

WHAT WORKS BEST FOR WHOM? THE EFFECTS OF WELFARE AND WORK POLICIES BY RACE AND ETHNICITY

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When the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) eliminated Aid to Families with Dependent Children (AFDC)—the major cash assistance program for low-income families—and replaced it with a block grant called Temporary Assistance for Needy Families (TANF), it allowed states to make substantial changes in their welfare policies. Time limits have received the greatest attention, but most states changed their policies in other ways as well. Most introduced financial incentives to make work pay and to increase income for families in which the parent does work. Many have expanded their supports for the working poor—for example, by increasing child-care subsidies. In addition, many states have changed their welfare-to-work programs from *de facto* voluntary programs designed to increase skills through basic education and training to mandatory employment-focused programs.

This paper examines how welfare and work policies similar to those adopted by states since 1996 have affected employment, welfare receipt, and income of white, African-American, and Hispanic welfare recipients. The paper presents results for single-parent families using data from studies of twenty-four welfare and work policies operated in ten states and more than a dozen counties over a period of more than ten years. The studies were conducted primarily during the 1990s and share two features. All of the policies were designed to increase work among welfare recipients, and all of the studies were conducted by MDRC using a research design in which individuals were randomly assigned either to a program group, which took part in the new welfare and work policy, or to a control group, which did not. The twenty-four programs cover a wide range of approaches. Some focused more on education to help people build skills before looking for work, while some required welfare recipients to look for work. Some supplemented earnings to provide additional incentives to work and to help ensure that families benefited financially from work. Two were versions of TANF programs that included time limits on how long families could receive welfare.

Although quite a bit of attention has been given to the relationship between race and employment and race and welfare use, relatively little research has looked at the effects of welfare policies on different racial and ethnic groups. Bitler et al. [2003] found that welfare reform did not significantly change children's income in African-

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American, white, or Hispanic families. Their approach has limited power, however, because it identifies the effect of welfare reform policies from the short period between the first and last states' implementation of TANF policies. Their results are consequently consistent with both large positive and large negative effects, especially for African-American children. Ashworth et al. [2002] conducted a meta-analysis of mandatory welfare-to-work programs and found that programs with more white welfare recipients had larger effects overall on employment and welfare use than programs with fewer white welfare recipients, but they did not examine the effects of the same program on different racial and ethnic groups. Greenberg et al. [2003] conducted a meta-analysis of voluntary education and training programs for the disadvantaged and found little consistent evidence that these programs helped white women any more or less than non-white women.

Individual evaluations using random assignment have also reported the effects of programs by race and ethnicity. Hamilton et al [2001] looked at 11 welfare-to-work programs that required welfare recipients to look for work or participate in education or training and found that the programs' effects on earnings for Hispanic and African-American sample members were generally larger than their effects for white sample members. Riccio et al. [1994] found little systematic difference by race and ethnicity in the effects of the six California welfare-to-work programs they studied.

Despite the limited evidence that the effects of welfare programs have differed by race and ethnicity, there are reasons to think that they might. Gooden [2002] suggests that African-American and white welfare recipients have had different interactions with welfare caseworkers, although she conducted interviews with a relatively small group of people. Discrimination in employment and differences in educational opportunities for different racial and ethnic groups will affect how much parents in different groups are likely to earn, but it is not clear how this would alter the effectiveness of welfare-to-work programs. On the one hand, the lack of job opportunities would presumably make it difficult for welfare-to-work programs to help minority welfare recipients. On the other hand, employment and earnings levels for minority welfare recipients would presumably be lower than for white welfare recipients, giving welfare-to-work programs a lower barrier to hurdle.

The results in this paper show little systematic variation in the effects of the programs across racial and ethnic groups. Programs that had large effects generally did so across the range of subgroups, while programs that had small overall effects likewise had small effects across the groups. In contrast to the job-search-first approach used by many states' current welfare-to-work programs, earnings and welfare benefits were affected the most by the group of programs that stressed employment but allowed people who lacked basic skills to enroll in education or training before looking for work. In addition, only programs that supplemented the earnings of welfare recipients who went to work increased income for all major racial and ethnic groups. However, policies that supplement earnings also typically increase welfare use and consequently make it more likely that welfare recipients will hit TANF time limits.

THE PROGRAMS

This section provides some background information on the twenty-four policies. An Appendix provides more details on the policies.

Table 1 summarizes the main work-related components of each program. As the table indicates, nearly every program included mandatory welfare-to-work activities, and most of the programs had neither additional financial incentives nor time limits. However, six of the programs supplemented the earnings of those who went to work to provide additional financial incentive to work and to further increase the income of those who worked. In addition, two programs had time limits on how long families could receive benefits.

For much of the analysis in this paper, the twenty-four programs are placed into one of five groups according to the primary method used to encourage welfare recipients to work.

Job-Search-First Programs

San Diego's Saturation Work Initiative Model (SWIM) and Labor Force Attachment (LFA) programs in Atlanta, Riverside, and Grand Rapids initially required most welfare recipients to look for work.

Education-First Programs

Human Capital Development (HCD) programs in Atlanta, Riverside, and Grand Rapids; two programs in Columbus; and programs in Detroit and Oklahoma City initially required most welfare recipients to enroll in education and training. Atlanta, Riverside, and Grand Rapids focused on adult basic education (ABE), while Detroit and Oklahoma City focused more on long-term education and training.

Employment-Focused Mixed-Activity Programs

Riverside's Greater Avenues for Independence (GAIN) program and the Job Opportunities and Basic Skills Training (JOBS) program in Portland stressed the importance of finding work but used a mix of initial activities, requiring more job-ready welfare recipients to look for work but allowing others to enroll in education or training programs. While Riverside GAIN used remedial education—ABE, preparation for a General Educational Development (GED) certificate, or English as a Second Language (ESL) classes—Portland used both remedial education and vocational training.

Education-Focused Mixed-Activity Programs

GAIN programs in Alameda, Butte, Los Angeles, San Diego, and Tulare Counties in California were education focused while using a mix of initial activities. Participants in these programs who had not graduated from high school or earned a

TABLE 1
Policy Components of the Programs

Evaluation or Program	Job search first	Education first	Mix of job search and education as initial activities	Earning supplements	Time- limited welfare
SWIM (San Diego)	✓				
GAIN (California)					
Alameda			✓		
Butte			✓		
Los Angeles			✓		
Riverside			✓		
San Diego			✓		
Tulare			✓		
NEWWS (Multi-state)					
Atlanta LFA	✓				
Atlanta HCD		✓			
Grand Rapids LFA	✓				
Grand Rapids HCD		✓			
Riverside LFA	✓				
Riverside HCD		✓			
Columbus Integrated		✓			
Columbus Traditional		✓			
Detroit		✓			
Oklahoma City		✓			
Portland			✓		
MFIP (Minnesota)					
Full Services			✓	✓	
Incentives Only				✓	
WRP (Vermont)					
Full Services	✓			✓	
Incentives Only				✓	
FTP (Florida)			✓	✓	✓
Jobs First (Connecticut)			✓	✓	✓

GED, who lacked basic math or verbal skills, or who did not speak English, were assigned to ABE, GED preparation, or ESL classes. Other participants were asked to look for work. Because these programs did not stress employment as much as the employment-focused mixed activity programs, participants were less likely to engage in job search services.

Earning Supplement Programs

Two versions of Vermont's Welfare Restructuring Project (WRP), two versions of the Minnesota Family Investment Program (MFIP), Florida's Family Transition Program (FTP), and Connecticut's Jobs First program all supplemented earnings of welfare recipients who went to work by disregarding more of their earnings when calculating welfare benefits. Sometimes earning supplements were combined with

requirements that welfare recipients engage in job search or education and, in Florida and Connecticut, time limits on welfare receipt.

While these programs cover many of the practices used in current welfare-to-work programs, they were not intended to be and should not be considered representative of welfare-to-work programs in general. Many of the policies were chosen because of their promising or innovative practices. In addition, programs were chosen for other reasons that may make them unlike the “average” welfare-to-work program. For example, programs had to have data systems capable of meeting research requirements and had to have large enough caseloads to provide the sample needed for precise results.¹ Nevertheless, the effects of these programs should be suggestive of similar programs now being run by states.

Table 2 shows the sample size and several demographic characteristics of the sample in each program, including the percentage of sample members that were white, African-American, and Hispanic (including Hispanic sample members of any race). A number of programs served primarily white welfare recipients, including Butte County’s GAIN program and Vermont’s WRP. In three sites, 70 percent or more of the sample was African-American sample members (Atlanta, Detroit, and Alameda). In the remaining sites, there was a fairly broad mix of white, African-American, and Hispanic sample members, although all of the sites with a substantial number of Hispanic sample members were in California, with the exception of Connecticut’s Jobs First program.

