strong. Will a reduction in unemployment caused by an economic boom or government created jobs reduce rates of marital dissolution as well? The doubter may argue that the correlation of unemployment and marital splits across individuals is due to some third factor (for example, a violent temper) which is not controlled in the studies cited above. For example, if violent tempers are the cause of the observed association, giving jobs to the unemployed will not save their marriages. One way to test this omitted factor hypothesis is to examine whether there is an association between the unemployment rates and male earnings opportunities in the community and indicators of marital disruption in that community. Presumably the incidence of men with the key omitted characteristics (such as a temper) is not the cause of or highly correlated with variations across cities

in the unemployment rate. Therefore, an association at the community level of higher unemployment rates and lower male wage rates, with higher rates of marital dissolution would provide strong evidence for the existence of a causal relationship.

Three studies of rates of female headship for large geographic areas are available and all find that unemployment, and the ratio of male to female wages, are quite important. Rates of marital dissolution are not available by geographic area, however, so we must work with the best proxy available. It is not necessarily a disadvantage to analyze variations in rates of female headship because they are of great intrinsic interest. Besides reflecting differences in marital dissolution rates of families with children, they reflect differences in remarriage rates, differences in the likelihood of having a child out-of-wedlock and keeping the child, and differences in the likelihood for the mother to live with her own parents.

Honig's studies (1974, 1976) of rates of female headship in 44 metropolitan areas found that, controlling for the characteristics of the AFDC program, rates of female headship of whites and blacks in 1960 and 1970 fell when males earned more. Higher unemployment rates increased the female headship rates of whites in 1970 and of both races in 1960. Using states as observations, Minarik and Goldfarb (1976) obtained similar results for male wage rates. The unemployment rate had a positive coefficient but it was not statistically significant.

Strong impacts of unemployment rates and male wage rates on marital instability have been found in Ross's study (1975, p. 216) of female

headship rates in the low-income areas of 41 cities in 1970. Holding the male/female wage ratio and AFDC program characteristics constant, she found that a doubling of the median weeks of male unemployment raised white female headship rates by 55%. Rates of female headship for black women did not respond to the unemployment variable. A 10% rise in the median income of intact families lowered rates of female headship by 7%.

The final piece of evidence on the impact of local unemployment rates is provided by Caldwell's (1977, p. 303) study of dissolutions using the young NLS women. He found that living in an area with high unemployment caused a statistically significant rise in the marital split rate. The yearly rate of marital disruption, which averaged 6.7% in this sample, was predicted to rise to 7.7% if the local unemployment rate was 2 points higher than average.

What then will be the impact of the jobs component of the welfare reform package? The jobs component will assure all families with children a job that will yield a minimum income 13% above the poverty line of a family of four. Since these jobs will carry low wage rates, their primary impact will be on unemployment not on wage levels. All the studies which entered a local unemployment rate into the analysis (Caldwell, 1977; Honig, 1974; Ross, 1975; and Minarik and Goldfarb, 1976) have found that generally tight labor markets were associated with fewer marital dissolutions or lower rates of female headship.

The stabilizing effect of a general reduction in unemployment will be accentuated by the fact that "if there is more than one adult in the family, this job or training slot will go to the family's principal wage

earner. The principal wage earner will be the adult who had the highest earnings or worked the most hours in the previous year." (HEW News Release, August 6, 1977.) In two-parent families this will typically mean that the husband will be provided the job. Priority is given to providing principal wage earners a job because it is felt that families whose principal wage earner is unemployed have the greatest need of help. There is only a limited number of job slots; therefore, giving all wives a similar priority in the queue would result in some of the neediest families not receiving any job offer. By giving priority to ending the unemployment of family breadwinners, the jobs program will have the additional effect of stabilizing marital relationships. The impact of the liberalized earned income tax credit on marital stability is harder to predict. This issue will be discussed at the end of the section on cash assistance.

2. THE EFFECT OF MAKING WELFARE PAYMENTS TO INTACT FAMILIES

The second aspect of welfare reform that is supposed to encourage families to stay together is the expansion of coverage to include intact families with able-bodied adults. Currently, most low-income two-parent families are ineligible for the Medicaid and AFDC support that similarly situated one-parent families receive. It is not unusual for the earnings of a father to be less than the value of the Food Stamps, AFDC, and Medicaid his family would become eligible for if he were to desert them.

While it may seem only logical that these perverse incentives should increase marital instability, the empirical evidence for the proposition is by no means secure. Honig (1974, 1976) found a positive relationship

between the level of the AFDC payment and rates of female headship for blacks and whites in both 1960 and 1970. The effect is not statistically significant for blacks in 1970, however, and its size is small. A doubling of the AFDC payment increased the number of female heads by only 6%. Ross's (1975) study of female headship in low-income neighborhoods has also found positive and statistically significant impacts of AFDC payment level on blacks but not on whites. Studies that use states rather than metropolitan areas as observations (Minarik and Goldfarb, 1976; MacDonald et al., 1977) have found nonsignificant negative effects of higher AFDC payments on female headship.

Analysis of PSID data has also failed to produce conclusive results. Hoffman and Holmes (1976) found that in states with high benefit levels the dissolution rates of low-income couples rose from 3.8% to 10.6%. This effect is substantially larger than those found by anyone else. Sawhill et al.'s (1975) logit analysis of disruption during the first 4 years of the PSID found a statistically significant but small effect of AFDC payment level.[2] While two-thirds of the studies found a positive effect of AFDC payment level on marital instability indicators, only one of these studies found the effect to be large using recent data. Thus, while there is some support for high AFDC payment levels being a marriage destabilizer, there is very little support for its being a powerful destabilizer.

Even if providing female-headed families with an adequate level of support does cause an increase in marital instability, it does not follow that "ending rules which prohibit assistance when the father of a

family remains within the household . . . [will] . . . keep families together." (HEW News Release, August 6, 1977) There is no empirical support for this assertion. The best existing evidence suggests the opposite will occur.

In many states two-parent families with an unemployed head are already eligible for cash assistance from the AFDC-UP program. The primary purpose of this program is to reduce the incentive for families to split up in order to get AFDC. There is, however, no evidence that this program has reduced marital instability. A study of the AFDC caseload in Alameda County, California (Wiseman, 1977) found that 22% of a 1972 sample of mothers in two-parent families receiving AFDC-UP assistance were on AFDC for absent or disabled fathers before the end of a year. Wiseman reports that almost all these transfers from AFDC-UP to AFDC status were due to a dessertion.[3] These rates of dissolution are substantially higher than those experienced by two-parent low-income families that are not on AFDC-UP. The yearly rates of dissolution in the control groups of the Income Maintenance Experiments were 4% in New Jersey and 5-10% in Seattle/Denver. The 4-year dissolution rates for poor and near-poor couples in the PSID were 7.6% for whites and 12.1% for nonwhites.[4] Since the families that apply for AFDC-UP are not a random sample of all low-income families, this data does not prove that AFDC-UP caused the higher disruption rates. These results are, however, consistent with the findings of other research (to be presented shortly) that extending welfare to include two-parent families will increase rather than decrease marital instability.

