Nearing the Finish Line:

5-Year Findings From the Family Self-Sufficiency Evaluation

U.S. Department of Housing and Urban Development | Office of Policy Development and Research

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NEARING THE FINISH LINE:
5-YEAR FINDINGS FROM THE FAMILY SELF-SUFFICIENCY EVALUATION

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Foreword

The Family Self-Sufficiency (FSS) program, established in the Cranston-Gonzalez National Affordable Housing Act of 1990, is one of the largest efforts by HUD to improve self-sufficiency among those receiving federal rental assistance. The voluntary program focuses on helping participants access employment, financial literacy, education and training assistance, and the broader range of services within their communities. The FSS program also includes a work-based financial incentive to help build program participants' assets. FSS coordinators set goals with participants—generally over a 5-year period—and any increases in participants' rent caused by increased earnings are held in escrow, where they accrue interest until they are returned to the participants upon graduation. To graduate, participants must be employed, not receiving public assistance, and have met other individually set self-sufficiency goals, such as attaining an educational or occupational credential, attending financial literacy workshops, or addressing credit-score issues. Other research has examined aspects of the FSS model, including using employment-focused services and motivating participants using financial incentives, but this research represents the most extensive and rigorous evaluation to date.

HUD commissioned this national impact evaluation of the FSS program in 2012. The evaluation uses a randomized controlled trial to compare over a period of 5 years the outcomes of families eligible to participate in FSS to a control group, whose members were ineligible for program participation. This report, the third in a series, updates findings on the program's effects from a previously published 3-year assessment and focuses on longer-term outcomes over 5 years after participants enrolled in this study, which is the standard term of the FSS Contract of Participation in the FSS program. The report focuses on the 2,556 study participants (the eligible "impact sample") who were 18 to 61 years of age at study enrollment.

Based on the first FSS report in this series, "Early Findings from the Family Self-Sufficiency Program Evaluation," financial literacy was the top priority for program participants, and most people in the study signed up for FSS with the goals of building savings, improving credit scores, or learning money management. The work-based financial incentive (i.e., escrow account) was not the primary driver for program participation, indicating that people were interested in the suite of financial literacy services referred to them by FSS, rather than one specific tool to build economic mobility. This is important because it demonstrated that FSS program enrollees were likely confident in their employment-related skills and interested in how to improve their financial situation regardless of increased income. These goals were, indeed, reflected in the services engaged by the participants. Within the first 36 months of followup, significantly more participants in the FSS group engaged in financial counseling services than did the control group. In addition, higher levels of participation in education and training activities were accompanied by only a small increase above the control group in earning an occupational credential or license.

This 5-year report demonstrates that FSS is successful at helping HUD-assisted residents save money, and some subpopulations of the FSS sample showed positive effects on credit scores or use of credit.

FSS graduates realized a substantial disbursement from their escrow savings accounts, averaging nearly $10,000, with 12 percent of graduates receiving more than $20,000. Within the study group, about 23 percent of FSS participants were still enrolled in the program after 5 years with some escrow accrued. These participants showed an average escrow balance of about $7,200, with approximately one-fourth of this group having accrued more than $10,000. Households commonly use these resources to start a new business, repair credit, buy a home, or pay for education.

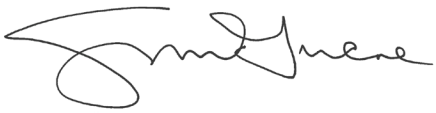
FSS programs also led to positive effects on attitudinal and perceived well-being outcomes. FSS group members were more likely than control group respondents to report that they had improved their financial situation in the past year and were better able to plan for their future finances. Three subgroups of the FSS sample—2-year college graduates or higher, those working part-time hours at random assignment, and those having no recorded income at random assignment—experienced statistically significant increases on one or more outcomes based on credit scores or use of credit when compared to the control group.

HUD acknowledges that FSS would benefit from program improvements. Over the 5-year followup period, there was no evidence that the FSS program increased employment or earnings for participants when compared to the control group. This evaluation, until recently, took place during a long economic expansion. It documents high levels of employment, which led to increased average annual earnings for both groups. Against this backdrop of high labor force participation and increased earnings, FSS-type employment services seemed to add little to what individuals could do on their own. Also, employers make their own decisions regarding hiring, promotions, and pay. Thus, it is hard for a light-touch and referral-based program like FSS to control broader labor market trends. As expected, 41 percent of FSS participants that were enrolled in the Housing Choice Voucher program had barriers to employment, such as physical health and access to affordable childcare. It might be possible for FSS programs to improve employment and income outcomes for participants with a focus on removing these particular barriers.

The 5-year report also highlights other areas for improvement for FSS program grantees. While after 5 years, approximately 47 percent of program participants either graduated or remained in the program using an extension, more than 53 percent ended participation in FSS prior to graduating. More than 40 percent of the FSS group members who exited the FSS program within 5 years forfeited their escrow accruals. Additionally, the average credit scores of the *overall* FSS treatment group were below 600, in the suboptimal range, and scores had not improved compared with the control group scores. Both groups were determined to have incurred high amounts of debt, most commonly automobile or educational loans. This was combined with an increase in the use of Alternative Financial Services (e.g., payday loans) among the FSS group members. Although the study finds positive impacts for specific subgroups within the FSS treatment group regarding improved credit scores, the FSS program was unable to demonstrate positive impacts for the entire treatment group. These results, coupled with the stated goal of program participants that they want FSS to help them improve their financial security, illustrate that FSS grantees should implement program improvements that address credit outcomes and remove unnecessary barriers to graduation.

The final report, slated for release in 2022, will provide more conclusive evidence about FSS participants and how they benefit from the program. With 6 to 7 years of followup, the final report will not only allow the evaluation to track the remaining FSS participants through their extended contract period and examine circumstances after FSS for those who graduated—how they are faring, whether they continue to receive housing subsidies, and how they use their escrow—it will also support an analysis of how families fared during the COVID-19 pandemic. The evaluation of implemented policy is a vital step of the policy process, with feedback shaping future initiatives and understandings of effective methods to increase self-sufficiency.

In May 2022, HUD published a final rule on the FSS program that addresses some of the barriers identified in this report, as well as concerns raised by program administrators and staff.[1] Among its changes, the rule permits any adult household member to enroll in the program and eliminates regulations identified as potential barriers to graduation. The rule also eliminates a cap on savings that had been in place for only higher-income families. The changes and feedback from this evaluation assist HUD in program improvement via evidenced-based decisionmaking. HUD will continue the FSS program after incorporation of feedback in improvements and expand as declared in the August 2022 agenda for economic justice and asset building.[2]



Solomon J. Greene
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[1] Streamlining and Implementation of Economic Growth, Regulatory Relief, and Consumer Protection Act Changes to Family Self-Sufficiency (FSS) Program, 87 Fed. Reg. 30,020 (May 17, 2022), available at https://www.federalregister.gov/documents/2022/05/17/2022-09528/streamlining-and-implementation-of-economic-growth-regulatory-relief-and-consumer-protection-act

[2] U.S. Department of Housing and Urban Development, Bridging the Wealth Gap: An Agenda for Economic Justice and Asset Building for Renters (August 2, 2022), available at https://www.hud.gov/sites/dfiles/PIH/documents/Bridging_Wealth_Gap.pdf

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Executive Summary

Policymakers have long sought to improve the labor market outcomes and address the barriers to work faced by households receiving federal rental assistance. The U.S. Department of Housing and Urban Development (HUD) Family Self-Sufficiency (FSS) program blends housing assistance with employment-focused services and a financial incentive to help improve the economic well-being of households receiving federal rental assistance. A voluntary program, FSS is HUD's main strategy for helping households receiving federal housing choice vouchers (HCVs) to increase their earnings and make progress toward economic self-sufficiency. Until recently, limited evidence was available about the FSS program's effectiveness in achieving such outcomes. To fill that gap, HUD commissioned a national impact evaluation in 2012 and selected MDRC to lead it. This report follows two earlier reports from the FSS evaluation and presents longer-term findings (Verma et al., 2021; Verma et al., 2019).

Through annual grants totaling approximately $80 million, HUD funds about 700 public housing agencies (PHAs) to operate FSS programs across the country. The funding mostly covers modest resources for the programs to hire service coordinators, who work with FSS participants, typically over a 5-year term, to set goals that will help them make progress toward self-sufficiency and refer them to a broad range of services in the community. To encourage participants to go to work, increase their earnings, or both, the program includes as its centerpiece a work-based financial incentive—an escrow account—which acts as a long-term savings account.

Like others receiving housing subsidies, FSS participants face rent increases when their earnings increase (typically 30 percent of additional earnings). In the FSS program, a housing agency credits a family's escrow account with an amount based on their rent increase. The money accrued in the escrow account is disbursed to participants when they graduate from the program, usually after 5 years. To graduate, participants must be employed at that time and must achieve other self-sufficiency goals, such as attaining an educational or occupational credential, attending financial literacy workshops, or addressing credit-score issues. As an additional requirement, FSS participants and the members of their household may not receive cash assistance for the 12 months leading up to graduation. Graduates from the FSS program receive all funds deposited in their escrow accounts, plus interest, and can use that money for any purpose.

The FSS evaluation uses a randomized controlled trial to test the program's effects. It compares the outcomes of program-eligible individuals who were randomly assigned to an FSS group, and a control group, whose members were not eligible to participate in the program, for a period of 5 years. Differences between the two groups' average outcomes represent the program's effects or impacts. Statistically significant differences between groups indicate with a strong degree of confidence that the impacts can be attributed to FSS rather than to chance.

Eighteen housing agencies in seven states agreed to participate in this evaluation and enrolled 2,656 voucher recipients in the study between October 2013 and December 2014. The evaluation focuses on the 2,556 study participants (the eligible "impact sample") who were 18 to 61 years of age at study enrollment. This report describes outcomes and the program's impacts on them as measured 5 years

after participants enrolled in this study. Taking a longer-term perspective, this report looks at the progress FSS participants made toward building economic security (increasing earnings, improving financial well-being, and receiving their housing subsidies, for example). Is there evidence that, over a 5-year period, participants in FSS are on a different economic and financial trajectory than their counterparts who do not receive FSS services or the escrow incentives? Do they graduate and earn escrow disbursements? To help frame and interpret these longer-term results, the report includes an update on how program staff members engage with FSS participants in the later years of their program enrollment, whether special engagement strategies are used to keep participants on track for graduating and earning their escrow disbursements, and how, if at all, housing agencies are beginning to examine their programs' practices in light of HUD's new performance measurement system, introduced in 2018.

The followup period covered in this report (2013 to 2019) ended before the start of the COVID-19 pandemic, which began its sweep across the nation in March 2020. The FSS programs in this study, along with their housing agencies, had to change their regular operations when the pandemic began, and most shifted online to engage with program participants. Although none of the service changes or disruptions affect the outcomes examined in this report, they occur during the followup period for this evaluation. The final report for this study, due in mid-2022, will take into account the pandemic and its implications for the program's effects on participants' work outcomes, graduation and escrow receipt, financial well-being, and receipt of housing and other government subsidies.

The Family Self-Sufficiency Program

The FSS program was established in 1990 by Section 554 of the Cranston-Gonzalez National Affordable Housing Act. HUD regulations set the basic framework for the program, but local housing agencies can design how they implement service provision—an element of flexibility offered by the federal framework. The escrow component, on the other hand, strictly follows HUD's specifications for calculating credits. Although all adults in FSS households are encouraged to seek employment, only the household head—the voucher holder—must meet that requirement to graduate from the program.[3]

At program enrollment, participants sign a Contract of Participation (COP) and complete an Individual Training and Services Plan (ITSP). The typical FSS contract can last up to 5 years, during which participants are expected to achieve all agreed-upon goals. Each FSS operator is required to organize a Program Coordinating Committee (PCC) comprising service providers in the community. Through these committees, FSS operators can learn about services and resources in their communities, and service providers can become invested in the success of the program by providing services to FSS participants. In addition, some housing agencies host FSS services performed by committee members.

[3] Amendments to the FSS statute enacted in 2018 (but not yet in effect) will make several changes to the FSS program. Among the changes is allowing for more flexibility for families to meet graduation requirements through the employment of any adult household member, not solely the head of household. For a list of all changes forthcoming, see Center on Budget and Policy Priorities, 2020.3

In recent years, HUD has produced a comprehensive resource guide on the FSS program, offering housing agencies practical, hands-on tips for its operation.[4] In 2018, HUD announced a new performance measurement system for assessing programs that receive FSS funding. The system evaluates FSS programs on the basis of the number of participants served and on participants' average earnings gains and graduation rates. Both developments reflect HUD's efforts to strengthen the program's performance.

The evaluation captures how the programs operated on the ground during the followup period. In some cases, the local program implementation practices, as described by PHA administrators and case managers, differed from HUD's latest thinking about program best practices and, in some instances, program requirements. In addition, HUD's Final FSS Rule, which went into effect in November 2022, addresses some of the concerns raised and recommendations articulated by program administrators and staff.[5]

Study Design and Sample Characteristics

This evaluation posits that the program is expected to produce short- and long-term effects in two ways: (1) by increasing participants' access to ongoing case management and coordination services that help make them more employable or improve their financial security, and (2) by offering a long-term escrow savings account for participants to start or maintain employment and increase their earnings over time. Through these mechanisms, it is hoped that participants will eventually earn enough to pay for housing without a subsidy and thereby free up housing subsidies to serve other households.

For a variety of reasons, however, positive effects may not materialize. The potential to earn escrow disbursement represents a distant and uncertain reward that may not motivate participants to increase their earnings in the short run, and housing voucher rules mean that higher earnings result in higher rent. Also, FSS participants face various barriers that may limit their chances of finding new employment or increasing their earnings, especially if the FSS referrals and services do not help address those barriers. In addition, members of the control group may have access to similar employment-related services in their communities, in which case the outcomes between the program and control group could display little contrast.

Alternatively, positive impacts may not be realized in the shorter term but may be realized after 5 years or longer, after participants complete an education or training goal they set for themselves as part of the FSS program, or when they may see themselves "nearing the finish line" and feel a strong incentive to find a new job, maintain employment, or work extra hours to graduate and receive a large escrow disbursement.

[4] See HUD, 2017a.
[5] Streamlining and Implementation of Economic Growth, Regulatory Relief, and Consumer Protection Act Changes to Family Self-Sufficiency (FSS) Program, 87 Fed. Reg. 30,020 (May 17, 2022), available at https://www.federalregister.gov/documents/2022/05/17/2022-09528/streamlining-and-implementation-of-economic-growth-regulatory-relief-and-consumer-protection-act

The FSS evaluation is designed to build rigorous evidence about the operations and the effectiveness of the program. It draws on a combination of qualitative and quantitative data collected across 18 study sites to assess how the FSS program improves participants' financial well-being. The evaluation examines the effects for the study sample overall and for certain subgroups—including those who were not working when they joined the study and those who had completed little education at that time. The evaluation also explores whether some program features are particularly effective at boosting participation or improving outcomes. Those program features include emphases on job searches, education and training, and financial management workshops and counseling, as well as specific implementation approaches, such as having small or large caseloads or maintaining more or less frequent contact with participants.

To select the study sites, MDRC examined HUD data, identified candidate housing agencies, followed up with program administrators, and visited candidate sites. Ultimately, 18 housing agencies in seven states agreed to participate in the evaluation: California, Florida, Maryland, Missouri, New Jersey, Ohio, and Texas. These agencies represent a wide range of contexts within which FSS programs operate. There are large and small housing agencies and FSS programs in large and small cities and suburban settings. Working with each agency, MDRC developed study recruitment and enrollment processes; agencies did not have to increase their FSS enrollments for the evaluation, but they did have to double the number of households who signed up for a chance to participate in the FSS program because one-half were assigned to the control group.

Study participants were enrolled over 15 months, from October 2013 through December 2014. The participants in the study share broadly similar demographics to the national FSS population. The sample is predominantly (91 percent) female, with an average age of 39 years at random assignment. More than 76 percent of study participants in the sample had a child under age 18 at home, typically age 12 or younger. About 14 percent did not have high school diplomas or equivalency certificates. More than one-half (56 percent) were working at the time of study enrollment. A high percentage (about 70 percent) were receiving Supplemental Nutrition Assistance Program (SNAP) benefits, or food stamps, implying that a large proportion had earnings equal to 130 percent of the federal poverty level or less (the SNAP benefit eligibility cutoff). Reflecting national patterns, only a small proportion received cash assistance (fewer than one-sixth), and about one-third of the sample reported having received housing vouchers for 10 years or more. The opportunity to receive financial education and management services was a big draw for sample members; job-related services were also an important feature but to a lesser extent.

Key Findings

Program Implementation

As described in earlier reports on this evaluation, the FSS framework provides housing agencies with considerable leeway in setting local policies, case management or coordination approaches, and staffing arrangements that influence how the programs work with participants to build assets and advance toward self-sufficiency. In addition to variations in program operations across housing

agencies, HUD policies and guidance provide important context for understanding how programs support participants.

- **For the most part, program policies and practices across the FSS study agencies remained largely unchanged in the later years of followup (2019 and 2020), with a few notable exceptions.**

Of the FSS programs in the evaluation that participated in the 2020 round of implementation data collection, all but one allow participants to receive interim disbursements of the funds in their escrow accounts—a slight increase since the previous round of data collection, completed in 2018.

Beginning in 2018, most of the FSS programs in the study eliminated any additional employment requirements beyond those set by HUD—for example, specifying a rate of pay or number of months that the participant had to be employed before graduation**.** However, even where the additional requirements have been eliminated, FSS staff still encourage and support participants to reach for that higher bar—it is just not codified in the official plans (or Individual Training and Services Plans) they develop with their case managers.

In November 2018, HUD announced a new performance measurement system for rating FSS programs, using a "composite score."[6] As of early 2020, housing agencies in this study had not yet made significant changes to their program operations as a result of the new system. Staff members, however, raised concerns that to implement changes in an attempt to increase their composite scores, they might have to shift the focus of FSS to getting participants employed as quickly as possible. As a result, the program might not be able to pay as much attention as it would prefer in helping participants find higher paying jobs or get the education and skills needed to obtain better jobs.

- **Agencies' approaches to case management in participants' final years of FSS remained as varied as they were earlier in participants' time in the program.**

Housing agencies did not make significant changes in their expectations regarding how often staff members were expected to reach out to participants. As participants in the FSS study programs approached Year 5, most programs continued to mandate contact at least quarterly, and all except one still required at least one annual in-person meeting with each participant. The FSS programs in the evaluation do not hold additional meetings specifically to review goals or to prepare for graduation.

Although the official expectations for contact did not change, many staff members reported higher engagement toward the end. In the last year or so, they said they made a final push to keep participants on track, and the process of reviewing goals and adjusting plans intensified. If participants were not on track to complete all their goals by the end of the contract period, staff members talked to them, reminded them of the terms and conditions of the contract, and explained their options, which could include changing their goals (within the time frame allowed by the housing agency) or receiving an extension. Participants who were on track might complete all of their goals and graduate early at some

[6] The new FSS Performance Measurement System includes three parts: changes in earnings from the time participants join FSS, graduation rates, and participation rates. See HUD, 2018.

programs, whereas at others, they might add new goals and continue in the program for the full 5 years (and earn additional escrow).

- **FSS staff members consider the escrow incentive to be integral to the program and value its motivational influence. The preference among some staff members for participants to receive large lump-sum payments at graduation may help explain why interim disbursements are rarely used.**

All staff members appreciated that the FSS program gave participants the opportunity to build assets, but they differed in their views on the extent of the escrow account's importance. Whatever their opinion of escrow's influence, FSS staff members believed that achieving educational, employment, and financial services goals does more than escrow itself to help individuals gain confidence and move toward self-sufficiency over the long term.

In theory, FSS program staff members believed that rewarding incremental progress by granting interim (pregraduation) escrow disbursements would help keep participants engaged and remove barriers to meeting goals. These payments can help participants overcome financial barriers such as lack of reliable transportation or education expenses. Despite these advantages, many staff members wanted participants to learn to budget and save and build up a large escrow balance, and they felt that providing interim disbursements did not encourage self-sufficiency. As a result, interim disbursements were not routinely publicized or discussed during check-in meetings and were rarely used.

- **Most staff members value the Program Coordinating Committee and consider it critical to the program, yet participants have some needs that it is not able to meet.**

Nearly all study sites have a Program Coordinating Committee (PCC), a collaborative group of service providers. In larger urban areas, some PCCs are countywide, serving multiple housing agencies. Some housing agencies invite all their primary service referral providers to join their PCCs; in others, the PCC members include a subset of referral partners. Across the board, FSS staff members said that the main value of the PCC was that it enabled them to stay connected to, and network with, local service providers, which in turn helped ensure that FSS participants had access to the services they needed. FSS staff members said they were generally satisfied with the organizations represented on the PCCs, how they interacted with the FSS program, and the range of services they provided to FSS participants; they did not recommend any significant changes. Staff from several FSS programs noted some types of services that participants needed but were not available from their PCCs, most notably transportation, childcare assistance, and mental health services. Some also mentioned that having access to discretionary funds to support such needs of participants would also be helpful.

- **Staff members identified a range of promising practices that they thought worked best to keep participants engaged and making progress toward their goals.**

Staff offered a range of practices that they associated with—or thought could lead to—stronger outcomes for participants, including more frequent in-person contact, setting and monitoring shorter-term goals (including breaking up long-term goals into shorter steps), developing a strong rapport

between case managers and participants, enabling case managers to focus solely on FSS and not requiring them to perform non-FSS (or other housing voucher program-related functions), developing valuable service referrals, and using interim escrow disbursements more generously to help participants meet their goals. Whereas some staff members thought FSS should be a mandatory program, others felt strongly that it should not. Likewise, staff members were divided about whether FSS could be shortened to fewer than 5 years or whether 5 years was the right length for this program.

Enrollment, Graduation, and Escrow Disbursements

For a 5-year program such as FSS, several outcomes are of interest. The two previous reports produced by this evaluation, covering the first 3 years of followup, presented a broad range of program participation outcomes, including the types of FSS-related activities participants engaged in, the contact they maintained with program staff members, how long they stayed enrolled in FSS, and (for those who left FSS) whether they graduated and received escrow disbursements. These reports have shown high rates of participation in various types of FSS-related activities, including education and training, financial management services, and employment services. Within the first 36 months of followup, FSS realized moderate-level increases (between 6 and 14 percentage points) above control group levels in activities related to job search, homeownership preparation, postemployment services, and education and training. FSS had a much larger effect (greater than 20 percentage points) on the use of financial counseling services. Higher levels of participation in education and training activities were accompanied by a small increase above the control group level in earning an occupational credential or license, but it did not appear to have increased the attainment of academic credentials (such as conferral of a degree or a diploma). Program graduation rates also hovered around 4 percent through month 36, roughly midway through the entire 6- to 7-year followup period for this evaluation. This report updates those earlier analyses, focusing exclusively on graduation, a formal marker of success in the program, and escrow outcomes.