Differences in other characteristics largely reflect the samples that were served by the programs. The relatively small proportion of families with very young children in GAIN and SWIM reflects the fact that the programs did not require families with children under six years old to participate in work-preparation activities, although families with younger children could volunteer. The samples for Los Angeles GAIN and Riverside HCD are somewhat more disadvantaged than the others because Los Angeles randomly assigned only long-term welfare recipients and the Riverside HCD program included only welfare recipients deemed to need basic education services.

Follow-up information used in this paper includes earnings information taken from reports made by employers to state unemployment insurance (UI) systems and information on welfare payments and food stamp benefits taken from state or county administrative records systems.² Food stamp information was not collected for the evaluation of SWIM. In MFIP, food stamps and General Assistance were included in the AFDC welfare check for members of the program group. Public assistance amounts presented in this paper for MFIP consequently include AFDC, TANF, General Assistance, and the cash value of food stamps.

EFFECTS ON EARNINGS, WELFARE BENEFITS, AND INCOME

Pooled Effects

For simplicity of presentation, estimated effects are first presented for the five program models described above.³ Table 3 presents pooled impacts on earnings, wel-

TABLE 2
Selected Baseline Characteristics of Sample Members by Program

Program	Sample Size	Race and Ethnicity (%)			Age (Years)	Worked in past year (%)
		White	Black	Hispanic		
SWIM (San Diego)	3,210	27.3	42.4	25.4	34.2	39.3
GAIN (California)						
Alameda	1,205	17.9	70.0	7.5	34.7	19.8
Butte	1,229	86.3	3.5	5.6	33.6	100.0
Los Angeles	4,396	11.6	45.2	32.0	38.5	17.3
Riverside	5,508	51.7	15.6	27.4	33.7	39.5
San Diego	8,219	42.3	22.7	25.5	33.8	43.8
Tulare	2,234	52.1	3.6	39.0	34.9	42.1
NEWWS (Multi-state)						
Atlanta LFA	3,825	3.8	94.7	0.9	32.7	38.6
Atlanta HCD	3,872	3.9	94.8	0.8	32.7	38.2
Grand Rapids LFA	3,010	48.8	40.3	8.1	28.1	49.3
Grand Rapids HCD	2,992	50.6	38.7	8.3	28.3	50.3
Riverside LFA	6,698	51.7	16.7	27.7	32.0	40.4
Riverside HCD	3,122	38.7	16.3	39.7	32.0	25.0
Columbus Integrated	4,651	46.5	51.9	0.5	31.9	54.1
Columbus Traditional	4,711	46.8	51.6	0.4	31.9	54.3
Detroit	4,392	11.0	87.3	0.8	30.0	33.2
Oklahoma City	6,867	59.6	29.1	4.3	28.1	56.0
Portland	5,455	69.6	20.1	4.1	30.3	42.1
MFIP (Minnesota)						
Full Services	7,164	62.4	26.2	2.2	29.0	61.9
Incentives Only	5,537	58.1	30.3	2.2	29.9	59.9
WRP (Vermont)						
Full Services	6,836	97.4	1.2	0.3	30.7	49.0
Incentives Only	3,396	97.6	1.1	0.3	30.8	49.0
Jobs First (Connecticut)	6,001	38.7	36.9	23.0	32.3	51.4
FTP (Florida)	2,721	45.4	51.8	1.1	29.2	46.7

fare payments, and income from earnings, welfare payments, and food stamp benefits by race and ethnicity for the five program models described earlier.⁴ For all three outcomes, results are averaged over the three years following random assignment.

According to Table 3, most of the program models significantly raised earnings and significantly reduced welfare payments for most subgroups. By contrast, only the earning supplement programs consistently and significantly raised income across the four racial and ethnic groups. This has been noted elsewhere, but is worth pointing out again: welfare policies that do not supplement earnings by, for example, allowing welfare recipients to keep more of their welfare check when they work do not generally increase income [Michalopoulos and Berlin, 2001; Bloom and Michalopoulos, 2001]. Moreover, policies that increase income appear to benefit elementary school-age children, while policies that do not increase income generally do not benefit children [Morris et al., 2001; Clark-Kauffman et al., 2003; Huston et al., 2001].⁵

TABLE 2 (cont.)
Selected Baseline Characteristics of Sample Members by Program

	High School credential (%)	Children		Welfare Status (%)	
		Number	Age 5(%)	Long-term recipients	Short-term recipients
SWIM (San Diego)	56.1	1.76	10.0	68.6	20.2
GAIN (California)					
Alameda	63.2	1.95	30.6	100.0	0.0
Butte	57.9	1.72	0.0	45.4	23.2
Los Angeles	34.6	2.23	10.5	100.0	0.0
Riverside	52.6	1.92	16.4	48.3	35.9
San Diego	57.2	1.79	13.0	48.0	37.5
Tulare	45.2	2.04	14.8	66.9	33.1
NEWWS (Multi-state)					
Atlanta LFA	62.1	2.08	42.9	66.0	34.0
Atlanta HCD	61.7	2.06	42.2	66.6	33.4
Grand Rapids LFA	58.6	1.78	68.3	59.5	40.5
Grand Rapids HCD	59.8	1.78	67.5	59.4	40.6
Riverside LFA	64.3	2.03	56.0	53.1	46.9
Riverside HCD	22.7	2.05	57.0	59.8	40.2
Columbus Integrated	58.2	2.01	47.4	73.0	17.3
Columbus Traditional	58.4	1.98	46.8	72.6	16.9
Detroit	57.5	1.99	64.6	76.5	23.5
Oklahoma City	56.2	1.74	64.6	24.4	32.0
Portland	66.8	1.97	68.3	63.1	36.9
MFIP (Minnesota)					
Full Services	74.4	1.70	64.3	41.5	18.3
Incentives Only	73.8	1.72	64.9	46.0	18.2
WRP (Vermont)					
Full Services	81.4	1.95	58.2	37.9	14.9
Incentives Only	82.1	1.97	58.7	37.3	15.2
Jobs First (Connecticut)	68.6	1.72	59.9	54.4	23.4
FTP (Florida)	61.8	1.94	68.8	52.8	35.0

Sample sizes correspond to the combined sample sizes for each program. Long-term recipients had been on welfare for two or more years prior to random assignment, short-term recipients had been on welfare for less than two years, and new applicants (the category not shown) had never been on welfare prior to random assignment.

Table 3 does not show a clear story of one group being affected more than others. For four of the program models, the programs affected earnings significantly differently across the four racial and ethnic groups, but which group had the largest and which group the smallest earnings gains varies from approach to approach. Job-search-first and education-first programs increased earnings more for Hispanic sample members than white or African American, while employment-focused mixed-activity programs and earning supplement programs increased earnings the most for white welfare recipients.

African-American welfare recipients may have benefited the least from this set of programs. All approaches except for the earning supplement programs increased earnings for African-American sample members, but impacts for them were never

TABLE 3
Impacts on Earnings, AFDC/TANF Payments, and Income by
Race and Ethnicity of Welfare and Work Experiments, by Program Model
Over Three Years Following Random Assignment

Subgroup	Sample Size	Impact on Average Total Earnings per Year (\$)		Impact on Average Total AFDC/TANF Payments per Year (\$)		Impact on Average Total Income per Year (\$)		
Job search first								
			††		†††		†††	
White	5,957	318	(141) ^b	-640	(66) ^a	-520	(141) ^a	
African-American	7,320	486	(113) ^a	-293	(39) ^a	-11	(106)	
Hispanic	2,952	929	(182) ^a	-750	(119) ^a	-3	(192)	
Other	514	949	(455) ^b	-259	(257)	714	(471)	
Education first								
			††		††			
White	11,814	109	(76)	-211	(30) ^a	-153	(84) ^c	
African-American	16,014	295	(74) ^a	-228	(26) ^a	-17	(72)	
Hispanic	1,894	559	(170) ^a	-547	(112) ^a	-211	(211)	
Other	885	-128	(252)	-302	(118) ^b	-562	(286)	
Employment-focused mixed activities								
			†					
White	6,642	1,423	(138) ^a	-756	(68) ^a	379	(140) ^a	
African-American	1,961	708	(273) ^b	-491	(138) ^a	63	(271)	
Hispanic	1,736	1,085	(294) ^a	-784	(214) ^a	206	(331)	
Other	624	900	(531) ^c	-792	(262) ^a	-28	(525)	
Education-focused mixed activities								
							††	
White	6,432	695	(186) ^a	-163	(116)	526	(191) ^a	
African-American	4,820	360	(183) ^b	-429	(115) ^a	-206	(194)	
Hispanic	4,532	157	(181)	-235	(145)	-98	(207)	
Other	1,499	343	(147) ^b	-356	(252)	-10	(316)	
Earnings supplements								
			††		†††			
White	21,211	219	(86) ^b	42	(37)	466	(78) ^a	
African-American	7,296	209	(141)	216	(52) ^a	652	(141) ^a	
Hispanic	1,731	36	(332)	296	(117) ^b	594	(327) ^c	
Other	1,417	-795	(309) ^b	554	(222) ^b	73	(291)	