Since many states do not have an AFDC-UP program, another way of examining the effect of AFDC-UP is to enter a dummy variable for the presence in the state of an AFDC-UP program in models predicting aggregate indicators of marital disruption. Three studies of female headship rates (Ross, 1975; Minarik and Goldfarb, 1976; Honig, 1976) have done this. Since the number of families receiving AFDC-UP aid is small even in the most liberal state, large impact is not to be expected. Where estimated separately by race, impacts are positive for blacks and negative for whites. The Minarik and Goldfarb estimate of AFDC-UP impact for both races combined is positive. In the three studies only one of the coefficients is statistically significant, however. This coefficient (Honig, 1976) implies that female headship among blacks increases by 15% where there is an AFDC-UP program. As expected, the results are not conclusive.

3. EVIDENCE FROM THE NEGATIVE INCOME TAX EXPERIMENTS

The best evidence on the likely impact of extending cash assistance to two-parent families on marital stability is provided by the negative income tax experiments. In these experiments negative income tax programs that are very similar to the cash assistance component of the Program for Better Jobs and Income were actually tried out. Families were randomly assigned to experimental and control groups. This is a major advantage. It means that if statistically significant non-artifactual differences are found between the experimental and control groups, it is possible to make the inference that being placed on the plan caused the difference. While better than any other kind of evidence, the experiments are not perfect. Ambiguities of interpretation may arise from small sample size, differential

attrition of families from the experiment, and imperfect methods of measuring marital dissolutions. The families are promised only 3-5 years of payments and are studied only for that period of time. Consequently, predictions about the short- and long-term effects of a permanent program are necessarily extrapolations. After the basic findings of these experiments are presented, the likely direction and size of the biases created by these and other problems will be assessed.

Analyses of marital splitting have been published for three of the four experiments. In all three the measured rates of marital dissolution were larger in the experimental group than the control group. The unadjusted dissolution rates for the control and experimental groups of each of these experiments are presented in Table 1 and Figure 1. For whites in the Seattle/Denver experiment, for instance, 10% of the control group and 17% of the experimental group's marriages had dissolved with 2 years--an increase of 70%. Among black families, 15.6% of the control group and 23.3% of the experimental group's marriages had dissolved within 2 years, also a 70% increase. Families on the most generous plans apparently did not experience an increase in the rate of marital dissolution. The cash assistance component of the Program for Better Jobs and Income has a low guarantee, however, so it is the effect of the low support plans in the NIT experiments that hold the greatest immediate policy interest. In all three experiments, it was the group of families on the least generous support plans that experienced the largest increases in the rate of marital dissolution. Except for Chicanos, families on the low support plan appear to have doubled their dissolution rate. These generalizations are based on the support level multipliers presented in Table 2, which provide estimates of the proportionate

Table 1

Marital Dissolution Rates in the Negative Income Tax Experiments

	Whites	Blacks	Spanish
New Jersey (3 years)[a]			
Control	7.5%	11.6%	13.9%
All Financial	6.7	14.5	20.1
Low Support	13.8	23.3	25.0
Medium Support	7.2	10.7	24.1
High Support	4.1	15.2	14.5
Number of Control Obs.	159	155	108
Number of Financial Obs.	209	193	144
Denver (30 mos.)[b]			
Control no Inc. Rept. Form	11.2	26.7	13.0
Control with Inc. Rept. Form	13.4	16.4	20.6
Low Support	24.8	31.2	25.9
Medium Support	15.8	29.8	18.4
High Support	10.0	19.0	13.8
Number of Control with Inc. Rept. Form	119	98	92
Number of Financial Obs.	333	247	335

Table 1--Continued.

	Whites	Blacks	
Seattle (30 mos.)[a]			Rural (3 years)[c]
Control	14.6	15.5	4.8
Low Support	26.4	29.2	11.9
Medium Support	19.0	27.9	4.1
High Support	13.5	19.9	3.0
Number of Control Obs.	351	206	336
Number of Financial Obs.	359	256	280

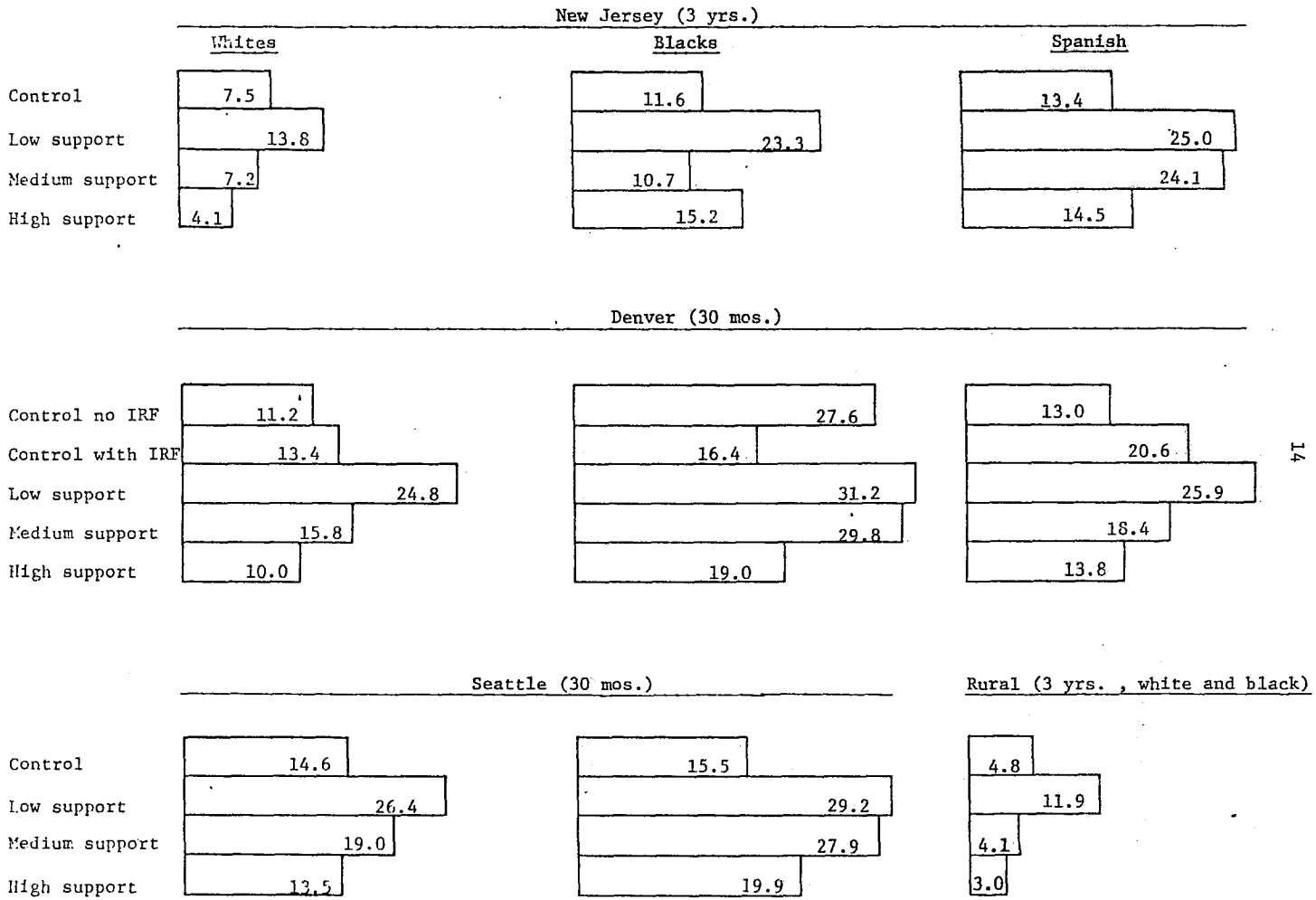
Source:

