

The Impacts of Self-Sufficiency Interventions on Recipients of Rental Housing Subsidies: An Exploratory Analysis of Data from Selected Randomized Controlled Trials

PD&R Research Partnerships



PD&R



PD&R Research Partnerships

Partnering With Universities, Philanthropic Organizations, Other Federal or State Agencies for Innovative Research Projects That Inform HUD's Policies and Programs

HUD's Office of Policy Development and Research (PD&R) has authority to enter into unsolicited research partnerships with universities, philanthropic organizations, other federal or state agencies, or a combination of these entities through noncompetitive cooperative agreements. The purpose of these partnerships is to allow PD&R to participate in innovative research projects that inform HUD's policies and programs. Research partnerships require that at least 50 percent of the costs are funded by the partnering agency. PD&R is focusing its cooperative agreement efforts on research partnerships that will advance one of the following five key areas:

1. Homeownership and housing finance;
2. Affordable rental housing;
3. Housing as a platform for improving quality of life;
4. Sustainable and inclusive communities; or
5. HUD assets.

Visit PD&R's website

www.huduser.gov

to find this report and others sponsored by HUD's Office of Policy Development and Research (PD&R). Other services of HUD USER, PD&R's research information service, include listservs, special interest reports, bimonthly publications (best practices, significant studies from other sources), access to public use databases, and a hotline (800-245-2691) for help accessing the information you need.

The Impacts of Self-Sufficiency Interventions on Recipients of Rental Housing Subsidies: An Exploratory Analysis of Data from Selected Randomized Controlled Trials

An MDRC Working Paper*

Michael Wiseman and James Riccio

January 14, 2015

*Michael Wiseman is Research Professor of Public Policy, Public Management, and Economics at The George Washington University and James Riccio is Director, Low-Wage Workers and Communities, at MDRC. This Working Paper was prepared with support from a U.S. Department of Housing and Urban Development Research Partnership grant and funding from the John D. and Catherine T. MacArthur Foundation, the Annie E. Casey Foundation, and the Food and Nutrition Service of the U.S. Department of Agriculture. This Working Paper may be updated following further review and analysis. Comments are solicited: E-mail Wiseman at WisemanM@gwu.edu or Riccio at James.Riccio@mdrc.org. We are indebted to Claire Montialoux and Edith Yang for computational assistance.

Summary

This working paper explores the effects of various employment-advancement or antipoverty initiatives on labor market outcomes for participants in those programs who were also recipients of government rental subsidies. The findings are based on *exploratory* secondary analyses of data from a collection of randomized trials for which MDRC served as the evaluator. The purpose of these secondary analyses was to produce evidence that could help guide planning for future programs aiming to help housing-assistance recipients obtain, sustain, and advance in employment. The findings show that some interventions produced no effects on tenants' employment and earnings, while others had some positive effects, but these were primarily limited to particular subgroups. Moreover, most tenants who benefited from the interventions remained a long way from self-sufficiency, suggesting the importance of continuing to develop and test more innovative approaches. The analysis was supported by a Research Partnerships Grant from the U.S. Department of Housing and Urban Development (HUD), with matching funds from the Food and Nutrition Service of the U.S. Department of Agriculture, the MacArthur Foundation, and the Annie E. Casey Foundation.

Background

- (1) Research demonstration projects using randomized trials have tested interventions that include different versions of job coaching and financial incentives to try to improve labor market outcomes for low-income individuals. While most of those interventions have not focused exclusively on HUD-subsidized tenants, many of them have included such individuals and families among the low-income participants they serve. This paper is interested in how the effects of alternative programs may have varied between recipients who were receiving housing subsidies and those who were not receiving such subsidies at the time they entered the programs. Families receiving housing assistance are diverse, and future interventions aiming to serve them will probably continue to experience that diversity. Therefore, in addition to variation by housing status, the paper examines the variation in effects associated with differences in the composition of participants' households. Such information can inform the designs of programs that aim to achieve larger and more broad-based improvements in tenants' self-sufficiency outcomes.
- (2) This study was motivated in part by a 2003 HUD-funded report, *Housing Assistance and the Effects of Welfare Reform*, by Nandita Verma, James Riccio, and Gilda Azurdia (Verma, Riccio, and Azurdia 2003). Verma, Riccio, and Azurdia used data on the outcomes of welfare program reforms in two states to investigate whether those reforms had different effects on employment outcomes for welfare recipients with housing assistance and those without such assistance. The programs were the Connecticut Jobs First program and the Minnesota Family Investment Program (MFIP) (Bloom et al. 2002; Miller et al. 2000). Both initiatives sought to increase self-sufficiency among recipients of cash assistance from the Temporary Assistance for Needy Families (TANF) program. Both initiatives provided additional employment-oriented services and, through an enhanced earnings disregard, substantially increased the financial payoff to TANF recipients who worked. The Connecticut program also included a 21-month time limit on welfare assistance.

- (3) The impacts of the MFIP and Jobs First initiatives were evaluated by random assignment of participants to a group subject to the new welfare reforms or a control group subject to pre-reform (Aid to Families with Dependent Children) policies. Comparison of outcomes between the “program” and control families is the basis for the estimations of program impacts in the original project reports. Both MFIP and Jobs First showed positive effects on participants’ employment, earnings, and income.
- (4) Participants in both the MFIP and Jobs First experiments included substantial numbers of housing-assistance recipients. In their expanded analysis of program impacts, Verma, Riccio, and Azurdia discovered that the impacts of welfare reform on employment and earnings were consistently larger for welfare recipients with housing assistance than for those with no housing assistance, even controlling for differences in demographic characteristics and employment history. This result is consistent, they argue, with results of 8 out of 10 other studies that looked for differential impacts of welfare reform by housing subsidy receipt. They conclude that “it is important to consider this distinctive pattern in future efforts — in both the welfare and the housing policy arenas — to improve labor market outcomes for low-income populations” (Verma, Riccio, and Azurdia 2003, p. xii).
- (5) In this paper, we extend the Verma, Riccio, and Azurdia analysis to four other major evaluations: the Opportunity NYC – Family Rewards demonstration (Riccio et al. 2013), the Opportunity NYC – Work Rewards demonstration (Verma et al. 2012), the Employment Retention and Advancement (ERA) demonstration (Hamilton and Scrivener 2012), and the Work Advancement and Support Center (WASC) Demonstration (Miller et al. 2012). In addition to examining impacts on housing-assistance subgroups, we look more closely at effects for participants distinguished also according to their employment status and household composition at the time of entry into the experiment. These subgroup analyses, which were not all pre-specified in the original studies, should be considered exploratory.
- (6) Before considering the individual projects, we review reasons why what Verma, Riccio, and Azurdia term this “distinctive pattern” of interaction between housing assistance and reform might occur.

Why Impacts Might Differ by Housing Status

- (7) Broadly speaking, Verma, Riccio, and Azurdia offer two hypotheses. The first is that the relationship between income and rent created by most housing-assistance programs depresses work effort, and the incentives and services included in initiatives like Jobs First and MFIP counteract this depression. The second is that subsidized housing creates something of a platform of stability that facilitates — and indeed makes less risky — working and moving toward greater self-support.
- (8) The incentives hypothesis grows out of the way housing assistance works. For a family with housing assistance, compared with the same family without assistance, the award of housing assistance lowers the price of a certain quality of housing and alters the financial gains from work. There is, in economists’ language, an income effect and a price effect.