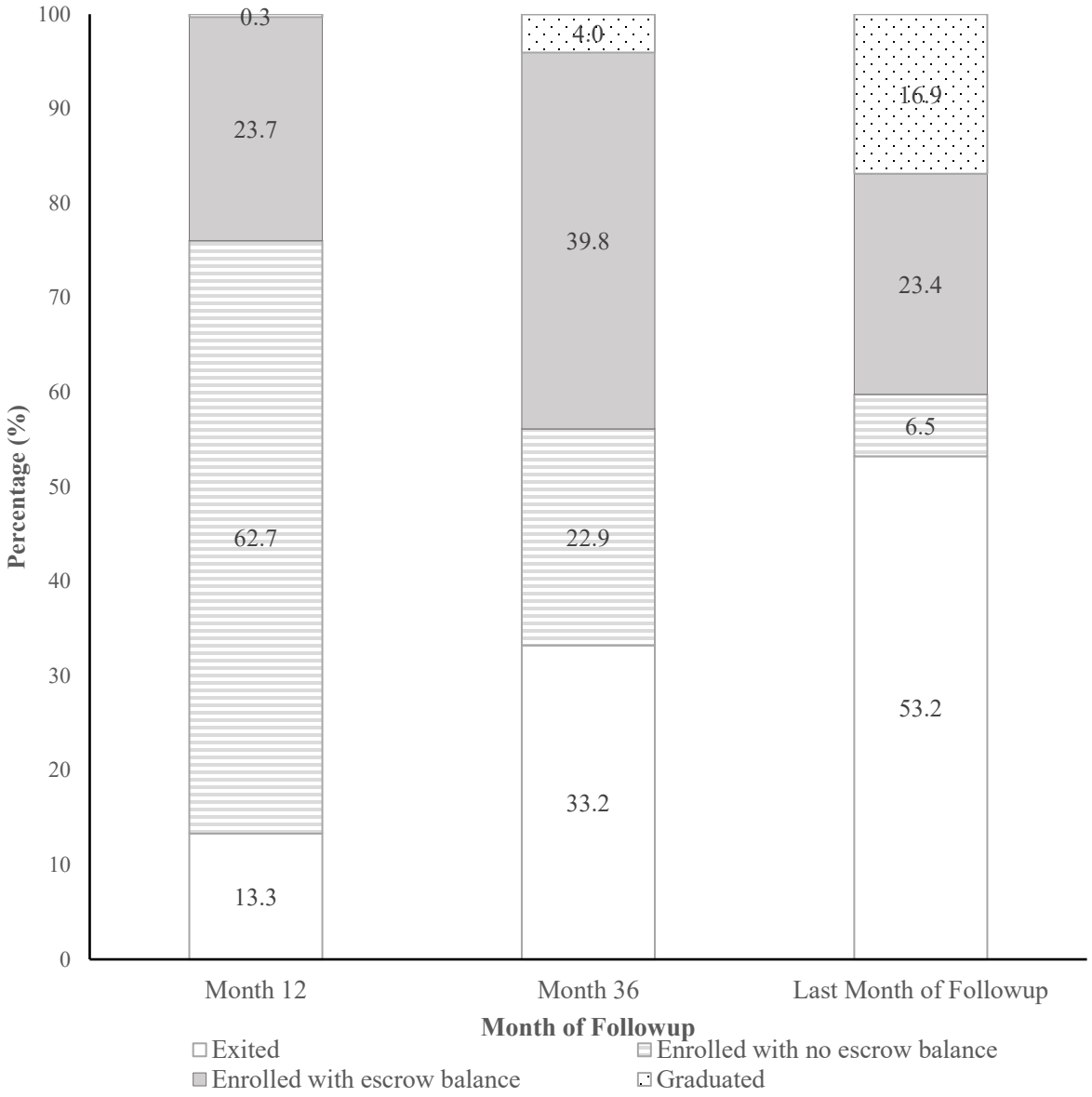
- **So far, about 17 percent of the FSS participants have achieved their program goals and graduated from the program; another 23 percent remain enrolled in FSS with some escrow accrued.**

Typically, FSS participants can take up to 5 years to graduate from the program. Under certain circumstances, the program may extend a participant's FSS contract by another 2 years.[7] Exhibit ES.1 presents FSS enrollment, graduation rates, and escrow accrual statuses at three points of followup: Month 12, Month 36, and the last month of followup, which ranges from 60 to 75 months, depending on study enrollment. By Month 12, the end of the first year after enrolling in FSS, about 86 percent of the FSS group was officially active in the program, with about one-fourth beginning to build an escrow balance. By the last month of followup, more than one-half of the study group (or about 53 percent) had ended their participation in FSS for reasons other than meeting its graduation requirements. HUD and housing agency data include limited information about exit reasons but show that a large proportion of FSS program exits involve participants leaving the voucher program or moving to another housing

[7] In response to the COVID-19 pandemic and associated economic downturn, HUD recently gave housing agencies the approval for giving PHAs authority to extend FSS contracts by a third year.

agency, being terminated from FSS, or leaving the FSS program voluntarily. As documented in earlier reports, most programs have policies that allow them to terminate FSS participants who consistently miss appointments and are not responsive to case managers' repeated attempts to reach them.

Exhibit ES.1: Family Self-Sufficiency Graduation and Enrollment Status in Months 12 and 36 and in the Last Month of Followup



Notes: The FSS service-use sample includes all, or a randomly selected subsample, of housing choice voucher heads of household who were randomly assigned to the FSS group between October 18, 2013, and December 22, 2014, in 12 public housing agencies and were age 18 to 61 at the time of random assignment. The FSS impact sample includes Housing Choice Voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Rounding may cause slight discrepancies in calculating sums.

Sources: MDRC calculations using housing authority administrative data and U.S. Department of Housing and Urban Development Inventory Management System (IMS)/PIH Information Center (PIC) data.

About 60 percent of FSS participants accrued some escrow credit over their FSS program tenure; most began building escrow balances in the first 2 years after enrolling in the program, after which the chances of earning any escrow began to deteriorate (only about 7 percent of those who accrued any escrow began seeing credits in Year 3 or later). By the end of the followup period, close to 17 percent of FSS participants had graduated, most of whom had earned an escrow disbursement. This number could grow as high as 40 percent. About 23 percent continued to be enrolled in the program, with some escrow accrued, and could graduate in the next 1 to 3 years. Nearly 7 percent have remained enrolled in the program without accruing escrow.

- **Many FSS graduates realized a substantial escrow disbursement, averaging nearly $10,000 per recipient.**

On average, the FSS graduates earned $9,651 in escrow disbursements, with close to 13 percent receiving more than $20,000, a significant one-time payment for these families. The likelihood of graduating from FSS and earning an escrow disbursement can be influenced by several factors, including a participant's employment status and earnings at program enrollment. Those not working at the time of program entry could potentially benefit the most from the FSS escrow because all their future earnings would be included in the calculation of escrow credits. Nonworking participants could also face the most severe barriers to finding and maintaining employment, which is required for graduation and earning the escrow. By contrast, FSS participants who are working full time or have relatively high earnings at program enrollment may have the best prospects of increasing their earnings by finding better jobs or advancing with their current employers. They may also be the most likely to maintain their employment after they start accruing escrow credits. They may experience smaller increases in their earnings, however, and accrue only a small amount of escrow.

The findings in this report show that FSS group members who reported that they were not working at study entry were the least likely, so far, to graduate from FSS, compared with subgroups that reported higher household earnings at study entry. FSS participants who reported the highest household earnings (more than $20,000 a year) at study entry have, on average, accrued relatively small amounts of escrow and received relatively small disbursements compared with other subgroups. The graduation rate for FSS group members with 2-year college degrees or higher (29 percent) exceeds the rate for the other educational subgroups, as does the percentage of them who have graduated and received more than $5,000 in their escrow disbursements (17 percent).

- **Most FSS group members who remained enrolled in the program had positive escrow balances at the end of the followup period.**

Most participants who were still enrolled in the program at the end of the followup period had positive escrow balances and, therefore, strong financial incentives to complete their goals. Nonetheless, few participants, if any, would be expected to start accruing escrow (based on patterns through Year 5). Those who remained enrolled in FSS at the end of this report's followup period showed escrow balances of about $7,200, on average, with 24 percent of this group having accrued more than $10,000. The evaluation will continue to track graduations and disbursements through the middle of 2021, but

some of those still enrolled in FSS may receive additional extensions, which the housing authorities are authorized to offer because of COVID-19, and they may still be enrolled when this evaluation ends.

Regardless of the final graduation rate, this study shows that the FSS program eventually provides a large lump sum payment for graduates, often exceeding the maximum amount that a household with a low or moderate income could receive as an earned income credit on its federal tax return. However, a relatively small proportion of FSS enrollees reach the point of graduating and earning escrow disbursements. Some may benefit in other concrete ways, such as from case management services and referrals—for example, by enrolling in an educational or training activity, learning to budget and manage their family finances more efficiently, increasing their savings, or reducing their debt. Nonetheless, it might be unreasonable to expect any tangible benefits of enrollment for FSS group members who left the FSS program while continuing to receive housing voucher assistance, and this is perhaps true for the small group of current FSS enrollees with no escrow accrual after 5 years in the program.

Employment and Earnings

Although the FSS program is designed to provide services and referrals to help participants address a variety of difficulties, including childcare needs, mental and physical health issues, and transportation challenges, the case management component of the program is in service of the ultimate goals of the program: to support participants' efforts to find employment, remain employed, or increase their earnings. The escrow incentive promotes the same goals; therefore, an important test of the FSS model is an assessment of its ability to meet those goals as compared with the control group.

This evaluation relies on the National Directory of New Hires quarterly wage records to examine the program's effects on work outcomes. Typically, FSS participants are allowed to take up to 5 years to achieve their program goals, and given their highly personalized goals and pathways to attain them, positive effects on work outcomes may occur in the later years of program enrollment.

- **Over a 5-year followup period, the FSS and control groups experienced comparable quarterly employment levels and average earnings. There is no evidence that FSS produced overall improvement in labor-market outcomes for household heads.**

Quarterly wage data show high levels of employment for FSS and control group members, although most members of both groups experienced at least one quarter of joblessness. More than 85 percent of both groups worked for pay at some point during the 5 years of followup. On average, about 64 percent were employed in any given quarter. Members of both groups averaged a bit more than $75,000 in total earnings during the followup period—or about $15,000 per year (the averages include zeroes for individuals who had no earnings). As shown in exhibit ES.2, there are only small, not statistically significant differences in employment or earnings outcomes between the two study groups.

These outcomes were also examined for subgroups of participants defined based on their work and education, for example (not shown in exhibit ES.2, which presents the results for the overall sample).

Exhibit ES.2: Average Quarterly Employment Rate and Annual Earnings, Family Self-Sufficiency Impact Sample

Outcomes	FSS Group	Control Group	Difference (Impact)	P-Value
Employment (%)				
Average quarterly employment rate				
Year 1	61.6	61.4	0.2	0.887
Year 2	64.0	63.7	0.3	0.847
Year 3	64.9	63.9	1.0	0.502
Year 4	64.8	64.2	0.6	0.672
Year 5	64.9	64.4	0.5	0.732
Years 1 through 5	64.0	63.5	0.5	0.651
Earnings ($)				
Total earnings				
Year 1	11,967	12,144	-177	0.596
Year 2	14,178	14,044	134	0.760
Year 3	15,509	15,307	202	0.688
Year 4	16,526	16,346	180	0.742
Year 5	17,748	17,490	258	0.662
Years 1 through 5	75,929	75,332	598	0.767
Sample size (total = 2,548)	1,282	1,266		

Notes: The FSS impact sample includes housing choice voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Average quarterly employment rate is calculated as total quarters with employment divided by total quarters of followup, expressed as a percentage. Estimates were regression adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between research groups. The p-value indicates the likelihood that the difference between the FSS group and control group arose by chance. Statistical significance levels are indicated as * = 10 percent; ** = 5 percent; and *** = 1 percent.

Source: MDRC calculations using quarterly wage data from the National Directory of New Hires

The most consistent pattern of positive effects on employment and earnings outcomes was recorded for FSS group members with 2-year college degrees or higher at random assignment, but none of the differences between the program and control group were statistically significant.

Credit Use and Financial Well-Being

This report also includes a comprehensive analysis of the FSS program's effects on financial security outcomes, as captured by credit-use behavior and credit scores. Using data from Experian®, the nation's largest credit bureau, the evaluation examines both traditional financial transactions (store and credit card transactions, auto and student loans) and alternative financial services, or high-risk loans, such as payday loans, as recorded by Clarity Services, Inc., a subsidiary of Experian.[8] Many FSS programs encourage participants to attend workshops or meet with financial counselors to build financial management skills such as budgeting, managing personal and household finances, building savings, managing debt, and "cleaning up" credit history. These efforts could help participants build financial behaviors that could be reflected in their credit-use patterns and scores. FSS also aims to increase household earnings, both for enrolled participants and other adults in the household (escrow accruals are based on household earnings), possibly changing household disposable income and affecting credit outcomes.

Experian's VantageScore, a credit-scoring model that uses scores ranging from 300 to 850, was used to analyze traditional transactions.[9] Clarity and VantageScore ranges are aligned and are generally grouped in five categories: Deep Subprime (300–499), Subprime (500–600), Near Prime (601–660), Prime (661–780), and Excellent (781–850).

- **Between 2012 and 2019, VantageScores and Clarity scores for most FSS group members were below 600, or in the subprime range. The FSS program did not lead to increases above the control group outcome in average credit scores.**

In 2013 and 2014, the period corresponding to study enrollment, most FSS group members had relatively low (subprime) credit scores. VantageScores averaged about 555, increasing by nearly 20 points during the 5 years of followup: The proportion of FSS group members with prime VantageScores increased from about 8 percent in 2013 to 16 percent 6 years later, whereas the proportion of FSS group members with subprime scores (below 601) decreased by a similar amount (not shown).

In general, those with lower VantageScores appeared to use high-risk, alternative financial services loans more often than those with higher scores; therefore, more of them tended to have Clarity scores (as measured by Clarity's Clear Early Risk Score™). In 2019, about 85 percent of FSS group members with deep subprime (below 500) VantageScores had a Clarity score, compared with about 30 percent of FSS group members with prime (above 660) VantageScores (exhibit ES.3).

[8] According to Clarity, the greater availability of online short-term installment lending—which more than tripled in loan volume between 2015 and 2019—has led to a sharp increase in overall alternative borrowing nationwide. See Clarity Experian, 2020.

[9] VantageScores are available for a larger number of financial services customers with low or moderate incomes. The other option is Experian's FICO scores. Review of these data showed that about 85 to 90 percent of impact sample members had a FICO score as of the end of followup in December 2019, whereas 96 percent of impact sample members had a VantageScore. See Experian, 2020.

Exhibit ES.3: Impacts on Use of Financial Services in 2019, Family Self-Sufficiency Impact Sample

Outcome	FSS Group	Control Group	Difference (Impact)		P-Value
VantageScore (%)					
No score	3.8	3.9	-0.1		0.919
Deep subprime (300–499)	15.3	16.8	-1.5		0.295
Subprime (500–600)	50.1	48.8	1.3		0.522
Near prime (601–660)	15.3	15.3	0.0		0.991
Prime/excellent (661–850)	15.6	15.3	0.3		0.798
Financial service use (%)					
No financial services	23.8	26.9	-3.1	*	0.060
Traditional financial services only	63.9	60.6	3.3	*	0.081
Alternative financial services only	1.8	1.8	0.0		0.977
Both traditional and alternative financial services	10.5	10.7	-0.2		0.861
Total balance ($)					
All financial services	18,992	18,241	751		0.482
Traditional financial services	18,725	17,979	746		0.484
Revolving credit	1,892	1,969	-78		0.633
Installment credit	16,266	15,870	396		0.691
Alternative financial services	270	263	7		0.865
Single-payment credit	34	34	0		0.998
Installment credit	44	42	2		0.887
Other credit	192	187	5		0.884

Notes: The FSS impact sample includes housing choice voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Sample sizes for specific outcomes may vary because of missing values. Estimates were regression adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. No specific weights were applied to responses to adjust for differences in sample size by housing authority. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between the FSS group and the control group for continuous variables and selected outcomes expressed as proportions. In addition, a chi-square test for categorical variables was run to determine whether there is a difference in the distribution of related outcomes by research group. The p-value indicates the likelihood that the difference between the FSS group and the control group arose by chance. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Sources: MDRC calculations using Experian Vantage 3.0 credit scores and Clarity Clear Early Risk scores

The use of alternative financial services also increased over time, suggesting an increase in the use of nontraditional credit products. On average, control group members recorded similar patterns as their program group counterparts on their Vantage and Clarity credit scores.

- **Both study groups incurred high levels of debt, often in automobile and education loans.**

According to Vantage data, the typical FSS group member carried a balance of about $9,000 in non-housing-related debt at study entry. Over the followup period, FSS group members' average debt more than doubled, reaching an average of nearly $19,000 in non-housing-related debt (see exhibit ES.3, which focuses on 2019, the final year of followup for this report). Installment debt, especially automobile and student loans, accounted for the largest proportion of their non-housing-related debt. Control group members also accrued non-housing-related debt during 2015 to 2019, but FSS group members took on more in total (about $750 more, a difference that is not statistically significant). As a result, FSS group members averaged larger monthly payments, reaching nearly $400 per month by December 2019 (not shown). During 3 of the followup years (2016, 2017, and 2019), FSS group members paid about $30 (or about 12 percent) more, on average, per month than did control group members for loans from traditional financial services lenders.[10] A small proportion of FSS group members (22 percent) had high-risk, alternative financial services loans between 2015 and 2019. The incidence of alternative borrowing increased somewhat over time—from 7 percent of FSS group members in 2015 to 12 percent 4 years later. Although alternative financial services borrowers were a relatively small proportion of the full FSS group, they were relatively steady users of such credit. They averaged about one such loan per year and incurred about $3,000 (or $600 annually) in alternative financial services debt during the followup period. Control group members showed an almost identical pattern of alternative financial services use, resulting in only scattered and small impacts on measures of alternative financial services use.

- **About 6 of 10 members from both groups experienced at least one relatively serious credit problem during the final year of the followup period.**

In addition to helping participants "clean up" problems in their credit reports, FSS programs typically counsel them to limit their debt and avoid high-risk lending products, such as those offered by alternative financial services lenders. In 2019, the last year of the followup, almost no members of either research group relied solely on alternative financial services credit, and only a modest proportion (11 percent) of members of each research group combined traditional and alternative financial services credit use. The FSS program led to a small (3 percentage-point and statistically significant) increase over the control group average in the use of traditional lending sources without alternative financial services.

Credit users may also demonstrate financial stress if they keep borrowing until their total balances (the total amount they have borrowed) reach or approach the limits of their available credit. Financial services corporations and lenders assess this potential credit problem in real terms by calculating a customer's ratio of total balance to total available credit. They often define potential borrowers as being financially at risk if they have a total balance that equals or exceeds 75 percent of their available

[10] See Verma et al. (2019). FSS group respondents to the FSS 36-Month Survey (administered in 2017) reported incurring about $14,000 in non-housing-related debt, a somewhat smaller amount than the average for 2017 recorded by Experian. According to survey responses, average debt levels for FSS group members exceeded the control group average by about $1,600, a somewhat larger amount than recorded by Experian.

credit.[11] A relatively large proportion of members of each research group (about 40 percent) came close to "maxing out" their available credit during each of these years. Over time, the problem worsened somewhat for each group, with the average balance-to-credit ratio in each group reaching 43 percent in 2019. According to credit data, the FSS program did not affect the percentage of participants who had credit balances close to the maximum.

A perhaps more serious credit problem involves late or forgone payments. About one in six FSS and control group members delayed or missed a payment on the loan balances they owed. In 2019, about 8 percent of the FSS group missed or delayed an alternative financial services loan payment, as did a similar percentage of the control group.

Housing Subsidy Receipt

The FSS program does not require families to give up their housing assistance once they graduate. They may be required to exit the voucher program if their income exceeds the maximum the voucher program allows for housing subsidy eligibility. Further, unlike other alternative rent policies that allow families receiving federal rental subsidies to keep their extra earnings between regular recertifications, FSS participants are required to report changes in household earnings to the housing agencies. (This same mechanism also allows the housing agencies to credit their escrow accounts for rent increases they may have experienced because of higher earnings.) According to HUD administrative data, nearly 70 percent of the members of each research group continued to receive housing subsidies at the end of the 5-year followup period. The groups also received roughly similar average levels of housing subsidies. In the absence of employment and earnings effects in the first 5 years, these results are not surprising.

Variation Across Sites in Program Impacts

An important element of this evaluation is to examine how program effects vary across types of FSS programs. These effects could vary across housing agencies because of differences in how FSS administrators design program policies and set expectations for program participants. Most housing agencies operate relatively small FSS programs, making it difficult, however, to conduct an independent assessment of the effects of any single program.[12] This report explores patterns of variation for *clusters* of programs, as did the last report and as the evaluation will continue to do through its end.

To examine housing agency-level variation in participation and impacts, agencies with similar implementation features were grouped into a series of "site clusters," and the magnitude of employment and earnings impacts were estimated for each cluster. For example, the data used to group housing agencies into clusters of low, medium, and high emphasis on monitoring and engagement are based on three program implementation features and practices at study launch: caseload sizes, expectations about program contact, and the program's focus on short-term goals. FSS programs classified as having a high

[11] Experian routinely calculates this measure for several credit sources.

[12] The national evaluation includes 18 housing agencies and clusters them on the basis of various dimensions of program practice to assess variation in outcomes and impacts.

emphasis on monitoring and engagement have smaller caseloads, expect participants to maintain more frequent contact with FSS coordinators, and focus on having participants establish short-term goals.[13]

So far, only one test shows statistically significant variation in impacts among site clusters. Participants affiliated with PHAs with a strong emphasis on monitoring and engagement averaged nearly $13,000 (or 15 percent) less in total earnings over 5 years compared with the control group. The negative impact for PHAs with a high emphasis on monitoring and engagement possibly reflects the tendency of these programs to encourage FSS group members to participate in education and training-related activities, which may decrease their hours or weeks of employment. If so, this negative impact could diminish or turn positive after FSS group members complete their participation. In fact, differences in employment and earnings outcomes were smaller in Year 5 than in previous years and were no longer statistically significant. Moreover, on some credit score outcomes (average score in 2019 and average increase in scores over time), FSS group members in FSS programs with high monitoring and engagement averaged higher scores than their counterparts in the control group. The longer-term data will be important to analyze and interpret this pattern more thoroughly.

At present, the researchers can only conjecture as to what implementation features are associated with the patterns of impacts on employment and earnings. Additional tests of variation in impacts by PHAs will be examined in future years as FSS group members reach the end of their FSS contracts.

Next Steps

This report captures participants' experiences in Years 4 and 5, the period leading up to their potential graduation from the program. This far into followup, there is limited evidence that the FSS program encourages higher rates of economic mobility or financial security: Both the FSS group and the control group appear to experience comparable trajectories. However, about one-third of the FSS group members continue to be enrolled at the end of the followup period, and new patterns of outcomes and effects may emerge in the year of followup remaining in the evaluation. The final report, slated for release in 2022, will provide more conclusive evidence about FSS participants and how they benefit from the program. With 6 to 7 years of followup, the final report will not only allow the evaluation to track the remaining FSS participants through their extended contract period and examine circumstances after FSS for those who graduated—how they are faring, whether they continue to receive housing subsidies, and how they use their escrow—it will also support an analysis of how families fared during the COVID-19 pandemic.

[13] Similar tests were run for housing agencies that varied in the types of services that they emphasized during the goal-setting stage (job search and postemployment support, education and training, or financial counseling and workshops) and also for housing agencies with similar performance levels, as measured by HUD for an earlier (pre-evaluation) cohort of FSS participants.

Chapter 1. Introduction

The U.S. Department of Housing and Urban Development (HUD) Family Self-Sufficiency (FSS) program is designed to support the economic mobility efforts of low-income families receiving federal rental assistance in the form of public housing or housing choice vouchers (HCVs—also known as "Section 8," after Section 8 of the Housing Act of 1937).[14] In the FSS approach, the provision of the rental subsidy is augmented by referrals to services and a long-term escrow account to encourage work and increase earnings. Since the program's inception in the 1990s, limited evidence has been available about its effectiveness. To build such evidence, HUD commissioned an impact evaluation of the FSS program in 2012. This report, the third in a series, updates findings on the program's effects, focusing on longer-term outcomes over 5 years of followup, which is generally the official term of the FSS program. It also includes, for the first time, a detailed analysis of the program's effects on study participants' financial security and credit outcomes.

About 700 public housing agencies (PHAs) receive annual grants from HUD to operate FSS programs.[15] The funding includes modest resources to hire FSS coordinators (or case managers or coaches) to work with participants to set "self-sufficiency" goals and to refer them to services in the broader community. At enrollment, participants sign a Contract of Participation (COP) and complete an Individual Training and Services Plan (ITSP). The typical FSS contract can last up to 5 years, with extensions possible, during which participants are expected to achieve all agreed-upon goals. Participants are also offered an escrow account, a work-based financial incentive designed to encourage them to go to work, increase their earnings, and build long-term savings in an interest-bearing account, which the housing agency maintains. Like others receiving housing assistance, FSS participants see their rents increase when their earnings increase, but the housing agency credits their escrow account with an amount based on their rent increase. In this way, participants accrue escrow balances, which they receive when they graduate from the program—that is, when they are employed and have met all goals outlined in their COP and ITSP; nongraduates forfeit their escrow accruals.[16]

The national evaluation uses a randomized controlled trial to test whether FSS achieves its intended effects and puts families on a track to self-sufficiency. Randomized controlled trials employ an experimental design that compares the outcomes of a program group whose members are eligible to participate in the intervention with those of a control group whose members are not eligible to participate in the intervention. Random assignment of study participants to either a program group or a control group is designed to ensure that the individuals in the program and control groups are similar at the start of the study.[17] Differences between the program and control groups' outcomes reflect the

[14] Project Self-Sufficiency, Operation Bootstrap, and the Jobs Plus program are some examples of efforts that use the housing subsidy platform to support work. Other reforms built into the housing subsidy rent policies, similar to the ones being tested as part of HUD's Rent Reform Demonstration, also have a core objective of "making work pay" (see Riccio, Deitch, and Verma, 2017).