[a]Sawhill et al. (1975).

[b]Private communication from Lyle Groenveld at the Stanford Research Institute. The author wants to thank the people at SRI for their cooperation.

[c]Middleton and Haas (1977).

Figure 1. Marital Dissolution Rates in the Negative Income Tax Experiments



Note: Percent splitting is given at the top of the bar.

Table 2

Multipliers for Dissolution and Remarriage Rates

	Support Level	Seattle/Denver 24 months					New Jersey 36 months		Rural[f] 36 mo.
		Whites		Blacks		Chicanos	All		All
		All	With Children	All	With Children	All	Sawhill[d] et al.	Knudson[e] et al.	
Dissolution of Marriages Intact at Enrollment[a]	Low	2.27***	1.77**	1.69*	1.67*	1.37	1.9**	1.79	3.0
	Medium	2.00***	1.75**	1.85**	1.69*	.81	1.3	1.64	1.14
	High	1.32	1.03	1.45	1.43	.85	1.0	1.02	.85
Remarriage of Those Enrolled as Female Heads[b]	Low	.85		.99		.18***			
	Medium	.81		1.23		.22**			
	High	.54		.81		.11**			
Remarriage of All Female Heads[b]	Low	1.30		1.29		.51*			
	Medium	1.10		1.71		.42**			
	High	.80		1.17		.22***			
Expected Proportion of Women in a Population Like SIME/DIME That Will be Married Living With Spouse[c]	Control	.65		.34		.66			
	Low	.55		.31		.35			
	Medium	.54		.33		.48			
	High	.53		.30		.36			

Notes to Table 2

[a]Marital Dissolution equations contain controls for: Normal Income (6 categories), city, log of marriage duration, wife's age, wife's education splined at 12 years, wife's wage, husband's age, husband's education, husband's wage, wife/husband wage ratio, number of children of different ages, family on AFDC prior to beginning of experiment.

[b]Remarriage equations contain all of the above variables except those that refer to the husband's characteristic.

[c]The steady state equilibrium proportion married is m/m+d where m is the marriage rate and d is the dissolution rate. It assumes that the impact effect of going on the program occurs in the first 6 months and that the next 18 months provide an estimate of the long run change in rates of dissolution. Taken from Table 3 of "Variation Over Time in the Impact of SIME/DIME on the Making and Breaking of Marriages" by Tuma, Hannan, and Groenveld, Feb., 1977.

[d]The multipliers for New Jersey combine the effects of support level dummies and the payment variable in the linear probability model of the full sample in Table XII, p. 68 of Sawhill et al., 1975. Average weekly payments were $34, $15.30, and $7.70 for high, medium, and low guaranteed levels respectively.

[e]The multipliers are derived from Table 11:8 of Knudson, Scott, and Shore's analysis of transitions from nuclear to female headed status using 3 years of quarterly data from the New Jersey Experiment (Rees and Watts, 1978). The model used is the one that controls ethnic group and income prior to enrollment and ignores interaction between plan and ethnic group. Logit coefficients for no plan, low through high plans were -.318, .358, .256 and -.297 respectively.

[f]These multipliers are derived from the Adjusted Dissolution Rates given in Table 1 of Middleton and Haas's analysis of the Rural Income Maintenance experiment. Linear Regression analysis was used to control for race, state, education, length of most recent job, 1969 family income, family size, welfare status at pre, farm occupation of head, age, nights in hospital, disability, net equity, and work at pre.

$^{*}.10 \geq p \geq .05$

$^{**}.05 \geq p \geq .01$

$^{***}.01 \geq p$

response of dissolution rates when the pre-experimental characteristics of the family are controlled. For the low payment plan the increases in marital split rates are statistically significant in both the urban experiments. They are not statistically significant in the Rural Income Maintenance Experiment because the low incidence of marital disruption in rural areas and the small sample size combined to produce only a limited number of splits to study.

Could these increases in the incidence of marital splitting for people on an NIT be produced by some bias in the mode of analysis? Longitudinal studies always find that some proportion of the families originally chosen for study disappear or refuse to cooperate with later interviews. Women who have separated from their husbands have a stronger incentive to remain in touch with the program if they are eligible for negative income tax payments. It has been argued that as a result, attrition from the sample may be disproportionately high for controls who change their marital status. If this occurs, rates of marital dissolution in the control group will be understated and the increase in marital splits due to the negative income tax experiment will be overstated.

Examination of data on attriters from the New Jersey Experiment, however, does not support the hypothesis of an interaction between attrition, marital dissolution, and being in the control group. A special follow-up interview of the families that had attrited found no special tendency for control group attriters to have a higher dissolution rate.[5] Even if there is a strong interaction, attrition alone cannot be responsible for the large experimental effects being observed in the Seattle/Denver Experiment.

Hannan, Tuma, and Groenveld (1976) have tested the sensitivity of the Seattle/Denver results to attrition. Even under the worst case--the unrealistic assumption that all controls who leave the experiment are dissolving their marriage and only a few of the experimentals who leave the experiment are breaking up--significant positive experimental impacts remain for whites and blacks. The decline in the support multiplier produced by even these extreme assumptions imply that, in the low support plans, instead of there being a 100% increase there is a 50% increase in rates of marital dissolution.