MDRC calculations from unemployment insurance (UI) earnings records, public assistance records, and baseline demographics. Standard errors in parentheses. A two-tailed t-test was applied to differences between outcomes for the program and control groups. Statistical significance levels are indicated as: a = 1 percent; b = 5 percent; and c = 10 percent. An F-test was applied to differences among subgroups for each characteristic. Statistical significance levels are indicated as † = 10 percent; †† = 5 percent; and ††† = 1 percent. For MFIP, AFDC/TANF includes General Assistance and the cash value of food stamps. Income includes earnings, TANF/AFDC payments, and the cash value of food stamps, with one exception. Food stamps information was not collected in the evaluation of SWIM.

the largest. Even in this respect, the evidence is not very strong. Only for job-search-first programs were impacts for African-American sample members statistically significantly lower than for Hispanic sample members (p-value = 0.038 for a two-tailed

test), and only for employment-focused mixed-activity programs were they significantly lower than for white sample members (p-value = 0.019)

In all of the programs except those with earning supplements, welfare benefits might have been reduced for several reasons. Recipients who went to work lost eligibility for some or all of their welfare benefits. As a result, groups with larger earnings gains would tend to be those with larger welfare savings. Mandates to participate in welfare-to-work services were enforced through partial family sanctions that reduced (but never eliminated) welfare payments. If minority welfare recipients were less able to respond to mandates, or if caseworkers were more likely to interpret their actions as a failure to participate, impacts on welfare payments would be relatively large for minority groups. Finally, welfare recipients might have decided to leave the welfare system if the mandates constituted a hassle that they wanted to avoid.

As a result of all three factors, the four programs that did not use earnings supplements saved welfare dollars for all four racial and ethnic groups. There is little evidence, however, that Hispanic or African-American recipients were disproportionately affected by these reductions. In the two cases where welfare savings were significantly different across the four groups, welfare savings were largest for Hispanic sample members, but earning gains were also largest for Hispanic sample members. In each case where welfare savings were significantly different for white and African-American sample members (significance levels for this comparison are not shown in the table), welfare reductions were larger for whites.

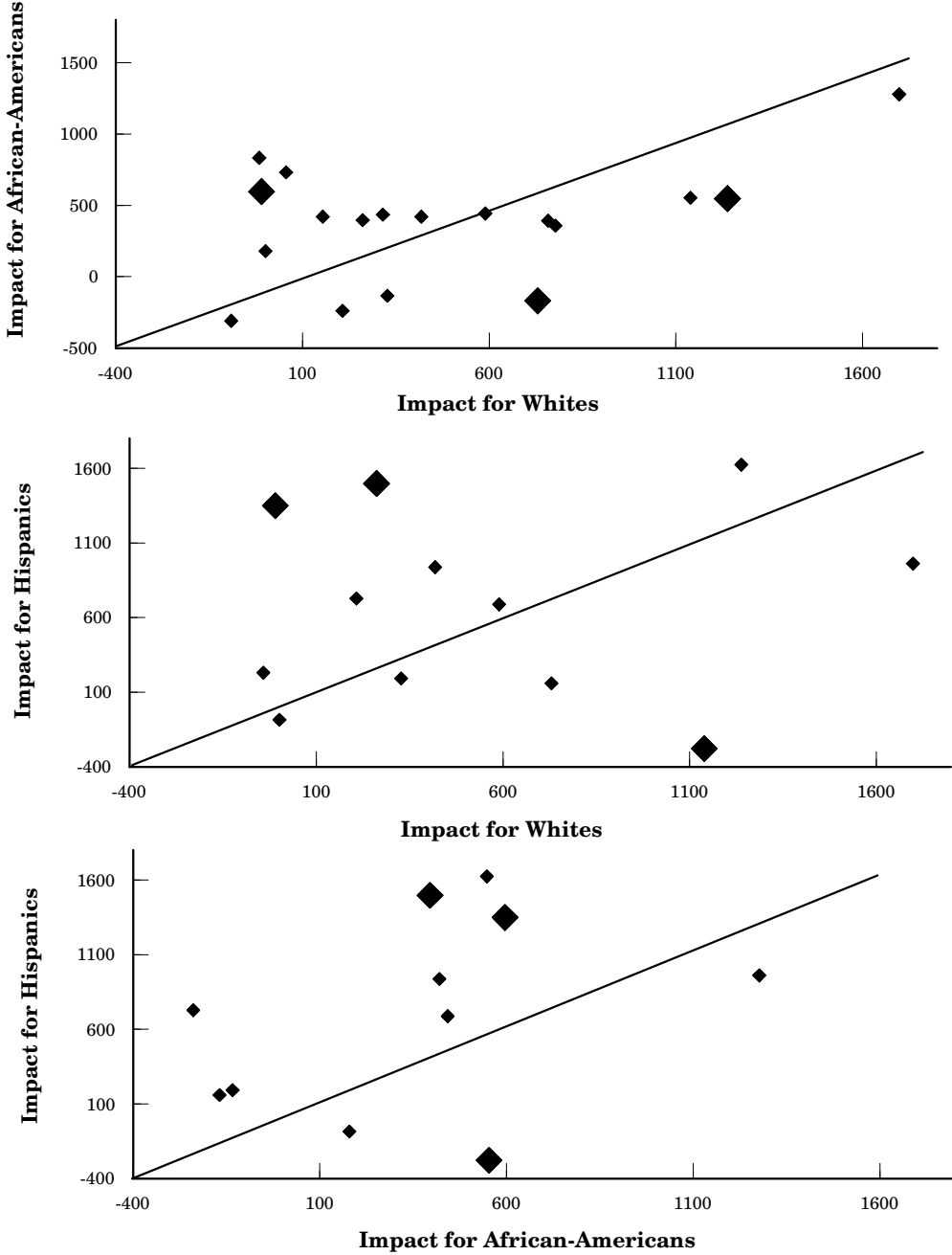
Earning supplement programs are in a different category when it comes to welfare benefits because they allowed welfare recipients who went to work to keep more of their welfare check when they worked. As a result, they generally increased welfare payments. The exceptions include the time-limited welfare programs in Florida and Connecticut, which did have enhanced welfare earnings disregards, but which resulted in welfare savings when families had benefits terminated because of the programs' time limits.

In sum, the pooled results show little evidence that different racial groups benefited more or less when it came to income gains. Earning supplement programs increased income by about the same amount for each of the racial and ethnic groups. The other programs generally had small and statistically insignificant effects. Where significant differences across racial groups existed, job-search-first programs caused statistically significant reductions in income for whites while education-focused mixed activity programs caused statistically significant income gains for whites.

Impacts for Individual Programs

Although pooling impacts by program model is convenient for purposes of presentation and is appropriate if impacts are similar across programs of the same type, it is reasonable to ask how consistent programs are within the five program models. In addition, because some sites are primarily white, others are primarily African-American, and most Hispanic sample members were in California sites, differences

FIGURE 1
Comparison of Impacts on Annual Earnings over Three Years
in Welfare and Work Experiments by Race and Ethnicity



Notes: Large diamonds indicate differences that were statistically significant at the 10 percent level using a two-tailed test.

in pooled impact across racial and ethnic groups might reflect differences in impacts of individual programs.

Figure 1 compares each program's effects on earnings over the three-year follow-up period by race and ethnicity.⁶ The top figure compares impacts on earnings for white sample members (the horizontal axis) to impacts for African-American sample members (the vertical axis). The middle figure contains a similar comparison of impacts on earnings for Hispanic and white sample members, and the bottom figure compares impacts for Hispanic and African-American sample members. The figures show results only for programs with 200 or more sample members in each racial or ethnic group to eliminate cases with very imprecise estimates. On each figure, large diamonds represent programs where differences across the two groups were statistically significantly different from zero at the 10 percent level. Finally, each figure includes a 45-degree line to show programs that had the same effect for both groups. In the top figure, for example, points to the left and above the 45-degree line show programs with larger earnings gains for African-Americans than for whites.