- (9) The income effect works this way: Because the family receiving housing assistance is better off, housing assistance is equivalent in value to the family of some increase in income without the change in the price of the housing. Other things being equal, an increase in income would be expected to reduce to some extent how much adults in the family would choose to work, because they could achieve an equivalent standard of living with less work effort.
- (10) The price effect works through the effect of housing assistance on returns to work. In most forms of housing assistance, a family is expected to contribute more toward its rent as its income goes up. As a result, receipt of housing assistance reduces the gain to workers and their households from either additional hours of work or from getting better (that is, higher-paying) jobs, since more money means higher rent. Moreover, housing assistance reduces the loss from a reduction in earnings because lower income leads to lower rent. Thus, reducing the loss from working less would (like the income effect) also be expected to reduce labor supply.
- (11) But predicting the effects of housing assistance on work effort is complicated by complementarities. Better — and more stable — housing can create incentives for other forms of consumption and household investment. These housing-related opportunities for more general life improvement may lead to more, rather than less, incentive to work. Such incentives to increase work effort may also be enhanced by welfare reforms of the MFIP/Job First variety, possibly leading to the effects reported by Verma, Riccio, and Azurdia. The consequence of these considerations is uncertainty about the net effect of housing assistance on labor supply and earnings.
- (12) The platform-of-stability argument rests in part on incentives created by complementarity, but also upon arguments now associated with a behavioral-psychology perspective on poverty (compare [Mullainathan and Shafir 2013](#)). Basically the argument is that the constraints and vulnerability created by poverty affect people's ability to deal with the multiple demands of life and, especially, of parenting. Among other things, the result is a tendency to focus on immediate challenges at the expense of the planning and strategy development essential to finding and exploiting opportunities for advancement. By substantially relieving uncertainty about housing, it is conceivable that housing assistance frees the mind for more effective affairs management and career planning. Housing assistance thus supports more creative use of opportunities that experiments like Jobs First and MFIP present.
- (13) Other hypothesized effects of housing assistance grow out of institutional detail. Obviously, the impact on a family's environment depends on the mode of housing assistance: Vouchers generally provide more mobility opportunity than does receipt of a place-based assistance incorporated in public or subsidized private housing. Housing assistance is not an entitlement, and in most jurisdictions there exists a queue for housing assistance awards. Sometimes the wait can be very long, and if awards are given out on the basis of need, efforts to work or increase earnings may reduce a family's chances of obtaining housing assistance — thus creating incentive to avoid or defer regular employment. But this strategic behavior may itself reduce employment prospects if skills or work habits (at least as perceived by employers) diminish with time spent without a job.

- (14) Household composition is a potentially important but generally underexplored factor conditioning the response of housing-assistance recipients to work-related innovations. In his idiosyncratic review of the (possibly) perverse consequences of housing assistance published a decade ago, Mark Shroder began a section on the effects of housing assistance on household composition by stating, “The people one lives with may fundamentally alter one’s life” (Shroder 2002, p. 400). He then went on to point out the lack of attention to the effects of acquisition of housing assistance on household composition: In particular, in some instances new housing-assistance recipients would move out of residence with others and into more independent circumstances. But it is also important to consider the consequences of household composition for the work efforts of individual household members. For example, whether or not a family is headed by a single parent with young children or includes other adults in the household may affect the parents’ or adults’ labor supply. And if household composition affects the labor supply of household members generally, then it may condition the effect on individuals of programs like MFIP and Jobs First.¹
- (15) One consequence of these and other complications is that, in the absence of random assignment experiments, coming up with a plausible counterfactual for assessing the net effects of assistance can be quite difficult: Just where do we find that “same” family cited in the “compared to the same family without assistance” qualifier introduced earlier? There are two recent examples in which an appropriate counterfactual has been created by random assignment of access to a housing subsidy. One is the Welfare-to-Work Vouchers experiment (Mills et al. 2006) the other a study of the impact of random assignment of positions in the Housing Choice Voucher queue for the Chicago Housing Authority (Jacob and Ludwig 2012).
- (16) The Welfare-to-Work Vouchers evaluation involved random allocation of vouchers to individuals in Public Housing Authority applicant queues in six sites; the target group was applicants who were receiving or at risk of receiving TANF benefits. Impacts were judged by comparing a variety of outcomes for those that gained the voucher to those who did not. The Chicago Housing Authority experiment involved all persons meeting basic Housing Choice Voucher criteria and included a significant number of TANF recipients. Both experiments showed voucher award *reduced* employment and earnings relative to employment and earnings in comparable control families without vouchers. Both experiments showed *increased* take-up of TANF rather than reduced welfare dependence. The Welfare-to-Work Vouchers results indicate that in some instances the voucher award permitted awardees, in particular single mothers with children, to leave shared households for private apartments (Gubits, Khadduri, and Turnham 2009).
- (17) These Welfare-to-Work Vouchers and Chicago Housing Authority studies are complex and multifaceted, so it is not possible to summarize them adequately here. However, a defensible conclusion is that the substantial benefits of housing assistance are in part offset

¹There is a large literature on the effects of family and household status on the labor supply of individuals, but most of it has focused on differences between married and unmarried persons and between families with and without children. For a review of theory, see Browning, Chiappori, and Weiss (2014).

to a modest extent by a reduction of income from work. A natural question is whether these effects can themselves be offset by the introduction of other services or incentives. The Verma, Riccio, and Azurdia results imply they can. Thus there is good reason to look in other places for the “distinctive pattern” the Verma, Riccio, and Azurdia paper reports.

The Projects and Subgroups

- (18) The four projects we consider in our exploratory analyses encompass impact evaluations for eight separate sites or program variants: The Family Rewards demonstration (one intervention), the Work Rewards demonstration (two interventions), the Earnings Retention and Advancement (ERA) demonstration (two sites), and the Work Advancement and Support Center (WASC) demonstration (three sites). The basic descriptors for the projects appear in [Table 1](#). This is an overview; detail will follow after discussion of subgroups. [Note: All tables are included at the end of the narrative; table references are hyperlinked.]
- (19) In these experiments, families are assigned at random to “program” or “control” status. The program group has access to the innovation; the control group does not. Data on participants’ characteristics and situations at project initiation — the baseline — are collected prior to random assignment. These data are used for regression control for random residual differences between the program and control groups and for subgroup identification.
- (20) In this investigation we work with participant subgroups defined on the basis of housing status, employment, and household composition at baseline. Housing status — that is, whether or not a family is or is not living in assisted housing, and, if so, what type — is a principal concern. However, some of the experiments are limited to persons who, at time of random assignment, are receiving Section 8 Housing Choice Vouchers. Employment is the principal means of self-support, and there is much prior evidence to indicate that both employment history and employment status at project beginning influence labor market outcomes and the effects of the innovations tested. Finally, we suspect that the response of individuals to incentives is in part the consequence of the contribution — or detraction — of others in the household.
- (21) In the studies where subsidized housing is a subgroup, that subgroup was usually pre-specified. In some, but not all, studies, single-parent status was also a pre-specified subgroup, but the definition of single-parent may vary somewhat in this paper. However, in none of the studies were the subgroups that are defined in terms of combinations of housing status, single-parent status, and employment status pre-specified. Throughout this paper, the results for these composite subgroups in particular should be considered exploratory. In some cases, the sample sizes for the subgroup categories are relatively small. The following overview illustrates variation across the experiments we study with respect to representation of housing status, employment, and household composition.

Defining housing status

- (22) Housing status is self-reported at the time of random assignment for all the experiments studied here.² The level of detail of housing status varies across the different experiments, but the notions are comparable across them:
- In Family Rewards, the data allow us to differentiate among three housing statuses: living in public housing (29.6 percent of the sample), living in Section 8-supported housing (22.9 percent), and not living in public or subsidized housing (47.5 percent).³
 - In Work Rewards, all participants were required to hold a Housing Choice Voucher from either the New York City Department of Housing Preservation and Development or the New York City Housing Authority.
 - In the U.S. ERA demonstration, the data allow us to differentiate between two housing statuses: living in public or subsidized housing (that is, Section 8-supported housing) or not.⁴ Only 2 sites (out of 12 in the original experiment) are analyzed in this paper: Riverside Post-Assistance Self-Sufficiency (PASS) and Corpus Christi. These are two of the three sites that “produced consistent increases in individuals’ employment retention and advancement” (Hamilton and Scrivener 2012, p. v). (We lack information on the status of participants at the third site, Chicago.) In Riverside PASS, 12 percent of the participants were living in public or subsidized housing. The corresponding figure for Corpus Christi (one of the three ERA locations in Texas) is 16.5 percent.
 - In the WASC Demonstration, the data allow differentiation between two housing statuses across the three sites: 21.1 percent of the Dayton participants were living in public or Section 8 housing; the corresponding figures are respectively 18.1 percent and 25.1 percent for San Diego and Bridgeport.

Defining participant employment

² As Shroder (2002) points out, errors are common in people’s self-reported housing status, and such errors diminish the reliability of statistical analysis of the connections between housing subsidy and the outcomes studied in this report. In their analysis of welfare reform experiments in Minnesota and Connecticut, Verma, Riccio, and Azurdia (2003) report evidence of problems with both self-reports and PHA administrative data on receipt, but indicate that adjustment of their data based upon combining self-reports with administrative data did not materially affect their conclusions. For the experiments discussed in this report other than Work Rewards, administrative data on housing status were not readily available, and no correction for misreporting was possible. We return to this matter in our conclusions.

³Here and elsewhere in this section percentages are calculated for participants with no missing information for the variables considered. For some of the demonstrations, the sample totals reported here vary slightly from totals appearing in the original reports due to differing definitions and differing treatment of cases with missing data. A separate appendix, available from the authors, lists and details the differences. They are inconsequential.

⁴A version of the Employment Retention and Advancement demonstration was also tested in the United Kingdom (see Hendra et al. 2011).