The fact that all of the experimental group and only some of the control group were filling out Income Report Forms (IRF) is another potential source of bias. In Seattle/Denver the financial report form was one of three sources of information used to keep track of changes in marital status. It is, therefore, possible that some of the separations that last for only a few months might be counted only when the financial report form is being filed. If this is the case, rates of marital dissolution and remarriage in the control group will be understated. This would cause the impact of the experiment on dissolutions to be overstated and its impact on remarriages to be understated.

The Denver results presented in Table 1 and Figure 1 allow us to examine whether there is a tendency for more marital status changes to be measured when a family is filing an IRF. The average for all ethnic groups suggests that while not having to file an IRF may undercount remarriages, it has no effect on the likelihood of counting splits. If only families filing the IRF are used to derive the effect of the experiment on marital dissolution, the measured impact declines slightly for whites and rises substantially for blacks. The impact of the experiment on rates of marital dissolution

of Chicanos--which has never been statistically significant--is further reduced. The average of the point estimates of experimental effects on splitting does not change. However, because the effective size of the sample has been reduced, the statistical significance of the result falls.

Knowing what happened in the experiments does not mean we know what will happen if a similar change is made in the nation's welfare system. A revision of the welfare system would be viewed as a permanent change; the experiments were known by the participants to be temporary. One would expect a permanent program to have a larger impact on marital stability than a temporary one. Evidence for this hypothesis is provided by the fact that in Seattle/Denver the impacts of the experiment on both white and black families promised 5 years of payments are consistently (though nonsignificant) greater than those on the plan for three years.

A second result of the short-term nature of the experiment is that we do not know whether the effects observed over the first 3 years will continue in the 4th, 5th, etc. years of a permanent program. It is possible that for families that remain in the program, long-term effects will be much smaller than the initial response. Over the first 24 months of the Seattle/Denver experiment such a pattern was observed for whites. The opposite pattern--effects increasing over time--was observed for blacks and Chicanos (Tuma et al., 1977). Even if the impact of the program were to decline after 3 years, the turnover in the population affected by the program (newly formed families, and families experiencing a severe decline in income due to unemployment or sickness) will insure that the induced rise in marital instability would not gradually disappear.

The final difficulty with using the experiment to predict the results of a national program is that the experiments occurred within the context of an exogenously determined general climate of opinion and customs about marriage. Over time, a national program might change the customs and the climate. The fact that something is more common may tend to lead us to believe it is more acceptable. The possibility that a negative income tax might have community effects that lead to changes in the work ethic has been discussed by Masters and Garfinkel (1978). If a NIT were to have a large initial impact on marital stability, similar changes in the community's attitude toward marriage might follow.

4. WHY MARITAL SPLITTING INCREASED

Having dealt with the potential biases in the estimates of experimental effects, let me turn to the interpretation of the results. Here one is on shakier ground because while the experiments provide a hard to refute answer to the question "Will marital dissolution rates go up or down," they only provide us clues as to "Why."

The standard analysis of the marital stability response to a universal cash assistance program suggests that there should be two contrasting effects. The fact that the family is made better off while it remains together should reduce marital instability. This income effect, as it is called, should be strongest in the most generous plans. Split rates are lowest in the most generous plans so it appears that at least across plans an income effect is operating. The second effect results from the fact that the program also increases the income of one-parent families. By improving

the financial situation of the wife if there is a split and reducing the need for child support, the program may induce some families to split. This female independence effect, as it is called, is also presumed to be the reason why women who work and earn good wages are more likely to dissolve their marriages. Evidence for the proposition that a female independence effect is operating is provided by the high split rates of families on a NIT plan but earning too much to receive a payment. The only way these above "breakeven" families can receive significant payments from the program is by reducing market work or splitting up. Splitting up seems to be one of the responses.

The most puzzling thing about the experimental results is that women on the low support plan are dissolving their marriages at a very high rate (relative to controls) despite the fact that AFDC and Food Stamps combined (the payment option for controls who split) will pay almost as much or more in the event of a split. Hannan, Tuma, and Groenveld (1977) suggest that transaction costs involved in applying for AFDC and the stigma attached to receiving AFDC and food stamps may result in these programs having much smaller female independence effects than the NIT experiment. In the New Jersey experiment, however, Garfinkel found that when AFDC payments exceeded experimental support, more than half of the splitting families chose to be on AFDC and not the experiment (Garfinkel, 1974). This suggests that at least some of the splitting women did not consider the stigma of AFDC sufficiently large to outweigh the small financial gain involved in being on AFDC.

Hannan et al.'s (1977) other explanations of the puzzle focus on the information impace of receiving income maintenance.

> Presumably some women with no welfare experience are unaware either of the fact they would be eligible for welfare were their marriage to end or of the levels of support available. ...
>
> We took pains to explain that income-maintenance guarantees apply outside marriage. [p. 1189]

This information may substantially reduce the perceived costs of a marital separation. This information may "shock" the preexperimental equilibrium of an unfilling marriage and "focus attention on the current situtation and heighten their sense of dissatisfaction." A second way in which the information environment of experimental families was different from controls was they were actually on a plan and gaining real-life experience with its rules. Making monthly reports of income and receiving monthly checks (whose amounts vary inversely with the earnings of the primary worker) may quickly make family members "welfare wise." This experience with the high marginal tax rate may lead the family to consider sheltering the primary earner's income by having him split off from the rest of the family.

The third possible source of the high split rates of the experimental families on the low support plans is that the receipt of income tested cash transfers may lead to dissatisfaction with the husband's performance of his role and this may accentuate marital instability. The role performance interpretation asserts that most working and middle class families have traditional views about the role the husband is to perform. The husband is expected to be the breadwinner. If he is not able to fulfill his role, marital tension results. The male role performance explanation of marital instability is one of the major themes of the sociological literature on the subject. It is

supported by the nonexperimental research reviewed at the beginning of the paper. Families with an unemployed husband or a wife who is providing a major share of the income are more likely to be unstable. The Hoffman-Holmes (1976) finding that men working 48 hours a week had the lowest split rates suggests that the husband's wage rate matters less than how hard he tries.

The role performance explanation of the rise in marital instability in the income maintenance experiments is that the receipt of an income tested cash transfer is viewed by some families as a signal that the husband is a failure. In Bakke's (1940) words:

> Every goal he seeks to reach as a normal worker recedes further from realization when he turns to relief. Until that moment he could in a measure realize that even without current earnings the efforts he made in the past in the role of a "producer," a "good provider," a "good father" were still contributing to the support of his family. But now he has made a public declaration of his failure, and no rationalization can quite cover up the fact that a "reliefer" is not among the roles his associates respect [p. 255].