[15] This report uses the terms *public housing agencies* and *public housing authorities,* both PHAs, interchangeably.

[16] In the HCV program, escrow forfeiture becomes part of housing assistance payment (HAP) equity and is restricted to HAP activities.

[17] Randomization does not affect study participants' use of resources that are available in the general community.

program's impacts. Statistically significant differences indicate that the impacts can be attributed with a high degree of confidence to the intervention rather than to chance.

The evaluation focuses on FSS programs implemented by non-Moving to Work (MTW) housing agencies. At the time of study design, MDRC and HUD agreed to exclude the MTW housing agencies, which have the administrative flexibility to modify their FSS programs without legislative or regulatory changes, and FSS programs for public housing residents, which serve considerably fewer participants. Eighteen non-MTW housing agencies operating FSS programs for tenant-based housing choice voucher recipients agreed to participate in this evaluation and together enrolled 2,656 study participants.[18]

The first report from this evaluation introduced the study design and detailed the findings over the initial 18 to 24 months of followup (Verma et al., 2019). It documented FSS implementation strategies across the 18 sites, participants' engagement in services and activities, and program impacts on labor force outcomes and receipt of government benefits. The first report showed that housing agencies have substantial discretion over FSS program implementation, leading to broad variation in how case management services are delivered—a theme that continues to surface in evaluation reports. The early data also showed that enrollment in the program increased participants' engagement in a range of employment-related services relative to the control group. Building on this, a second report, covering 36 months, examined whether bigger differences between the program and control groups begin to emerge over a longer-term followup period (Verma et al., 2021). The report looked at a broad range of outcomes, including participants' employment, earnings, and material, financial, and economic well-being. The report documented few notable program effects in the interim period.

In 2018, HUD extended the national FSS evaluation through 2021, allowing 6 to 7 years of followup for the study sample. With the exception of participants who receive an extension, most FSS participants in the study are expected to reach their 5-year FSS contract terms in the followup period covered by this report. Focusing on 60 months of followup, this report provides an update on program implementation and program outcomes described in previous reports. In addition, with HUD's support, MDRC acquired credit data for study participants, allowing for a comprehensive and unusually detailed analysis of program effects on the credit behavior of voucher holders enrolled in the FSS evaluation.

The analysis period covered in this third report—2012 to 2019—ends before the start of the COVID-19 pandemic, which hit the nation in March 2020. The FSS programs in this study and their housing agencies had to make dramatic changes in how they delivered services, shifting to online engagement with program participants.[19] Although none of the service changes or disruptions affect the outcomes examined in this report, they occur during the longer-term followup period for this evaluation. The final report, due in 2022, will take into account the pandemic and its implications for the program's effects on participants' work outcomes, graduation and escrow receipt, financial well-being, and

[18] In fiscal year 2014, funding streams for HCV and public housing FSS programs were merged, and housing authorities could submit one application for their annual grants. This consolidation of funding streams also meant that PHAs could use the funding to serve both public housing and housing choice voucher FSS programs, if applicable.

[19] During the field research period for this report, the MDRC team also followed up with staff at 17 of the 18 sites to get an update on their program operations and adaptations because of COVID-19.

receipt of housing and other government subsidies. No further qualitative data collection is planned for the remainder of the evaluation, but a brief survey, which will be fielded to capture the longer-term outcomes and postexit circumstances of former FSS participants in the study, has been adapted to collect information on how families fared in the face of the economic shocks caused by the pandemic.

Housing Assistance and Employment Context

Low-income renters receive federal housing subsidies in three main forms: HCV, project-based rental assistance, and public housing assistance. The HCV program, the nation's largest rental assistance program, provides subsidies to slightly more than 2 million households, allowing them to rent homes in a neighborhood of their choice if the housing meets HUD inspection standards and the landlord is willing to accept housing vouchers.[20] Households contribute 30 percent of their monthly income to their rent (minus adjustments to defray childcare expenses or for other reasons), and the HCV program covers the remaining rent and utilities expenses, up to the local payment standard.

Eligibility for housing vouchers is limited to households with income below 80 percent of the median income for the metropolitan area or county in which they choose to live. However, the program prioritizes extremely low-income households by reserving at least 75 percent of available vouchers each year for households with income at or below 30 percent of the area median income.[21] There are no time limits on how long households may receive such subsidies as long as they remain eligible on the basis of their household income. However, once household income exceeds the limit of 80 percent of the area median income for 6 consecutive months, eligibility for the subsidy ends.

As with any means-tested program, the provision of a government benefit has the potential to affect the recipients' work efforts. Some analysts have argued that housing subsidies not only improve access to decent housing but may also promote work.[22] This view holds that the housing stability that comes from rent subsidies may enable recipients to focus on employment or build human capital and that when housing assistance takes the form of vouchers, households are able to move to better quality neighborhoods that offer better prospects for their families.[23] This view, however, is challenged by evidence that suggests that although many households benefit in selected ways, housing assistance alone may not, on average, improve employment outcomes (Jacob and Ludwig, 2008; Mills et al.,

[20] Housing vouchers became part of U.S. housing policy in the 1970s. See Schwartz (2006) for additional background information on the HCV program.

[21] Under current rules, the escrow deposit calculation varies depending on the family's income level, with different rules for families below 50 percent and between 50 and 80 percent of the area median income levels. These rules make it difficult for those with higher incomes to earn escrow. Among the changes planned (not yet enacted) is the stipulation that families with income above 50 percent (up to 80 percent) will accrue escrow using the same calculation as other families.

[22] See Sard and Waller (2002) for one discussion on this perspective. Nonelderly and nondisabled households account for only about 49 percent of all voucher-assisted households (Center on Budget and Policy Priorities, 2017), and their employment and earnings trajectories have been a long-standing policy concern.

[23] Recent research has also shown positive long-term effects for young children of the original Moving to Opportunity demonstration and, in a separate nationwide study, the benefits that low-income children experience in adulthood when they move to high-opportunity neighborhoods as children. See Chetty and Hendren, 2017a, 2017b.

2006; Shroder, 2010).[24] In this case, voucher holders may feel less pressure to work when their housing expenses are subsidized, and their remaining income is adequate to sustain their family without the cost of seeking work (because of transportation expenses, for example) or finding adequate childcare while working. However, as mentioned previously, the HCV program's rent rules could also discourage work. Voucher holders must pay 30 percent of their earnings for rent until they are no longer eligible for this subsidy. Thus, their participation in the housing choice voucher program subjects them to an implicit "tax" on additional earnings that could negatively affect their inclination to work (Popkin et al., 2000, 2010; Popkin, Cunningham, and Burt, 2005). The FSS program's interest-bearing escrow account, designed to encourage work, is intended to address this issue.[25]

Given the potential employment advantages that voucher receipt may offer and the potential work disincentives inherent (because higher earnings can result in higher rent or reduced benefits), researchers and policymakers have questioned the expected effects of FSS and other similar programs.

The Family Self-Sufficiency Program

In 1990, Section 554 of the Cranston-Gonzalez National Affordable Housing Act established the FSS program against a backdrop of policy discussions about persistent poverty among beneficiaries of government programs. Although operated by about 700 housing agencies around the country, the FSS program itself reaches a fairly small fraction of all voucher families—partly a reflection of the funding appropriated by Congress to operate this program.[26] Early research has also shown that, at least from the perspective of program staff members, voucher recipients may not fully understand the terms of the FSS program and believe that they risk losing their housing assistance and other public assistance benefits by not fulfilling their FSS contracts (Rohe and Kleit, 1999). These program operators also believe that issues such as caregiving responsibilities, potential lack of motivation, transportation barriers, and distrust of social programs could be possible enrollment deterrents (Rohe, 1995; Rohe and Kleit, 1999). MDRC's site recruitment discussions with program staff evoked similar reactions.

In the most recent round of annual grants, HUD made available about $80 million in funding for the FSS program (HUD, 2019). The FSS grants, which offer support for coordinator positions, include no provisions for program management and administrative costs.[27] Grants issued in fiscal year 2018 show that the size of the programs funded can range from as few as 15 participants in the smallest program

[24] For example, the findings from the Welfare-to-Work program conducted in the early 2000s found that having and using a voucher *reduced* employment rates and earnings amounts in the first year or two after random assignment, but the small negative effect of vouchers disappeared over time, and vouchers had no significant effect overall on employment and earnings during 3.5 years of followup. The most rigorous evidence from the United States suggests a loss of 10 to 20 cents in earnings per dollar of assistance (see Shroder, 2010).

[25] Changes to rent policies could also incentivize work and increase earnings for HCV participants, as is being tested as part of HUD's Rent Reform Demonstration (see Riccio, Deitch, and Verma, 2017).

[26] HUD makes funding available for FSS programs through annual grants, but such funding is limited to the amount that Congress appropriates.

[27] HUD funds the FSS programs through the FSS Notice of Funding Availability (NOFA). Housing authorities apply for this funding on an annual basis.

to more than 1,000 in the largest.[28] Thus, although FSS is one of HUD's main employment-focused initiatives, particularly for voucher holders, it remains a small program at the federal and local levels.

Housing agencies operating FSS programs are required to prepare an FSS Action Plan and have it approved by HUD. The Action Plan is expected to detail program parameters—for instance, size of the program and the population served, types of services that will be offered, and program rules and policies. Once HUD approves the plan, housing agencies have a fair amount of flexibility regarding how they structure service delivery or implement their programs. In 2017, HUD published its first comprehensive resource guide for FSS operators. Without enforcing a particular service framework, the guide provides practical, hands-on tips for operating the FSS program (HUD, 2017b).[29] As documented in this report, the evaluation captures how the programs operated on the ground during the followup period. In some cases, the local practices, as described by PHA administrators and case managers, differed from HUD's latest thinking about program best practices and, in some instances, program requirements. In addition, HUD's Final FSS Rule, which went into effect in November 2022, addresses some of the concerns raised and recommendations articulated by program administrators and staff.

In 2018, HUD announced a new performance measurement system to assess programs receiving HUD funding for FSS programs (HUD, 2018). The performance score is a composite based on three measures: the extent to which the earnings of FSS participants increase over time after joining the FSS program, the FSS graduation rate, and the portion of expected participants served.[30] HUD plans to use the performance metric to identify high- and low-performing FSS programs, which could inform its understanding of best practices and delivery of technical assistance.[31] When implemented, this performance measurement system would add a new monitoring context for FSS programs nationwide.[32] Interviews with FSS program staff members, discussed later in this report, provide some early front-line reactions to the potential implications of this new assessment system on site-level practice.

Core Features of the FSS Program

Guided by statutory requirements and HUD regulations, the FSS program is anchored around two core components: coordination of support services and an escrow savings account (see exhibit 1.1). Except for the escrow account, local housing agencies can decide how to structure their case management and case coordination services—an element of flexibility offered by the program.

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[28] MDRC analysis of HUD FSS grant awards included in the NOFA.

[29] In 2019, all FSS applicants are required to have a representative from their agency complete an online training (see HUD, 2019).

[30] The three measures are weighted as follows: earnings (50 percent), graduation rate (30 percent), and participation rate (20 percent).

[31] Toward these goals, at least once per year, HUD will analyze data collected through the Public Housing Information Center to calculate performance scores for each FSS program that received an FSS coordinator grant in one or more of the past three fiscal year NOFA competitions.

[32] As of early 2023, however, HUD has yet to use this system to set funding levels or for other administrative purposes due to a congressional prohibition.

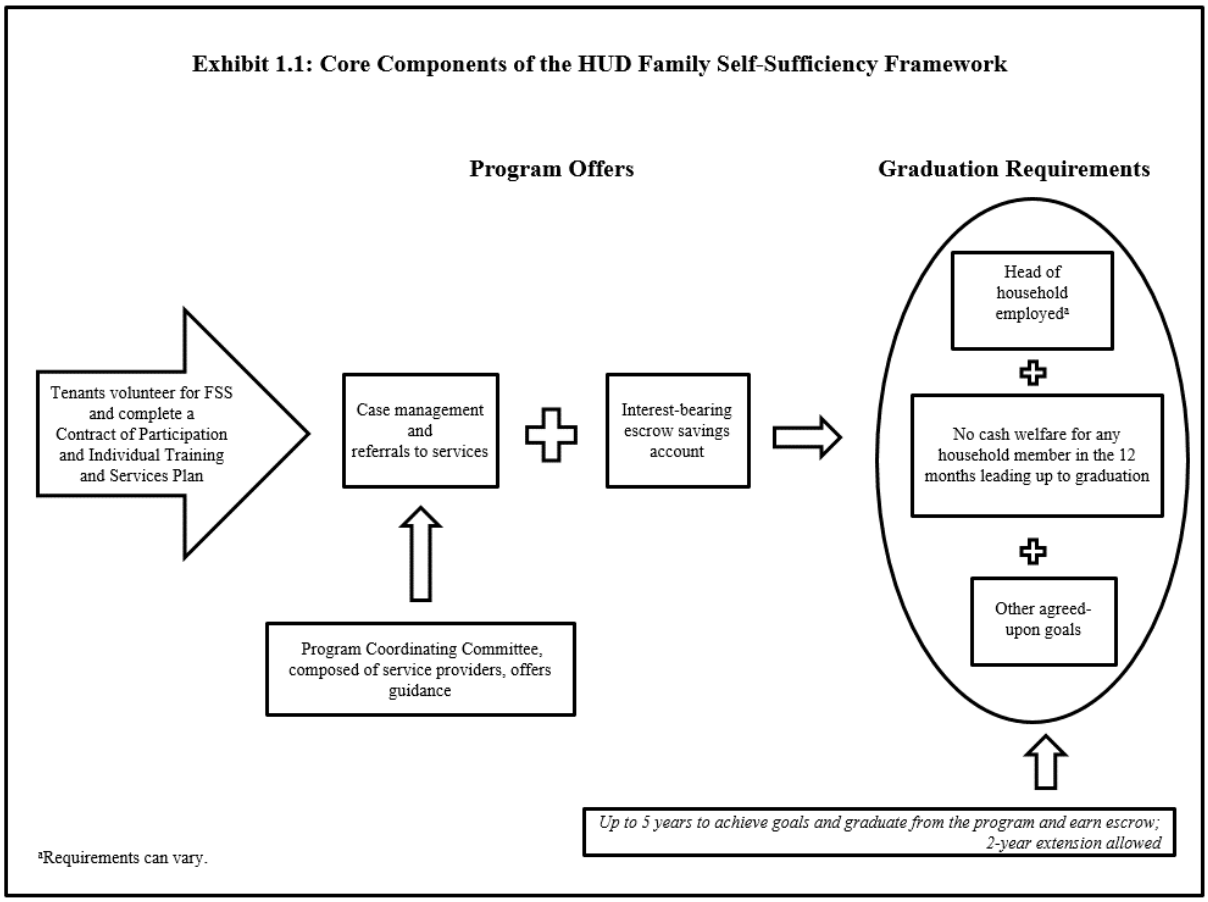
Participation in the FSS program is voluntary. Housing agencies promote the program through various communication channels, including flyers, program brochures, newsletters, websites, and scheduled briefing sessions. More informal channels, such as referrals from friends and relatives, also help spread the word about FSS programs. Once enrolled, program services are designed to help participants make progress toward their FSS goals. Although all adults in FSS households are encouraged to seek employment, only the household head—typically the voucher holder—is required to meet the employment requirements of the FSS contract to graduate and collect the escrow funds.[33] Participants attain their goals, graduate from the FSS program, and access the escrow savings their households have accrued, usually within 5 years.

Housing agencies place no restrictions on participants' use of escrow funds, but they report that households most commonly use these resources to start a new business, repair credit, buy a home, or pay for education.[34] Some programs also consider interim disbursements, or partial payments before graduation, as long as participants use the funds to meet approved expenses related to their self-sufficiency goals. Tuition, car purchase, credit repair, uniforms, tools, homeownership, or business startup are examples of expenditures that can be approved.

[33] Amendments to the FSS statute enacted in 2018 (but not yet in effect) will allow for more flexibility for families to meet graduation requirements through the employment of any adult household member, not solely the head of household.

[34] The 42-month survey conducted as part of the Work Rewards demonstration sheds some light on the *desired* uses of the escrow. Administered before the escrow funds had been disbursed to graduates, the Work Rewards survey showed that about one-third of the respondents indicated that they would save their escrow money for an emergency. Other uses included saving for children's future educational expenses, paying for basic necessities, and buying a house. See Verma et al., 2017.

Exhibit 1.1. Core Components of the HUD Family Self-Sufficiency Framework



FSS = Family Self-Sufficiency.

There is little published data on FSS graduations or escrow disbursements. A HUD Report to Congress, focusing on the period of July 2017 to June 2018, indicated that 47 percent of graduates during this period had escrow savings averaging approximately $7,700 (HUD, 2020). The Opportunity NYC–Work Rewards demonstration (hereafter, Work Rewards), the first randomized controlled trial of an FSS program, followed about 1,600 FSS participants over 6 years and showed that about 45 of the FSS participants graduated and received escrow disbursements. Households in the FSS-only group received an average of about $3,800 (the FSS-plus-incentives group, which received FSS and two additional special workforce incentives, received nearly $700 more in escrow disbursements on average than the FSS-only group). Escrow disbursements in the bottom quartile of payments averaged less than $1,000, and the top quartile averaged more than $15,000 (Verma et al., 2017).

Graduation from the FSS program is an official measure of program success. The individual enrolled in the program, typically the head of household, must complete all the agreed-upon goals and activities listed in the ITSP, including the employment requirement. If the head of household is unable to meet the employment requirement, and there are other earners in the household, the family is not eligible to receive any accrued escrow at the time of graduation, which is a potentially limiting aspect of the escrow component for households with multiple adults. This receipt requirement applies to all

members of the household, and no member of the household may receive Temporary Assistance for Needy Families (TANF) cash assistance for the 12 months leading up to graduation. As discussed in chapter 2, some FSS programs require participants to work toward additional goals to graduate.[35] It is possible, though, for participants to graduate from the program and not receive any escrow funds. This outcome could happen for various reasons, including not having had the earned income increases that are necessary to trigger escrow accumulation.[36]

HUD also requires all FSS programs to form a Program Coordinating Committee (PCC). With referrals central to the FSS service delivery model, the intent of the PCC is to create a mechanism by which the service providers in the community can become invested in the success of the FSS program. The PCC, which operates as a collaborative, is intended to provide both guidance to the FSS program and direct services to the program's clients. The PCC usually comprises service providers that accept FSS referrals.

How Might the FSS Components Help Participants Advance?

Exhibit 1.2 offers a simplified schematic to identify the two main mechanisms by which the FSS program might help participants advance: (1) increasing the payoff through case management and referral services and (2) incentivizing work through the escrow account.

Mechanism 1. Increase the Payoff Through Case Management: Although FSS programs may vary in their service delivery approaches, they all include some dimension of goal setting, needs assessment, and referrals to services that may help participants overcome barriers to work. Typically, FSS coordinators (or case managers) work with participants (and sometimes other household members) to identify goals the participant will aim to achieve during the 5 years of program participation. During this process, they discuss the types of supports participants might need to advance toward their FSS goals, such as the following:

- Securing childcare to make balancing work and home life commitments more feasible.
- Engaging in and completing education and training to improve employment prospects and create pathways for advancement.
- Finding and maintaining stable employment.
- Establishing, repairing, or improving the participant's credit score to increase employment prospects and decrease reliance on high-cost alternative credit sources, such as pawn, automobile titles, and payday loans.

Progress along each of the above pathways would make it easier and more remunerative to work. Furthermore, some of these pathways, such as credit score improvement, may also help participants manage their financial resources and thus improve material hardship irrespective of the program's impact on employment and earnings.

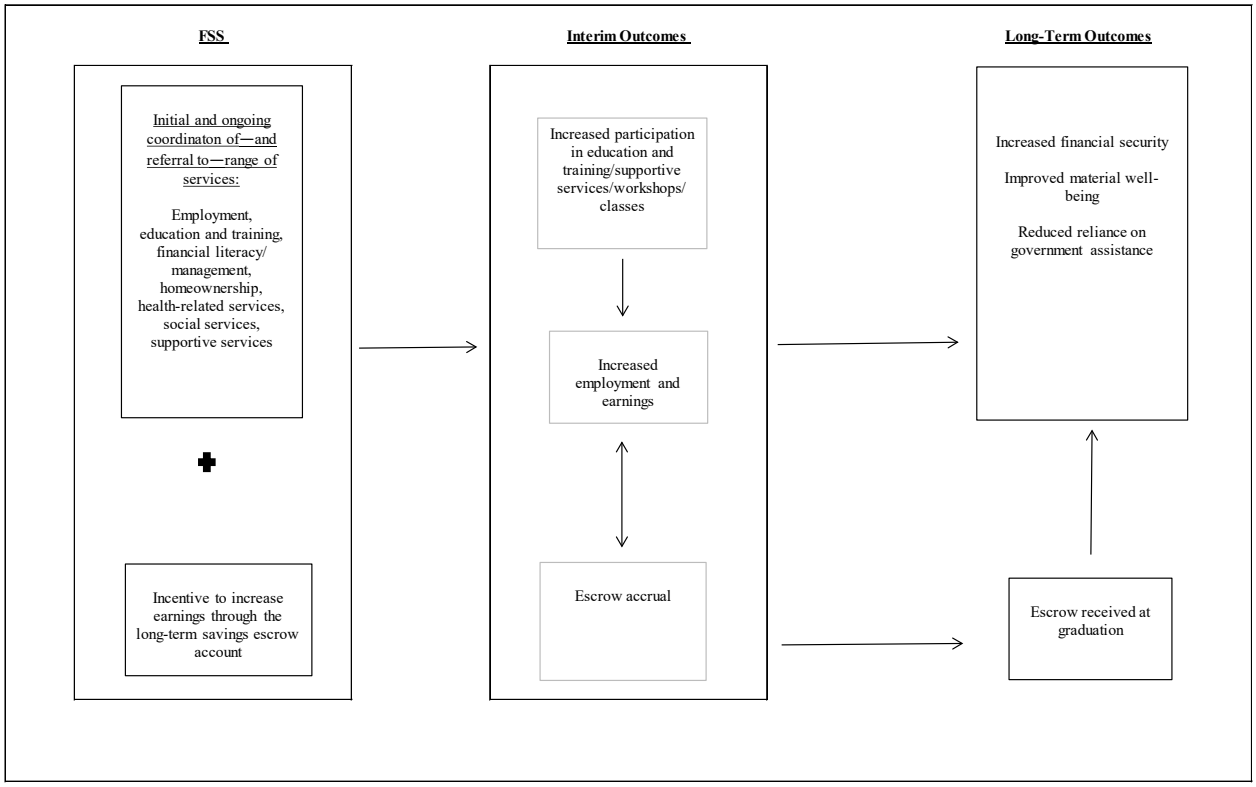
[35] This practice is not consistent with HUD regulations or guidance, and it is further discussed in chapter 2.

[36] In Work Rewards, 30 percent of FSS participants who graduated did not receive an escrow disbursement. A recent HUD analysis indicates that 63 percent of participants earn some escrow while in the program, and 47 percent of graduates earn some amount of escrow (see HUD, 2020).

Improving outcomes, such as education or credit, for example, may be difficult with a program that offers less intense case management or support (as in a "light-touch" service coordination approach, which may be less structured, require infrequent contact with staff, and lack a strong monitoring and engagement focus). In general, outcomes will depend on several factors, including the strength of the service providers (and the service providers' models) in the local community, the case management model (including the type and frequency of followup), and the capacity and willingness of the participant to follow through on a course of action. This willingness is directly targeted in other interventions that apply a more behavioral science-informed coaching approach (Guare and Dawson, 2016), but it is somewhat weakly targeted in FSS programs, given the fairly far-off possible reward of the escrow disbursement.[37] Because some of these factors vary among the housing agencies in this study, the evaluation will explore how program practices affect participant outcomes, if at all.