- (23) In all of these experiments employment status is self-reported at the time of random assignment. A participant can either be employed or not; no differentiation is made between part- and full-time work.

Defining participant household composition

- (24) In our data, all information about the household composition is self-reported at the time of random assignment in a Baseline Information Form (BIF) completed prior to random assignment. Theory and experience suggest that the ability of adults to respond to and exploit the services offered by employment-related interventions is likely to be a function of home responsibility and other household resources. In this analysis we consider closely the subgroup of “single parents caring for children or teenagers.” Virtually all the participants in the Minnesota and Connecticut experiments analyzed by Verma, Riccio, and Azurdia were single parents fitting this definition.

- In Family Rewards, single parents with children are defined as all the participants who reported on the BIF that they were:
 - Single (that is, “single,” “separated,” “divorced,” or “widow/widower”)
 - Caring for at least one child age 19 or younger
- In Work Rewards, the single-parent subgroup is defined as all the participants who reported on the BIF that they were:
 - Single (that is, “single,” “separated,” “divorced,” or “widow/widower”) and head of the household
 - Not “married,” not “in a legal domestic partnership,” not “single, but living with boyfriend or girlfriend”
 - Caring for at least one child age 19 or younger
- In the ERA, the group includes all the participants who reported on the BIF that they were:
 - Single (that is, “never married,” “separated or legally separated,” “divorced,” “widow/widower,” or “other, including spouse desertion, spouse incarceration, apart, etc.”)
 - Caring for at least one child age 19 or younger
- In the WASC Demonstration, the single-parent subgroup is defined as all the participants who reported on the BIF that they were:
 - Single
 - Caring for at least one child age 19 or younger

- (25) Note that the data for household composition are more refined for the Work Rewards demonstration than others. Housing Choice Vouchers are provided in the name of a household “head,” and we have specifically identified single parents who were so designated. As is discussed later, we think the Work Rewards analysis of household

composition subgroup effects to be particularly interesting because of the availability of this detail.

Results

Overall, we do find some evidence that, whatever the employment disincentives created by the housing subsidy rent rules, the effects *can* be offset by other services or incentives, but not all interventions achieve this effect. In the tour of results by demonstration project that follows, we begin each section with a brief overview of results.

The Family Rewards Demonstration

The Family Rewards demonstration focused a multifaceted portfolio of incentives on low-income families with children in three New York City boroughs. Only some of the incentives were employment-related, and these included bonuses for sustained full-time employment. The employment incentives generally failed to increase employment or earnings (in jobs covered by the unemployment insurance system), regardless of housing status. Among single-parent households, the program may have even reduced earnings (relative to the control group). The reasons behind this effect are unclear; it is possible that rewards provided for child-related and health-related activities may have provided alternatives to income gains that would otherwise have come through employment.

- (26) The Family Rewards demonstration focused a multifaceted portfolio of incentives on low-income families with children in three New York City boroughs. The project initially offered participating families 22 separate opportunities for cash awards for activities related to children’s education, preventive health care practices, and adult employment and training. The rewards package available to individual families depended in part on the ages of the children, but, in total, participants could earn several thousands of dollars per year for up to three years. The adult employment and training incentives included \$300 for sustained full-time work, defined to mean an average of 30 hours per week for six weeks or more in each two-month payment period. Thus, the full-time bonus could amount to as much as \$1,800 per year and \$5,400 over three years. The cumulative bonuses available for other activities amounted to at least as much.
- (27) As indicated in [Table 1](#) and detailed above, over 50 percent of adult Family Rewards participants were receiving housing assistance. Given an overall “research sample” of over 4,700, Family Rewards offers an unusually rich sample to analyze the association of effects with housing-assistance status. However, it appears the incentives introduced by Family Rewards had little effect on employment, regardless of housing status. We will nevertheless use this experiment to illustrate our approach.
- (28) [Table 2](#) presents impact estimates for Family Rewards on adult employment. The set-up here will be replicated for the other demonstrations, so it is useful to go into detail. The table is organized in three panels. The first covers earnings as reported through the unemployment insurance system for the three years (12 quarters) that begin the calendar quarter following random assignment. The second considers the prevalence of employment within the sample, measured by the average share of sample members with any

employment across each quarter of the three-year horizon. The final panel simply considers the prevalence of any unemployment insurance-reported employment at any time over the project horizon.

- (29) The first panel begins with the basic employment impact estimate, for all adults. The average control group member had \$37,895 in unemployment insurance-reported earnings over the three years; the corresponding group with access to Family Rewards had a bit less. The \$628 difference is not statistically significant, as the probability value indicates. “Statistical significance” here and in what follows should be viewed carefully. For exploratory purposes we are making many comparisons, and in this context even if no impact is in fact present anywhere, random variation in outcomes will produce some program-control differences that appear significant. We ignore this multiple-comparisons problem in what follows, but *caveat emptor*.
- (30) As is true for all MDRC work, the impact estimates presented in this report are all regression-adjusted. The outcome variable — in this case total unemployment insurance-reported earnings over three years — is regressed on a collection of variables reflecting participant background and an indicator variable set to 1 for the program group and 0 for the control group. The impact is the estimated coefficient for the program indicator. In principle, with random assignment the inclusion of the other background information is unnecessary for obtaining an unbiased estimate of impact, but by accounting for at least part of the remaining random variation in recipient characteristics across groups, regression adjustment increases the precision of the impact estimate.
- (31) Immediately below the “all adults” results, the first subgroup differential is assessed. As will be apparent in discussions of other experiments later in the paper, for various reasons it is common to differentiate between persons who report themselves at baseline to be not working (including persons out of the labor force) and persons who have jobs. For neither subgroup is the program/control outcome differential statistically significant. The table includes a column for indications that *differences in impacts* between subgroups are statistically significant. Here we skip p-values, but do include daggers (†) to signal statistical significance. The progression is the same as with asterisks used for the p-values: *, † = significant at the 10 percent level; **, †† = significant at the 5 percent level; and ***, ††† = significant at the 1 percent level.
- (32) The basis for subgroup comparison is the “H” statistic developed in meta-analysis (Hedges 1984, pp. 34-35 and described in Greenberg, Meyer, and Wiseman 1994, p. 685). Basically what goes on here is that each subgroup is treated as a separate experiment (“site” as described by Greenberg, Meyer, and Wiseman), and then the statistical significance of the variance across these “experiments” in impact is assessed in light of the uncertainty (that is, the variance of the estimate) surrounding each subgroup’s estimated impact. In practice achieving statistical significance for differences across subgroup impacts is difficult because sample sizes are smaller and impacts are estimated imprecisely. The difference between the estimated impact on earnings for employed versus unemployed participants is not statistically significant; hence no daggers.

- (33) Assessment of subgroup effects in this way differs somewhat from the test used for analyzing subgroup differences in the Verma, Riccio, and Azurdia (2003) paper that motivates the present study. Verma, Riccio, and Azurdia assessed differences in impacts between welfare recipients receiving housing assistance and welfare recipients without housing assistance by estimating subgroup impacts after holding constant certain background characteristics that distinguished the people in different housing tenures. The technique applied in the current paper does not impose these restrictions.
- (34) The table then subdivides all adults by housing-assistance status. The three-way distinction is among site-based assistance (“Public Housing”), Housing Choice Vouchers (“Section 8”), and other, unsubsidized private housing. Data on housing status are missing for 169 cases, so comparison by tenure is based on 4,746 people. The H-statistic for variation by tenure (not shown) is not statistically significant ($p = 0.464$), and, consequently, there are no daggers by tenure status. Among voucher holders, there is a statistically significant difference in earnings impact between the program and control groups for persons not working at baseline; it appears the program reduced earnings ($p = 0.056$). The H-statistic for comparison of impacts between those voucher holders working at baseline and those who were jobless tells us that this difference is also statistically significant.
- (35) The lower portion of the first panel considers only single parents (as defined above) — $3,779/4,915 = 77$ percent of the sample. It turns out that single parents constitute 87 percent of the subgroup with housing vouchers, and, not surprisingly, the impact of Family Rewards on earnings is virtually the same as it is for all voucher holders in the sample: For those not working at baseline, the program appears to have reduced earnings over three years. This is, of course a surprising and, for conditional cash transfer proponents, disappointing outcome.
- (36) The second panel of [Table 2](#) reviews employment rates. Here we do have, for all adults, a statistically significant difference in effects between persons not working at baseline and those who reported themselves as employed. Persons unemployed at baseline were less likely to be working in an average subsequent quarter if they were selected for Family Rewards than if they were assigned to the control group. This effect appears clearly for the three-quarters of participants who were single parents. Oddly, among single parents, the effect appears most pronounced for persons not in public housing or using vouchers. However, the differences in impacts for non-employed single parents across the three housing statuses are not statistically significant.
- (37) Panel 3 of [Table 2](#) uses the simple indicator of whether or not participants had any unemployment insurance-related employment for the three years of Family Rewards follow-up. No statistically significant effects are to be found here.
- (38) Overall, we fail to find within Family Rewards any identifiable differential between impacts for housing-assistance recipients and others. Neither group increased its work effort in response to the work incentives, or to the full package of incentives. The negative direction of the estimated effects of Family Rewards overall, although only sporadically statistically significant, is even more surprising. The factors behind these results are unclear; the MDRC report speculates that what may have occurred is substitution of other

cash bonus-producing activities for employment. Perhaps the rewards that families earned through their children's educational achievements and for family preventive health care and dental care activities offset the incentive value of the workforce rewards. Or, perhaps the workforce incentives helped mute any income effect produced by the non-work-conditioned rewards (see [Riccio et al. 2013](#)).