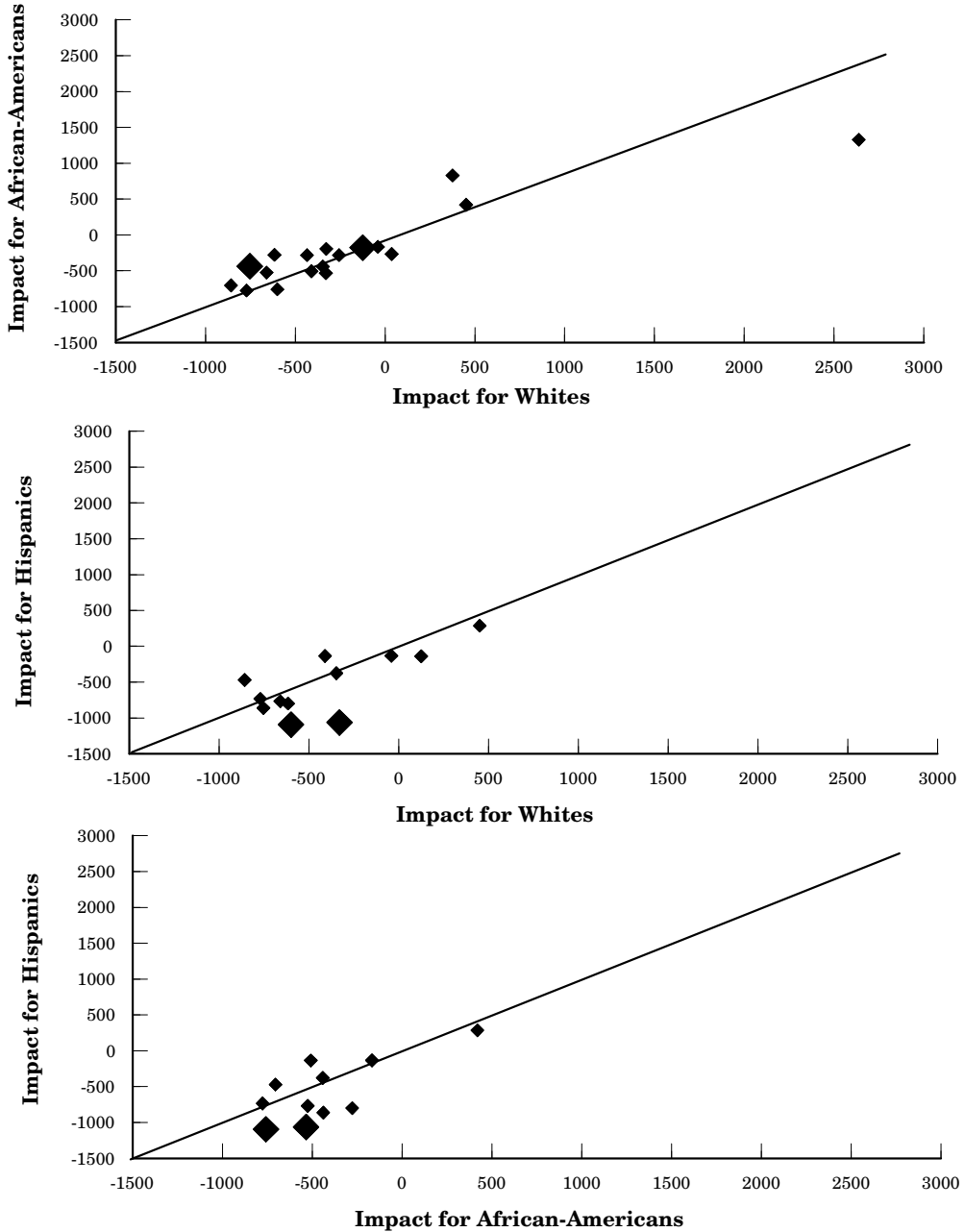
Figure 1 reveals little systematic difference in the impacts of the programs on earnings for the three racial and ethnic groups. Of the 18 programs shown in the top figure, for example, 11 had larger effects on earnings of white sample members.⁷ In addition, differences in impacts between white and African-American sample members were statistically significant in only four cases in Figure 1. In two of those cases (Grand Rapids LFA and Full MFIP), African-Americans had larger earnings gains than whites, while in the other two cases (Portland and Jobs First), African-Americans had smaller earnings gains.

Figure 2 shows a similar comparison of impacts on welfare benefits and Figure 3 compares impacts on income, both measured over three years. In both cases, there is little evidence that programs systematically had different results by racial or ethnic group. In no case are there significant differences between groups in more than two programs, and the impacts are about as likely to favor white sample members as African-American or Hispanic sample members.

In contrast to the similarity of impacts across racial and ethnic groups presented here, Chernick and Reimers [2003] found substantial differences in behavior over time in New York City. Comparing employment and use of public assistance before and after the 1996 welfare reform, Chernick and Reimers found the largest changes among Hispanic residents—particularly Puerto Ricans—and little change among African-American residents.

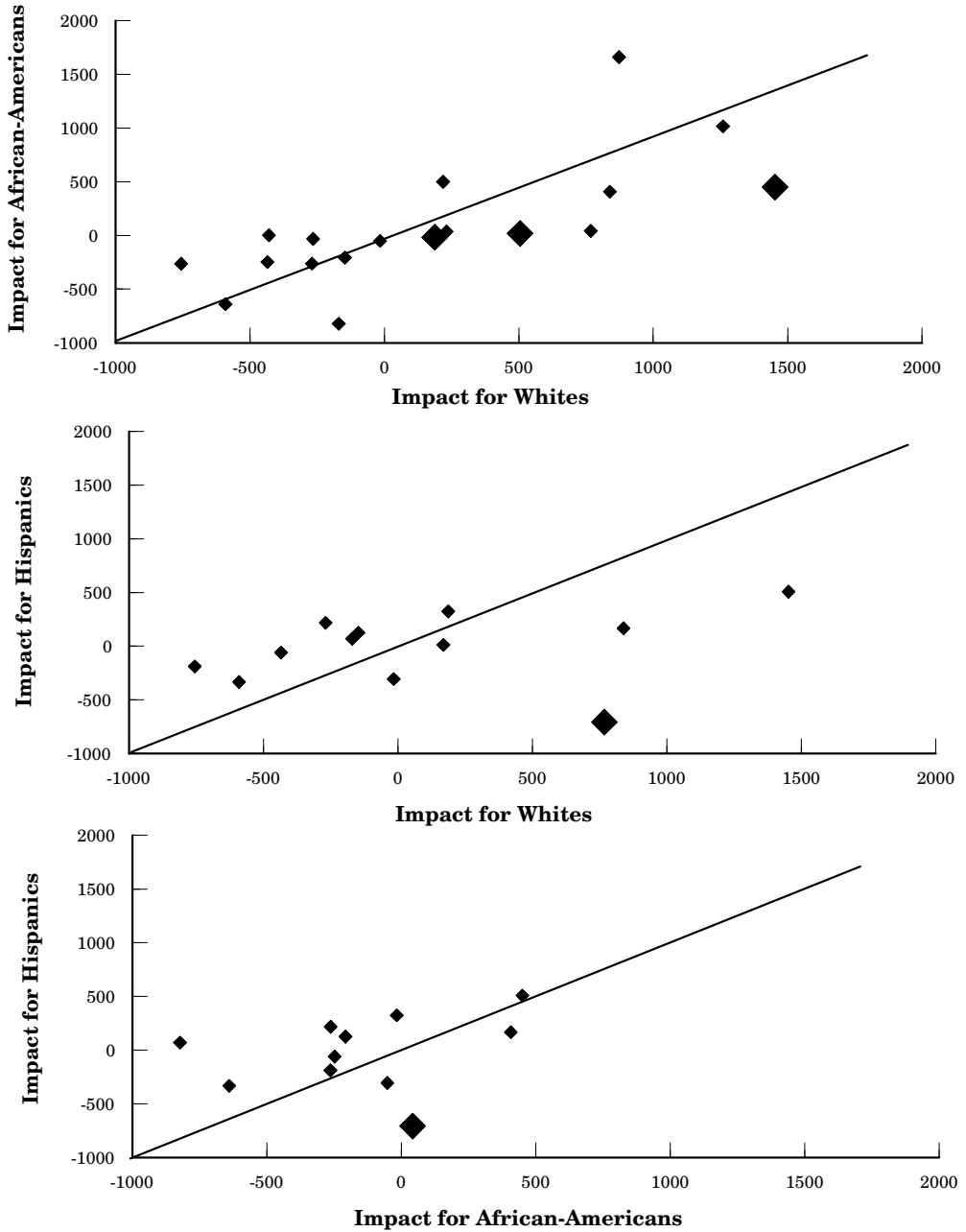
Chernick and Reimers also found substantial differences in demographics across their racial and ethnic groups. Perhaps differences in demographics across the programs studied in this paper mask underlying differences in the effectiveness of the programs. To explore this possibility, the effects of the programs were adjusted for differences in other characteristics by estimating a regression that included an indicator of whether someone was in a program or control group, a vector of characteristics, and interactions between the characteristics and the program group indicator. Including the interaction of other characteristics with the program group indicator yields estimates of the effects of the programs by race and ethnicity, holding other characteristics constant. Those characteristics included welfare status at random assignment (long-term recipients of two or more years, short-term recipients, or ap-