A second variant of this explanation suggests that since the program increases the number and length of spells of unemployment, friction produced by having the man around the house builds up into a split (Robins and Tuma, 1977).

The evidence for choosing the role performance explanation over the reduced stigma or "learning how the system works" interpretation is rather sketchy. Families where the husband's role performance is already threatened seem to be the ones most affected by being on the experiment. The proportionate increase in marital splitting seems to be greatest when the family's pre-experiment earnings are low and when the wife is well educated and is able to command a good wage rate.[6]

At present the three explanations--stigma, information, and male role performance--of the unexpectedly high split rates in the low support plan have the status only of hypotheses that are not yet contradicted by evidence.[7] They do not conflict with each other. It is likely that to some degree all three effects are operating.

The weight assigned to each is important, however, because it influences how seriously we view the splits that universal cash assistance may cause. Some might view splits caused by a reduction of the stigma of being on AFDC or greater awareness of opportunities for aid as giving the husband and wife the option to sever an already bad relationship. In this view, the experiments are not changing the basic quality of marital relationships, they are merely tipping a few of the worst marriages into the divorce court.

An alternative view is that marital partners on the margin of dissolution are already aware of the availability of AFDC, and that the impact of the experiment is on marital interaction. Providing a convenient alternative to working out the problems that arise may in some families induce one or both parties to reduce their investment in the relationship. Most marriages have their good times and their bad times. Adjusting to shocks to the marriage's equilibrium requires effort and forbearance on the part of both husband and wife. If either the husband or wife stops making the effort to communicate their needs and to adjust to the changing needs of the other, their relationship will tend to deteriorate and may eventually dissolve. The evidence that is available to us now does not allow us to choose between these two views.[8]

The role performance interpretation implies that in some families cash assistance disturbs a previously existing equilibrium and starts in motion a chain of events that leads to a dissolution. Some families will reject the notion that cash assistance is a sign of the husband's failure, others will respond to cash assistance by adopting a less traditional view of the husband's role in the family. Still other families will split apart. How seriously one views a government policy that might have as a side effect promoting such a chain of events depends on one's values.

The consequences for the children of an income maintenance induced divorce are hard to assess. Holding constant race, family origin, parent's education and occupation, the average child who grows up in single parent or step parent families spends roughly seven-tenths of a year less in school and obtains jobs that pay about 10% less (Featherman and Hauser, 1978) The experience of the marginal child may be different, however. It has been argued that a marital dissolution induced by reducing the stigma of AFDC will not hurt the children nearly as much as the averages quoted above. It might, in fact, help children. Social science does not know the extent to which children are hurt by this type of marital split and is unlikely to be able to find out, for we will never do the controlled experiment that would be necessary.

5. POLICY IMPLICATIONS OF FINDING INCREASES IN MARITAL INSTABILITY IN THE NEGATIVE INCOME TAX

A finding that universal cash assistance will increase the rate at which marriages dissolve has policy implications only if society decides that

such an outcome would be desirable or undesirable. The discussion that follows assumes that society views as undesirable either the fact of the increase in marital dissolutions or the increase in the cost of welfare that would result from an increase in the number of female-headed families.

Which interpretation one gives to the high rates of marital dissolution in the low support plans of the experiments also affects how one might modify the welfare reform package to reduce the number of marital dissolutions caused by the program. If increased knowledge of the availability of income support for the family if a dissolution occurs is the cause, segregating the programs that aid two-parent families from the ones that aid single-parent families is indicated. An earned income tax credit or wage rate subsidy would accomplish this. If stigma is the major explanation, we face a truly intractable dilemma. There would appear to be no way to make single-parent families better off without creating more of them.

If the role performance explanation is a major cause, aiding the family through jobs- and earnings-related transfers is the solution. The key is to aid the family in a way that does not signal the husband as a failure or create incentives for him to extend his periods of unemployment. The work requirement in the proposed program will tend to do the latter. The proposed program could have an unfortunate signaling effect, however. One way to avoid the chance that some may view the receipt of aid as a signal that the husband is a failure is to construct the system so that the payments are received as part of the worker's paycheck.

Two methods of subsidizing a worker's wages are available: earned income tax credit (EITC) and wage rate subsidies (WRS). Both would raise the average after tax earnings of low-income families and both can be implemented in an unobtrusive way by making the system a part of the withholding. A 10% EITC of the first $4000 of earnings of families with children is already a part of the tax code. By raising the EITC subsidy rate to 50% or more, varying the amount of income that can receive subsidy according to family size, and increasing the marginal tax rate in the cash assistance program, almost all the two-parent families that would receive cash assistance payments under the current proposal would instead be receiving the same dollars of increased income in the form of a higher pay-check. An example of how such an EITC oriented program would work for single- and two-parent four-person families is provided by Tables 3 and 4. (For a comprehensive description and analysis of EITC's see Haveman et al., 1973.)

A Wage Rate supplement (WRS) is a government payment per hour of work over and above the standard wage for a job. To be eligible for a supplement a job's standard wage would have to be equal to or greater than the minimum wage. There would be an upper limit on the number of hours of work that could be subsidized. (The limit would be somewhere between 180 and 210 hours per month.) In a WRS the per hour payment is equal to some percentage (say 50%) of the difference between a target wage (TW) and the workers actual wage (W). The general formula is WRS Payment = .5 (TW-W)(Hours Worked). To take a simple example, a worker in a minimum wage job (W = $2.65) who has a target wage of $4.65 would be eligible for a supplement of $1.00 an hour. If he works 160 hours in a month, he would receive $424 in normal

Table 3

A Comparison of Welfare Reform Alternatives for Four-Person Families with One Member Expected to Work

Earnings	Administration Welfare Reform			Alternative I			Alternative II		
	Cash Assist.	EITC	Total Income	Earnings Plus EITC	Cash Assist.	Total Income	Earnings Plus EITC	Cash Assist.	Total Income
0	$2300	0	$ 2300	0	$2300	$ 2300	0	$2300	$ 2300
$ 1000	2300	$100	3400	$ 2000	1400	3400	$ 1500	1800	3300
2000	2300	200	4500	4000	500	4500	3000	1300	4300
2300	2300	230	4830	4600	230	4830	3450	1150	4600
3000	2300	300	5600	5440	0	5440	4500	800	5300
4000	2200	400	6600	6640	0	6640	6000	300	6300
5000	1700	450	7150	7240	0	7240	7140	0	7140
6000	1200	500	7700	7840	0	7840	7740	0	7740
7000	700	550	8250	8440	0	8440	8340	0	8340
8000	200	600	8800	9040	0	9040	8940	0	8940
9000	0	650	9650	9640	0	9640	9540	0	9540
10000	0	562	10562	10480	0	10480	10380	0	10380
11000	0	462	11462	11380	0	11380	11280	0	11280

Note: Alternative I. EITC matches earnings dollar for dollar up to cash assistance guarantee for family expected to work (CAG). Above this level EITC = 20% of the next $1700. Above this the EITC is taxed at 40% up to four times the CAG, at which point the tax rate drops to 10%. Both earnings and the EITC are taxed by the cash assistance program. The tax rate in the cash assistance program is 45% for those expected to work and 70% for those not.