The Work Rewards Demonstration

The Work Rewards Demonstration includes two separate experiments, one operated through New York City's Department of Housing Preservation and Development and the other through the New York City Housing Authority. Both experiments involved families already using Housing Choice Vouchers, and together they provide evidence on the impact of three different packages of services and incentives: (1) services alone, (2) services plus incentives for full-time work, and (3) incentives alone. Overall, the three interventions had little positive effect, but the exploratory analyses suggest that they produced substantial positive impacts for single parents who were jobless at the time of program entry. But even within this group, about two-thirds of the single parents did not work in an average quarter during the follow-up period. The implication is that future programs should focus on both maximizing the size of program effects and broadening the distribution of gains across persons in varied family situations.

Work Rewards: Department of Housing Preservation and Development (HPD) Experiment

- (39) The HPD experiment involved two types of interventions. The first intervention is the "Family Self-Sufficiency" (FSS) program that is widely (but not universally) available for recipients of federally subsidized housing. Individuals admitted to FSS develop a "contract" with the administering public housing agency that sets out steps to greater self-sufficiency (increased earnings) and charts the obligations of both the participant and agency. As a tenant's earnings increase, any increase in rent contributions from that tenant reduce the housing subsidy, but the amount of the increased rent contribution is deposited in an escrow account that is released to the participant upon completion of the FSS contract (which requires that the participant be employed and not receiving cash welfare). This reduces the potential disincentive effect of the subsidy on earnings, although the payout of the escrow savings is usually not available for five years (the normal length of the FSS program). The second HPD program (called FSS+Incentives here) combined FSS with an additional award for participants who met certain work or education and training conditions. A \$300 cash reward was offered for sustained full-time employment, defined as an average of 30 hours per week for six weeks out of an eight-week "activity period." The reward (the same as the workforce reward offered in the Family Rewards program) could be collected up to 12 times over a fixed two-year period and therefore could total as much \$1,800 per year and \$3,600 over the full two years.
- (40) [Table 3](#) presents an overview of four-year impacts for the HPD experiments. The table is interpreted like the results for Family Rewards in [Table 2](#). The first data are for unemployment insurance-reported earnings over the entire four-year follow-up period.

Impacts are reported for both the FSS-Only intervention and the FSS+Incentives intervention. Some of the effects uncovered here are quite remarkable.

(41) Note in particular:

- (a) Neither FSS-Only nor FSS+Incentives has a statistically significant impact on earnings overall. However, when the sample is subdivided on the basis of reported employment at baseline, the impact of FSS+Incentives on earnings for those not working at baseline is substantial and statistically significant. (The same is not observed for FSS-Only.) Moreover, the difference between the impacts of FSS+Incentives for the employed versus not-employed subgroups is large and (judged by the H-statistic) statistically significant. However the difference in impacts across the two interventions (FSS-Only and FSS+Incentives) does not reach statistical significance, even for the non-employed subgroup.
- (b) Earnings impacts for single parents — half of all participants — are much larger than the impacts for all others, and they are evident for FSS-Only as well as FSS+Incentives. Essentially all of the impacts occur within this group.⁵
- (c) The lower half of the table reveals a similar pattern to that found for earnings. Impacts are nonexistent for those working at baseline, but statistically significant for the nonworking subgroup. Impacts are strongest for non-employed single parents. While point estimates of impact are larger for FSS+Incentives than for FSS-Only, the difference in impact between the two programs is not reliably estimated to exceed zero. Nevertheless, the outcome confirms the responsiveness of nonworking single parents (without partners, and caring for children or teenagers) to the two interventions. These results suggest that the possible work-disincentive effects of housing vouchers suggested by the Welfare-to-Work Voucher study and the Jacobs-Ludwig Chicago study can be offset.
- (d) [Table 3](#) has important additional implications. People were recruited for the Work Rewards experiments by the offer of support for obtaining and sustaining employment and cash for working full time. All of the financial benefits that could result from the program depended on working. Yet the bottom portion of the table shows that in an average quarter of the experiment, fewer than half of participants were employed in a job subject to unemployment insurance withholding — virtually all “above-ground” employment except for federal government or self-employment.
- (e) The FSS program includes services and goal-oriented employment counseling, and FSS+Incentives adds workforce incentives to the mix. One interpretation that can be

⁵Recall that the definition of “single parent” for this demonstration is more restrictive than the definition that could be applied for Family Rewards. Single parents for our Work Rewards analyses are in all cases household heads as defined by the housing authority — that is, the payees for Housing Choice Voucher subsidies. Most single parents in Family Rewards with housing subsidies were probably also official heads of household for the housing authority, but no variable indicating that they were was available in the data.

drawn from the HPD experiments is that it may take a much more intensive, active, and persistent engagement effort in order to produce larger overall labor market impacts.

Work Rewards: New York City Housing Authority (NYCHA) Experiment

- (42) The NYCHA component of Work Rewards tested the same cash incentives present in the FSS+Incentives component of the HPD experiment, but without the FSS service package. Again, the incentives worked for non-employed single parents. However, it appears that the Incentives-Only intervention had positive impacts also for single-parent participants who were employed at baseline. For the employed single parents, the effects are the largest among the experiments reviewed, yet the program — cash incentives only — is perhaps the simplest. For the already-employed single parents, the difference between the NYCHA results and the statistically insignificant (possibly negative) effects of the HPD experiment (which included the same incentives plus Family Self-Sufficiency services) cause pause. The implication of the NYCHA experiment may be that it is important to be sure that the content of the coaching and services do not work at cross-purposes with the financial incentives — for example, that they do not divert people into types of training that do not yield a payoff in the labor market, or that inadvertently depress work effort in some other way.
- (43) A sample of NYCHA results appears in [Table 4](#). Here the layout is the same as used in [Table 3](#) for the HPD experiment. However, in contrast to the HPD experiment, here we have a significant impact on earnings and the average quarterly employment rate for the full single-parent group (though not for all adults), regardless of employment status at baseline.
- (44) The size of the estimated average impact on earnings for single parents who began the experiment already working is substantial — \$6,468 over four years. Compare this with the employed single-parent point estimates of -\$2,884 for FSS-Only and -\$5,164 for FSS+Incentives in [Table 3](#) (neither is statistically significant). The implication could be that some features of FSS, for employed head-of-household single parents, may have been counterproductive.

The Employment Retention and Advancement (ERA) Demonstration

ERA was a multisite effort to test various strategies for enhancing persistence in work and upward mobility for persons already employed. Few of the ERA experiments produced consistent and statistically reliable effects on earnings. The two experiments discussed here were the only ones that had overall positive effects and enough sample members receiving housing subsidies to permit examination of effects by housing subgroup. Overall, where positive effects are observed, they extend to housing-subgroup participants as well as participants with no housing subsidies.

- (45) As the results of the Work Rewards study suggest, it is one thing to move people from non-employment to employment; it seems to be another to enhance earnings and consistency of employment once employment is achieved. In only 3 of 12 ERA sites did the experimental programs generate consistent and statistically reliable increases in earnings: Corpus Christi, Texas; Chicago, Illinois; and a program in Riverside, California called PASS (for Post-

Assistance Self-Sufficiency). In general, between 10 percent and 15 percent of ERA participants were part of families receiving housing assistance. While our Work Rewards results suggest that the subgroups of interest may show significant impacts even when effects in aggregate are uncertain, the small size of the assisted-housing subgroups in the ERA samples leads us to focus on the two sites with apparent positive effects (on average) for all persons in the ERA program group.