FIGURE 2
Comparison of Impacts on Annual Welfare Payments over Three Years
in Welfare and Work Experiments by Race and Ethnicity



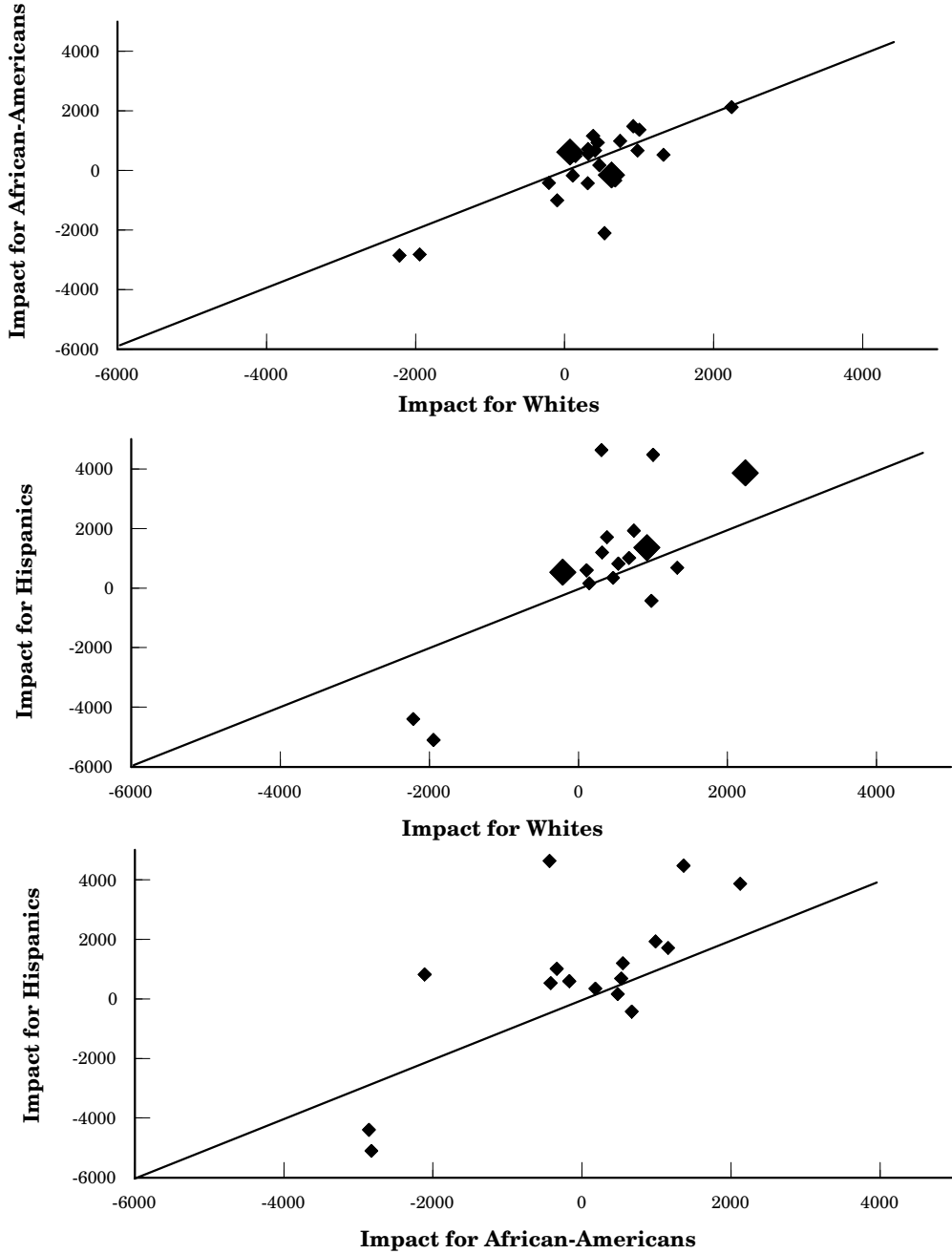
Notes: Large diamonds indicate differences that were statistically significant at the 10 percent level using a two-tailed test.

FIGURE 3
Comparison of Impacts on Annual Income over Three Years
in Welfare and Work Experiments by Race and Ethnicity



Notes: Large diamonds indicate differences that were statistically significant at the 10 percent level using a two-tailed test.

FIGURE 4
Comparison of Impacts on Annual Earnings over Three Years
Controlling for Other Demographic Characteristics



Notes: Large diamonds indicate differences that were statistically significant at the 10 percent level using a two-tailed test.

plicant), age of youngest child at random assignment (under 3 years old, 3-5 years old, 6-12 years old, 13-18 years old), earnings in the year prior to random assignment (0, less than \$5,000, and more than \$5,000), number of children (1, 2, 3 or more), sex (male or female), and whether the person had a high school diploma or GED at the time of random assignment.

Figure 4 compares the impacts on annual earnings over three years implied by the regression. As with the unadjusted results shown in Figure 1, there is little systematic variation across racial and ethnic groups. Many of the impacts are clustered near the 45-degree line, few of the differences are statistically significant, and impacts are about as likely to be larger for one group as for another.

Explaining Differences in Impacts Across Programs

Figures 1 through 3 do not show any systematic differences in individual programs or across program models. The figures do not, however, give a precise sense of those differences, nor do they account for differences in intensity of the programs or the environments in which they were implemented. This section presents results from a meta-analytic regression in which the left-hand-side variable is the estimated impact by program and subgroup and the right-hand-side variables include the effect of the programs on job search and education, the generosity of the welfare system and financial work incentives, the presence of time limits, and the state of the local economy.

The variances of estimates from a meta-analytic regression are smallest when an observation (in this case, the estimated effect of a program for a subgroup) receives a weight inversely proportional to its variance [Hedges and Olkin, 1985]. More precisely estimated impacts are weighted more heavily because they are likely to be closer to the true, population impacts. This choice of weights does not affect the consistency of the point estimates of the coefficients—they are consistent whether each observation receives an equal weight or whether they are weighted by the inverse of their variances—and the weighting scheme can also be thought of as a correction for heteroskedasticity.

A number of factors are examined in the meta-analytical regressions.

Program Participation. Welfare-to-work services can be effective only if people use them. To explore the relationship between the use of services and program impacts, impacts on job search activities, and the use of education and training are included in the analysis. Because the GAIN evaluation did not estimate the impact of the Butte program on participation in job search or education, Butte is not included in the meta-analysis. Because estimates of participation by race and ethnicity were not calculated for most programs, the analysis uses the impact on job search and education for the entire sample in a study.

Financial Work Incentives. Financial work incentives are expected to increase a program's effects on employment and income, but their expected effect on earnings

is unclear because of offsetting income and substitution effects. Each program's financial work incentive was calculated as the difference in income from earnings, welfare payments, and food stamps between the old and new program rules for part-time work of 20 hours per week and for full-time work of 40 hours per week. In both cases, it was assumed that the parent had two children, had no other sources of income, and earned \$6 per hour. By this measure, monthly part-time work incentives in the earning supplement programs ranged from \$67 in WRP to \$345 per month in Jobs First. Full-time work incentives ranged from \$0 in WRP and FTP to \$657 in Jobs First.