Alternative II. The EITC is 50% up to twice the CAG above which it is taxed at a 40% tax rate. Above four times the CAG, the EITC tax rate is 10%. The tax rate in the cash assistance program is 33 1/3% for those expected to work and 60% for those not expected to work.

Table 4

A Comparison of Welfare Reform Alternatives for Four-Person Families With No One Expected to Work

Earnings	Administration Welfare Reform			Alternative I			Alternative II		
	Cash Assist.	EITC	Total	Earnings & EITC	Cash Assist.	Total	Earnings & EITC	Cash Assist.	Total
0	4200	0	4200	0	4200	4200	0	4200	4200
1000	3700	100	4800	2000	2800	4800	1500	3300	4800
2000	3200	200	5400	4000	1400	5400	3000	2400	5400
3000	2700	300	6000	5440	392	5832	4500	1500	6000
4000	2200	400	6600	6640	0	6640	6000	600	6600
5000	1700	450	7150	7240	0	7240	7140	0	7140
6000	1200	500	7700	7840	0	7840	7740	0	7740
7000	700	550	8250	8440	0	8440	8340	0	8340
8000	200	600	8800	9040	0	9040	9940	0	8940
9000	0	650	9650	9640	0	9640	9540	0	9540

Note: See Table 3 for descriptive for Alternative I and II.

wages and $160 extra [.5(4.65 - 2.65) · 160] of wage supplement. If the worker were to obtain a job with a higher wage rate of $3.45 the supplement falls to $.60 an hour. His monthly supplement falls to $96 but his total earnings including the supplement rise from $584 to $648 ($96 + $552). Like the EITC the wage rate supplement can be designed to integrate well with guarantee-type programs like Food Stamps, AFDC and the Cash Assistance component of the administration's welfare reform proposal.[9]

Compared to an earnings subsidy, a WRS has the advantage of stimulating rather than decreasing work effort, because it increases the monetary benefits of working longer hours. Like an NIT, an EITC causes a $25 to $60 decline in a family's earnings for every $100 of cost. Using the labor supply function estimated for the Seattle/Denver experiment, Keeley et al. (1977, Table 12) have calculated that a program costing $8 billion extra in 1974 would, because of labor supply reductions, increase the income of target families by only $3.4 billion. Masters and Garfinkel's (1978) simulation of labor supply responses to NIT's and generous EITC's imply that for every $100 spent family incomes go up only $60 to $75.

A wage rate supplement has very different impacts on labor supply. If it is limited to primary earners it will leave labor supply unchanged. Extending it to include wives will raise before subsidy earnings by 10-20% of the amount paid out in supplements. As a result an $8 billion WRS program would (depending on coverage) raise the income of targeted individuals by $8 to 9.6 billion rather than $3.4 billion.

So far, all that has been claimed for earned income tax credits and wage rate subsidies for families with children is that they can transfer an equal amount of income to a family with a working head without having

marital destabilizing effects as serious as welfare or cash assistance. Is the benefit only the disruption of fewer families than the administration's cash assistance proposal or can it be claimed that introducing an EITC or WRS into the current environment will reduce marital instability below current levels? In order to make predictions we need to make assumptions. We have argued above that if eligibility determination is handled outside the welfare bureaucracy and payments made through modifications in the withholding system, there will be no announcement effects from receiving the subsidy and the extra income will be treated as if it came from a tax cut or wage increase. The argument of the next two paragraphs assumes that the EITC or WRS does have this character and that, consequently, by equating its effect with an equivalent wage change we may use nonexperimental research on marital stability to predict its effect.

The EITC and WRS raise the earnings of both single- and two-parent families. It is, therefore, conceivable that the female independence effect arising from the improved circumstances of female-headed families would outweigh the income effect of raising the intact family's earnings and cause a net increase in marital instability. Cross-section studies find that states and metropolitan areas with higher wage rates for women tend <u>ceteris paribus</u> to have higher rates of female headship. These same studies, however, find that a proportionate rise in both male and female wage rates are associated with fewer female-headed families. Holding the male/female wage ratio constant, Ross and Sawhill (1975) found that a 10% rise in the median income of intact families lowered rates of female headship in poverty areas of cities by 7%. In the Minarik and Goldfarb (1976) study a percent-in-poverty variable captures

the effect of a general rise in wage rates.[10] Reductions in poverty reduce the incidence of female headship though not to a statistically significant degree. In Honig's (1974) study a 10% rise in all wage rates is predicted to increase the number of black female heads by 6.3% and reduce the number of white female heads by 4.4%.

Except for Honig's (1974) results for blacks, the evidence suggests that a general rise in wages will tend to keep families together. This does not, however, necessarily imply that an EITC or WRS will have the same effect for these programs may increase the female headed family's earnings by a larger percentage than it increases the earnings of the comparable two-parent family. On the other hand, since the man loses his eligibility if he leaves his family, the EITC and WRS for families with children builds in stronger incentives for the man to stay with the marriage than does a general increase in wages. After netting out these counteracting effects the direction of the effect of employment related subsidies on marital stability must remain indeterminant. Whatever the direction, however, the size of the impact will be small and substantially more supportive of stable marriages than universal income maintenance.

6. CONCLUDING REFLECTIONS

For many years it was thought that one of the primary ways in which public policy might be designed to strengthen families was to expand eligibility for welfare benefits to include two-parent families. When this policy was implemented experimentally, we discovered that the opposite happened. Two-parent families on a payment plan very similar to

the administration's cash assistance program experienced marital dissolution rates that were 70% higher than the control group that was eligible for the current set of income maintenance programs--AFDC and Food Stamps. These findings suggest that if strengthening marriages is an objective of public policy, expansions of welfare coverage to include two-parent families should be approached with real caution.

Cashing-out Food Stamps is likely to substantially increase the participation of two-parent families in that program. Since cashing-out Food Stamps makes it very much like the NIT plans used in the experiments, this seemingly innocuous reform may cause a substantial increase in rates of marital dissolution.

How then can government improve the financial circumstances of low-income two-parent families without stimulating marital breakups? The answer would seem to be to focus on jobs rather than cash assistance. Reducing unemployment should get number one priority. Reflecting on why his marriage failed a young man recently told a reporter "she lost respect for me as a man because I could not support us." (New York Times, September 9, 1977). Nevertheless he had turned down jobs saying "I'm worth more than $2.90 an hour as a human being." A jobs strategy must simultaneously provide more jobs for the unskilled and drive up the wage rates for these jobs.