[37] These efforts, which focus on "executive skills"—or roughly, the capacity to plan, manage, and cope—attempt to achieve larger impacts than are typically achieved with conventional case management. MDRC's MyGoals Demonstration is testing the effects of executive skills-informed coaching and incentives on work outcomes.

Exhibit 1.2: Simplified Schematic of the Family Self-Sufficiency Program Theory of Change



Mechanism 2. Incentivizing Work by Building Escrow: As described, the escrow account is designed, in part, to counteract the disincentive effect of the implicit "tax" built into housing voucher rent rules. Specifically, 30 percent of a recipient's earnings must be contributed to rent, so 30 percent of any earnings gains are diverted to increased rent payment. This rent policy could discourage additional work by decreasing the marginal gain for any added hour of work done. It may also discourage any work effort among those participants who are not working by reducing the effective wage rate below the "reservation wage," which is the wage rate necessary to induce potential workers to enter or reenter the labor market.

The degree to which this tax on wages discourages work—or efforts to work harder or find a better job—is not well established. Consequently, it is difficult to estimate the potential impact of an FSS program and, more specifically, the impact of the escrow component that is intended to cancel out that disincentive.

Two additional aspects are to be considered: the effectiveness of escrow as an incentive and the factors that may constrain participants' responses to it. First, escrow represents an incentive to work, but it cannot be earned until participants fulfill graduation requirements, so it is a distant and uncertain reward. It may not, therefore, effectively (or completely) counteract any disincentive effect of the HCV rent rules because those costs are immediate and certain. The current structure of the escrow account was the impetus for testing more immediate, work-related cash incentives alongside the typical FSS program escrow incentive as part of the Work Rewards demonstration.

Second, FSS participants face various barriers that may limit their employment prospects and increase the cost of work (beyond the contours of the local job market and proximity to work). Like most low-income households, participants may receive multiple means-tested benefits, including Supplemental Nutrition Assistance Program (SNAP) and TANF benefits. These benefits work similarly to HCV rent rules, and uncertainty or fear about decreases in or loss of these benefits could discourage work efforts. Poor educational attainment, criminal history, and poor or no credit history may limit the types of jobs participants can qualify for and obtain, thus reducing the payoff from work or increased hours of work. Likewise, family obligations and responsibilities (such as taking care of children or loved ones with disabilities or who are sick), being sick or having disabilities, and the need to secure employment-related transportation may further discourage work or additional hours by increasing the costs associated with employment (by reducing the effective wage, potentially below zero). For some, a cost-benefit calculation of minimum wage with uncertain hours may conclude that, at least in the short run, *not* working is a better choice for the family. Thus, in isolation, housing voucher rules may constitute only a small part of the decision to not work or to not work more hours. For this reason, the previously described support services may be important components.

The National Family Self-Sufficiency Impact Evaluation

Until recently, questions about the FSS program's effectiveness had not been investigated using methods that would support unambiguous causal inferences.[38] Drawing on this conceptual framework in exhibit 1.2, the evaluation, which relies on a randomized controlled trial, assesses how FSS affects program participants' core economic mobility outcomes. In addition to looking at effects for the full sample, pooled across all study sites, the evaluation also examines the effects for certain subgroups to better understand what works best for whom. For example, the program may have larger effects for participants who are not employed at study enrollment because it is often easier for individuals to advance to higher wage jobs once they are already employed than to get a job in the first place. Given referrals to supports and services, the FSS program may also have different effects depending on a participant's barriers to work or preparation for work. Based on program theory, prior evidence, or policy interest in a given subgroup, the evaluation focuses on subgroups defined by participant characteristics at enrollment: work status and educational attainment.[39] In addition, given the variation in program implementation practices across sites, the subgroup analysis also considers program impacts for participants who are exposed to different program engagement and implementation strategies or program "types."

[38] Work Rewards was the first to use a random assignment design to test the effects of an FSS program (Nuñez, Verma, and Yang, 2015; Verma et al., 2012, 2017). Results from that study, which focused on a single site, showed that the program was effective in enrolling participants in education and training activities or linking them to financial literacy programs, but there were few gains in the range of economic and material outcomes tracked for the sample. A small quasi-experimental analysis of the Compass Working Capital FSS programs in Lynn and Cambridge, Massachusetts, showed that the Compass FSS programs were associated with an average gain in annual household earnings of $6,305 between the fourth quarter of 2010 and the first quarter of 2016 (Geyer et al., 2017).

[39] These subgroups were identified during the design stage. Additional subgroups examined are mainly considered exploratory analyses.

The evaluation relies on a combination of qualitative and quantitative data, and it considers questions related to both program implementation and impacts. Exhibit 1.3 lists the data sources central to this report and the followup period covered by each.

Exhibit 1.3: Data Sources for the Family Self-Sufficiency Study

Data	Data Period	Length of Followup
Baseline characteristics	October 2013–December 2014	At random assignment
Wage records	April 2013–December 2019	60 months (20 quarters)
FSS graduation and escrow data	October 2013–March 2020	63 months
Housing subsidy data	October 2013–December 2019	60 months
Experian and Clarity credit data	December 2012–December 2019	60 months
FSS staff interviews	March 2020–June 2020	Program Years 4 and 5

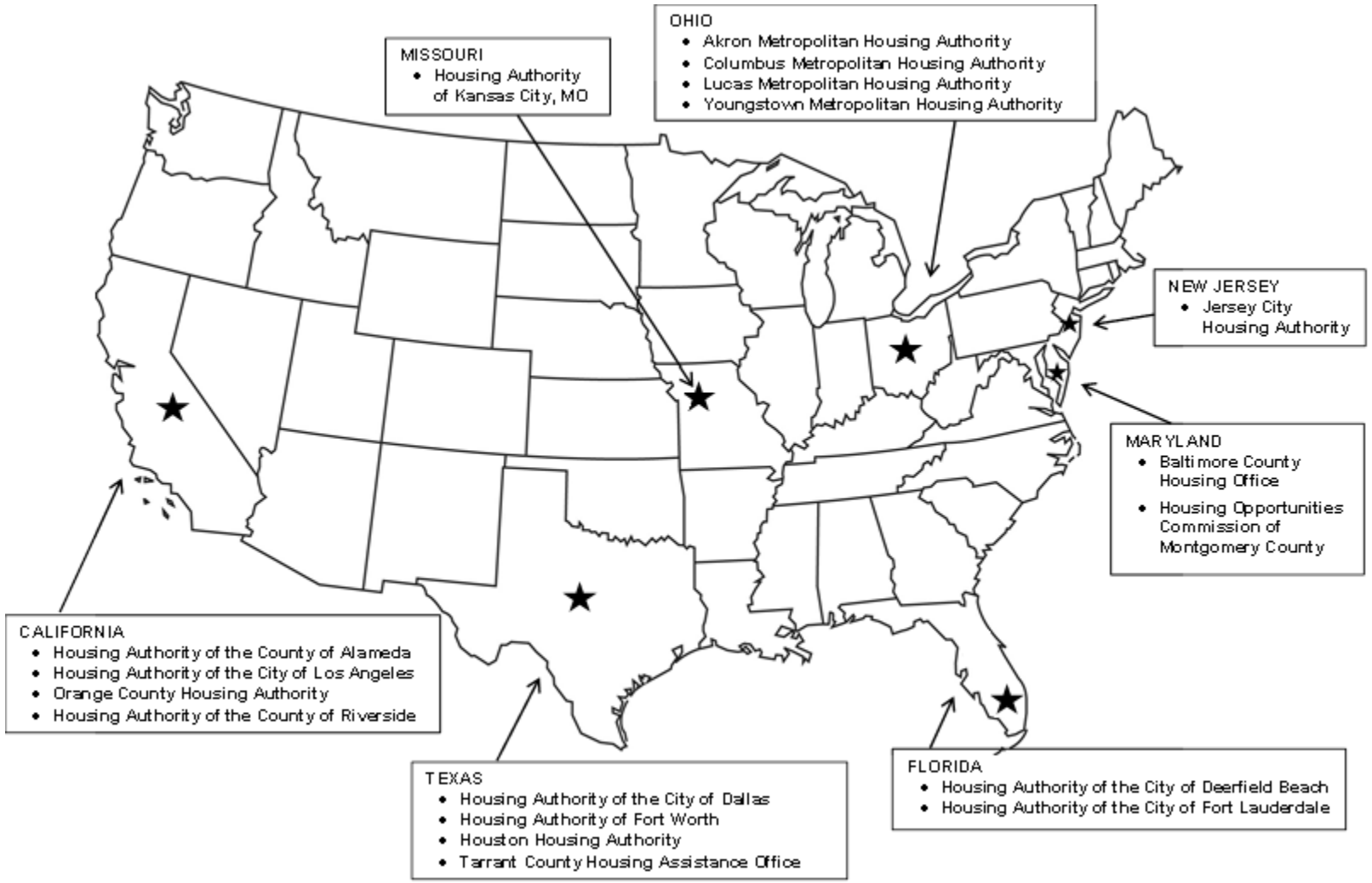
Eighteen housing authorities in seven states—California, Florida, Maryland, Missouri, New Jersey, Ohio, and Texas—were selected to participate in the FSS study (see exhibit 1.4). These sites broadly represent the contexts within which FSS programs operate: small, mid-sized, and large FSS programs and small, mid-sized, and large voucher programs.[40] Although no data were available to distinguish typical or higher quality FSS programs during site recruitment, MDRC and HUD sought to include a broad range of sites, including ones with different program sizes, staff caseloads, and case management or coordination practices.[41] Site-specific enrollments, including program and control groups, ranged from 50 to 350, reflecting varying enrollment targets based on the sizes of the existing programs.[42]

[40] See Verma et al. (2019) for site recruitment details. Site selection considered various factors, such as program size, the possibility of building clusters of sites within states, regional and local diversity, and varying program approaches. MDRC examined HUD data from 2010 to 2012, creating a list of potential sites; conducted phone followup with about 60 program administrators; visited 27 sites; and ultimately negotiated agreements with 18 sites.

[41] HUD's performance management system ranking for FSS programs was not available until 2018. The ranking system classifies 20 percent of FSS programs as high performing, 60 percent as standard, 10 percent as low, and 10 percent as troubled.

[42] Seven PHAs agreed to enroll fewer than 100 study participants, five agreed to enroll between 100 and 200, and another six agreed to enroll between 200 and 350. PHAs operating larger FSS and HCV programs agreed to larger samples.

Exhibit 1.4: Public Housing Agencies Participating in the National Family Self-Sufficiency Evaluation



The Study Sample

From October 2013 to December 2014, the 18 public housing agencies participating in the evaluation enrolled and randomly assigned 2,656 households. This figure includes a small number of households that later withdrew voluntarily from the study, or that program staff members determined to have been ineligible for FSS at their time of random assignment and removed from the study, as well as households headed by individuals 62 years or older who are not the focus of the main impact analysis. Excluding those individuals reduced the sample to 2,556. These 2,556 study participants compose the sample for the entire impact analysis in this report (or the "impact sample" in exhibits).

Exhibits 1.5 and 1.6 present sample characteristics from the baseline survey that participants completed at study enrollment. As shown, the sample is largely composed of households with children, and 76 percent of households included a minor child. Nearly 34 percent of participant households included another adult. Although labor market outcomes for other adult household members are not analyzed here, their earnings affect household subsidies and contribute to household escrow accruals; other adults may also benefit directly or indirectly from FSS case management. Approximately 70 percent of study households reported receiving SNAP benefits; 16 percent reported receiving TANF benefits. The FSS program is designed to help participants move off cash assistance, such as TANF, and reduce reliance on public assistance in general.[43] Slightly more than one-half of the sample (54.2 percent) reported having received Section 8 housing assistance for 6 years or less. About 31 percent reported having received Section 8 housing assistance for 10 years or more.

Exhibit 1.5: Baseline Characteristics of Households in the Family Self-Sufficiency Impact Sample

Characteristic	Impact Sample
Average number of household members[a]	3.2
Average number of adults in household[a]	1.5
Households with more than 1 adult (%)	33.7
Average number of children in household	1.8
Number of children in household (%)	
0	23.8
1	22.7
2	24.7
3 or more	28.8
For households with children, age of youngest child (%)	
0–2 years	20.8
3–5 years	20.4
6–12 years	41.3
13–17 years	17.5
Primary language spoken at home is English (%)	92.2

[43] The Work Rewards data suggest that more families may enter and exit the TANF system over the followup period.

Characteristic	Impact Sample
Receives TANF (%)	15.8
Receives food stamps/SNAP (%)	69.6
Length of time receiving Section 8 housing choice voucher (%)	
Less than 1 year	5.0
1–3 years	27.6
4–6 years	21.6
7–9 years	15.2
10 years or more	30.6
Total annual household income (%)	
$0	4.5
$1–$4,999	17.0
$5,000–$9,999	18.7
$10,000–$19,999	31.9
$20,000–$29,999	19.3
$30,000 or more	8.5
Payment for rent and utilities (%)	
$0	1.9
$1–$199	15.0
$200–$399	24.3
$400–$599	21.3
$600–$799	15.1
$800 or more	22.4
During the past 12 months, household experienced at least one financial hardship (%)	59.0
Not able to buy prescription drug	13.3
Not able to buy food	28.9
Not able to pay telephone bill	28.2
Not able to pay rent	18.5
Not able to pay utility bill	43.4
Sample size	2,556

[a]Maximum response option for number of adults in a household is four.

Notes: The FSS impact sample includes housing choice voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Sample sizes for specific measures may vary because of missing values. Rounding may cause slight discrepancies in calculating sums. Detail may sum to more than total for questions that allow more than one response.

Source: MDRC calculations from Baseline Information Form data

Exhibit 1.6: Baseline Characteristics of Heads of Household in the Family Self-Sufficiency Impact Sample

Characteristic	Impact Sample
Sample member characteristics	
Female (%)	90.6
Average age (years)	39
Marital status (%)	
Married, living with spouse	7.7
Married, not living with spouse	6.8
Cohabitating	1.4
Single, widowed, or divorced	84.0
Race/ethnicity (%)	
Black, non-Hispanic/Latino	73.3
Hispanic/Latino	15.8
White, non-Hispanic/Latino	6.7
Other	4.2
Education	
Highest degree or diploma earned (%)	
GED certificate	3.0
High school diploma	10.6
Some college or received technical/trade license	55.0
Associate's or 2-year college degree	10.8
4-year college or graduate degree	6.5
None of the above	14.0
Has trade license or training certificate (%)	47.0
Employment status	
Currently employed (%)	56.2
Regular job	48.4
Self-employed	4.2
Temporary or seasonal job	3.5
Currently working 35 hours or more per week (%)	30.5
Average hours worked per week	18.3
Average weekly earnings ($)	213
Barriers to employment	
Has any problem that limits work (%)	41.2
Physical health	18.8
Emotional or mental health	7.6
Childcare access or cost	17.8
Need to care for disabled household member	7.3
Previously convicted of a felony	6.3
Limited English-speaking ability (%)	3.8
Does not have access to transportation for employment (%)	

Characteristic	Impact Sample
No access to public transportation	17.8
No access to an automobile	18.2
FSS program	
Heard of escrow before random assignment (%)	44.0
Interest in FSS services related to (%)	
Job-related services	70.5
Social services	32.4
Financial services	95.5
Sample size	2,556

Notes: The FSS impact sample includes housing choice voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Sample sizes for specific measures may vary because of missing values. Rounding may cause slight discrepancies in calculating sums. Detail may sum to more than total for questions that allow more than one response.

Source: MDRC calculations from Baseline Information Form data

The sample is predominantly female (90.6 percent), with an average age of 39 years at study enrollment (see exhibit 1.6). About 41 percent of the sample reported some barrier to employment. Physical health (18.8 percent) and access to affordable childcare (17.8 percent) represented the most common difficulties. Approximately 56 percent of study participants were working at the time of study enrollment (with about 30.5 percent working full time). Work status and earnings are primary outcomes of interest for this study because FSS programs are designed to enable and encourage (more remunerative) work and because employment is one of the requirements for program graduation and access to accumulated escrow.

Overall, study households and heads of household are broadly similar to those in the FSS national population, with some notable differences.[44] Sample members are somewhat more likely to have no children present (23.8 percent in the study sample have no children versus 17.6 percent in the national FSS population). Study households are less likely to report no income (4.5 percent versus the national FSS figure of 6.5 percent) but are also less likely to report income of $30,000 or more (8.5 percent versus 13.9 percent). Sample members also report higher levels of TANF and SNAP benefit receipt than the averages for the national FSS population (15.8 percent versus 10.0 percent for TANF; 69.6 percent versus 37.5 percent for SNAP). Study sites tend to run larger housing voucher and FSS programs and spend more on rent and utilities per participant than the national population of housing agencies that run FSS programs, a consequence of the need to select sites that would allow for sample recruitment within the required 1-year window.

[44] See Verma et al. (2019). To assess whether individuals and households in the study were broadly similar to their site- and national-level counterparts, MDRC compared sample members with the broader FSS population in the study sites and with the national population of FSS participants and housing voucher holders. The team also compared the study's participating PHAs with all PHAs operating FSS programs.

Structure of This Report

The report is organized around seven chapters, with chapters 2, 3, 4, and 6 updating interim findings. Chapter 2 focuses on program strategies to keep participants engaged over the longer term, especially as they approach graduation. Chapter 3 shares the latest results on graduation and escrow disbursements and describes the characteristics of the participants who graduate and receive escrow. Chapter 4 updates the analysis of the program's effects on key labor market outcomes (employment and earnings)—assessments based on National Directory of New Hires wage records comparing average outcomes for FSS and control group members over the 5-year followup period. Chapter 5 introduces the credit analysis—a new source of data and analysis for this study—and describes credit use patterns among study participants and the FSS program's effects, if any. Chapter 6 investigates the variation in impacts and outcomes for subgroups defined by baseline individual characteristics and program features. The final chapter summarizes the essential takeaways from this longer-term assessment and describes future work on this evaluation.

Chapter 2. Program Implementation Update and Reflections

As described in chapter 1, Family Self-Sufficiency (FSS) programs incorporate case management and goal setting, referrals to services, and escrow accounts. The FSS framework provides public housing agencies (PHAs) with considerable leeway in setting local policies, approaches, and staffing arrangements that influence how the programs work with FSS participants to build assets and work toward self-sufficiency. In addition to variations in program operations across PHAs, changes in HUD policies and guidance provide an important context for understanding how these programs work to support participants.

A previous report, which focused on FSS policies and practices about midway through the program's 5 years, provided an overview of how the programs had changed since the study began, how they were working with participants who were a little more than midway through the 5-year program, and programs' strategies for keeping participants engaged. This chapter highlights major changes reported by staff in their FSS program policies and practices since the last update and focuses on case management approaches, especially as participants enter the last year or 2 of their 5-year contracts. The chapter also takes a closer look at the Program Coordinating Committees (PCCs), a central component of the FSS framework, and their role in supporting the service needs of FSS program participants. The chapter also describes staff members' understanding of HUD's proposed performance measurement system and their reflections on their programs' successes, challenges, and best practices.

Data Sources and Followup Period

For the final round of interviews with program staff, the MDRC evaluation team used structured interview protocols, which covered topics including updates on policy and practice, case management in participants' final years of FSS, service referrals and the role of the PCC, and staff member reflections on their FSS programs. Between March and June 2020, the evaluation team conducted these interviews with program staff members at 17 of the 18 FSS study sites that continued to participate in the long-term evaluation.[45] The first of these interviews, held in person in mid-March 2020, occurred just as the COVID-19 pandemic was accelerating across the United States and immediately before many states began to implement stay-at-home orders. The remaining visits to FSS study sites were canceled as a result, and all remaining interviews were conducted by phone or video calls. Program supervisors across all 17 participating FSS sites were interviewed, as well as up to two case managers from each of eight of the sites. This final round of interviews occurred shortly after the last FSS study participants were expected to have completed their 5-year contracts.[46]

[45] The Housing Authority of the City of Los Angeles, one of the original FSS study sites, declined to participate in HUD's extension of the evaluation.

[46] The last enrolled sample member had a December 22, 2019 contract end date. As noted later in this report, some FSS study participants that were expected to complete their 5-year contracts in this period may have received an extension.

Program Practice and Policy Updates

For the most part, program policies and practices across the FSS study sites remained largely unchanged in the last few years.[47] A few notable exceptions are discussed in this section.

Staffing and Caseloads

Staffing configurations remained relatively stable since the 2018 research interviews, although some sites experienced considerable staff turnover: eight sites had the same number of case managers in 2020; four sites added one or two new case managers;[48] one site was funded for three fewer case managers; and four sites had unfilled positions and were therefore short staffed, with higher caseloads. One of these sites characterized their caseloads as including roughly 25 percent of individuals who would likely make progress toward their goals even without FSS, 25 percent who would likely not make progress no matter what the case managers do, and 50 percent "in the middle," who could really be helped by the program. These case managers tended to focus most of their energy on the middle 50 percent, especially given their large caseloads. Other sites described similar caseload characteristics. Caseload sizes ranged from 27 at the smallest site to roughly 150 at the largest.[49] FSS staff members continued to have the same mix of functions they reported in the previous round of research, with some programs using FSS-funded staff solely to work on FSS-related functions and other programs using FSS staff to also handle HCV functions for FSS participants.[50]

Interim Escrow Disbursements

FSS programs may allow participants to receive a portion of their escrow funds before graduation to help the family accomplish its goals. All but one of the FSS programs in the national evaluation that participated in the 2020 round of data collection allow participants to receive a portion of the funds in their escrow account early (for example, prior to graduation). This represents a slight increase in the number of programs allowing interim disbursements. In 2018, three programs did not allow early escrow withdrawals. Program policies vary in terms of how many times a participant can request an interim disbursement and what percentage of their escrow balance they can request; most programs limit the request to 25 percent or 50 percent of the balance. Some FSS programs use the disbursement as a last resort only when other available funds for goal-related issues such as car repair, books, and uniforms are exhausted. Since 2018, several programs have increased the limits on the maximum

[47] See appendix A.

[48] HUD funds the FSS programs each year through the annual FSS Notice of Funding Availability (NOFA). Funding is limited to the amount appropriated by Congress. Housing agencies must apply for this funding on an annual basis. Staff positions are funded according to program size. For example, the 2019 NOFA stated, "As in prior years, eligibility for funding will be based on the number of FSS program participants in your entire FSS program during the target period, according to a formula that requires 15–24 families to support one part-time position, 25 families to support one full-time position, and an additional 50 families to support each additional position beyond the first full-time position (75 families for two full-time positions, 125 families for three full-time positions, etc.)." Furthermore, the NOFA states, "While this NOFA requires at least 25 FSS participants to qualify for one full-time FSS Coordinator position, grantees are encouraged to serve at least 50 FSS participants per full-time coordinator position." (See HUD, 2019.)

[49] This number does not include instances in which unfilled positions effectively increased caseloads.

[50] A couple of these sites split the responsibilities, with some staff handling only FSS case management functions and the other(s) handling HCV functions.

amounts, number of withdrawals, or both that participants can receive. One program relaxed its policy after losing funding used for stipends and incentive payments by removing its previous limit of one withdrawal. However, as discussed later in this report, few participants actually received interim disbursements despite the more generous policies adopted in recent years.

Requirements for Graduation

Interviews with FSS staff members revealed a tension many felt between their wanting participants to graduate and wanting to prepare them to be financially self-sufficient. As noted in the FSS Year 3 evaluation report, most FSS programs in the study had added specific employment-related graduation requirements. In 2018, two sites accepted any employment to satisfy graduation requirements. The rest, according to program staff members, set the bar higher. Some sites specified the hours of weekly employment required to graduate (such as 30 or 32 hours per week), and some required 6 or 12 months of continuous employment to graduate. Ten sites specified a rate of pay (for example, wages that are "sustainable"), and two required people who were employed at enrollment to increase their income. The rationale for adding graduation requirements, beyond HUD's specifications that a participant had to be employed and receive no public assistance for 12 months at the time of graduation, was that staff members wanted participants to be able to support their families financially, or at least be close to doing so, at the time of graduation.