ERA: Corpus Christi, Texas

- (46) The Corpus Christi ERA program targeted non-employed TANF applicants and recipients, and it offered them pre-employment services as well as postemployment services after they found jobs. All participants were single parents. The program provided postemployment job coaching and a \$200 monthly stipend to individuals who, after leaving welfare, consistently worked full time (30+ hours per week). The control group received the services of the state's regular welfare-to-work program. Participants were asked at baseline if they received any housing assistance. Impact estimates appear in [Table 5](#).
- (47) The Corpus Christi ERA program targeted jobless single parents, and it produced statistically significant positive effects on employment and earnings for that sample overall. The direction of the effects for the small subgroup receiving housing assistance is also positive, with the effect on average quarterly employment reaching statistical significance. (Note that the small size of the subgroup, which includes only 283 sample members split evenly between the program and control groups, makes it difficult to estimate impacts precisely.)

ERA: Riverside PASS

- (48) The Riverside PASS program targeted former TANF recipients who were already working at the time of random assignment, although some were working less than full time. As shown in [Table 6](#), the program increased earnings by about 10 percent and average quarterly employment rates by 3.4 percentage points (or 6 percent). These effects are statistically significant. The impacts for single parents, as defined above (70 percent of the program group), were also statistically significant, although their impacts were not statistically significantly different from the impacts of the other sample members. Fewer than 7 percent of sample members (190) reported living in public or subsidized housing, and even fewer (153) were single parents with housing subsidies. The impacts on earnings for all adults and the single-parent subgroup living in public housing were positive, but not statistically significant, perhaps owing to the small sample size and limited statistical power.
- (49) In sum, the ERA outcomes are consistent with presumption that some postemployment programs can improve quarterly employment rates and average earnings for certain low-income individuals, and that these positive effects may also extend to individuals receiving housing assistance.

The Work Advancement and Support Center (WASC) Demonstration

The WASC Demonstration was a three-site experiment that provided a variety of services to already-employed individuals who were working at low-paying jobs and were not current or recent TANF recipients. The services were intended to ease access to work-support benefits (such as food stamps), stabilize employment, and promote advancement. The experiment had no sustained positive effects on earnings for the overall sample or for the single-parent or housing-subsidy subgroups through the available follow-up period. These results underscore the importance of determining whether a different approach could positively affect the career trajectories of low-income workers with housing assistance.

(50) In all three WASC sites — Dayton, Ohio; San Diego, California; and Bridgeport, Connecticut — a significant proportion of participants (roughly 20 percent) reported themselves to be living in public or subsidized housing. Given the similarities of the intervention, it is helpful to look across sites. We consider earnings first, then employment. Because of differences in when the sites began operating, the impact results are combined for the first two years for the Bridgeport site and the first four years for Dayton and San Diego.

WASC earnings effects

(51) [Table 7](#) shows results for earnings. For none of sites was the impact of the program on earnings statistically significant. For none of the sites was the differential in impact between those living in public or subsidized housing and those without housing subsidies statistically significant. Impacts for single parents were not significantly different from impacts for other adults at any of the sites, either for those with or without housing subsidies. (Note that the lower earnings totals for each research group in Bridgeport reflect the shorter horizon for the evaluation for that site.)

(52) The one consistent pattern in the table is that the difference in outcomes between program and control groups is negative for housing-assistance recipients, although in each instance the effect is measured imprecisely.

WASC employment effects

(53) WASC effects on employment for the three sites are summarized in [Table 8](#). With the exception of Dayton, there are no statistically significant effects. In Dayton the WASC program group had slightly better average quarterly employment rates over four years than the control group, and the difference is statistically significant. There are few noteworthy differences in impacts by housing status or household composition.

Summary of Findings across the Experiments and Subgroups

(54) We have investigated variation in the impacts of demonstrations across subgroups of participants. We have focused on subgroups defined by family status and by receipt of housing assistance. The investigation is in part motivated by the discovery by Verma, Riccio, and Azurdia of a pattern of larger impacts among housing-assistance recipients of

two MDRC-evaluated welfare reform demonstrations, the Minnesota Family Investment Program and the Connecticut Jobs First program. Verma, Riccio, and Azurdia discovered that the positive effects of these innovations tended to be concentrated among welfare recipients who also received housing subsidies, a pattern that was also in evidence in a variety of other welfare-reform experiments. They encouraged consideration of “this distinctive pattern” in follow-on studies of work-related reforms. This paper presents new analyses along those lines and considers the implications for the design of future programs. The findings reveal the importance for future programs to succeed with partnered parents as well as single parents, and for the financial incentives and personalized coaching and other services to be mutually reinforcing, and meaningful both to those who are already working when they enter the program and those who are not working.

- (55) Participants in MFIP and Jobs First were almost exclusively single parents. In this paper we have reviewed five subsequent MDRC evaluations with an eye toward variation in effects by participants’ household composition and by housing tenure. To help facilitate comparisons across the experiments reviewed here, we add [Table 9](#), which presents the impacts on earnings just for single parents with housing assistance in each study. The table also distinguishes these single parents by initial work status, where sample sizes permit.⁶
- (56) The collection of studies reviewed here is too small and too heterogeneous to be a candidate for meaningful meta-analysis. We offer three impressions drawn from careful review.
- (57) The first is that these experiments, like so many before, confirm that financial incentives and other services have the potential to have important effects for recipients of housing subsidies. When offered (depending on the population group and program), they can produce policy-relevant improvements in employment rates and average earnings when judged by classical random assignment experiments. The implication is that these interventions may counteract the work disincentives (and possibly other work-depressing consequences of rental subsidies) created by the income-based subsidy rules that apply to public housing and housing voucher programs. At the same time, the effects of these interventions were not necessarily greater for participants with housing assistance than for participants without housing assistance.
- (58) The second is that these findings are consistent with the notion that the family situation of participants with housing subsidies might influence the effectiveness of the employment interventions they participate in. In particular, the Work Rewards experiments showed that impacts on earnings and employment were strongest and most reliably estimated for single-parent voucher holders. We see this as both an indication of need and a signal that strategies must be flexible if greater breadth of impact is to be achieved by serving participants in other household situations.

⁶Recall that in some instances the sample sizes reported here differ in minor ways from those in original project reports because of differences in the definition and treatment of cases with missing information. See note 3, above.

- (59) The third is that it is easier to move people from non-employment into jobs than it is to affect retention and advancement. Most of the positive intervention effects observed here come with persons who, at the point of random assignment, claimed to be jobless.
- (60) It is fair to say that the “distinctive pattern” of differences in impacts between housing-assistance recipients and others found by Verma, Riccio, and Azurdia was not uncovered in the demonstrations we examined that included persons with and without housing assistance, those who were working and those not working at the time of random assignment, and many who were not welfare recipients. All the studies considered by Verma, Riccio, and Azurdia involved welfare-to-work programs, and all were for AFDC or TANF recipients. Thus, the results from the earlier studies may not generalize to a broader set of populations and types of employment-related interventions.
- (61) One feature of the Verma, Riccio, and Azurdia analysis may deserve reconsideration. For the study of MFIP and Jobs First, MDRC was able to match control and program group data to the records of local public housing authorities. Significant errors were found in both participant reporting of housing status and, to a lesser extent, in agency records. The strongest results reported here (see [Table 9](#)) come from the Work Rewards HPD and NYCHA experiments. For both, the housing status of participants was known and reports of household composition — notably the separation of single parents between those who were heads of households for purposes of their voucher receipt and those who were not — was done on the basis of administrative records. It is possible that there is enough error in the self-reporting of housing status in other experiments to weaken our ability to detect differences in outcomes by housing tenure. Given the substantial theoretical justification for the belief that housing tenure and household composition likely affect response to changes in other policy, thought should be given on how to collect reliable information on both for future evaluations.

References

- Bloom, Dan, Susan Scrivener, Charles Michalopoulos, Pamela Morris, Richard Hendra, Diana Adams-Ciardullo, and Johanna Walter, with Wanda Vargas. 2002. *Final Report on Connecticut's Welfare Reform Initiative*. New York: MDRC.
- Browning, Martin, Pierre-André Chiappori, and Yoram Weiss. 2014. *The Economics of the Family*. New York: Cambridge University Press.
- Greenberg, David, Robert H. Meyer, and Michael Wiseman. 1994. “Multisite Employment and Training Program Evaluations: A Tale of Three Studies.” *Industrial and Labor Relations Review* 47, 4: 679-691.
- Gubits, Daniel, Jill Khadduri, and Jennifer Turnham. 2009. “Housing Patterns of Low Income Families with Children: Further Analysis of Data from the Study of the Effects of Housing Vouchers on Welfare Families.” Working Paper W09-7. Cambridge, MA: Harvard University Joint Center for Housing Studies.