Programs that aid two-parent families should be as different from and as segregated from programs that aid single-parent families as possible. Two-parent families should be aided in a way that is not perceived as charity and that requires no contact with the welfare bureaucracy. If

possible the family should be unaware it is being aided. Aid should arrive as part of the paychecks of the family's working members. Subsidizing low wage workers who have family responsibilities is one way to accomplish this. Creating nonstigmatizing jobs and targeting them on family heads is another. Other less targeted and more costly approaches are available--national health insurance, a refundable tax credit for children, training programs, higher minimum wages combined with employment subsidies.

In choosing and designing programs we must never forget that it is the dignity of individual that is our ultimate objective. The role of provider for those they love is a fundamental part of the self-concept of most adults, males and increasingly of women as well. Government policy should have as its first priority helping the individual to achieve success in this self-defined role.

NOTES

[1]Numerous studies have also found an inverse relationship between the occupational status of a male and his probability of becoming or having been divorced. The Duncan SES score of the husband's occupation at time of marriage has a strong negative relationship with marital instability (Bumpass and Sweet, 1977). Holding age at marriage, education and religion of both spouses, whether wife's parental family was intact, wife's residence (region and farm) while growing up, previous marriage, and time since first marriage constant at their means, a decrease in SES of the husband's job at marriage from the top to the bottom quintile raised the probability of a split from .07 to .17 for whites and from .17 to .37 for blacks. While studies that relate marital instability to the occupational status of the husband are consistent with the hypothesis that raising the husbands' after tax earnings will encourage stability, they do not prove it. Evidence is needed from studies that relate husbands' income to marital stability while occupation is controlled. Evidence on this issue is provided by Cutright (1971). He found that the likelihood that an ever-married male is not living with his first wife has a strong inverse relation to income and is unrelated to occupation when income is controlled.

[2]The linear probability models estimated using OLS get nonsignificant positive coefficients. Logit models are better for testing hypothesis, however, so the statistical significance of the coefficient in the logit model is given greater weight. Part of the reason for the smaller effect in Sawhill et al.'s (1975) analysis is the addition of a set of four regional dummies for each race. This reduces the independent variation of the AFDC payment variable and therefore the statistical significance of

coefficients that will be obtained on the AFDC variable. It would be desirable to control for other characteristics of location like wage rates. Entering dummies for region, however, gives no clue as to what it is about the region that causes observed differentials.

[3]Some transfers from AFDC-UP to AFDC occur because one of the parents develops a disability. This source of overestimating the split rate is likely to be more than counterbalanced by the failure to measure splits occurring among the 46% of AFDC-UP families whose cases close within the year. Also, a separation that does not result in a mother returning to the welfare rolls somewhere in California does not get counted.

[4]Adjusting for the higher split rates that are typical of California would not eliminate the discrepancy. The proportion of white 35- to 44-year-old ever married women who are separated or have at one time been divorced is 39% greater (.263/.189) in the San Francisco SMSA (which includes Alameda County) than nationally. For blacks this proportion is 28% greater (.497/.388) than nationally. Raising the PSID four-year split rates by these percentages would still leave the predicted four-year split rate for low income couples at 10.5% for whites and 15.5% for nonwhites. About 44% of Wiseman's, (1977) AFDC-UP sample was black.

[5]The follow-up survey interviewed 36% of control group attriters and 45% of experimental group attriters. The proportion of the women attriting from the low and medium experimental plans who were no longer living with their husband when interviewed was 29%. The corresponding percentage for the control group was also 24% (Poirier, 1977). While there is no evidence for an interaction, attrition rates are higher in the control group and

where attrition rates are generally high (as in Sawhill et al.'s (1975) examination of the New Jersey data, some bias may occur. Knudsen, et al.'s (1977) methodology for analyzing the New Jersey data produces smaller attrition rates and is therefore less likely to result in biased estimates of marital splitting differentials. Each family is included in the analysis of quarterly changes in family structure for as long as there is data. A confounding of splitting and attrition occurs only if it occurs in the same quarter and if both adults desert at the same time.

[6]The measures of role differentiation preferences and behavior in the Seattle/Denver experiment should make it possible to examine some aspects of the role performance explanation. The signal of failure hypothesis suggests there should be positive interaction between traditional views of the male's role on the part of the husband and wife at pre-enrollment, being on the experiment, and splitting. The interaction should be strongest in families where the male's role performance is already threatened. The measure of traditional views of the husband's role must, however, be separated from the general set of conventional views about the importance of marriage. The "increased unemployment" hypothesis suggests that the effect of the experiment on marital dissolution should be mediated by the husband's unemployment and reductions in hours worked per week.

[7]A fourth explanation that a male independence effect might be operating if the men who split from their families receive substantial payments from the program while living singly or as heads of a new family. When a man in the experiment remarries (or starts living with another woman and reports it is permanent) his new wife and her children become eligible to

receive payments as well. This might seem to create a strong incentive for men who split from their first wife to quickly marry another woman, but this does not seem to be happening. In the first 24 months of the experiment, only 18.6% of the splitting men in the experimental group were observed to have entered a new marriage. An almost identical 17.7% of the control group's splitting husbands were observed to have entered a new marriage. Attrition rates are higher in the control group, so correcting for imperfect measurement will raise the control group's new marriage rate relative to the experimental group's rate. Further evidence for the absence of a male independence effect is the high attrition rates of splitting husbands. Attrition from the study means one is ineligible for payments. Despite this, the attrition rate of men for whom a remarriage or reconciliation were not observed was 58% in the experimental group on the low support plan and 51% for the experimental group as a whole. (Groenveld et al., 1977 and personal communication).

[8]Questions on marital happiness and adjustment were asked in the Rural and Seattle/Denver Income Maintenance Experiments. Only the data from the Rural experiment have been analyzed so far. Middleton and Haas (1977) found no statistically significant association between being on the experiment and the mean changes of these scales. Income effects should improve marital adjustment while reduced investments in the relationship should worsen it at least for a few of the families. The net effect of the experiment on the mean of these variables is indeterminate. If these scales do measure what they purport to measure, the reduced investment interpretations of the marital split results predicts that in the low and medium support groups there should be a few families that suffered a severe decline in marital

adjustment and there should be a tendency for some of these families to split apart later. The "tipping the worst marriages" interpretation implies that in the experimental group there should be an especially strong tendency for the marriages with the worst marital adjustment at pre-enrollment to split apart.