Since 2018, the majority of sites have eliminated additional employment requirements beyond those set by HUD.[51] Four sites continue to use extra requirements for determining graduation eligibility, which are included in their HUD-approved Action Plans. Even where the additional requirements have been eliminated, FSS staff members encourage participants to reach for that higher bar—it is just not codified in their Individual Training and Services Plans (ITSPs). Among the sites that do not set additional employment requirements across the board, some count any employment as sufficient for meeting graduation requirements; others review each case before allowing the person to graduate. At one such site, staff members required participants to obtain "decent" jobs that they defined as having an opportunity for growth. Staff at some sites expressed an understanding that extra requirements could limit the number of graduations, but they also recognized that if participants are to become financially stable and independent, then they need to earn a certain amount.

All sites continue to allow participants to change their goals within different time periods before the end of the contract. This change is typically allowed until 6 to 12 months before the contract ends, but at two sites, not later than 2.5 to 3 years after starting the program. Many sites required the participant's field of employment at the time of graduation to match what was written on the ITSP—*if* it was written on the ITSP. To prevent this stipulation from becoming a barrier to graduating, many sites left the field of employment unspecified on the ITSP. Other staff members indicated that FSS case managers

[51] See Code of Federal Regulations, 1996. "Determination of suitable employment. A determination of suitable employment shall be made by the PHA based on the skills, education, and job training of the individual that has been designated the head of the FSS family, and based on the available job opportunities within the jurisdiction served by the PHA." The FY19 NOFA adds that "PHAs shall not require or define a certain number of hours, tenure of employment or rate of pay as 'suitable' for all FSS participants to adhere to."

discussed employment goals and career interests at each regular FSS check-in and indicated to participants the need to change the ITSP as their employment goals and situations changed.

A New FSS Performance Measurement System

One change since the last round of site visits, which could eventually affect FSS program practices, was HUD's introduction of a new program performance measurement system. In November 2018, HUD released a new method for rating FSS programs, using a "composite score."[52] HUD expects to use the new system to help identify best practices and the need for technical assistance. Guidance provided by HUD in April 2019 stated, "In the future, HUD will likely consider the FSS performance score of an FSS program in determining FSS funding awards."

In the 2020 interviews, the evaluation team discussed HUD's new performance system and asked supervisors whether there were shifts (or an expectation about forthcoming changes) in program policies or case management practices to achieve favorable ratings on HUD's new composite measure. Understanding these changes also helps the evaluation explain how, if at all, the federal ranking system changed the program experience for study participants. As of early 2020, FSS programs had not yet made significant changes to their operations as a result of the new system, but there were some adjustments in policies and practices. The biggest change occurred at one site that ended its requirement that participants earn enough to become "zero HAP" (that is, to no longer receive any housing assistance payments) as a condition of graduation. Staff members acknowledged that their new policy aligns with most other FSS programs by allowing someone to graduate who will still be receiving HCV assistance. Other FSS programs also made changes to their graduation policies, and although in some cases the purpose for the change was to align these policies with HUD guidelines, as discussed previously, the changes also served to increase graduation rates.[53] By relaxing the requirement that participants have a full-time job or work a certain number of hours per week, more participants would qualify to graduate. In addition, to boost programs' participation rates, a few sites planned to increase enrollment—one of the factors in the composite score.

The emphasis on earnings increases in the composite score has led a few programs to shift the focus of their work with participants. Staff members in these sites reported that they would need to place less emphasis on education goals and move toward more of a "work-first" approach, helping participants find a job quickly. Staff at one site said they would shift their focus away from homeownership and instead concentrate on getting participants into jobs and graduating them as quickly as possible. Staff members raised concerns that the changes meant to increase sites' composite scores could do a disservice to participants in the longer term. If the focus of FSS programs were to shift to getting participants employed as quickly as possible, staff members would not be able to pay as much attention to helping participants find higher paying jobs or get the education and skills needed to obtain better

[52] The new FSS Performance Measurement System includes three parts: changes in earnings from the time participants join an FSS program, graduation rates, and participation rates (see HUD, 2018).

[53] In some cases, these changes were made when sites learned that such policies were not allowed by HUD, not necessarily as a response to the new performance system.

jobs. This shift in focus would also mean that job quality and whether or not jobs come with benefits (e.g., paid sick leave) would not be taken into account.

One site instituted different rules for FSS participants to count income increases between annual recertifications for FSS participants but not for other voucher holders. This policy was an effort to capture earnings increases for FSS participants more quickly.[54]

So far, not all housing agencies have made or are planning to make changes in response to the new measures. Many noted they are "already doing what they should be doing" in terms of helping participants find employment and raise their earnings. Staff members noted they already focused on finding jobs for the unemployed, such as increasing contact with case managers for this group and requiring the unemployed to attend a monthly job club. A few said that changes might still be forthcoming.

The new performance system was introduced toward the end of the FSS contract period for the study participants. Efforts to boost enrollment and focus on employment came too late to influence the experience for FSS participants in the period covered in this report. Over the long term, more participants may graduate in the sites that brought their graduation requirements in compliance with program rules.

Case Management in the Final Years of the FSS Contract

For the final round of field research, examining case management practices as participants neared the end of their time in the FSS program was of particular interest. As noted in earlier reports from this evaluation, there are differences across sites in the scope, time horizon, and specificity of goals as they are laid out on the ITSP; the specific strategies staff members use to keep participants engaged and motivated over the 5 years; how frequently case managers meet and talk with participants; and the strength of the connections and relationships with service providers in the community. This section looks at case management practices at the study sites, focusing on Years 4 and 5.

Final Push in Years 4 and 5

The frequency with which staff members were expected to reach out to participants did not change significantly as participants approached Year 5.[55] Most continued to mandate quarterly contact at a minimum, and all except one still required at least one annual in-person meeting.[56]

The FSS programs in the evaluation did not hold additional meetings specifically to review goals or to prepare participants for graduation. The annual meetings that occurred about 1 year before the end of

[54] In 2018, most sites were counting income increases between recertifications, whereas a handful of sites waited until the next annual recertification. Two sites that waited until the next annual recertification did allow FSS participants to request that it take effect in order to earn escrow.

[55] Although contact expectations had not changed, caseload sizes had changed. About one-third of the sites experienced a decline in caseloads, one-third experienced an increase, and the remaining were about the same.

[56] As in previous interviews, supervisors and case managers at nearly all sites said line staff contacted unemployed participants more often than employed participants, with some sites requiring monthly contact for unemployed participants. Communication with employed participants is less likely to occur in person (because they do not want participants to miss work to attend an in-person meeting).

the contract were often used to remind participants that they were getting close to the end of their contract and to urge them to complete any of their remaining goals.

Also, about 1 year before the end of the contract, a small number of sites sent official notification of the contract end date by mail. These letters put in writing the date by which all goals must be completed for participants to graduate and earn their escrow.

At the regularly scheduled annual or quarterly meetings, case managers continued to review participants' goals and assess whether they were "on track" to graduate. In the two sites that updated participants' goals annually, case managers focused on the final set of goals. Throughout the last year, FSS staff members made a final push to keep participants on track, and the process of reviewing goals and adjusting plans intensified. At some sites, this process began in the fourth year. As one staff member said:

> [At the] start of Year 4, I remind them, "You've got a couple of years left. Here's what you've accomplished." We want to take full advantage of the last 2 years.

The timing of the final push varied by the housing agencies' rules for how close to the contract end date changes could be made to the ITSP, whether graduation before Year 5 was encouraged or expected, and individual participants' progress in completing their goals. At one site, where participants must be employed for 12 months before the end of the contract, case managers said they take stock in the middle of the fourth year to figure out how the remaining goals can be achieved in the next year and a half. If participants at these sites are not employed at the start of the fifth year, it is apparent that they will not meet the graduation requirements; in that case, case managers will discuss with participants their status in terms of graduation and may suggest that they apply for an extension. One case manager reported:

> Fifth year is usually just waiting. As soon as they've done their training and start employment in their field of training—I set a clock and tell them they have 1 year, and I'll graduate them.

Although official contact expectations did not change throughout the program, numerous staff members reported higher engagement toward the end. Staff members from several sites noted that they try to keep in touch more frequently during a participant's final year in FSS. One case manager requested participants to maintain monthly contact in the last year (an increase from the expected quarterly contact frequency), an expectation specified on the ITSP.

Increased contacts in the final year were not spread uniformly across the caseload. Some staff members reported spending *more* time with those individuals they thought were likely to graduate. To some extent, according to staff members, this is because the participants call more often, wanting to make sure they are not missing anything or wanting reassurance. The paperwork and documentation requirements also led to additional contact.

Other staff members said the opposite—that they spend *less* time with the individuals who are likely to graduate because they are more independent. These staff members reported that those not on track took more time as they continued working with them to remove barriers. A staff member who focused more on participants who did not seem to be on track to graduate said:

> I don't want them to see it as a failure or another failure. So, I still encourage them and try to keep them focused on what they can do with the time left.

Working with Participants Not Likely to Graduate

If participants were not on track to complete all goals by the end of the contract period, case managers talked to them, reminded them of the terms and conditions of the contract, and explained options. To the extent allowed by housing agency policy, FSS programs continued helping participants meet the graduation requirements by allowing participants to update their goals on the ITSP, usually up until 6 months or 1 year before their expected FSS program graduation date.[57] FSS staff members also discussed the possibility of an extension, and they explained that the individual must have extenuating circumstances and that granting extensions is not guaranteed. The last option is to close the case or ask if the participant wants to leave the program voluntarily.

In discussing reasons that clients failed to make progress or left the FSS program, case managers lamented that when difficulties arose in their lives, participants withdrew instead of asking for help:

> Instead of calling us for help, they give up on the program until they're in a better mental state. To motivate clients, sometimes we have more personal conversations of what's going on in their lives.

Some FSS programs terminate inactive participants. The make-up of the caseload reaching the final year of the program will vary depending on the extent to which the site terminates for lack of contact or encourages participants to voluntarily withdraw if they are not making progress toward their goals.

> Usually, when they get to Year 4, there's a pretty good chance that they'll graduate.

Balancing Accountability and Self-Reliance

Staff members' responses to questions about how communication with participants has changed over time reveal how staff members work to balance participants' feelings of accountability toward their case managers with behaviors that demonstrate self-reliance. Throughout the 5 years of the program, staff members from sites with lower contact expectations stressed how they allow participants to drive their experiences in the program and that they put the emphasis on self-reliance. Staff members who were expected to make more frequent contact focused on their role in creating accountability for participants. At sites with monthly contact expectations, where case managers and participants develop strong relationships, staff members describe contacts intentionally changing in content or decreasing in frequency to allow and account for participants' increasing independence. The type of case management fluctuates and flows differently over the course of the program. Participants may start out needing serious intensive case management, and by Year 3, case managers can step back—even if they continue to check in regularly.

[57] One FSS program required all participants who did not have a high school diploma to earn a high school General Educational Development (GED) credential in order to graduate. They did not allow participants to drop this goal. In contrast, staff members at another program noted that participants could change their educational goals toward the end because "the main thing is that they are working."

> We want to give you the resources for you to go out there and feel you can do it and need us less each time.

The contact with employed participants differed and was more along the lines of signaling staff members' availability to help if needed. For example, "Hey, how are you doing? Just checking to see if you need anything?"

Graduation

Some participants complete all their goals and graduate early, and others take the entire 5 years or may need an extension. Much of the difference in timing is based on individual participants and how quickly they progress and complete their goals, but some reflected a difference in approach across the FSS programs. For example, staff members at a few sites said they allowed or even encouraged participants to set new goals and keep earning escrow. The others were more likely to encourage early graduation. In one site that indicated most of its graduates complete the program before 5 years, the supervisor noted:

> If a client completes all goals, we graduate them. We don't just encourage them, we graduate them. If they completed their goals, they're free of cash assistance and they're employed, then they will be scheduled to graduate at that time.

The process for identifying who is ready for graduation can vary. Sometimes, case managers see that a participant has met all goals and will prepare the participant for graduation. In some cases, the participants know, and they bring it up first. Roughly 2 months before the contract end date, the case manager begins the final paperwork and verification, such as proof of employment (such as paystubs) and documentation that all goals have been achieved. A few supervisors reported spending considerable time reviewing verification and paperwork for graduation.

Only one site set an annual goal for the number of graduates per case manager: each case manager was expected to have at least 10 participants graduate each year. This goal was a minimum requirement, and usually the number was higher (caseloads averaged about 80–90). Staff members at a few sites mentioned holding a graduation ceremony to celebrate the graduates.

> We have a huge graduation. It's very nice. It's done with our other graduations of the agency. So they're recognized. Like last year, the mayor of [city] came and did the keynote. We've had congressmen—we have a huge graduation. …There's music, there's food, it's catered, it's dress nice, it's just a very formal kind of graduation. And for a lot of our families, they've never had a graduation of any kind. So they do testimonials, we invite HUD officials to come and other officials, so it's a big deal, the graduation. Yeah, they know about it. They hear about it. Usually the whole neighborhood knows about it because right after graduation we get a huge jump of people wanting to join the program. So we've got a lot of people calling to get on the waitlist.

Although this section has focused on case management practices and policies, the services provided through case management in FSS programs largely depend on referrals. The next section discusses service referrals—a key component of the FSS model.

Service Referrals and the Role of the Program Coordinating Committee

In previous rounds of staff interviews, the Program Coordinating Committee (PCC) and provision of services were often discussed. In this latest round of interviews, the team delved more deeply into the PCC, its role in FSS programs, and staff members' reflections on its value.

Referrals to services in the community are central to the FSS program model. Nearly all study sites have a PCC (a collaborative group of service providers), a requirement of the program. In larger urban areas, some PCCs are countywide, serving multiple housing agencies. Some housing agencies invite all of their primary service referral providers to join the PCC; in others, the PCC members include a subset of referral partners.

HUD encourages sites to think broadly about the PCCs' roles, including aligning and coordinating services, contributing to the FSS Action Plan and helping guide its implementation, sharing best practices, and joint fundraising or advocacy activities (HUD, 2017a). Among the study sites, PCCs typically met several times a year (these meetings included FSS program staff members) and focused on service coordination by providing updates about community programs and services. Across the board, the primary value attributed to the PCC was that it enabled FSS staff members to stay connected to, and network with, service providers.

As far as using the PCC in other ways, one site said they brought participant issues to the PCC for guidance "maybe once or twice in the last 3 years." Another housing agency has PCC members evaluate FSS program applicants for its scholarship fund and revolving loan fund opportunities.

Personal connections at the service providers appear to help participants move more quickly through the provider's intake process and, in some cases, can expedite service delivery. Some FSS staff members mentioned that these types of relationships help them when, for example, the workforce agency has job listings or someone else on the PCC lets them know of a new program or opportunity.

> When we need to access a resource, it's really nice to have that contact person. So if we have somebody at Catholic Charities or we have somebody that we know, they may send us an email and say, "Hey, we have utility assistance now, we have money, the money came in, send your clients now." Or I have somebody who called and they don't have food, be able to know who to call. And yeah, they can come and pick up a bag of groceries tomorrow. Or have somebody that I can call and they can say we can squeeze them into this appointment. …And you can streamline some of the processes that clients don't like to go through when they're at a new agency. You can prepare them for what to expect.

Most staff members value the PCC and consider it critical to the program. Only one supervisor was not quite as positive, saying the PCC was not necessarily essential for participants to succeed because case managers could refer participants to non-PCC organizations for services.

FSS staff members appear to be satisfied with the organizations represented on the PCCs and the way they interacted with the FSS program, and they did not recommend any significant changes. A few wanted more diversity in the types of partners or ways to get partners more engaged in the collaborative effort.

> Right now, the way it is, is we have our meetings and different representatives from each agency; they come and usually they just disseminate a lot of information about some of the services that they already have and some upcoming services or workshops or anything like that. I would like to see more interaction as far as how they're connecting with our participants. So we're looking into trying to have … the meetings be geared more towards the [case managers] bringing different situations that the participants have or different participants say and just say, hey, I have this participant who is in need of X, Y, Z. And then just bringing those issues to the PCC meetings to have the members, they—oh well, here is a viable resource for them. And then maybe spend less time just disseminating information.

One site indicated that their PCC included a number of organizations connected to homeownership, but with the increased focus on employment as a result of the new performance metrics, they were looking for more employment and financial literacy services. At most sites, workforce development agencies and other employment services were longtime members of the PCC or were among the agencies receiving the most referrals from FSS programs. Case managers commonly referred participants to other services, including financial coaching/budgeting, credit, preemployment training, education and workforce training, help with utilities, social service assistance, and homebuyer education programs.

Childcare and transportation were the primary gaps in services mentioned by staff members at multiple sites.[58] PCC partners that can help in these areas were considered particularly valuable.

> One of our partners is [childcare organization]. So whenever there's funding available for childcare, then we know if they're on the list—right now we're doing January 2020, so they can apply now, and how quickly they're going through the list or if funding has been stopped. So it's very beneficial for us. Every agency that we have serves a purpose. Even with transportation. You know, Catholic Charities has a little bus service, and we're updated on all of that.

Although the PCCs often facilitated participants' access to services, the quality of those services and the degree to which they met participants' needs were largely outside the purview of the FSS program.

If they became aware of any issues with services, FSS staff members said they reached out to the PCC and the agency to get their perspectives and see if the issues could be addressed. In cases in which the issues continued, one recourse was to stop referring participants to the agency.

Staff Reflections

As part of the final round of interviews with FSS program staff, the evaluation team asked staff to reflect on various aspects of the program, including the features of the model, the types of participants who seem to benefit most and least from the FSS program, and promising practices in their FSS program. These reflections can be instructive as HUD and other FSS programs consider policies and guidance that might be helpful to program staff members.

[58] Homebuyer education classes and dental services were other service gaps mentioned in interviews.

Escrow Incentive

Supervisors and case managers reflected on the value of the escrow incentive, how they promote it, and how it could become a more effective incentive. From their perspective, escrow is a primary reason that many voucher holders join the FSS program. Beyond drawing people to the program, FSS staff members considered escrow integral to the program and valued its motivational influence. Although all staff members appreciated the opportunity for participants to build assets, they differed as to the extent of its importance. To some, escrow was credited with increasing employment and goal completion because they believe "escrow is the number-one motivator"; "it's what they are working for."

> FSS without escrow—it would be just like regular Section 8. Why would you join? Just for the resources and supportive services? There are agencies in the community that are helping people.

To others, escrow was important but not the main motivating factor for participants' engagement: "If that were the case, we'd have more graduates and fewer terminations." Some staff members pointed to cases in which participants had a lot of money in escrow yet remained unmotivated and did not progress toward their goals. Finally, some staff members believed that "motivation is more powerful when it comes from something more personal"; that is, individuals' motivations for action come from the satisfaction of moving forward in terms of employment or other goals rather than just accumulating a pot of money.

> Some don't want to know exactly how much in escrow they have. They're working for the satisfaction of self-accomplishment. It [escrow] is a big incentive, but they don't necessarily focus on that.

Beyond sending an annual escrow statement, FSS staff members have considerable latitude in what they say about escrow and how often they talk about it. A number of case managers said they look up an individual's escrow balance before each check-in meeting. One case manager said that although they may not mention the actual amount, they work the fact that the participant has escrow into the conversation. Others, however, said they only bring up the topic when participants have questions or ask for their balance. Case managers acknowledged that not all participants were equally motivated by escrow, and they adjusted their communication based on how individual participants reacted to the escrow incentive.

> I've seen where it goes both ways, where people don't care about the escrow at all, and then I've seen where people have stayed in FSS because—strictly because of the escrow… they have pushed harder towards their goals once they see how much they have in escrow, or they've kept on to a job because they see—you know, I've been able to convince them to keep onto a job because they see how much they have in escrow.

A few staff members mentioned that, although they typically do not use escrow as a motivational tool, escrow played a bigger role toward the end or when a participant was thinking of dropping out.

> If I can use escrow as a motivational tool in the final year—I do. I don't really harp on "you have this much, you need to do it so you can get this" until the last year, and I see they might not make it. If there's a chance—whatever I can do to motivate them at that point in time.

Isolating and assessing the influence of the escrow incentive is difficult. Staff members noticed that its motivational value increased as people started accumulating funds, and their balances grew. The incentive seemed to provide additional encouragement for those already making progress (versus causing participants to find new employment to begin earning escrow).

> And when they start to get these statements yearly, it becomes a very like oh, it says I've got $2,000.00 … on it. Oh, my gosh. I said yeah, just imagine how much you're going to get when you keep working and keep going. And I'm like, and it's not taxed and it's your money. We don't count it, and da-da-da-da-da. Really? It's my money? I can do whatever? Yes, you can.

The fact that the escrow account does not change participants' current financial realities weakens its influence because it is distant, and one is not guaranteed to receive it.

> It's too far of a goal, takes too long to accomplish, so then they don't—they say I don't need it, I can survive, it's not worth the headache.

The message staff members sent—and, importantly, that participants heard—about whether the escrow funds "belong" to the participant was murky. According to staff members, some participants worried there was a catch, or they did not really believe the government would give them the money.

> They have the thought that, "This is not my money anyway, so I'm not gonna even get my hopes up about getting it. This is not my money." That's how they feel.

On the other hand, some participants feel the escrow *is* theirs and become upset that they cannot use it to pay bills.

> They've (the case managers) gotten calls that say, "I can't pay my rent this month—can I go into my escrow?" A lot of them (participants) feel that the escrow is their money…and then they feel, "If that's not what the escrow is for, then the program isn't doing anything for me."

One staff member noted that participants have what she called a "day-to-day mentality," meaning that they were only thinking about what was happening at that moment. For many participants, the reality was that when they earned more, the extra money was taken away in lost benefits and increased rent, without giving them a chance to catch up on bills. One of the questions about the value of escrow as an incentive was whether participants understood the rules around escrow. Despite staff members' repeated explanations and reminders, there may have been a disconnect in terms of understanding that they would only get the escrow funds upon graduation from the program.

> No matter how many times we bring it up and send them letters, I think there are some who don't understand.

There are strategies for making the escrow incentive feel more "real" to participants. One such strategy was to provide interim disbursements (discussed below), and a second was to invite current FSS participants to the graduation ceremony to watch people getting their checks.

When pressed, the majority of interviewees said it would be better to run a service-oriented FSS program than an escrow-oriented program. FSS staff members believe that although escrow may be a

valuable motivator, achieving educational, employment, and financial services goals does more to help individuals gain confidence and direction and move them toward self-sufficiency over the long term.

Interim Disbursements

As noted previously, FSS programs may allow participants to receive a portion of their escrow funds before graduation to help the family accomplish its goals. Based on data analyzed for this evaluation, interim disbursements are rare; in 2018, less than 4 percent of study participants received one. Interviews in 2020 explored how staff members viewed and used interim disbursements and aimed to uncover why this aspect of FSS programs was not used more fully.

In theory, FSS program staff members believed that granting interim disbursements would help keep participants engaged by removing barriers to meeting goals. Staff members from sites that did provide interim disbursements said they saw a direct relationship between participants receiving one and successfully graduating, especially when the disbursement was used to gain or maintain employment—such as by purchasing or repairing a car that enabled a participant to get to work. One site recently relaxed its disbursement policy by allowing participants to use escrow disbursements for car repair upon receiving guidance from HUD that this was an allowable use.

Beyond bringing participants closer to achieving a goal, disbursements make the escrow benefit seem "real" to the participant. According to one staff member, it's "as if a light bulb goes off and they can see that that escrow is there to be utilized as a means to help move them forward."

> I think it's really effective. Especially when they're able to request funds and be able to utilize those funds, what we've disbursed to them, to apply it towards something in reality. And they see like okay, I do this, then this happens, kind of like that whole rewards system. And that gets very effective. Because otherwise, where else would they get this money from?

Not all staff members, though, held that interim disbursements led to successful outcomes. One case manager shared the experience of a participant who had the opposite reaction to receiving an interim disbursement; that participant's attitude was:

> Let me just get 50 percent of what I have in my escrow account. Then I'm just gonna not show up or not do anything.

Despite positive views about the benefits of interim disbursements, the final round of interviews confirmed the earlier finding that few participants received one. At many sites, staff members said there were fewer than five per year; they were more frequent (estimated at around 10–20 per year) in a few other, not necessarily larger, sites. A variety of factors contributed to this pattern.[59] One was that this program feature was not routinely publicized or talked about during check-in meetings. Case managers expected participants to remember from their FSS orientation years earlier and request a disbursement if they needed one, or case managers brought it up when participants spoke about specific issues (such as car trouble making it difficult to get to work). Another factor was a preference for participants to hold onto their escrow and accrue as much as possible. Before allowing a disbursement, staff members worked

[59] We do not have information about the number of disbursements that were requested and/or denied.

with participants to find alternative sources of funds to meet their needs, using escrow only as a last resort. A few sites used their own scholarships or stipends before turning to escrow.