- Hamilton, Gayle, and Susan Scrivener. 2012. *Increasing Employment Stability and Earnings for Low-Wage Workers: Lessons from the Employment Retention and Advancement (ERA) Project*. OPRE Report 2012-19. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.
- Hedges, L.V. 1984. "Advances in Statistical Methods for Meta-Analysis." Pages 25-42 in William H. Yeats and Paul M. Wortman, eds., *Issues in Data Synthesis*. San Francisco: Jossey-Bass.
- Hendra, Richard, James A. Riccio, Richard Dorsett, David H. Greenberg, Genevieve Knight, Joan Phillips, Philip K. Robins, Sandra Vegeris, and Johanna Walter. 2011. *Breaking the Low-Pay, No-Pay Cycle: Final Evidence from the UK Employment Retention and Advancement (ERA) Demonstration*. New York: MDRC.
- Jacob, Brian A., and Jens Ludwig. 2012. "The Effects of Housing Assistance on Labor Supply: Evidence from a Voucher Lottery." *American Economic Review* 102, 1: 272-304.
- Miller, Cynthia, Virginia Knox, Lisa Gennetian, Martey Dodoo, Jo Anna Hunter, and Cindy Redcross. 2000. *Final Report on the Minnesota Family Investment Program, Volume 1: Effects on Adults*. New York: MDRC.
- Miller, Cynthia, Mark van Dok, Betsy L. Tessler, and Alexandra Pennington. 2012. *Strategies to Help Low-Wage Workers Advance: Implementation and Final Impacts of the Work Advancement and Support Center (WASC) Demonstration*. New York: MDRC.
- Mills, Gregory, Daniel Gubits, Larry Orr, David Long, Judith Feins, Bulbul Kaul, Michelle Wood, Amy Jones and Associates, Cloudburst Consulting, and the QED Group. 2006. *Effects of Housing Vouchers on Welfare Families: Final Report*. Prepared for the U.S. Department of Housing and Urban Development, Office of Policy Development and Research. Cambridge, MA: Abt Associates, Inc.
- Mullainathan, Sendhil, and Eldar Shafir. 2013. *Scarcity: Why Having Too Little Means So Much*. New York: Henry Holt and Company.
- Riccio, James, Nadine Dechausay, Cynthia Miller, Stephen Nuñez, Nandita Verma, and Edith Yang. 2013. *Conditional Cash Transfers in New York City: The Continuing Story of the Opportunity NYC-Family Rewards Demonstration*. New York: MDRC.
- Shroder, Mark. 2002. "Does Housing Assistance Perversely Affect Self-Sufficiency? A Review Essay." *Journal of Housing Economics* 11, 4: 381-417.
- Verma, Nandita, and James P. Riccio, with Gilda Azurdia. 2003. *Housing Assistance and the Effects of Welfare Reform: Evidence from Connecticut and Minnesota*. New York: MDRC.

Verma, Nandita, Betsy Tessler, Cynthia Miller, James A. Riccio, Zawadi Rucks, and Edith Yang. 2012. *Working Toward Self-Sufficiency: Early Findings from a Program for Housing Voucher Recipients in New York City*. New York: MDRC.

**Table 1
Project Descriptions**

Program/Reference	RA begins/ horizon/ evaluation status 9/2014	Target	Location	Program
Family Rewards (Riccio et al. 2013)	2007/ 3 years/ ongoing	Low-income families with children in selected grades	NYC (3 boroughs)	"Conditional cash transfer" awards for variety of accomplishments, including sustained FT employment
Work Rewards: FSS Study (HPD vouchers) (Verma et al. 2012)	2008/ 4 years/ ongoing	Low-income families, HCV from HPD	NYC	Two treatments: i) receiving FSS case management; ii) FSS plus special work incentives (if working FT and achieving education and training courses)
Work Rewards: FSS- Incentives Study (NYCHA vouchers) (Verma et al. 2012)	2008/ 4 years/ ongoing	Low-income families, HCV from HPD, NYCHA vouchers	NYC	Special work incentives (if working FT and achieving education and training courses)
The US Employment Retention and Advancement (ERA) Demonstration (Hamilton and Scrivener 2012)	2000/4 years/ complete	Three target groups: i) Unemployed TANF recipients, ii) Employed TANF recipients, iii) Employed and not receiving TANF	12 sites: Texas, Los Angeles Enhanced Job Club, Salem [GROUP i]/Chicago, Los Angeles FRS, Riverside Training Focused, Riverside Work Plus [GROUP ii]/Cleveland, Eugene, Medford, Riverside PASS, South Carolina [GROUP iii]	16 different program models aiming at promoting employment stability and earnings growth among current or former welfare recipients and other low-income individuals were tested.
The Work Advancement and Support Center (WASC) Demonstration (Miller et al. 2012)	2005/4 years (only 3 for Bridgeport)/ complete	Low-income families with workers earning less than \$9 an hour	Dayton, San Diego, Bridgeport	Services to help stabilize their employment, Services offered to improve participants' skills, earnings by working more hours or finding higher- paying jobs; easier access to a range of financial work supports. All services were offered in a single location.
Abbreviations				
<u>Acronym</u>	<u>Definition</u>	<u>Acronym</u>	<u>Definition</u>	
FS	Food Stamps	HPD	New York City Department of Housing Preservation and Development	
FSS	Family Self-Sufficiency	NYCHA	New York City Housing Authority	
FT	Full time	PH	All forms of federally subsidized public housing	
HCV	Section 8 Housing Choice Voucher	UI	Unemployment Insurance; "UI employment" means employment with earnings reported to UI system.	

(continued)

Table 1
Project Descriptions
(continued)

Program/Reference	Public Housing Subgroup	General impact	Public housing differential	Subgroup impact
Family Rewards (Riccio et al. 2013)	30.4% of the research sample members living in public housing	No empl. or earnings effects from jobs covered by UI; survey findings show large, positive empl. effect. Reduced current poverty and material hardship, helped parents increase savings and reduced infomal borrowing.	Lower impact on income (including and excluding financial incentives) for PH recipients, lower impacts on savings.	Not investigated
Work Rewards: FSS Study (HPD vouchers) (Verma et al. 2012)	100% of the research sample are Section 8 recipients	Both programs increased employment rates (using UI data) in the first three quarters after study entry, but those effects faded away over time. No increase on earnings. Little effect on benefit receipt (strongest impacts found for TANF among the FSS only sample).	Not applicable	Greater impact (FSS+) on employment and earnings for those not working at baseline, greater impact (FSS) on earnings for those receiving FS at baseline, greater impact (FSS+) on emp. For tenured in Section 8
Work Rewards: FSS-Incentives Study (NYCHA vouchers) (Verma et al. 2012)	100% of the research sample are Section 8 recipients		Not applicable	Greater impacts on earnings for those receiving FS at baseline.
The US Employment Retention and Advancement (ERA) Demonstration (Hamilton and Scrivener 2012)	GROUP i: between 11.2% and 23.2% of the sample are living in public or subsidized housing/GROUP ii: around 12%/ GROUP iii: between 12.0% and 24.6%.	Only three of the 12 ERA programs generated consistent increases in individuals' employment retention and advancement: Corpus Christi (+\$640 on average annual earnings over the four year follow-up period), Chicago (+\$500), Riverside PASS (\$+870)	No differences in impacts on UI-covered employment; positive impacts on the number of "ever employed" and "ever received FS" in Corpus Christi only for those receiving housing assistance;	Late cohort in Riverside PASS had greater impacts on earnings and employment advancement than the early cohort (in Riverside PASS, see Table 5.8 in 2010 report). No subgroup impacts by education level (High school diploma or GED vs. not).
The Work Advancement and Support Center (WASC) Demonstration (Miller et al. 2012)	% of participants living in public housing, receiving Section 8, or payed reduced rent: 21.2% in Dayton, 18.1% in San Diego, 25.2% in Bridgeport.	Employment rates and earnings increased in the short-run but faded away. No impacts in San Diego. No impacts on employment rates and earnings in Brigeport over the first two years but increase in Year 3.		
Abbreviations				
<u>Acronym</u>	<u>Definition</u>	<u>Acronym</u>	<u>Definition</u>	
FS	Food Stamps	HPD	New York City Department of Housing Preservation and Development	
FSS	Family Self-Sufficiency	NYCHA	New York City Housing Authority	
FT	Full time	PH	All forms of federally subsidized public housing	
HCV	Section 8 Housing Choice Voucher	UI	Unemployment Insurance; "UI employment" means employment with earnings reported to UI system.	