Time Limits on Welfare Receipt. Time limits are expected to reduce income and welfare payments relative to what they would have been, and might encourage employment and increase earnings. To capture the effects of time limits, the regressions include a variable that equals one for the time-limited welfare programs in Florida and Connecticut. Both time-limited programs included financial work incentives as well, but participants could receive them only until they hit the program's time limit. In Florida, work incentives were multiplied by 2/3 because many recipients were eligible for welfare benefits for only 24 months in the 36-month follow-up period. In Connecticut, full-time work incentives were multiplied by 21/36 since families would have lost eligibility for welfare after 21 months if the parent had been working full time. Because most parents working part time in Connecticut received extension to the time limit, the part-time incentive was not adjusted.

The Economy. To explore the effects of local economic conditions, the regressions include the local unemployment rate when the study began. It is not clear how program impacts would be affected by these conditions. Weak economic conditions imply that few people will be able to find work and that jobs will pay little. At the same time, a weak economy will result in a less disadvantaged caseload if it brings people onto the rolls who will leave welfare quickly. Both factors are true for both the control and program groups, however, and impacts may therefore be either higher or lower when the economy is in bad shape.

Welfare Grant Levels. Welfare grant levels might alter a program's effectiveness by changing who enters the caseload and the incentives to leave welfare for work. The welfare guarantee in Riverside was close to \$700 per month for a single mother with two children, among the highest levels in the country, but was about \$300 per month in Atlanta. This suggests that a person receiving welfare in Atlanta would have few other prospects for economic support, and that sample members in Atlanta are likely to be more disadvantaged than sample members in Riverside. At the same time, all else equal, sample members in low-grant states like Georgia are likely to stay on welfare for a shorter period because benefits are so low. In low-grant states, almost any job will pay enough to make a person ineligible for welfare benefits; in a high-grant state, it is easier to combine work and welfare. This suggests that programs will have a harder time reducing welfare use and, presumably, increasing employment and earnings in low-grant states than in high-grant states.

TABLE 4
Estimated Determinants of Impacts of Welfare and Work Policies on Annual Earnings Over Three Years, by Race and Ethnicity

	White	African– American	Hispanic	Other
Welfare-to-work participation				
Impact on Job Search	21.9 ^a (4.7)	10.8 ^b (5.1)	17.2 ^c (8.9)	29.8 ^c (17.9)
Impact on Education	1.9 (5.6)	–4.9 (5.6)	–4.8 (7.8)	–8.8 (15.7)
Financial work incentives				
Part-time (20 hours/week)	–3.39 ^b (1.35)	0.50 (1.60)	–4.74 (5.90)	–6.80 (5.23)
Full-time (40 hours/ week)	0.07 (1.45)	–2.15 (1.63)	2.66 (6.07)	3.71 (7.29)
Time limit	842 ^a (284)	141 (258)	–449 (1527)	–992 (984)
Economic factors				
Welfare grant level for a family of 3	1.54 ^a (0.42)	–0.03 (0.47)	–0.18 (0.98)	0.77 (1.20)
Unemployment rate	–84.3 ^a (27.4)	–24.1 (32.3)	47.7 (31.5)	–93.7 (70.9)
Intercept	172 (128)	261 ^c (158)	297 (349)	53 (587)
Chi-square test of difference with white		22.5 ^a	14.7 ^c	9.9
p-value		0.004	0.066	0.276
Chi-square test of difference with African–American			8.3	6.2
p-value			0.402	0.622

Estimates are the result of a fixed-effects regression using subgroup impacts. Statistical significance levels are indicated as: a = 1 percent; b = 5 percent; and c = 10 percent. Standard errors are shown in parentheses. Impacts on participation in job search and education activities were estimated on the full sample, not by racial and ethnic group. The part-time work incentive is estimated as the difference in income from earnings, cash assistance payments, and food stamps between the new and old programs for a parent with two children who works 20 hours per week and earns \$6 per hour. The full-time work incentive is defined in a similar way if the parent works 40 hours per week.

Results. Table 4 shows the implied determinants of impacts on earnings. Since a central question of the paper is whether impacts differ by racial and ethnic groups, the last two rows contains the results of chi-square tests for whether the estimated parameters differ between racial and ethnic groups.

Most of the factors examined are significantly related to how much a program affected the earnings of white sample members. A program that wants to increase earnings for white welfare recipients should increase the amount of job search that is done, reduce part-time work incentives, and impose a time limit. Moreover, the impacts are likely to be larger in states with larger welfare grants and a location

with a stronger economy (as represented by a lower unemployment rate). The only factors that were not significantly related to impacts on earnings were the program's effect on enrollment in education, and full-time work incentives.⁸

In contrast to the effects of welfare-to-work programs on white welfare recipients, the second column of Table 4 implies that little is related to gains in earnings among African-American sample members except for job search. A one percentage point increase in the likelihood that an African-American welfare recipient participates in job search is associated with a \$10.80 increase in annual earnings. The estimated effects of all other factors are close to zero. Moreover, the effects of the various factors are significantly different for white and African-American welfare recipients.

In addition to job search, the intercept was also statistically significant for African-American welfare recipients, implying that a welfare-to-work program that did not change job search or education, that had no financial work incentives, and that did not impose a time limit on welfare receipt would still increase earnings by \$261 per year. This might imply that the meta-analysis has excluded factors that affect a program's impact on earnings. It is also possible that a program that did not affect job search over several years might have increased job search initially and resulted in more earnings over the three-year period. Finally, simply requiring welfare recipients to participate in activities might encourage some of them to work without participating in formal job search activities.

As for African-American welfare recipients, only job search was found to significantly increase earnings among Hispanic welfare recipients. The difference between whites and Hispanics, however, are generally small, implying that the insignificant determinants for Hispanic sample members might reflect the relatively small number of Hispanic sample members in the programs. Differences between African-American and Hispanic sample members were not statistically significant.

Table 5 shows the implied determinants of impacts on welfare payments over the three years following random assignment. By and large, the results are similar but opposite in direction from those in Table 4, reflecting the fact that increased earnings resulted in lower welfare payments in all programs. Part-time work incentives are associated with an especially large increase in welfare payments because they took the form of enhanced earnings disregards that allowed welfare recipients to remain on the rolls with higher earnings than under AFDC.

Table 6 shows the implied determinants of impacts on income from earnings, welfare, and the cash value of food stamps over the three years following random assignment. Only one policy factor consistently affected income: financial work incentives. An extra dollar of full-time work incentives is associated with an increase in annual income of \$2.36 for white welfare recipients, while an extra dollar of part-time work incentives is associated with an increase in income ranging from \$2.47 for white welfare recipients to \$6.90 for African-American welfare recipients.

Unlike virtually all the other effects examined in this section, the effects of time limits appear to fall disproportionately on nonwhite welfare recipients. For whites, time limits are associated with neither an increase nor a decrease in income, but they are associated with decreases for other groups ranging from \$508 for African-Americans to \$675 for Hispanics and \$1,540 for others (although the last two estimates are not significantly different from zero). It is important to remember that

TABLE 5
Estimated Determinants of Impacts of Welfare and Work Policies on
Annual Earnings from AFCD or TANF over Three Years,
by Race and Ethnicity

	White	African-American	Hispanic	Other
Welfare-to-work participation				
Impact on Job Search	-13.2 ^a	-4.9 ^b	-9.1	-14.0
	(2.8)	(2.3)	(6.5)	(10.4)
Impact on Education	4.6	0.9	4.4	-6.3
	(3.1)	(2.5)	(5.5)	(10.6)
Financial work incentives				
Part-time	7.85 ^a	6.55 ^a	7.79 ^b	8.29 ^a
(20 hours/ week)	(1.15)	(0.77)	(3.09)	(2.82)
Full-time	0.33	0.00	-1.49	-2.75
(40 hours/ week)	(0.48)	(0.52)	(1.61)	(2.53)
Time limit	-598 ^a	-432 ^a	-164	-228
	(130)	(93)	(375)	(477)
Economic factors				
Welfare grant level	-1.25 ^a	-1.00 ^a	0.03	0.49
for a family of 3	(0.25)	(0.20)	(0.59)	(0.80)
Unemployment rate	31.9 ^b	31.7 ^c	-29.2	43.1
	(15.7)	(17.3)	(23.8)	(52.9)
Intercept	-394 ^a	-308 ^a	-435 ^c	64
	(83)	(72)	(240)	(383)
Chi-square test of difference with white		29.8	12.9	7.6
p-value		<0.001	0.116	0.478
Chi-square test of difference with African-American			55.3 ^a	42.9 ^a
p-value			<0.001	<0.001

Estimates are the result of a fixed-effects regression using subgroup impacts. Statistical significance levels are indicated as: a = 1 percent; b = 5 percent; and c = 10 percent. Standard errors are shown in parentheses. Impacts on participation in job search and education activities were estimated on the full sample, not by racial and ethnic group. The part-time work incentive is estimated as the difference in income from earnings, cash assistance payments, and Food Stamps between the new and old programs for a parent with two children who works 20 hours per week and earns \$6 per hour. The full-time work incentive is defined in a similar way if the parent works 40 hours per week. For MFIP, welfare payments included General Assistance and the cash value of Food Stamps.

both programs with time limits also had financial work incentives. The estimated effect of the time limit is for a hypothetical program with no other policies. In fact, the overall effects of the Connecticut and Florida programs on income over the three years following random assignment were not significantly different by race.