> So, they (case managers) do kind of walk through: is this really a need, is this something that you could take care of yourself without doing your withdrawal to ensure that if you actually did need a disbursement for some higher level reason, you still had access to it for that year?

Although some staff members did encourage the use of interim escrow disbursements so that participants could more easily meet their goals and graduate, other staff members expressed that using the escrow in this way did not encourage self-sufficiency because participants will not always have a pot of funds (like the escrow) to dip into for emergencies. Those staff members felt that FSS participants needed to learn how to save funds independently and not rely on interim escrow disbursements.

Who Benefits from FSS?

Staff members were asked about the types of participants that benefited from the FSS program. FSS programs do not have a set schedule or prescribed path, so participants have to work independently and stay committed to their goals. Staff members believe that those who put forth more effort, who really want to move toward self-sufficiency (ascribed to a participant who makes progress), benefit the most from FSS programs. A few staff members found that those who were already on the path toward self-sufficiency when they joined the program (for example, they were employed at the time they started the FSS program) or had already taken steps (such as enrolled in education or training) were the most likely to succeed.

Other staff members remarked that those who needed and wanted education, who needed more coaching, and who would not have made progress on their own, benefited the most from FSS programs. Some staff members focused on escrow, reporting that those with no earned income or lower starting incomes have the most to gain through the escrow component of the program.

Staff members also reflected on which participants did not benefit from FSS programs. Their responses mainly touched on those for whom employment was either not possible or hard to achieve, such as the disabled and those with a criminal background. Lack of support and encouragement from one's family was another factor cited:

> If you have everybody who's constantly against you and you don't have any support, it doesn't, you know, referring all you want (won't help). Unless you're someone who's motivated and able to overcome these obstacles, it's gonna be hard.

Promising Practices

Staff members reflected on the program practices that they thought worked best to keep participants engaged and making progress toward their goals, offering some recommendations to strengthen the FSS program. These reflections and recommendations span the FSS programs' core components and reflect a range of experiences and observations across FSS study sites.

Frequent and in-person contact. Staff members reflected on the importance of more frequent contact. One case manager noted, "The basic fundamental thing we do is communication" as a reason for believing that their monthly contact is the practice they think works best and could be replicated elsewhere. Staff members at another site referred to frequent face-to-face contact as a means to ensure open lines of communication, and another mentioned conducting home visits. To replicate this, programs could require more of a hands-on approach, with set expectations for frequent contact.

Set short-term goals. Staff members at several sites made a direct connection between how they set and monitor goals and participants' confidence and progress. One strategy involved setting shorter-term goals and having participants set new goals every year. These staff members did not allow goals to keep rolling over from one year to another without seeing progress. Fragmenting long-term goals into smaller steps on the ITSP was another strategy. Case managers said not to assume that "someone knows how to fill in the blanks," so being specific with how to accomplish each step was essential. HUD could suggest that FSS programs guide participants to set short-term goals—perhaps a set of goals for each year.

Build rapport between staff members and participants. Several supervisors mentioned the commitment of their staff members, how well they worked as a team, and their ability to develop rapport with participants as their program's best feature. The importance of developing relationships so that participants open up and tell case managers about things going on in their lives was mentioned by staff members at several sites.

> I've also learned not to give up really quick because you might just be dealing with them at a bad time. It might be a bad month. It might be a bad quarter. It might even be a bad year. So, I've learned that although they have to do the requirements, you still have to be patient and try to figure out a way to…you have to try to see it through their eyes as best you can and take yourself to where they are and try to work from there and come up with resources, come up with ideas. Just be encouraging. And then if it doesn't work, it doesn't work. But at least you've done all you could do to reach them.

Dedicated staffing. Staff members at several sites made a pitch for separating FSS case management functions from HCV responsibilities. Another staffing-related recommendation was that case managers should have a social service background. Additional funding for salaries for FSS staff supervisors and for professional development for case managers[60] was also proposed.

Develop valuable service referrals. Several staff members highlighted strong connections with community resources and the knowledge gained through their PCCs about available services and programs as programmatic strengths. A few sites mentioned the benefit of *requiring* participants to attend classes and workshops, and one site that runs a multisession training series to educate participants about financial literacy topics views that as an important piece of their program. Staff members flagged the need for funding to offer onsite training to increase access to services.

[60] Specific areas of training included how to help participants develop a career path, keeping them motivated, trauma and loss/grief counseling, starting a small business, and how to refer participants to mental health services or therapy without offending them.

Modify escrow policies. Staff at two sites mentioned interim escrow disbursements as an aspect of the program that worked well. Both of these sites had recently made changes, although the changes were very different. One site became more lenient in allowing disbursements to help participants get ahead. The other set new rules restricting the amount that could be disbursed, which they believed would help participants to "be good stewards of their money, teaching them how to save and making sure they have an asset at the end." Several staff members recommended that HUD change the escrow calculation by removing the income limit so those with higher incomes can still earn escrow. One staff member suggested creating a financial incentive to motivate participants to get a high school equivalency diploma or training that would open doors to better employment. This could be a separate incentive or a method for earning an interim escrow disbursement.

Other recommendations addressed the performance measures and new policies staff wanted to see. Ideas included the following:

Use more current data to create performance measures. The performance measures were new, and supervisors were still trying to understand how their programs would be affected and whether their work helping FSS participants to gain employment and get better jobs would be accurately reflected in the measure. Some of the concerns were about timing; staff members wanted new jobs that participants obtained after the last recertification to be included. Others felt that the expectation that FSS participants will be able to achieve significant earnings increases is not realistic for many of the participants they are currently serving –such as FSS participants who receive disability benefits or experience a severe barrier to employment or, at the other extreme, FSS participants who were already working full-time hours when they entered the program.

Allow successful families to continue in FSS programs. Staff members reported having participants who had just gotten started on some of their nonemployment-related goals, and then a new job caused them to earn out of the program before they could make progress. Homebuyers, too, could benefit from FSS in important ways, such as by accruing savings that they could use when they graduate (creating a nest egg in case they need to make repairs to their homes). HUD could consider eliminating policies that require participants to leave the FSS program, such as when the total tenant payment (TTP) is higher than the fair market rent or when a participant purchases a home.[61]

Remove common stumbling blocks. Extra financial help to remove barriers and support participants was viewed as going a long way toward increasing success in FSS programs. It is easy for an emergency, unexpected bill, or other obstacle to create undue stress and financial strain on participants, which could cause them to disengage from the program. Staff members suggested that HUD consider proposing a general change to subsidized housing regulations to allow programs to delay rent hikes for a couple of months after an earnings increase to give participants a chance to catch up on their bills. Staff members also encouraged the creation of a mechanism for childcare agencies to give FSS families preference; staff also advocated for a change to FSS policies to allow people who become disabled

[61] The Final FSS Rule eliminates these policies.

during their tenure in FSS and cannot meet the work requirement to graduate and receive the funds in their escrow accounts.[62]

Making the FSS Program Mandatory or Keeping it Voluntary

Staff members at several sites recommended making the FSS program mandatory for nonelderly, nondisabled HCV residents. In particular, many would support making the FSS program mandatory if additional resources were available (because it would be expensive to add the staff that a mandatory program would require). A few staff members disliked the idea because they felt that forcing participants to join an FSS program would not yield the same results because not all residents are ready to become self-sufficient, and case managers would not want participants to feel forced to meet with them. One case manager referred back to her days working in a welfare-to-work program and noted that the people who did not want to participate overwhelmed her ability to work with motivated ones.

Program Length

Staff members also reflected on the 5-year term of the FSS program. Supervisors and case managers from most sites were happy with the current length of the program. A longer program allows more people to graduate and to earn more escrow. If the allotted time were shortened, goals would have to be "smaller" (for example, individuals would no longer be able to pursue a bachelor's degree), and participants would not make as much progress toward self-sufficiency. Further, with a shorter program, participants who wanted to try something different, who lose their jobs, or who encounter other unexpected obstacles with their children or their physical or mental health would struggle even more to succeed. Many participants experience traumatic events that can take time to heal.

Other staff members supported making FSS a 3-year program (and with the possibility of a 2-year extension to 5 years). A shorter length of time would motivate participants to sustain higher engagement throughout the program and allow more people to benefit over time.

Conclusions

This chapter helped explain FSS program implementation and case management in Years 4 and 5 and provided context for interpreting graduation outcomes and program impacts described in the remainder of the report. Staff reflections also provided important insights for program improvements. Of note, the chapter described how sites have come into compliance with program rules on graduation requirements in response to an increased awareness of HUD guidelines about not setting additional blanket employment requirements, as well as the new composite score measure. Contact expectations remained constant over time and officially continue to the end of the FSS contract. In practice, case managers use the final year or two as a final push to urge participants to complete all goals so they are eligible for graduation, and many staff members try to increase contact toward the end of the program. The PCC benefited FSS staff members by providing opportunities to network with and develop personal connections with community service providers. Escrow is valued by staff as a way to motivate

[62] Another change reflected in the Final FSS Rule.

participants to stay engaged in the program and increase employment. Obstacles to completing goals can, in some cases, be remedied through interim escrow disbursements, but they were rarely used by study sites.

The following chapters explore longer-term outcomes and effects of the FSS program. The next chapter (chapter 3) explores findings on graduations and escrow accruals and disbursements, drawing on administrative data.

Chapter 3. FSS Enrollment Status, Escrow Accruals, and Graduations

As discussed previously, the escrow account, a core feature of the Family Self-Sufficiency (FSS) program, is intended to encourage families to increase their earnings, reduce their reliance on government cash assistance programs, and build savings. Under the Housing Choice Voucher (HCV) program, most families pay 30 percent of their adjusted monthly income, known as the total tenant payment (TTP), for their rent and utility expenses, and the public housing agencies (PHAs) subsidize the rest. As a result, in most instances when a household's income increases, its TTP also increases. In the FSS program, when the tenant pays the increased TTP, the housing agency credits the family's escrow account on the basis of the increase in earned income (HUD, 2017a).[63] Upon graduation from the FSS program, the escrow balance account, with accrued interest, is disbursed to the FSS participant (the head of household) with no restrictions on the use of the money. Under certain circumstances, FSS allows participants to access their escrow funds earlier than graduation—that is, receive an interim disbursement—for approved purposes related to their self-sufficiency goals, such as paying for emergency car repairs to prevent job loss.

The first report produced as part of this evaluation, which focused on the first 18 months of followup, showed that 38 percent of the FSS group had received an escrow credit during that followup period, and 35 percent of the FSS group maintained a positive balance in Month 18. By the end of 3 years of followup, the period covered by the second report, 52 percent of the FSS group had received at least one escrow credit, and 40 percent of FSS group members had maintained a positive balance. Consistent with the program's design, less than 5 percent of FSS group members had fulfilled all of their program goals within 3 years of enrolling in the program. Most needed to continue accessing FSS services for at least another 2 years before qualifying for graduation and disbursement of the money in their escrow account.

This chapter extends that analysis and examines escrow credits and balances during the first 5 years of followup and, where data are available, into the first months of Year 6. The followup period covers the end of the 5-year enrollment period, as specified in the FSS Contract of Participation (COP), and for many FSS group members includes a few extra months. During these additional months in Year 6, PHAs often verified that participants had met all of their goals, completed the paperwork necessary for a disbursement check, and arranged for a graduation ceremony for the participant. The analysis first presents findings on graduations and escrow accruals and disbursements for the whole FSS group, and then it explores how these outcomes varied for selected subgroups. Next, the chapter considers whether the patterns of graduation and escrow accrual and disbursement varied by housing agency and, if so, whether these differences appear to be related to variations in how particular housing agencies implement the FSS program.

The findings show the following:

[63] The amount of escrow credited to the account depends on the household's income level; those with the lowest incomes are credited an amount equal to the rental increase, and those with higher incomes are credited with a percentage of the increase.

- Over the 5- to 6-year followup period, about 17 percent of the FSS group graduated from the program. Most FSS graduates received a substantial final disbursement from their FSS escrow account. Disbursements averaged nearly $10,000 per recipient.
- Over the same followup period, another 45 percent of FSS group members received at least one escrow credit, although about one-half of this group forfeited their escrow when they exited the FSS program without graduating. By the end of the followup period, nearly one-fourth of the FSS group had continued their enrollment and maintained a positive balance in their escrow accounts. They averaged about $7,000 in their accounts during the last month of followup.
- On average, at their time of random assignment, FSS graduates were younger, more likely to have attained a postsecondary degree, more likely to have been employed, and less likely to have reported a physical or mental health problem that made it difficult to find or maintain employment compared with other groups.
- FSS graduates experienced a much larger increase over time in estimated annual earnings—as reported to their housing agencies—compared with other FSS group members. They also were most likely to be living with one or more household members who were working for pay at the end of the followup period.
- Housing agencies differed substantially—from about 8 to 31 percent—in the proportion of FSS group members who had graduated by the end of followup. Housing agencies with the strongest emphasis on monitoring and engagement rank highest in graduation rates, whereas housing agencies with less emphasis on monitoring and engagement had a higher incidence of current enrollment with a positive escrow balance.

How Family Self-Sufficiency Escrow Works

Escrow calculations can be complicated (HUD, 2016). When the head of household enrolls in the FSS program and completes a COP, the FSS case manager records the participant's "baseline" earnings from the most recent housing voucher recertification meeting. The earnings noted on the COP serve as the standard for calculating escrow credits in future months. Unlike other rent policies designed to encourage work, throughout the FSS contract period, FSS participants continue to pay their TTP for rent and utilities according to the same rules as other housing voucher holders. The housing agency maintains a single, interest-bearing depository account and records the balance for each individual in a separate ledger. When the head of household reports an increase in earned income to the housing agency (and the increase is verified), the FSS participant's out-of-pocket payment for rent and utilities increases, but under FSS program rules, the housing agency issues an escrow credit for the amount of the increase attributable to an increase in earned income and deposits the money in the FSS participant's escrow account.

The likelihood of accruing escrow can vary due to a number of factors. FSS participants' employment status at program enrollment, level of educational attainment, and other characteristics and life experiences can often affect their chances of increasing earnings over time, which, in turn, affects whether—and how quickly—their escrow balances increase. In particular, the relationship between a participant's relative advantages in the labor market and escrow accrual may be complex. At the extremes, FSS participants who are not working at the time of program entry could potentially benefit

the most from the escrow account because all their future earnings would be included in the calculation of escrow credits. Unemployed adults, however, may also face the most severe barriers to finding and maintaining employment, which is required to graduate as well as to accrue escrow. By contrast, FSS participants who enter the program while working full time or receiving relatively high earnings may have the best prospects of increasing their earnings by finding a better job, increasing their hours, or advancing with their current employer (Verma et al., 2017).[64] They may also be most likely to maintain their employment after they start accruing credits. The increase in their earnings, however, may be relatively small compared with their current earnings and lead to only a small amount being credited to their escrow account each month.

Housing agency practices and messages can also affect the incidence of escrow credits and the rate of increase of escrow account balances. HUD FSS program rules require housing agencies to issue an annual escrow account statement to program participants. In addition, at most sites, the possibility of accumulating escrow is used to motivate participants throughout the contract period to stay engaged in the program and meet their goals to graduate and thus receive the amount accrued in their escrow accounts. Staff members reported that interest in accruing escrow credits also gets stronger among participants with a positive balance as they get closer to graduation and the funds seem more attainable.

FSS Enrollment Status, Graduations, and Escrow Accrual and Disbursement

Following HUD guidance, housing agencies compare current earnings (projected into an annual total) with baseline earnings recorded in the COP to determine the amount of escrow to credit to a participant's account (HUD, 2017b: 92–93).[65] For the study sample, exhibits 3.1, 3.2, 3.3, and appendix exhibit B.1 summarize the changes in FSS group members' enrollment status and escrow accrual over 5 to 6 years. By the end of the followup period, about 7 out of 10 FSS group members had exited the FSS program, with 17 percent graduating and 53 percent exiting without graduation.

In the previous report, covering the first 3 years of followup, relatively few FSS group members (4 percent) graduated from the program. Typically, these FSS graduates had found relatively high-paying jobs or increased their earnings above the maximum allowed for receiving an HCV subsidy, and some had accrued no escrow credits and graduated with no disbursement. By contrast, at the end of the followup period, most graduations followed the expected pattern, with FSS group members receiving official acknowledgment that they had attained their FSS goals (including employment and no cash assistance receipt) and disbursement of the funds accrued in their escrow accounts. Most FSS graduates

[64] In the Work Rewards FSS study, those working at study entry were more likely to meet the graduation requirements than those who were not working. About 31 percent of the FSS-only households in the subgroup who were not working at the time of random assignment graduated from FSS programs, whereas 55 percent of the working subgroup graduated. The working subgroup also collected more escrow savings on average than did the nonworking subgroup. Those in the FSS-only group (who received only the FSS program and made up one of three different programs groups in the study) who were working at random assignment received an average disbursement of more than $2,000; those who were not working at random assignment received an average disbursement of $1,000.

[65] In reality, and as HUD's FSS resource guide describes, the housing agencies are required to deposit all escrow funds for all FSS participants into a single, interest-bearing depository account and to account for these funds through a subsidiary ledger that records the balance of each FSS participant's individual account (within the single account).

realized a substantial disbursement, averaging close to $10,000 per recipient. Nearly two-thirds of recipients of an escrow disbursement obtained $5,000 or more at graduation.

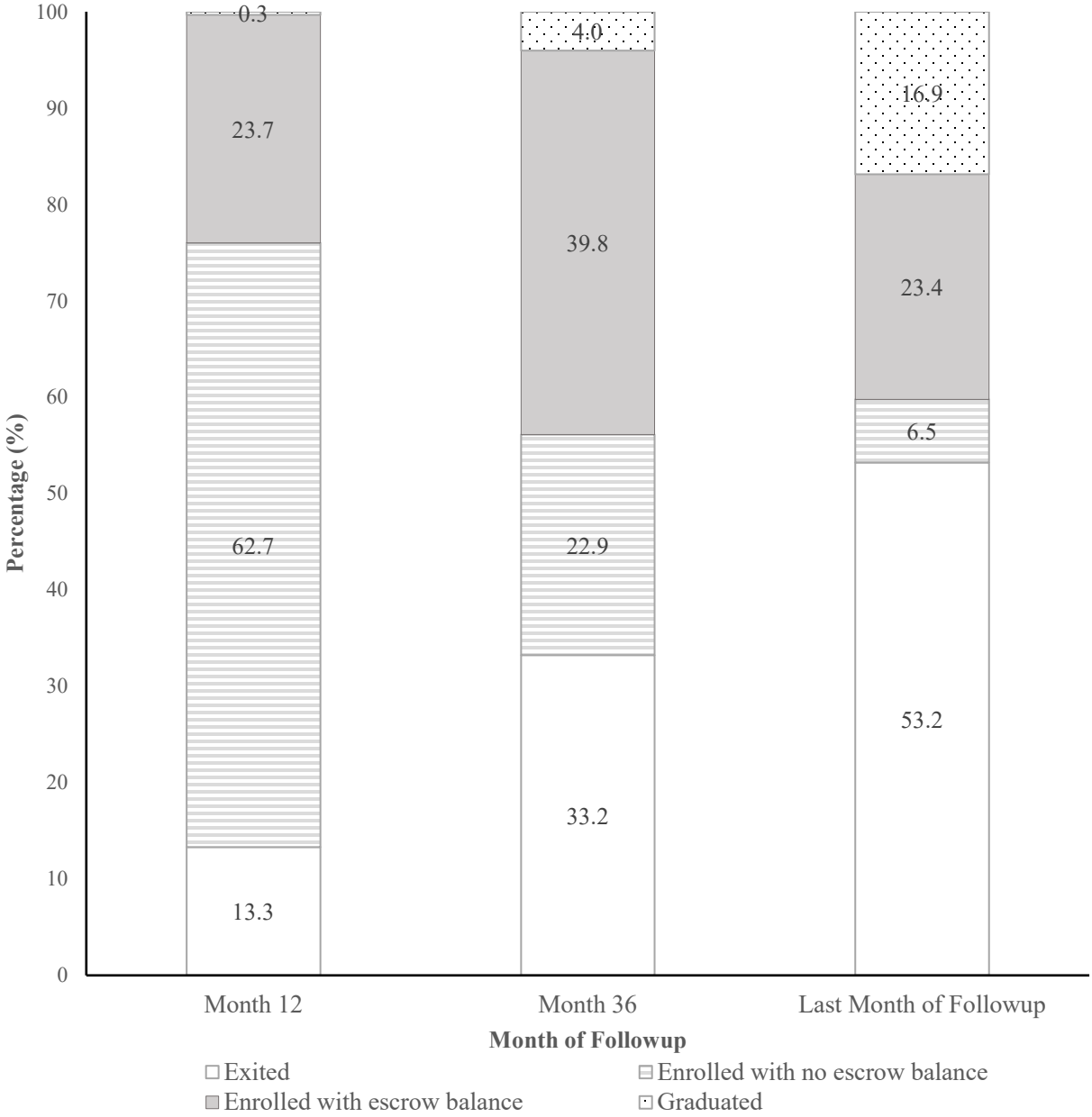
Exhibit 3.1: Family-Self Sufficiency Enrollment Status at the End of Year 5 and in the Last Month of Followup

Outcome	End of Year 5	Last Month of Followup
FSS enrollment status (%)		
Graduated	10.6	16.9
Received escrow disbursement	8.4	14.2
No escrow disbursement	2.2	2.7
Still enrolled	44.1	29.9
With escrow balance[a]	29.8	23.4
Without escrow balance	14.2	6.5
Exited, did not graduate	45.4	53.2
Accrued escrow credits	18.8	22.0
Did not accrue escrow credits	26.6	31.3
Among graduates who received escrow disbursement:		
Average total disbursement ($)	7,947	9,651
Total disbursement (%)		
$1–$1,000	10.2	7.7
$1,001–$2,000	8.3	7.7
$2,001–$5,000	22.2	20.3
$5,001–$10,000	30.6	29.1
$10,001–$20,000	23.2	22.5
$20,001 or more	5.6	12.6
Among participants enrolled with an escrow balance:		
Average escrow balance ($)	6,339	7,220
Total balance (%)		
$1–$1,000	17.5	11.8
$1,001–$2,000	15.7	18.9
$2,001–$5,000	20.5	20.1
$5,001–$10,000	25.5	24.9
$10,001–$20,000	16.3	16.0
$20,001 or more	4.5	8.3
Sample size	1,285	1,285

[a]"Still enrolled with escrow balance" includes anyone who had a positive escrow balance during the last 6 months of followup (July 2019 to December 2019).

Sources: PHA administrative data and U.S. Department of Housing and Urban Development Inventory Management System (IMS)/PIH Information Center (PIC) data

Exhibit 3.2: Family Self-Sufficiency Graduation and Enrollment Status in Months 12 and 36 and in the Last Month of Followup

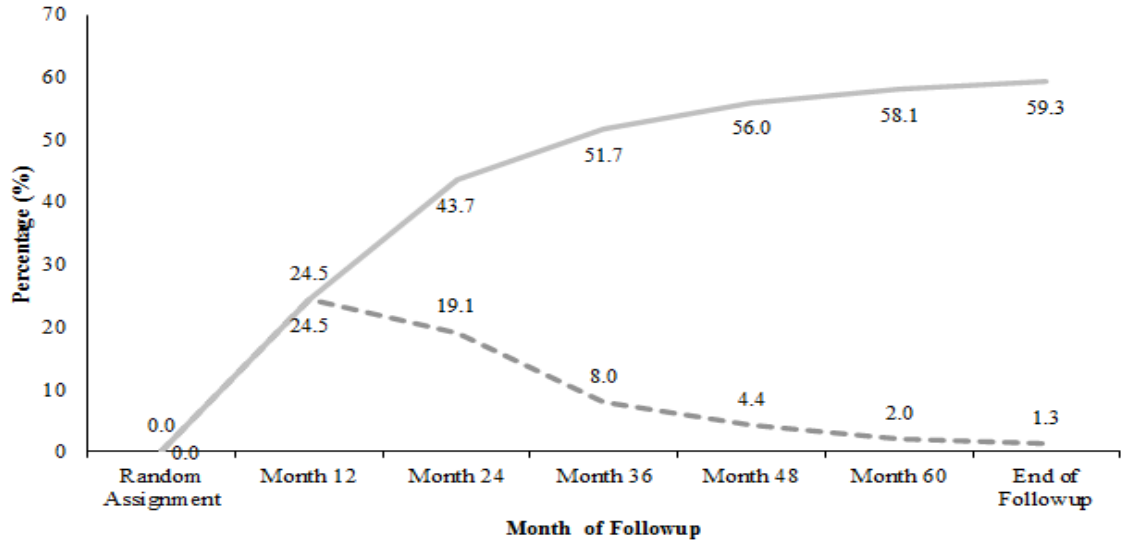


Notes: The FSS service-use sample includes all or a randomly selected subsample of housing choice voucher heads of household who were randomly assigned to the FSS group between October 18, 2013, and December 22, 2014, in 12 public housing agencies and were age 18 to 61 at the time of random assignment. FSS impact sample includes housing choice voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Rounding may cause slight discrepancies in calculating sums.