Table 2
Impacts on Earnings and Employment (Years 1 to 3) - Family Rewards

Outcome, Sample, and Baseline Work Status	Sample Size	Program Group (\$)	Control Group (\$)	Difference (Impact) (\$)	P-Value	H-statistic
Earnings						
All adults	4,915	37,267	37,895	-628	0.408	
Not working	2,282	9,385	10,142	-756	0.377	
Working	2,633	61,343	62,038	-694	0.563	
Living in public housing	1,424	30,409	31,018	-609	0.623	
Not working	750	9,003	8,697	306	0.821	
Working	674	53,790	56,319	-2,528	0.226	
Living in Section 8	1,091	28,205	28,614	-410	0.765	
Not working	543	6,429	9,556	-3,127	*	0.051 †
Working	548	49,512	47,719	1,793		0.427 †
Living in other housing	2,231	46,156	46,926	-770	0.546	
Not working	911	11,318	11,305	12	0.994	
Working	1,320	70,136	71,562	-1,426	0.452	
Single parents only						
All single parents	3,779	35,553	35,884	-331	0.688	
Not working	1,828	9,289	10,840	-1,551	*	0.098
Working	1,951	60,058	59,456	602	0.646	
Living in public housing	1,153	29,409	29,433	-24	0.985	
Not working	634	8,733	9,200	-467	0.745	
Working	519	54,313	54,511	-197	0.930	
Living in Section 8	950	28,239	28,855	-615	0.682	
Not working	480	7,188	10,192	-3,005	*	0.096
Working	470	49,503	48,084	1,420	0.558	
Living in other housing	1,546	44,247	44,877	-630	0.670	
Not working	651	10,890	12,484	-1,594	0.358	
Working	895	68,342	68,637	-295	0.894	

(continued)

Table 2 (continued)

Outcome, Sample, and Baseline Work Status	Sample Size	Program Group (\$)	Control Group (\$)	Difference (Impact) (\$)		P-Value	H-statistic
Employment							
1. Average quarterly employment, Years 1-3 (%)							
All adults	4,915	48.1	48.9	-0.8		0.292	
Not working	2,282	18.2	20.7	-2.5	**	0.033	†
Working	2,633	73.8	73.6	0.2		0.858	†
Living in public housing	1,424	44.6	44.2	0.4		0.790	
Not working	750	17.8	18.4	-0.6		0.745	
Working	674	73.8	73.6	0.2		0.928	
Living in Section 8	1,091	45.1	46.0	-0.8		0.635	
Not working	543	16.7	20.7	-4.0		0.101	
Working	548	72.8	71.5	1.3		0.595	
Living in other housing	2,231	51.6	53.1	-1.5		0.193	
Not working	911	19.1	22.0	-2.9		0.147	
Working	1,320	74.2	74.4	-0.3		0.858	
Single parents only							
All single parents	3,779	47.7	48.6	-0.9		0.310	
Not working	1,828	18.5	21.8	-3.4	**	0.011	††
Working	1,951	74.8	73.9	0.9		0.464	††
Living in public housing	1,153	43.9	43.8	0.1		0.940	
Not working	634	17.3	19.5	-2.3		0.284	
Working	519	75.8	74.1	1.8		0.441	
Living in Section 8	950	46.0	46.9	-0.9		0.638	
Not working	480	18.5	21.5	-3.1		0.243	
Working	470	73.7	73.1	0.7		0.803	
Living in other housing	1,546	51.0	52.8	-1.7		0.219	
Not working	651	19.2	23.5	-4.3	*	0.070	
Working	895	74.3	74.0	0.2		0.892	

(continued)

Table 2 (continued)

Outcome, Sample, and Baseline Work Status	Sample Size	Program Group (\$)	Control Group (\$)	Difference (Impact) (\$)	H-P-Value statistic
<u>2. Ever employed, Years 1-3 (%)</u>					
All adults	4,915	63.7	65.1	-1.4	0.150
Not working	2,282	37.4	39.8	-2.4	0.192
Working	2,633	86.3	87.2	-0.9	0.336
Living in public housing	1,424	61.5	61.3	0.2	0.919
Not working	750	37.8	37.2	0.6	0.849
Working	674	87.9	88.0	-0.1	0.958
Living in Section 8	1,091	61.7	65.0	-3.4	0.126
Not working	543	36.1	42.0	-5.9	0.120
Working	548	86.4	88.3	-1.9	0.394
Living in other housing	2,231	65.8	67.6	-1.8	0.222
Not working	911	37.5	39.7	-2.2	0.451
Working	1,320	85.5	86.8	-1.2	0.363
<i>Single parents only</i>					
All single parents	3,779	64.0	65.5	-1.6	0.170
Not working	1,828	38.7	41.8	-3.1	0.128
Working	1,951	87.5	87.9	-0.4	0.715
Living in public housing	1,153	61.2	62.0	-0.9	0.679
Not working	634	38.2	39.4	-1.3	0.711
Working	519	89.4	89.4	0.1	0.978
Living in Section 8	950	63.1	66.0	-2.9	0.225
Not working	480	39.3	42.5	-3.1	0.446
Working	470	86.9	90.3	-3.4	0.136
Living in other housing	1,546	66.3	67.8	-1.5	0.404
Not working	651	38.7	42.0	-3.3	0.354
Working	895	86.6	86.4	0.2	0.922

Table 3

Impacts on Earnings and Employment (Years 1 – 4): Work Rewards, HPD sample

Outcome, Sample, and Baseline Work Status	Sample Size	Average Outcome Levels			FSS-Only vs. Control			FSS+Incentives vs. Control			FSS+Incentives vs. FSS-Only		
		FSS- Only	FSS+ Incentives	Control Group	Difference (Impact)	P-Value	H-Sig.	Difference (Impact)	P-Value	H-Sig.	Difference (Impact)	P-Value	H-Sig.
Earnings (\$)													
All adults	1,585	30,663	31,050	29,350	1,313	0.450		1,700	0.354		387	0.820	
Not working	814	14,900	17,995	12,269	2,631	0.202		5,726 ***	0.006 ††		3,095	0.146	
Working	771	46,952	45,265	47,245	-292	0.916		-1,980	0.506 ††		-1,687	0.524	
<i>Single parents only</i>													
All single parents	720	35,665	35,126	32,917	2,748	0.294		2,208	0.411		-539	0.830	
Not working	318	16,100	18,796	6,778	9,323 ***	0.001 ††		12,018 ***	0.000 †††		2,696	0.399	
Working	402	50,633	48,354	53,518	-2,884	0.481 ††		-5,164	0.244 †††		-2,279	0.553	
Quarterly employment rate (%)													
All adults	1,585	45.2	46.5	42.9	2.4	0.189		3.6 *	0.055		1.2	0.507	
Not working	814	27.6	31.7	23.9	3.7	0.143		7.8 ***	0.003 ††		4.1	0.119	
Working	771	63.1	62.8	63.0	0.1	0.974		-0.1	0.961 ††		-0.2	0.935	
<i>Single parents only</i>													
All single parents	720	50.2	51.9	44.0	6.2 **	0.021		7.9 ***	0.003		1.7	0.540	
Not working	318	30.4	34.6	14.8	15.6 ***	0.000 †††		19.8 ***	0.000 †††		4.2	0.344	
Working	402	64.9	66.3	66.9	-2.0	0.573 †††		-0.7	0.865 †††		1.4	0.703	

Table 4

Impacts on Earnings and Employment (Years 1 – 4): Work Rewards, NYCHA Sample

Outcome, Sample, and Baseline Work Status	Sample Size	Program Group (\$)	Control Group (\$)	Difference (Impact) (\$)		P-Value	H- statistic
Earnings							
All adults	1,307	31,269	29,076	2,193		0.155	
Not working	598	17,072	14,690	2,382		0.272	†††
Working	709	42,963	41,489	1,474		0.515	†††
<i>Single parents only</i>							
All single parents	602	40,038	32,586	7,452	***	0.002	
Not working	218	23,108	13,732	9,376	**	0.024	†††
Working	384	49,680	43,212	6,468	**	0.042	†††
Quarterly employment rate (%)							
All adults	1,307	46.7	46.4	0.3		0.865	
Not working	598	29.9	27.6	2.4		0.318	†††
Working	709	60.6	62.4	-1.8		0.428	†††
<i>Single parents only</i>							
All single parents	602	55.1	49.5	5.6	**	0.019	
Not working	218	35.9	27.2	8.7	**	0.049	†††
Working	384	65.7	62.3	3.4		0.235	†††