[9]How a WRS would integrate with other income maintenance programs is discussed by Lerman (1974) and Bishop and Lerman (1977). Its impact on labor supply in both partial and general equilibrium models has been discussed in Kesselman (1969), Lerman et al. (1974), Bishop (1977a) and Masters and Garfinkel (1978). Its administrative advantages are discussed in Bishop (1977b).

[10]The male and female wage variables have coefficients of opposite sign but almost identical magnitude.

REFERENCES

Bakke, W.E. 1940. Citizens without work. New Haven: Yale University Press.

Bishop, J. 1977a. The general equilibrium impact of alternative antipoverty strategies: Income maintenance, training and job creation. Institute for Research on Poverty Discussion Paper 386-77, University of Wisconsin, Madison.

Bishop, J. 1977b. The administration of a wage rate subsidy. Institute for Research on Poverty Special Report 16a. University of Wisconsin, Madison.

Bishop, J., and Lerman, R. 1977. Wage subsidies for income maintenance and job creation. In R. Taggert (Ed.), Job creation: What works. Washington, D.C.: National Council on Employment Policy.

Bumpass, L., and Sweet, J. 1975. Background and early marital factors in marital disruption. Center for Demography and Ecology DP 75-31, University of Wisconsin, Madison. Forthcoming, Social Forces.

Caldwell, S. 1977. In Moore et al. (Eds.), The consequences of early child bearing: An analysis of selected parental outcomes using results from the National Longitudinal Survey of Young Women. Report to the National Institute of Child Health and Development. Washington, D.C.: The Urban Institute.

Cherlin, A. 1976. Economics, social roles and marital separation. Unpublished manuscript, Department of Social Relations, John Hopkins University.

Cutright, P. 1971. Income and family events: marital stability. Journal of Marriage and the Family, 14, 19-29.

Featherman, D., and Hauser, R. Forthcoming. Opportunity and change. New York: Academic Press.

Garfinkel, I. 1974. The effects of welfare programs on experimental responses. Journal of Human Resources, 9, 504-529.

Groenveld, L.; Hannan, M.; and Tuma, N. 1977. Income maintenance impacts on the remarriage of males. Unpublished and mimeographed.

Hannan, M.; Tuma, N.; and Groenveld, L. 1976. The impact of income maintenance on the making and breaking of marital unions: Interim report. Center for the Study of Welfare Policy Research, Stanford Research Institute, Memorandum 28.

Hannan, M.; Tuma, N.; and Groenveld, L. 1977. Income and marital events: Evidence from an income maintenance experiment. American Journal of Sociology, 82, 1186-1211.

Haveman, R.; Lurie, I.; and Mirer, T. 1974. Earnings supplementation plans for "working poor" families: An evaluation of alternatives. In Benefit cost and policy analysis: 1973. Chicago: Aldine.

Hoffman, S., and Holmes, J. 1976. Husbands, wives, and divorce. In J. Morgan (Ed.), Five Thousand American Families: Patterns of Economic Progress. Volume IV. Ann Arbor: University of Michigan.

Honig, Marjorie. 1974. AFDC income, recipient rates and family dissolution. Journal of Human Resources, 9, 303-323.

Honig, Marjorie. 1976. AFDC income recipient rates and family dissolution. Journal of Human Resources, 11, 250-260.

Keeley, M.; Robins, P.; Spregelman, R.; and West. R. 1977. The labor supply effects and costs of alternative negative income tax programs: Part II, national predictions using the labor supply response function.

Center for the Study of Welfare Policy, Stanford Research Institute Memorandum 39, May 1977.

Kesselman, J. 1969. Labor-supply effects of income, income-work and wage subsidies. Journal of Human Resources, 4, 275-292.

Knudsen, J.H.; Scott, R.; and Shore, A.R. 1977. Household composition. In H. Watts and A. Rees (Eds.), The New Jersey income maintenance experiment, Volume III. New York: Academic Press.

Komarovsky, M. 1976. The unemployed man and his family. New York: Octagon Books.

Lerman, R. 1974. JOIN: A jobs and income program for american families. In Studies in public welfare, Paper No. 19. Washington, D.C.: U.S. Government Printing Office.

Lerman, R.; MacRae, C.D.; and Yezer, A.M.J. 1974. Jobs and income (JOIN): A labor market analysis. In Studies in Public Welfare, Paper no. 19. Washington, D.C.: U.S. Government Printing Office.

MacDonald, M., and Sawhill, I.V. Forthcoming. Welfare policy and the family. Public Policy.

Masters, S., and Garfinkel, I. 1978. Forthcoming. Estimating the labor supply effects of income maintenance alternatives. New York: Academic Press.

Middleton, R., and Haas, L. 1977. Marital dissolution and family interaction. In D.L. Bawden and W. Harrar (Eds.), Rural Income Maintenance Experiment: Final Report, Volume VI, Chapter 8.

Minarik, J., and Goldfarb, R. 1976. AFDC income, recipient rates and family dissolution: A comment. Journal of Human Resources, 11, 243-249.

Moore, K.A.; Caldwell, S.B.; Hofferth, S.L.; and Waite, L.J. 1977. The consequences of early childbearing: An analysis of selected parental outcomes using resulting from the National Longitudinal Survey of Young Women (Parnes). Report to the National Institute of Child Health and Development. Washington, D.C.: The Urban Institute.

Poirier, D.J. 1977. Characteristics of attriters who took the attrition interview. In H. Watts and A. Rees, The New Jersey Income Maintenance Experiment, Volume III. New York: Academic Press.

Robins, P.K., and Tuma, N. 1977. The effects of a negative income tax program on job-turnover: Evidence from the Seattle-Denver Income Maintenance Experiment. SIME/DIME Research Memorandum Draft. Stanford Research Institute, May 1977.

Ross, H., and Sawhill, I. 1975. Time of transition: The growth of families headed by women. Washington, D.C.: The Urban Institute.

Sawhill, I.; Peabody, G.; Jones, C.; and Caldwell, S. 1975. Income transfers and family structure. Washington, D.C.: The Urban Institute.

Stone, R.; Schlamp, F.; and Hughes, E. 1975. Welfare and working fathers. Lexington, Mass.: Heath Books.

Tuma, N.; Hannan, M.; and Groenveld, L. 1977. Variations over time in the impact of SIME/DIME on the making and breaking of marriages. Unpublished. SIME/DIME Research Memorandum Draft, Stanford Research Institute, February, 1977.

Tuma, N.; Groenveld, L.; and Hannan, M. 1976. First dissolutions and marriages: Impacts in 24 months of the Seattle and Denver income maintenance experiments. Center for the Study of Welfare

Policy, Stanford Research Institute Research Memorandum 35, August 1976.

White House Message to Congress on Welfare Reform. New York Times, August 7, 1977.