Sources: MDRC calculations using housing authority administrative data and U.S. Department of Housing and Urban Development Inventory Management System (IMS)/PIH Information Center (PIC) data

Most FSS group members who remained enrolled in the program had accrued escrow credits for 1 month or more and were maintaining a positive balance in their escrow account at the end of followup. In exhibit 3.3, the line nearer the x-axis displays the year of followup when each FSS group member began accruing escrow credits, whereas the top line displays the cumulative percentage of FSS group members who ever accrued at least $1 in escrow credits. As the exhibit shows, nearly 60 percent of FSS group members (graduates and nongraduates combined) accrued escrow for 1 month or more during the followup period. Most FSS group members (44 percent out of 59 percent) began accruing escrow during Year 1 or Year 2 after random assignment, and relatively few thereafter (15 percent out of 59 percent). Many current enrollees could also look forward to receiving a substantial disbursement if they remained in the program and attained their goals. As appendix exhibit B.1 shows, the typical FSS group member with a positive balance in their escrow account had already accrued more than $7,000 in credits and could conceivably accrue additional escrow dollars before graduating.

Exhibit 3.3: First Month of Escrow Accrual and Cumulative Percentage of Family Self-Sufficiency Group Members Who Ever Accrued Escrow Credits, by Month of Followup



Notes: The FSS service-use sample includes all or a randomly selected subsample of housing choice voucher heads of household who were randomly assigned to the FSS group between October 18, 2013, and December 22, 2014, in 12 public housing agencies and were age 18 to 61 at the time of random assignment. The FSS impact sample includes housing choice voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Rounding may cause slight discrepancies in calculating sums.

Sources: MDRC calculations using housing authority administrative data and U.S. Department of Housing and Urban Development Inventory Management System (IMS)/PIH Information Center (PIC) data

Variation in Graduation and Escrow Accrual for Selected Subgroups

This section explores whether most FSS group members experienced similar patterns of escrow accrual and disbursement during the followup period or whether the incidence of escrow accrual or the amount accrued varied by subgroup. Evidence from the recently completed Work Rewards evaluation in New

York City, the only other study to have followed study participants for 6 years, found that FSS participants who were working at the time of random assignment were more likely to regularly earn escrow credits and successfully graduate from the program than participants who were not working. The households in the nonworking subgroup appeared to have accrued escrow credits at higher rates earlier in the program but were less likely to graduate from the FSS program than those in the working subgroup (Verma et al., 2017). The national FSS evaluation also examines escrow accruals and disbursements for the same subgroups.

Exhibit 3.4 displays important indicators of escrow accrual for selected subgroups, using data on baseline earnings collected from COP forms, housing agency administrative records, and responses to the Baseline Information Form (BIF). For these indicators, graduation, and especially graduation with an escrow disbursement exceeding $5,000, may be seen as the most favorable outcome, and having a positive current balance as a potentially positive outcome, depending on whether the FSS group member completes the program. In an important way, the findings resemble those from the Work Rewards evaluation in that they highlight challenges to graduation experienced by members of subgroups with greater barriers to employment. More specifically, as exhibit 3.4 shows, FSS group members who reported on the BIF that they were not working at random assignment or reported to their PHA around their time of random assignment that they had no household earnings recorded the lowest incidence, so far, of graduating from FSS programs among related subgroups.

In previous reports, the subgroup analysis compared the incidence of maintaining a positive balance, and subgroups with greater advantages in the labor market did not record the most positive results. For this analysis, which focuses more on variation in graduation rates, the incidence of graduation among FSS group members with the highest reported earnings at random assignment and FSS group members who reported working full-time hours at random assignment did not differ much from the rates for subgroups with "middle range" earnings or with part-time employment. However, FSS group members with more than $20,000 in reported earnings at random assignment have, on average, accrued relatively small amounts of escrow and received relatively small disbursements compared with other subgroups.

In addition, as exhibit 3.4 shows, the graduation rate for FSS group members with a 2-year college degree or higher (29 percent) greatly exceeds the rate for the other educational subgroups, as does their incidence of graduating and receiving more than $5,000 in their escrow disbursement (17 percent). By contrast—by a small margin—the subgroup with no degree or educational credential had the highest rate of continuing enrollment with a positive balance.

Variation in Graduation Rates by Housing Agency

Exhibits 3.4 (bottom panel) and 3.5 summarize the variation in measures of escrow accrual and disbursement among the 18 housing agencies. The differences among housing agencies were substantial. For example, for the three housing agencies with the highest graduation rates by the end of followup, an average of 31 percent of FSS group members had graduated, whereas the three housing agencies with the lowest incidence averaged only 8 percent (see exhibit 3.5). Similarly, about one in five FSS group members received a disbursement greater than $5,000 in the three housing agencies ranked first to third, compared with 4 percent for the three lowest ranking housing agencies.

Exhibit 3.4: Indicators of Family Self-Sufficiency Escrow Account Accrual for Selected Subgroups

Subgroup and Outcome	Sample Size	Currently Enrolled with Escrow Balance Greater Than $0 (%)	Graduated from FSS (%)	Graduated with Escrow Disbursement Greater than $5,000 (%)
Annual household earnings at FSS enrollment				
No earnings	552	25.5	15.9	11.6
$1–$10,000	165	26.7	23.0	11.5
$10,001–$20,000	208	26.9	19.2	10.6
$20,001 or more	280	19.3	17.9	3.9
Employment status at random assignment				
Not employed	568	22.5	12.3	9.0
Employed 1–34 hours per week	336	25.6	21.4	10.7
Employed 35 hours per week or more	372	22.0	19.4	7.8
Highest level of educational attainment at random assignment				
No degree or credential	259	27.4	8.5	3.5
High school diploma or equivalency certificate	320	23.1	15.3	7.5
Some college	470	22.6	16.4	9.4
2-year college degree or higher	236	20.8	29.2	17.0
PHA emphasis on monitoring and engagement				
Low	472	34.3	10.2	5.9
Medium	551	18.9	20.9	9.3
High	262	13.0	20.6	14.5

Notes: The FSS impact sample includes housing choice voucher heads of household who were randomly assigned between October 18, 2013, and December 22, 2014, and were age 18 to 61 at the time of random assignment. Sample sizes for related subgroups may not sum to total impact sample because of missing values. The FSS monitoring and engagement composite score incorporates three components: average caseload size, expected number of contacts per year, and the proportion of FSS group members with a Year 1 goal. A Z-score for each component was calculated using the site value and the mean of all 18 sites. The Z-scores were summed to create the composite value.

Sources: MDRC calculations from baseline data, Contract of Participation forms, and housing authority administrative data

Exhibit 3.5: Indicators of Family Self-Sufficiency Graduations and Escrow Credits Accrual in Months 1 to 72 by Housing Agency, Family Self-Sufficiency Service-Use Sample

Outcome	Escrow Balance Greater than $0 (%)	Escrow Balance Greater than $5,000 (%)	Graduated from FSS (%)	Graduated with Disbursement Greater than $5,000 (%)	Graduated or Currently Enrolled with Balance (%)
Average value for the three highest ranking housing authorities	37.5	13.5	30.8	20.3	50.0
Median value for all housing authorities	19.4	4.1	23.5	9.3	42.1
Average value for the three lowest ranking housing authorities	4.2	0.0	7.6	3.7	30.5
Correlation coefficients (housing authority averages)					
Average FSS caseload size[a]	-0.59	-0.19	0.66	0.61	-0.12
Number of expected contacts	-0.47	-0.14	0.38	0.39	-0.27
Proportion of FSS group with a Year 1 goal	-0.45	-0.11	0.19	0.35	-0.46
Proportion of FSS group with a job search or postemployment goal	0.21	0.01	-0.28	0.04	-0.02
Proportion of FSS group with an education or training goal	0.16	0.08	-0.04	0.19	0.21
Proportion of FSS group with a financial security goal	0.22	-0.10	-0.01	0.05	0.33
Emphasis on monitoring and engagement (composite score)[b]	-0.61	-0.18	0.49	0.54	-0.34
Total number of housing authorities = 18.					

Notes: The FSS service-use sample includes all or a randomly selected subsample of housing choice voucher heads of household who were randomly assigned to the FSS group between October 18, 2013, and December 22, 2014, and were age 18 to 61 at the time of random assignment.

[a]Average caseload sizes were multiplied by -1 to test whether small caseload sizes are positively correlated with greater incidence of escrow accrual and higher positive balances.

[b]The FSS monitoring and engagement composite score incorporates three components: average caseload size, expected number of contacts per year, and proportion of FSS group members with a Year 1 goal. A Z-score for each component was calculated using the site value and the mean of all 18 sites. The Z-scores were summed to create the composite value.

Sources: MDRC calculations from housing authority administrative data and information provided by FSS administrators and case managers

Measures displayed in the bottom panel of exhibit 3.5 present results of simple tests of association (correlation coefficients) among the indicators of housing agency implementation features (see appendix exhibits A.1 and A.2 for details) and housing agency averages for escrow credit accrual. Correlation coefficients with values close to +1.000 suggest a strong positive association between the program implementation feature and the accumulation of escrow credits. For example, in exhibit 3.5, the coefficient at the bottom of the middle column, "Graduated from FSS," shows the result of testing whether FSS group members in housing authorities that strongly emphasized monitoring and engagement also tended to have relatively high graduation rates among the 18 PHAs. Alternatively, values close to -1.000 suggest that housing agency program implementation features that were intended to increase service use were associated with low rates of escrow credit accrual. Finally, coefficients of between -0.399 and +0.399 show little or no association between the implementation feature and escrow accrual outcome.

As exhibit 3.5 shows, the variation in how PHAs have implemented the FSS program appears to be at least moderately correlated with the variation in how far FSS group members had progressed toward graduation. The strongest correlations concern caseload size. PHAs with smaller caseloads tended to have higher graduation rates, whereas PHAs with larger caseloads tended to have a higher incidence of a less positive milestone: continued enrollment in an FSS program with a positive escrow balance. Exhibits 3.4 and 3.5 show a similar finding for the more general measure of emphasis on monitoring and engagement. PHAs with the strongest emphasis on monitoring and engagement tended to have the highest graduation rates and the highest incidence of graduating with a disbursement that exceeded $5,000, whereas PHAs with the weakest emphasis on monitoring and engagement tended to have the highest rates of ongoing enrollment in FSS with a positive escrow balance. It should be noted that these findings could change over time, depending on how many still-enrolled FSS group members eventually achieve their goals and graduate from the program.

Who Appears to Be Benefiting the Most from Enrollment in Family Self-Sufficiency?

This section extends the analysis of subgroup variation in escrow accrual and explores the characteristics and experiences of participants who appear most likely to benefit from their access to FSS services and the escrow incentive.[66] For this analysis, FSS group members are divided into five groups on the basis of their enrollment status within the HCV and FSS programs during the last month of followup and the balance in their escrow accounts, if any, at that time. FSS group members who graduated from the program (irrespective of disbursement amount) are considered to have benefited the most from their engagement in the program.

[66] A later report will include findings of a more comprehensive analysis that will include additional followup on earning and disbursement of escrow credits and will use formal predictive analytics methodology.

Other groups that could also benefit include FSS group members who maintained a positive balance in the last month of followup.[67] The remaining three groups—FSS group members who exited from HCV and FSS, FSS group members who left the FSS program but continued to receive HCV subsidies, and FSS group members who remained enrolled in FSS but have a $0 balance in their escrow account—are considered to be the least likely to benefit from their enrollment in the program.[68]

Exhibit 3.6 displays selected baseline characteristics of members of the five groups. In several respects, the biggest contrast shown is between FSS graduates and FSS group members who left the program without graduating and continued to receive a housing choice voucher. FSS group members now enrolled in HCV only appear to have entered FSS programs at random assignment, with the most serious barriers to employment of any group. On average, they had the highest proportion of FSS group members with no educational credentials and the lowest proportion who entered the study with a 2-year college degree or higher. By a wide margin, they reported having the lowest employment rate at random assignment of any group and the highest incidence of having a physical or mental health problem that made it difficult to find and keep a job. (They also had the highest incidence of receiving SSI or SSDI disability benefits.) On average, the HCV-only group was also the oldest and the poorest of the five groups. By contrast, FSS graduates were the most likely of all groups to include recipients of a 2-year college degree or higher and reported the highest employment rate of any group at random assignment. (It should be noted that greater incidence of part-time employment accounts for most of the overall difference in employment rates for FSS graduates compared with all other groups.) FSS graduates were also younger, on average, than the other groups and most likely to have children in their household. Possibly also contributing to their success in the program, FSS graduates were most likely to report at random assignment that they had heard of the FSS program's escrow incentive.

[67] At least some HCV households leave assistance because their household income increases above the maximum level for receipt of a housing subsidy. This group also includes most families that graduate from the FSS program before 6 years (see Smith et al., 2015). Using survey and administrative data, the authors compared the characteristics and experiences of participants in the Moving to Opportunity (MTO) program evaluation who left housing assistance with those of participants who continued to receive assistance. The authors of the study of MTO participants found that about 35 percent of study participants left housing assistance during the followup period. Among "leavers," about 52 percent left for positive reasons, such as increased earnings or homeownership, whereas 48 percent left for negative reasons, such as eviction or violation of program rules. Leavers for positive reasons reported greater financial security and better housing conditions than respondents who remained on assistance, but those who left for negative reasons fared about the same as those still on assistance.

[68] It is acknowledged that some FSS group members in these outcome groups could also have benefited from their receipt of FSS-related services—for example, by attaining an academic degree or occupational credential or by improving their credit score or ability to budget or save.

Exhibit 3.6: Baseline Characteristics of the Family Self-Sufficiency Group, by HCV and Family Self-Sufficiency Program Status and Escrow Accrual Status

Characteristic	Not Enrolled in Housing Choice Voucher Program	Enrolled in Housing Choice Voucher Program: Not Enrolled in FSS	Enrolled in Housing Choice Voucher Program: Enrolled in FSS with Balance of $0	Enrolled in Housing Choice Voucher Program: Enrolled in FSS with Balance of $1 or More	Enrolled in Housing Choice Voucher Program: Graduated from FSS	Total	
Household characteristics							
Average number of household members[a]	3.3	3.1	3.3	3.3	3.3	3.2	
Households with more than 1 adult (%)	35.7	35.3	39.0	33.9	35.2	35.3	
Average number of children in household	1.8	1.6	1.8	1.9	1.8	1.8	*
Number of children (%)							***
No children	23.7	32.7	20.2	20.3	13.8	22.8	
1 child	21.8	21.8	27.4	22.7	32.7	24.2	
2 children	26.0	19.8	19.0	24.0	27.6	24.1	
3 children or more	28.6	25.7	33.3	33.0	25.8	28.9	
For households with children, age of youngest child (%)							
0–5 years	38.9	39.3	37.9	42.4	42.7	40.5	
6–12 years	42.9	42.2	51.5	41.2	38.4	42.1	
13–17 years	18.2	18.5	10.6	16.4	18.9	17.4	
Primary language spoken at home is English (%)	93.9	89.8	89.2	90.6	93.5	91.9	
Receives TANF (%)	13.7	18.4	12.0	22.6	12.0	16.3	***
Receives food stamps/SNAP (%)	65.8	71.2	71.4	77.7	72.8	71.2	**

(continued)

Exhibit 3.6 (continued)

Characteristic	Not Enrolled in Housing Choice Voucher Program	Enrolled in Housing Choice Voucher Program: Not Enrolled in FSS	Enrolled in Housing Choice Voucher Program: Enrolled in FSS with Balance of $0	Enrolled in Housing Choice Voucher Program: Enrolled in FSS with Balance of $1 or More	Enrolled in Housing Choice Voucher Program: Graduated from FSS	Total	
Length of time receiving Section 8 Housing Choice Voucher (%)							
Less than 4 years	33.6	32.8	38.6	30.2	29.2	32.2	
4–6.99 years	24.3	18.4	12.0	23.4	23.1	21.9	
7 years or more	42.1	48.8	49.4	46.4	47.7	45.9	
Total annual household income (%)							**
Less than $10,000	40.3	49.6	39.0	39.4	36.7	41.3	
$10,000–$19,999	29.6	31.1	28.0	36.3	36.3	32.5	
$20,000 or more	30.1	19.3	32.9	24.3	27.0	26.2	
Payment for rent and utilities (%)							
Less than $400	40.7	44.9	44.6	42.1	41.4	42.2	
$400–$599	19.4	21.5	16.9	24.9	22.3	21.4	
$600 or more	40.0	33.6	38.6	33.0	36.3	36.3	
During the past 12 months, household experienced at least one financial hardship (%)	57.6	59.5	54.8	55.7	59.4	57.7	
Not able to buy prescription drug	12.5	14.1	13.3	11.1	15.3	13.0	
Not able to buy food	23.8	27.7	21.7	27.9	28.2	26.2	
Not able to pay telephone bill	28.0	23.4	30.1	30.3	33.3	28.7	
Not able to pay rent	19.1	17.6	14.5	17.5	18.1	17.9	
Not able to pay utility bill	42.8	45.3	41.0	44.4	42.6	43.5	

(continued)

Exhibit 3.6 (continued)

Characteristic	Not Enrolled in Housing Choice Voucher Program	Enrolled in Housing Choice Voucher Program: Not Enrolled in FSS	Enrolled in Housing Choice Voucher Program: Enrolled in FSS with Balance of $0	Enrolled in Housing Choice Voucher Program: Enrolled in FSS with Balance of $1 or More	Enrolled in Housing Choice Voucher Program: Graduated from FSS	Enrolled in Housing Choice Voucher Program: Total	
Sample member characteristics							
Female (%)	89.7	87.5	89.3	95.3	94.5	91.4	***
Age (%)							***
19–34 years	38.2	26.5	39.3	34.7	41.9	35.7	
35–44 years	37.0	31.1	31.0	39.7	40.1	36.6	
45–61 years	24.8	42.4	29.8	25.7	18.0	27.7	
Average age (years)	38.5	42.2	38.9	38.8	37.1	39.1	***
Married and living with spouse or cohabitating (%)	10.1	10.5	11.9	8.0	10.1	9.8	
Race/ethnicity (%)							
Black, non-Hispanic/Latino	73.5	74.3	64.3	70.0	73.3	72.2	
Hispanic/Latino	15.7	13.2	17.9	16.7	15.7	15.6	
Other	10.8	12.5	17.9	13.3	11.1	12.2	
Education (%)							***
No high school diploma or GED	13.6	17.1	13.1	15.7	6.5	13.6	
High school diploma or GED	12.9	19.1	10.7	12.0	14.4	14.1	
Some college or received technical/trade license	57.4	52.1	52.4	55.9	47.0	53.9	
2-year degree or higher	16.0	11.7	23.8	16.4	32.1	18.4	
Has trade license or training certificate	50.6	42.4	48.8	47.3	44.7	47.1	

(continued)

Exhibit 3.6 (continued)

Characteristic	Not Enrolled in Housing Choice Voucher Program	Enrolled in Housing Choice Voucher Program: Not Enrolled in FSS	Enrolled in Housing Choice Voucher Program: Enrolled in FSS with Balance of $0	Enrolled in Housing Choice Voucher Program: Enrolled in FSS with Balance of $1 or More	Enrolled in Housing Choice Voucher Program: Graduated from FSS	Enrolled in Housing Choice Voucher Program: Total	
Employment status							
Currently employed (%)	55.5	44.9	53.6	56.9	67.4	55.6	***
Current employment type (%)							***
Regular job	49.9	35.2	47.6	49.2	56.5	47.7	
Self-employed	2.3	5.5	3.6	3.4	2.8	3.4	
Temporary or seasonal job	3.3	4.3	2.4	4.4	7.9	4.5	
Currently working 1–34 hours per week (%)	24.1	22.7	20.2	29.0	33.5	26.3	**
Currently working 35 hours or more per week (%)	31.4	21.9	33.3	27.6	33.5	29.1	**
Average hours worked per week	18.4	14.1	18.3	17.9	21.2	17.9	***
Average weekly earnings ($)	222	159	207	190	248	205	***
Barriers to employment (%)							
Has any problem that limits work	41.7	52.9	42.9	34.7	36.9	41.6	***
Physical, emotional, or mental health	21.6	34.5	14.3	16.1	11.7	20.8	***
Childcare access or cost	17.6	17.9	20.2	17.9	20.9	18.5	
Other	15.3	19.3	12.0	10.4	12.0	14.2	**
Receives SSI or SSDI benefits	15.2	23.7	11.9	8.0	7.8	13.8	***
Limited English-speaking ability	2.8	4.7	6.0	4.3	1.9	3.6	
No access to public transportation	82.8	85.4	73.8	83.1	87.0	83.5	*
No access to an automobile	80.6	72.5	84.5	84.6	88.8	81.5	***
FSS program (%)							
Heard of escrow before random assignment	45.8	42.2	34.5	39.0	52.8	43.9	***

(continued)

Exhibit 3.6 (continued)

Characteristic	Not Enrolled in Housing Choice Voucher Program	Enrolled in Housing Choice Voucher Program: Not Enrolled in FSS	Enrolled in Housing Choice Voucher Program: Enrolled in FSS with Balance of $0	Enrolled in Housing Choice Voucher Program: Enrolled in FSS with Balance of $1 or More	Enrolled in Housing Choice Voucher Program: Graduated from FSS	Total
Interest in FSS services related to						
Job-related services	67.7	69.6	72.6	75.3	69.0	70.4
Social services	31.4	38.1	28.6	29.7	31.5	32.2
Financial services	97.0	94.6	95.2	94.3	94.9	95.4
Sample size	427	257	84	300	217	1,285

Notes: The FSS impact sample includes housing choice voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Sample sizes for specific measures may vary because of missing values. Rounding may cause slight discrepancies in calculating sums. Detail may sum to more than total for questions that allow more than one response.

[a] Maximum response option for number of adults in a household is four.

Sources: MDRC calculations from Baseline Information Form data and housing agency administrative data

Exhibit 3.7 shows the average change in employment and earnings over 5 to 6 years for each of the five groups, using data reported to HUD's Inventory Management System/PIH (Office of Public and Indian Housing) Information Center (IMS/PIC) system. For these outcomes, FSS graduates clearly stand out.