Table 5

Impacts on Earnings and Employment (Years 1 – 4) : ERA Corpus Christi

Outcome and Sample	Sample Size	Program Group (\$)	Control Group (\$)	Difference (Impact) (\$)		H-Statistic
Earnings						
All adults	1,713	20,003	17,522	2,481	***	0.009
Living in public or subsidized housing	283	21,296	20,440	856		0.736
Employment						
1. Average quarterly employment (%)						
All adults	1,713	51.9	48.1	3.8	***	0.01
Living in public or subsidized housing	283	59.8	52.9	6.9	*	0.078
2. Ever employed, Years 1-4 (%)						
All adults	1,713	88.5	89.4	-0.9		0.542
Living in public or subsidized housing	283	90.7	88.9	1.8		0.62

Table 6

Impacts on Earnings and Employment (Years 1 – 4): ERA Riverside

Outcome and Sample	Sample Size	Program Group (\$)	Control Group (\$)	Difference (Impact) (\$)		H-Statistic	P-Value
Earnings							
All adults	2,770	38,843	35,373	3,470	***		0.007
Living in public or subsidized housing	190	43,924	36,115	7,810			0.119
All single parents	1,931	38,120	35,536	2,584	*		0.088
Living in public or subsidized housing	153	40,404	34,123	6,281			0.262
Employment							
<u>1. Average quarterly employment (%)</u>							
All adults	2,770	59.7	56.3	3.4	***		0.007
Living in public or subsidized housing	190	64.4	60.0	4.4			0.371
All single parents	1,931	59.9	56.8	3.1	**		0.043
Living in public or subsidized housing	153	61.7	59.7	2.0			0.708
<u>2. Ever employed, Years 1-4 (%)</u>							
All adults	2,770	90.5	88.8	1.7			0.142
Living in public or subsidized housing	190	0.9	0.9	0.0			0.363
All single parents	1,931	91.0	88.6	2.4	*		0.085
Living in public or subsidized housing	153	92.1	90.9	1.2			0.791

Table 7

Impacts on Earnings, Work Advancement and Support Center (WASC) Demonstrations

Outcome, Site, and Sample	Sample Size	Program Group (\$)	Control Group (\$)	Difference (Impact) (\$)	H-P-Value statistic
Earnings					
Dayton (Years 1 – 4)					
All adults	1,164	56,257	53,625	2,633	0.196
Not living in public or subsidized housing	917	59,082	55,489	3,594	0.124
Living in public or subsidized housing	247	45,329	46,677	-1,348	0.761
<i>Single parents only</i>					
All single parents	582	55,424	54,240	1,184	0.666
Not living in public or subsidized housing	398	60,121	57,964	2,157	0.545
Living in public or subsidized housing	184	45,342	45,841	-499	0.909
San Diego (Years 1 – 4)					
All adults	859	51,762	54,029	-2,267	0.401
Not living in public or subsidized housing	692	52,186	53,117	-931	0.759
Living in public or subsidized housing	167	49,488	57,939	-8,451	0.14
<i>Single parents only</i>					
All single parents	362	54,082	57,397	-3,315	0.434
Not living in public or subsidized housing	255	53,598	53,995	-396	0.937
Living in public or subsidized housing	107	54,524	66,057	-11,533	0.136
Bridgeport (Years 1 – 2)					
All adults	704	28,053	28,029	25	0.985
Not living in public or subsidized housing	527	29,510	28,485	1,025	0.523
Living in public or subsidized housing	177	24,390	26,005	-1,616	0.472
<i>Single parents only</i>					
All single parents	295	32,410	30,672	1,738	0.409
Not living in public or subsidized housing	181	36,482	34,459	2,024	0.506
Living in public or subsidized housing	114	25,274	25,304	-30	0.991

Table 8

Impacts on Employment , Work Advancement and Support Center (WASC) Demonstrations

Site, Outcome, Sample, and Baseline Work Status	Sample Size	Program Group (%)	Control Group (%)	Difference (Impact)	H- P-Value	statistic
Dayton (Years 1 – 4)						
<u>1. Average quarterly employment</u>						
All adults	1,173	78.6	75.5	3.1	**	0.039
Not living in public or subsidized housing	925	79.2	75.7	3.6	**	0.036
Living in public or subsidized housing	248	76.3	75.0	1.2		0.725
<i>Single parents only</i>						
All single parents	588	79.6	78.0	1.6		0.454
Not living in public or subsidized housing	403	79.9	77.8	2.0		0.432
Living in public or subsidized housing	185	79.5	77.9	1.7		0.674
<u>2. Ever employed, Years 1-4</u>						
All adults	1,173	97.3	98.3	-1.0		0.207
Not living in public or subsidized housing	925	97.5	98.6	-1.1		0.213
Living in public or subsidized housing	248	95.9	97.5	-1.7		0.468
<i>Single parents only</i>						
All single parents	588	97.4	98.2	-0.8		0.489
Not living in public or subsidized housing	403	97.3	98.3	-1.0		0.478
Living in public or subsidized housing	185	96.8	98.7	-1.9		0.391
San Diego (Years 1 – 4)						
<u>1. Average quarterly employment</u>						
All adults	861	66.2	68.9	-2.7		0.193
Not living in public or subsidized housing	694	66.0	68.1	-2.1		0.366
Living in public or subsidized housing	167	67.1	72.5	-5.4		0.229
<i>Single parents only</i>						
All single parents	362	67.2	70.9	-3.7		0.243
Not living in public or subsidized housing	255	65.3	69.0	-3.7		0.339
Living in public or subsidized housing	107	71.4	76.0	-4.6		0.381
<u>2. Ever employed, Years 1-4</u>						
All adults	861	95.0	95.0	0.1		0.973
Not living in public or subsidized housing	694	94.7	94.9	-0.2		0.905
Living in public or subsidized housing	167	97.2	94.5	2.6		0.398
<i>Single parents only</i>						
All single parents	362	95.5	96.2	-0.6		0.763
Not living in public or subsidized housing	255	95.9	95.5	0.4		0.897
Living in public or subsidized housing	107	95.4	97.1	-1.7		0.674

(continued)

Table 8 (continued)

Site, Outcome, Sample, and Baseline Work Status	Sample Size	Program Group (%)	Control Group (%)	Difference (Impact)	P-Value	H- statistic
Bridgeport (Years 1 – 2)						
<u>1. Average quarterly employment</u>						
All adults	704	76.2	76.0	0.2	0.922	
Not living in public or subsidized housing	527	75.8	74.3	1.5	0.543	
Living in public or subsidized housing	177	78.5	80.2	-1.7	0.674	
<i>Single parents only</i>						
All single parents	704	76.2	76.0	0.2	0.922	
Not living in public or subsidized housing	527	75.8	74.3	1.5	0.543	
Living in public or subsidized housing	177	78.5	80.2	-1.7	0.674	
<u>2. Ever employed, Years 1-4</u>						
All adults	704	94.0	96.6	-2.6	*	0.085
Not living in public or subsidized housing	527	93.5	95.5	-1.9		0.307
Living in public or subsidized housing	177	95.5	100.0	-4.6	**	0.039
<i>Single parents only</i>						
All single parents	295	98.0	98.6	-0.6		0.68
Not living in public or subsidized housing	181	99.2	97.5	1.7		0.421 †
Living in public or subsidized housing	114	96.0	100.5	-4.5		0.137 †

Table 9
Summary, Exploratory Analysis of Earnings Impacts for
Single Parents with Housing Assistance, All Projects

Project, Sample, and Site	Work Status at Baseline	Sample Size	Time Span	Earnings Impact	Stat. Signif.	H- Stat.
<u>Family Rewards</u>						
Public Housing	All	1,153	3 years	-24		
	Not Working	634		-467		
	Working	519		-197		
Section 8 HCV	All	950	3 years	-615		
	Not Working	480		-3,005	*	
	Working	470		1,420		
<u>Work Rewards</u>						
HPD FSS Only (HCV)	All	237	4 years	2,748		
	Not Working	104		9,323	***	††
	Working	133		-2,884		††
HPD FSS + Incentives (HCV)	All	234	4 years	2,208		
	Not Working	106		12,018	***	†††
	Working	128		-5,164		†††
HPD Control ^a	All	249	4 years			
	Not Working	108				
	Working	141				
NYCHA (HCV)	All	602	4 years	7,452	**	
	Not Working	218		9,376	**	†††
	Working	384		6,468		†††
<u>Employment Retention and Advancement (ERA)</u>						
(Any housing assistance)						
Corpus Christi	Not Working	283	4 years	856		
Riverside PASS	Working	153	4 years	6,281		
<u>Work and Support Center (WASC)</u>						
(Any housing assistance)						
Dayton	All	184	4 years	-499		
San Diego	All	107	4 years	-11,533		
Bridgeport	All	114	2 years	-30		

^aThe two HPD treatments share a common control group. Samples sizes for all other demonstrations include treatment and control groups.