CONCLUSIONS AND POLICY IMPLICATIONS

This paper examined the effects of twenty-four experimental welfare and work policies on earnings, welfare benefits, and income for white, African-American, and

TABLE 6
Estimated Determinants of Impacts of Welfare and Work Policies on
Annual Income over Three Years, by Race and Ethnicity

	White	African- American	Hispanic	Other
Welfare-to-work participation				
Impact on Job Search	3.7 (4.5)	5.6 (5.0)	6.4 (9.6)	32.2 (20.1)
Impact on Education	7.5 (5.7)	1.3 (5.4)	-0.6 (8.6)	-6.1 (18.8)
Financial work incentives				
Part-time (20 hours/week)	2.47 ^c (1.28)	6.90 ^a (1.58)	4.05 (5.65)	5.95 (4.92)
Full-time (40 hours/week)	2.36 ^c (1.40)	-0.55 (1.56)	1.07 (6.13)	-5.17 (6.44)
Time limit	256 (282)	-508 ^b (256)	-675 (1545)	-1540 (1064)
Economic factors				
Welfare grant level for a family of 3	0.68 (0.43)	-1.12 ^b (0.45)	0.31 (1.15)	0.91 (1.44)
Unemployment rate	-75.6 ^a (29.0)	6.5 (33.4)	-15.2 (35.5)	-67.3 (86.4)
Intercept	-194 (121)	-210 (155)	-165 (377)	-497 (694)
Chi-square test of difference with white		20.2 ^a	8.0	15.6 ^b
p-value		0.010	0.434	0.049
Chi-square test of difference with African-American			9.2	18.3 ^b
p-value			0.323	0.019

Estimates are the result of a fixed-effects regression using subgroup impacts. Statistical significance levels are indicated as: a = 1 percent; b = 5 percent; and c = 10 percent. Standard errors are shown in parentheses. Impacts on participation in job search and education activities were estimated on the full sample, not by racial and ethnic group. The part-time work incentive is estimated as the difference in income from earnings, cash assistance payments, and Food Stamps between the new and old programs for a parent with two children who works 20 hours per week and earns \$6 per hour. The full-time work incentive is defined in a similar way if the parent works 40 hours per week. Income includes earnings, AFDC and TANF payments, and the cash value of food stamps. For MFIP, income also includes General Assistance. For SWIM, income does not include food stamps.

Hispanic welfare recipients. In general, the programs do not appear to have systematically favored one group over another. Programs with large effects overall generally had large effects across the three groups, while programs with small overall effects generally had small effects across the three groups.

Among five program models examined, one approach had the largest impacts on earnings (and welfare benefits) for white, African-American, and Hispanic welfare recipients. This approach stressed the importance of employment to all welfare recipients, but allowed less job-ready parents to enroll in education and training before looking for work. The result suggests that the programs developed by many states

requiring all welfare recipients to look for work before anything else are well-intentioned but probably too extreme in their use of job search.

Among the five program models examined, programs that required nearly all welfare recipients to enroll in education or training affected earnings for white and African-American welfare recipients the least. Programs that used a mix of initial activities but, unlike the most successful programs, were education-focused rather than employment-focused, had the smallest effect on earnings of Hispanic welfare recipients. This result suggests that it might be inappropriate to stress education too much.

The small effects of education-focused programs do not necessarily suggest that education and training are inappropriate for welfare recipients. The education-first programs studied in this paper were typical programs, and more exemplary education or training programs might have had larger effects on employment and earnings. Moreover, most of them focused on basic education, and little was learned about the effects of other types of human capital development such as vocational education. Many of the participants in the education-first programs dropped out of the programs before completing them, so it is not surprising that their effects were small. Many participants said they preferred to work rather than sit in a classroom, adding more credibility to the greater effects of the programs that allowed education but stressed employment. Voluntary training programs, moreover, have been found to substantially increase earnings among low-skilled women [Greenberg et al., 2003]. Finally, the larger effects of employment-focused programs with a mix of activities imply that education can play an important role when well targeted.

The only group of programs to consistently increase income supplemented the earnings of welfare recipients who went to work. This suggests that the more generous earnings disregards put into place by the vast majority of states under TANF—not to mention the federal Earned Income Credit—might reduce poverty as well. Most earnings disregards, however, provide greater incentives for part-time work than full-time work, and the results in this paper suggest that part-time financial incentives do not increase earnings, so that the increased income coming from disregards primarily reflects increased welfare benefits. Individuals who combine work and welfare are using up months of assistance that they may need later if they lose a job or other source of income. State policymakers might reconsider whether welfare recipients who “play by the rules” (that is, work) should be subject to the same time-limit policies as those who do not work. One option would be to “stop the clock” for families who combine welfare and work. To pay for these benefits—which would be smaller than regular welfare payments—states could use TANF maintenance-of-

effort funds, which means the assistance would not count toward federal time limits on benefits. Research in several states suggests that providing financial incentives to welfare recipients who go to work can increase employment, reduce poverty, and improve family and child outcomes.

APPENDIX

DESCRIPTION OF THE RANDOM ASSIGNMENT STUDIES

This appendix contains a brief description of each of the studies that contributed data to the analyses presented in the paper.

The Saturation Work Initiative Model (SWIM). Operated between July 1985 and September 1987, SWIM was an employment-focused program that was mandatory for most single-parent AFDC households with no child under age 6 [Hamilton and Friedlander, 1989]. SWIM started most participants off with a two-week job search workshop. Participants who did not find a job after job search were referred to the Employment Work Experience Program (EWEP), which required them to work 20 to 30 hours per week for 13 weeks in public or nonprofit agencies in exchange for their welfare benefits. Those who were still not working after EWEP were referred to community education and training programs.

Greater Avenues for Independence (GAIN). Implemented in the mid-1980s, GAIN was California's welfare-to-work program. In six of the state's 58 counties, the effects of GAIN were studied using a random assignment evaluation begun in early 1988 [Riccio et al., 1994]. Participants in the welfare-to-work program were placed in one of two tracks after an initial assessment. Individuals who had neither a high school diploma nor a General Educational Development (GED) certificate, who obtained low scores on either a basic reading or math test, or who were not proficient in English were considered "in need of basic education." Most entered a program of basic education, GED preparation, or English as a Second Language (ESL). Most other participants were required to enroll in a supervised job search activity. If a participant in either track completed her first activity without finding a job, she may have been referred to on-the-job training, work experience, supported work, or other education and training. Although the six GAIN counties studied shared a uniform program model, the characteristics of the counties and their implementation of the model differed somewhat. In particular, the program operated in Riverside was much more employment focused than the others. Nearly all staff in Riverside emphasized quick employment, while no more than half in any other county did so.

The National Evaluation of Welfare-to-Work Strategies (NEWWS). NEWWS studied 11 welfare-to-work programs created or adapted to fit the provisions of the Job Opportunities and Basic Skills Training (JOBS) program of the Family Support Act of 1988. For more information on the Family Support Act and the JOBS program, see Hamilton and Brock [1994], Chapter 1. JOBS was designed to help states reach the hard-to-serve by requiring states to spend at least 55 percent of JOBS resources on potential long-term recipients, including those who had received

welfare in 36 of the prior 60 months, those who were custodial parents under age 24 without a high school diploma or GED, those who had little work experience, and those who were about to lose eligibility for welfare because their youngest child was age 16 or over.

NEWWS studied policies in seven sites: Atlanta, Georgia; Columbus, Ohio; Detroit and Grand Rapids, Michigan; Oklahoma City, Oklahoma; Portland, Oregon; and Riverside, California [Freedman et al., 2000]. Three sites — Atlanta, Grand Rapids, and Riverside — implemented both “labor force attachment” (LFA) programs that required most participants to begin with job search activities and “human capital development” (HCD) programs that required most participants to begin with basic education. In Atlanta and Grand Rapids, people were randomly assigned to the control group, the HCD program group, or the LFA program group. In Riverside, those in need of basic education according to the GAIN criteria described above were randomly assigned to one of these three groups, but those not in need of basic education were randomly assigned to either the control group or the LFA program group. Two programs in Columbus required participants to enroll in education or training, but tested different forms of case management. In particular, people in Columbus were randomly assigned to the control group, a traditional case management group in which one caseworker verified eligibility for welfare and a second managed program participation, or an integrated case management group in which one caseworker both verified eligibility and managed program participation. Programs in Detroit and Oklahoma City likewise assigned most participants initially to education or training, although both sites made greater use of long-term education and training than the other education-focused programs studied in NEWWS. The eleventh program — in Portland — emphasized to clients that the goal of the program was to get a job but encouraged participants to wait until they found a “good” job and encouraged those in need of more skills to enroll in education or training initially and look for a job later.

The Minnesota Family Investment Program (MFIP). The pilot MFIP study was begun in 1994 to test whether financial incentives would encourage welfare recipients to work [Miller et al., 2000]. MFIP allowed working welfare recipients to continue receiving benefits until they earned 140 percent of the federal poverty threshold. Put another way, a mother of two who worked 20 hours per week and earned \$6 per hour would receive almost \$250 more in income under MFIP than under AFDC. In addition, MFIP required welfare recipients to participate in its welfare-to-work program after they had received welfare in 24 months over a three-year period. MFIP’s welfare-to-work program was an employment-focused program that assigned more job-ready individuals to jobs search but allowed others to enroll initially in education programs. This paper describes results for two versions of MFIP, an incentives-only program that offered program group members the enhanced earnings disregard, and a full-services program that not only offered the enhanced disregard but also required long-term recipients to participate in the welfare-to-work program. MFIP is also the name of Minnesota’s TANF program, which is a modified version of the full MFIP program described here.

The Family Transition Program (FTP). Florida's Family Transition Program (FTP) was a pilot version of a time-limited welfare program studied in Escambia County (Pensacola) beginning in 1994 [Bloom et al., 2000]. FTP required participants to engage in employment and training services, included a financial incentive that made work pay more than it did under AFDC rules, and imposed a time limit on receipt of welfare benefits. About 40 percent of the program group was considered more disadvantaged and allowed to receive welfare for 36 months in a 72-month period before reaching the program's time limit because they had received welfare for at least 36 of the 60 months prior to random assignment or because the parent was a high school dropout under age 24 with little or no recent work history. The remaining 60 percent of the program group was allowed to receive welfare for 24 months in a 60-month period before reaching the time limit. Unlike the other programs in this paper, the control group in FTP was also required to participate in services through Project Independence, Florida's JOBS program. Although both the control and program groups were required to participate in employment and training services, the mandate was different for the two groups in several ways. First, the welfare-to-work program for the control group was not fully funded during the period when FTP was studied. Second, control group members with a child under age 3 were exempt from the participation mandate. Third, mandates were much more strictly enforced for the program group than for the control group. Fourth, more participants in the program group were allowed to participate in education and skills development because they were not considered job ready.

Connecticut Jobs First. Jobs First began operating in January 1996 as Connecticut's TANF program [Bloom et al., 2002]. With a 21-month time limit, Jobs First had the shortest time limit in the country. In practice, however, most families that reached the time limit while the program was being evaluated were granted an extension if they had earnings that were less than their welfare grant plus \$90. In addition to the time limit, the program required welfare recipients to enroll in employment and training services that included both job search and basic education. Welfare recipients were also encouraged to work through the program's generous financial incentive, which allowed them to keep their entire welfare check and food stamp benefit as long as they were earning less than the federal poverty threshold.

The Vermont Welfare Restructuring Project (WRP). One of the earliest statewide welfare reform programs initiated under waivers of federal welfare rules prior to 1996, WRP used a number of policies to try to increase self-sufficiency by enabling families to supplement or supplant public assistance with earnings [Scrivener et al., 2002]. To provide a financial incentive to work, WRP had an earned income disregard that allowed parents to keep more earnings than under ANFC after an initial period of work. To ease the transition away from welfare, WRP extended Medicaid and child care subsidies longer than under ANFC. To allow parents a means of find-

ing and keeping a job, WRP permitted welfare recipients to own a more valuable car than under ANFC. Finally, to force parents to work if all other encouragement failed, WRP included a time limit that required parents to work after 30 months.

NOTES

The analysis in this paper was funded primarily by a grant from the U.S. Department of Health and Human Services Administration for Children and Families. Some funds were also contributed by the David and Lucille Packard Foundation, the W.T. Grant Foundation, and the John D. and Catherine T. MacArthur Foundation through the Next Generation project at MDRC. The paper benefited from Robert Plotnick's comments on a version presented at the Eastern Economic Association annual conference in New York in February 2003, as well as comments from Judy Gueron, Gordon Berlin, Howard Bloom, and Virginia Knox at MDRC; and Alan Yaffe at the Administration for Children and Families at the U.S. Department of Health and Human Services. Finally, I am indebted to Bryan Ricchetti for his programming help and generally superb research assistance.

1. In addition, two similar programs studied since 1990 by MDRC— Florida's Project Independence and Los Angeles' Jobs First GAIN — were not included in the paper because they did not have three years of data following random assignment.
2. Although the UI system excludes earnings from some jobs, most of the evaluations of the programs in this paper also used surveys to measure earnings and differences between the two data sources are generally small. Moreover, Kornfeld and Bloom [1999] found that the impacts on earnings using UI records and surveys were not significantly different from one another in the national JTPA study. The income measure also does not include the federal Earned Income Credit (EIC), which provides a family with as much as about \$4,000 per year. Once again, most of the evaluations also estimated the effects of the EIC net of income and payroll taxes and generally found that conclusions regarding income were unchanged. Programs that did not significantly raise income in general did not significantly raise income after the EIC and taxes were taken into account. As explained in Appendix D of Bloom and Michalopoulos [2001], many parents earned less than needed to receive the maximum EIC, many earned so much that they were beyond the maximum EIC they could receive, and many had only one child so that they were eligible for less than the \$4,000 maximum. In the Connecticut Jobs First program, in fact, income after accounting for the EIC and taxes was lower than before because so many families earned enough to be on the phase-out region of the EIC or to be eligible for no credit at all.
3. To calculate the pooled effects by program model, effects were estimated first for each program and each subgroup as the difference between the average outcome for program and control group members in the program-subgroup combination. Pooled effects are the weighted average of effects by program, with weights for a subgroup-program estimate proportional to the inverse of the square of the standard error of the estimate. This weighting scheme provides the minimum variance average estimate within each program model [Hedges and Olkin, 1985, Chapter 8]. An alternative to this weighting scheme is to weight estimates from each program equally. This has the advantage of giving estimates from each program equal importance, regardless of the racial composition of the site. However, the resulting pooled estimates are less precise. To give one example, the average effect of the job-search-first programs on white sample members is estimated to be \$318 per year with a standard error of 141 when the weighting scheme described in the text is used, but it has an estimated average effect of \$455 per year with a standard error of 274 when the sites are weighted equally. The reduced precision from equal weighting would provide a more conservative estimate of differences by race or across program models than the pooled results presented in this paper.
4. Impacts on stable employment and stable welfare exits were also calculated but are not shown here. In both cases, impacts were not systematically different across racial and ethnic groups.
5. The income measure does not include the federal Earned Income Credit (EIC), which provides a family with as much as about \$4,000 per year. Most of the evaluations also estimated the effects of the EIC net of income and payroll taxes and generally found that conclusions regarding income were unchanged. As explained in Appendix D of Bloom and Michalopoulos [2001], many parents earned less than needed to receive the maximum EIC, many earned so much that they were beyond the maximum EIC they

- could receive, and many had only one child so that they were eligible for less than the \$4,000 maximum.
6. An appendix of results for each program is available from the author.
 7. If the programs were in reality equally likely to have larger effects for whites than for African-American sample members, there would be an 11.9 percent chance of seeing 11 or more differences in favor of one group.
 8. The impact of education and training on earnings might be larger in a later period since welfare recipients probably had to forego work and earnings to take part in education or training. A regression of impacts in the third year after random assignment, however, found a larger but still statistically insignificant relationship between a program's impact on education and training activities and its impact on earnings.

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