Exhibit 3.7: Change in Reported Annual Head-of-Household Earnings and Total Household Earnings, Between Month of Random Assignment and the Last Month of Followup, by HCV and Family Self-Sufficiency Enrollment Status and Escrow Balance

		Enrolled in Housing Choice Voucher Program					
Outcome	Not Enrolled in Housing Choice Voucher Program	Not Enrolled in FSS	Enrolled in FSS with Balance of $0	Enrolled in FSS with Balance of $1 or More	Graduated from FSS	Total	
Head of household							
Average earnings in month 1 ($)	10,873	6,498	10,715	8,424	10,010	9,280	***
Average increase in estimated annual earnings ($)	4,237	1,419	1,870	6,531	15,462	5,904	***
Change in earnings (%)							***
Decrease	20.8	24.0	27.5	20.5	10.3	20.1	
No change	32.5	47.2	36.3	23.6	10.8	30.0	
Increase	46.7	28.9	36.3	55.8	78.8	49.9	
Head of household employment (%)							***
In month 1 and in current or most recent month	43.8	19.9	37.5	37.7	50.7	38.3	
In month 1 only	11.0	17.9	15.0	11.6	7.4	12.2	
In current or most recent month only	17.5	15.0	11.3	27.1	31.0	21.1	
No employment in either month	27.8	47.2	36.3	23.6	10.8	28.4	
Other household members							
Average earnings in month 1 ($)	1,673	1,456	2,121	1,668	1,813	1,682	
Average increase in estimated annual earnings ($)	2,375	1,967	1,022	4,052	5,916	3,205	***

(continued)

Exhibit 3.7 (continued)

Outcome		Not Enrolled in Housing Choice Voucher Program	Enrolled in Housing Choice Voucher Program: Not Enrolled in FSS	Enrolled in Housing Choice Voucher Program: Enrolled in FSS with Balance of $0	Enrolled in Housing Choice Voucher Program: Enrolled in FSS with Balance of $1 or More	Enrolled in Housing Choice Voucher Program: Graduated from FSS	Enrolled in Housing Choice Voucher Program: Total	
Change in earnings (%)								***
Decrease		4.3	5.3	8.6	6.5	4.2	5.3	
No change		80.4	80.9	77.8	70.3	67.8	75.8	
Increase		15.3	13.8	13.6	23.2	28.0	18.9	
Other household members employment (%)								***
In month 1 and in current or most recent month		5.0	4.5	7.4	7.2	7.9	6.1	
In month 1 only		3.1	4.9	6.2	4.8	3.7	4.2	
In current or most recent month only		12.0	9.8	8.6	17.7	20.6	14.1	
No employment in either month		79.9	80.9	77.8	70.3	67.8	75.6	
Total household								
Average earnings in month 1 ($)	12,546		7,981	12,836	10,092	11,824	10,970	***
Average increase in estimated annual earnings ($)	6,199		2,702	2,830	10,474	22,077	8,965	***
Change in earnings (%)								***
Decrease		30.6	26.4	35.1	21.6	8.1	23.1	
No change		27.4	37.2	27.3	16.1	5.6	22.6	
Increase		42.0	36.4	37.7	62.3	86.3	54.3	

(continued)

Exhibit 3.7 (continued)

Outcome	Not Enrolled in Housing Choice Voucher Program	Enrolled in Housing Choice Voucher Program: Not Enrolled in FSS	Enrolled in Housing Choice Voucher Program: Enrolled in FSS with Balance of $0	Enrolled in Housing Choice Voucher Program: Enrolled in FSS with Balance of $1 or More	Enrolled in Housing Choice Voucher Program: Graduated from FSS	Total	
Total household employment (%)							***
In month 1 and in current or most recent month	36.3	27.2	40.3	45.2	56.3	40.5	
In month 1 only	18.5	17.6	19.5	11.0	3.1	13.3	
In current or most recent month only	17.8	18.0	13.0	27.7	35.0	23.6	
No employment in either month	27.4	37.2	27.3	16.1	5.6	22.6	
Sample size	418	246	80	292	203	1,239	

Notes: The FSS impact sample includes HCV households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Calculations of change in annual earnings use the most recent available estimate reported to HUD, which could occur before or after month 36 of followup, depending on each study participant's date of random assignment, HCV program status, and, if applicable, date of exit from the HCV program. Rounding may cause slight discrepancies in calculating sums and differences. Sample sizes for specific outcomes may vary because of missing values. A chi-square test was performed on subgroup differences in frequency distributions, and an F-test was performed on subgroup differences in means. Statistical significance levels are indicated as * = 10 percent; ** = 5 percent; *** = 1 percent.

Sources: MDRC calculations using housing authority administrative data and U.S. Department of Housing and Urban Development Inventory Management System (IMS)/PIH Information Center (PIC) data

On average, FSS graduates increased their reported estimated annual earnings by more than $15,000, more than twice the increase of any other group. Nearly 80 percent of FSS graduates experienced an increase in earnings during the followup period, with about 40 percent of this increase accounted for by FSS group members who transitioned from joblessness to employment during the followup period.[69] On average, FSS graduates also experienced the largest increase in reported earnings from other household members, primarily due to one or more other household members starting employment during the followup period. Including earnings from all household members, FSS graduates increased their total household earnings by an average of $22,000 during the followup period, more than double the increase of any other group.

To a lesser extent, FSS group members who remained enrolled in the program and maintained a positive escrow balance also experienced an increase in earnings over time—averaging about $6,500 per FSS group member, and a somewhat smaller increase (of $4,000) over time in earnings from other household members. These averages exceeded the increases for all other groups except FSS graduates. By contrast, FSS group members who left the program while continuing to receive HCV housing assistance recorded the smallest growth in earnings over time and the highest incidence of joblessness at their time of random assignment and also during the last month of followup.

On average, FSS group members who exited from both FSS and HCV also did better financially over time but by a smaller amount compared with FSS graduates or current enrollees who accrued escrow. FSS group members who left all types of HUD assistance increased their estimated annual earnings by an average of about $4,200 and household earnings by about $6,200 during the followup period.

Conclusions

By the winter of 2019–2020 (just before the onset of the COVID-19 pandemic), implementation of the FSS program had reached a critical stage. Most participants who remained in the program had a positive balance in their escrow accounts and, therefore, a strong financial incentive to complete their goals, although few, if any, additional participants would be expected to start accruing escrow. Although it is impossible to predict exactly how many additional FSS group members will graduate, one may assume that most FSS group members with at least $1,000 in escrow would eventually graduate. If so, the graduation rate would likely end up at close to 30 percent of the FSS group. This average would place the 18 housing agencies in the FSS evaluation above the combined average of 24 percent for the approximately 700 PHAs with graduation rates published by HUD in November 2018 but well below HUD's current threshold (of 38 percent) for the highest ranking PHAs.[70]

[69] As exhibit 3.7 shows, 31.0 percent of FSS graduates became employed during the followup period, whereas 78.8 percent of graduates increased their earnings. Accordingly, (31.0 percent / 78.8 percent) x 100.0 = 39.4 percent.

[70] See HUD, 2018. The average of 24 percent can be derived by dividing the national total of FSS graduates by the total of FSS enrollees eligible for graduation—also, coincidentally, by calculating the median graduation rate among the PHAs. See also Verma et al., 2017, table 3.1, p. 41, which shows a graduation rate of 43 percent for the Work Rewards FSS-Only group in New York City. Most FSS-Only group members (27.3 percent/43.1 percent) graduated during Year 6 of followup. See also Geyer et al., 2017. The evaluation of the FSS programs in Cambridge and Lynn, Massachusetts ended before most FSS participants had reached the end of their FSS contract.

However, as discussed previously, the COVID-19 pandemic and economic downturn have hindered the remaining participants' normal progression through the program by causing high unemployment and preventing FSS group members from completing their service- or education-related goals.[71] The evaluation will continue to track graduations and disbursements, at least through the end of 2020, but one may assume that more FSS group members will have received 2-year extensions of their COP and may still be enrolled at the end of followup for the evaluation. If so, the graduation rate will likely be closer to the 2018 national average by the end of followup for the final report in the evaluation.

Regardless of the final graduation rate, the FSS program eventually provides a substantial one-time payment, often exceeding the maximum amount that a household with a low or moderate income could receive as an earned income credit on their federal tax return. However, a large majority of enrollees (possibly around 70 to 75 percent) do not receive any escrow disbursement. Some may benefit from receiving FSS services and case management—for example, by attaining an educational or occupational credential or by learning to manage their family finances more efficiently, increasing their savings, or reducing their debt. Nonetheless, it may be difficult to discover any tangible benefits of enrollment for FSS group members who left the program while continuing to receive HCV assistance, and perhaps the same is true for the small group of current FSS enrollees with no escrow accrual after 5 years in the program.

In the chapters that follow and in later reports, the question of "who benefits from FSS" will be examined through additional descriptive analyses of the financial well-being of FSS group members and through comparisons of financial outcomes for FSS group members with outcomes for control group members.

[71] In response to the COVID-19 pandemic and associated economic downturn, HUD gave housing agencies the authority to extend FSS contracts to a maximum of 8 years.

Chapter 4. Impacts on Employment and Earnings

As described in previous chapters, the Family Self-Sufficiency program provides referrals to supportive services, financial counseling, and case management services that are meant to encourage participants to find a steady job or, if they are already working, to increase their earnings. In addition, the FSS escrow account serves as both an asset-building instrument and a work incentive.

This chapter focuses on the program's effects on employment and earnings during the first 5 years (60 months) after program enrollment, recognizing that participants still enrolled in the program could be pursuing a wide range of goals during this period. It builds on the 3-year results in the previous report on this evaluation. The earlier data revealed high levels of employment for both study groups but no notable differences in earnings or employment outcomes for the FSS and control groups. This longer-term analysis uses more recent data from administrative records to determine whether the FSS program group experienced a higher employment rate or earned more on average than members of the control group. Chapter 4 focuses on the full sample, and chapter 6 examines variations in the effects on employment earnings by subgroup.

Overall, the analysis of employment and earnings outcomes, using National Directory of New Hires (NDNH) quarterly wage data for the full impact sample, reveals high levels of employment for both study groups and no statistically significant impacts on employment and earnings during the 5-year followup period or in Year 5.

Data Sources and Methods

Estimates of FSS program effects (or impacts) on earnings and employment use federal NDNH quarterly wage data.[72] NDNH data provide information on quarterly earnings and are available for the impact sample for 2 quarters before and 20 quarters after the quarter of random assignment.[73] NDNH records provide data on employment and earnings in all work covered by unemployment insurance, including across state lines (for those who commute into another state for work or who moved to a different state after random assignment), and on federal employment not captured in state unemployment insurance records. The records do not cover earnings from self-employment, some agricultural work, and informal jobs. Other research suggests that administrative data may miss relatively more employment for low-income populations than for higher-income groups, given the former group's greater prevalence of work in informal jobs (Abraham et al., 2009). NDNH records also do not provide information about the hours worked during a quarter or week or on the characteristics of jobs held, such as hourly wage rates, benefits, and schedules.

Exhibit 4.1 includes an explanation of how to read the impact tables in this report. The study design uses random assignment to create the FSS and control groups; therefore, effects or impacts of the FSS

[72] For a description of the variables included in the presented models and for analyses of the sensitivity of results to outliers and to different data-weighting approaches, see appendix C. In two previous reports, additional analyses on earnings and employment used responses to 18-month and 36-month followup surveys. An upcoming report will use responses to a Long-Term Followup Survey administered 6 to 7 years after random assignment.

[73] Employment recorded during the quarter of random assignment may have occurred before the study participant's date of random assignment. Accordingly, the analysis excludes this quarter from the followup period.

program can be calculated as the difference in average outcomes between the research groups. Differences that are statistically significant (indicated by asterisks in the exhibits) are considered to be true program effects and not the result of chance.[74] Chapter 4 presents the effects of the program for the FSS impact sample, which excludes voucher holders age 62 or older at the time of random assignment. Chapter 6 presents impacts for subgroups included in the analyses of escrow accrual and graduations from FSS programs. The essential research question for subgroup analysis is whether the *differences in impacts across subgroups* are statistically significant. (In chapter 6, subgroup differences that are statistically significant are noted with daggers in the exhibits.)

Program Impacts on Employment and Earnings

Employment and Earnings Trends for Control Group Members

Exhibits 4.2 and 4.3 and appendix exhibit C.1 display quarterly employment and earnings trends for control group members, calculated with NDNH data. These averages, which reflect what would have happened in the absence of the program, provide the basis of comparison for estimating the impacts of the FSS program on employment and earnings. As shown by the solid line in exhibit 4.2, employment levels for control group members overall increased slightly over time, from about 58 percent in the second quarter before random assignment to around 64 percent in quarter 21 (with quarter 1 representing the quarter of random assignment). Control group members who reported on the Baseline Information Form (BIF) that they were not working (see the dotted line) experienced the biggest increase during the followup period, of about 16 percentage points, whereas employment rates remained relatively static for control group members who reported working part-time hours and declined slightly for control group members who reported having full-time employment.

[74] An exception to this statement concerns a situation in which only one comparison among a series of related comparisons shows a statistically significant difference between the research groups—for example, if FSS group members averaged higher earnings than control group members during only one quarter of followup. In this situation, less credence would be given to this single impact estimate, even if the difference were statistically significant.

Exhibit 4.1: How to Read the Impact Tables in This Report

In the context of this evaluation, an "impact" is a measure of how much the intervention—Family Self-Sufficiency (FSS)—changed outcomes for program participants. The group outcome for the intervention is compared with that of the control group. The top row of the excerpted table below, for example, shows that 26 percent of the FSS group was working part time at the time of the 18-month survey, compared with 29 percent of the control group.

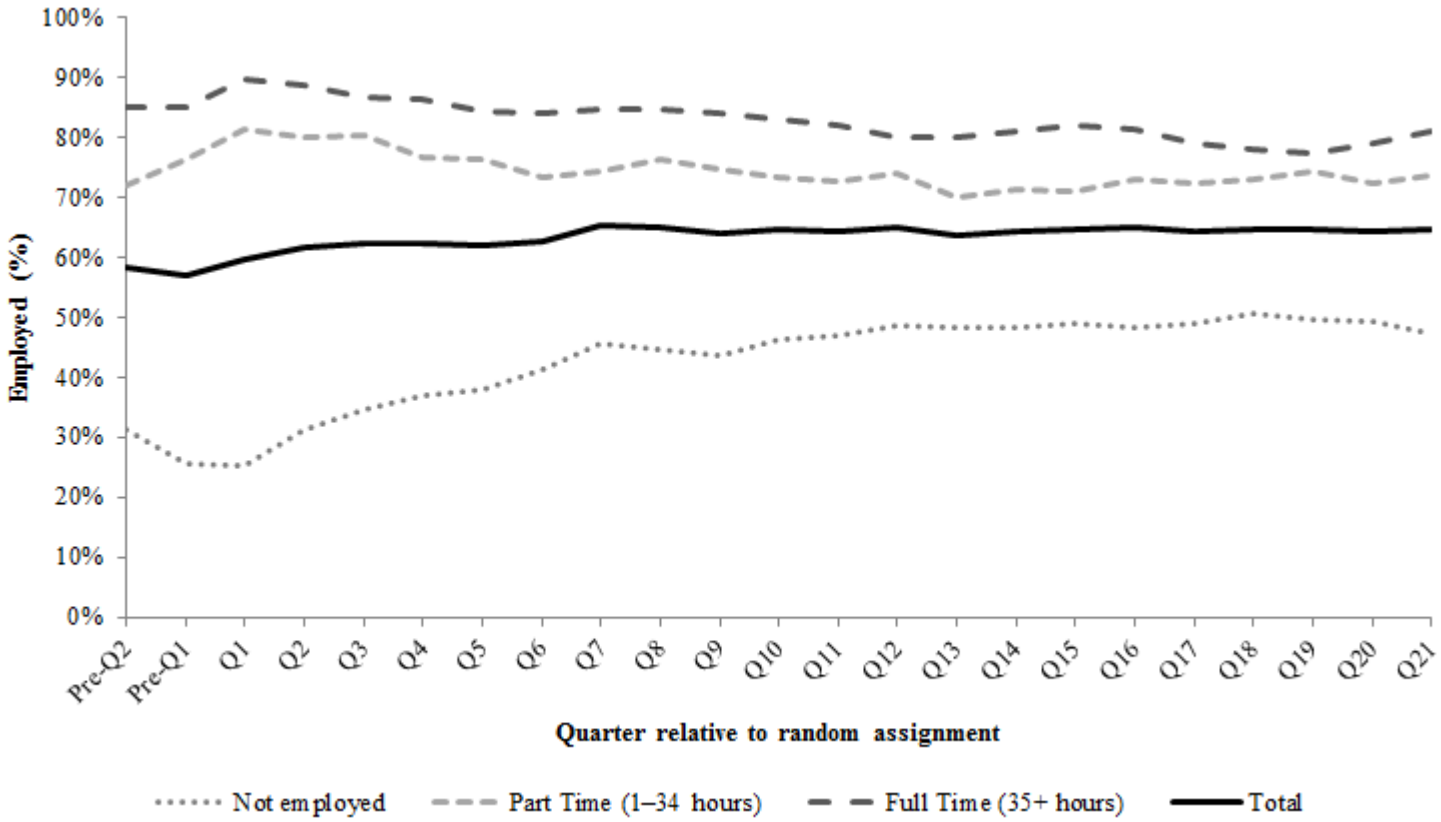
Because participants were assigned randomly to either the program group or the control group, the effects of the program can be estimated by the difference in outcomes between the two groups. The "Difference" column in the table excerpt shows the differences between the two research groups' outcomes—that is, the program's estimated impacts on the outcomes. For example, the estimated program impact of the FSS program on the number of individuals working part time can be calculated by subtracting 29 percent from 26 percent, yielding a decrease, or estimated impact, of 3 percentage points.

The p-value shows the probability that this difference, or impact, arose by chance. In the table excerpt below, the difference between the program and control groups in current part-time employment has a 16.6-percent probability of occurring due to chance rather than as a result of the FSS-only program. In contrast, the difference on the measure current full-time employment has a 4.5-percent probability of having arisen by chance. For this evaluation, only differences that have a 10-percent probability or less of occurring by chance are considered "statistically significant" and therefore represent true program effects. The number of asterisks indicates whether the impact is statistically significant at the 1-percent (***), 5-percent (**), or 10-percent (*) level, meaning that there is only a 1-, 5-, or 10-percent probability, respectively, that the impact arose by chance.

Impacts on Employment, Family Self-Sufficiency 18-Month Survey Respondent Sample

Outcome	FSS Group	Control Group	Difference (Impact)	P-Value
Currently employed (%)				
Works part-time hours	26.0	29.0	-3.0	0.166
Works full-time hours	41.5	37.1	4.3	0.045 **

Exhibit 4.2: Quarterly Employment Rate Among Control Group Members by Self-Reported Employment Status at Random Assignment, Family Self-Sufficiency Impact Sample



Note: The FSS impact sample includes Housing Choice Voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment.

Source: MDRC calculations using baseline data and quarterly wage data from the National Directory of New Hires.

As exhibit 4.3 shows, on average, control group members earned more over time—from $2,683 per quarter (including zeros for control group members without employment) in the second quarter before random assignment to $4,494 in quarter 21 after random assignment. This increase resulted from some control group members entering employment and other control group members increasing their hours or weeks of employment or earning more on the job. The average quarterly earnings also increased for control group members in all three subgroups on the basis of members' self-reported employment at random assignment. Once again, control group members in the subgroup that reported no employment at random assignment experienced the biggest increase during the followup period.

Impacts on Employment and Earnings

Although the FSS program is designed to provide services and referrals to address a variety of difficulties faced by participants, including lack of adequate childcare, mental and physical health issues, and transportation challenges, this component is in service to the ultimate goal of the program: to move people to work and build economic self-sufficiency. The escrow incentive is designed with the same goal and is thus attached to increases in earnings. Therefore, an important test of the FSS model is assessing its ability to increase employment (a condition for graduation and earning the accrued escrow), employment stability, and earnings.

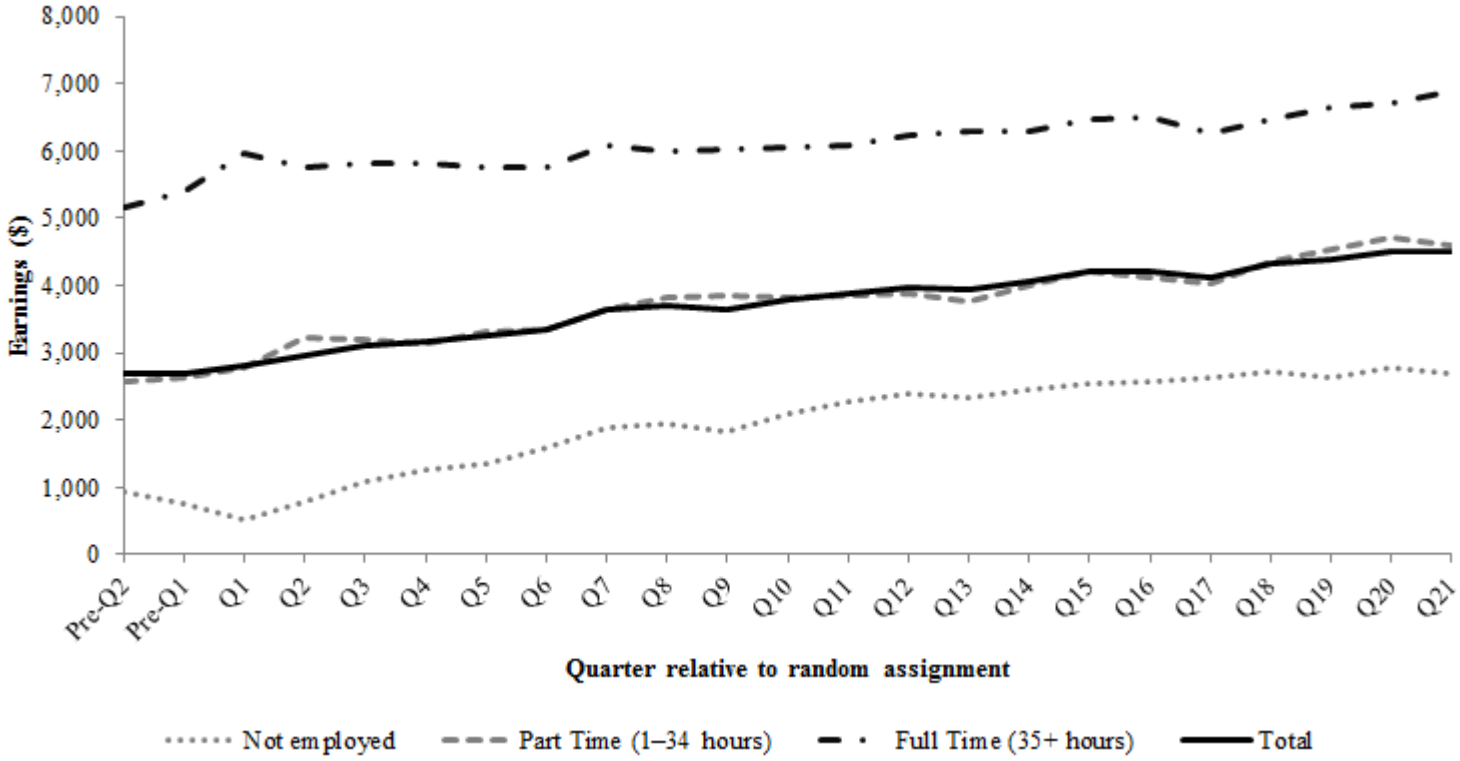
Over the 5-year followup period, both FSS and control groups experienced comparable employment rates, and there is no evidence that FSS has led to impacts in employment covered by NDNH.

The bottom half of exhibit 4.4 shows program impacts on yearly earnings, as measured by the NDNH data. The control group averaged $12,144 over the first year of followup. This figure rose to $17,490 in the fifth year of followup. Over this 5-year followup period, control members averaged about $75,000 in earnings, which translates into yearly earnings of nearly $15,000.[75] FSS group members earned, on average, about 1 percent more over 5 years, but the difference was not close to statistical significance. Members of both groups also averaged about the same number of quarters of employment during the followup period and were equally likely to earn at least $25,000 per year.[76]

[75] Using quasi-experimental methodology and a matched comparison group, an analysis of the Compass Working Capital FSS program, administered by the nonprofit agency for the PHAs in Lynn and Cambridge, Massachusetts, shows that the program produced employment and earnings impacts for participants. The study, which used income data available to HUD, found that the Compass FSS program was associated with an average gain in annual household earnings of $6,305 between the fourth quarter of 2010 and the first quarter of 2016 (Geyer et al., 2017).

[76] The top panel of appendix exhibit C.1 compares estimated annual earnings for the FSS and control groups, using HUD IMS/PIC data. It shows a higher average for the FSS group, a difference of more than $1,100. However, the comparison is nonexperimental in that it includes FSS and control group members who still received HCV assistance at the end of Year 5. Moreover, it may be reasonably asserted that FSS group members' access to an escrow account increases their incentive to report increases in earnings soon after they occur.

Exhibit 4.3: Average Quarterly Earnings Among Control Group Members, by Self-Reported Employment Status at Random Assignment, Family Self-Sufficiency Impact Sample



Note: The FSS impact sample includes Housing Choice Voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment.

Source: MDRC calculations using baseline data and quarterly wage data from the National Directory of New Hires.

Exhibit 4.4: Impacts on Employment and Earnings in Years 1 Through 5, Family Self-Sufficiency Impact Sample

Outcomes	FSS Group	Control Group	Difference (Impact)		P-Value
Employment (%)					
Ever employed					
Year 1	73.4	72.5	0.9		0.496
Year 2	74.8	72.8	1.9		0.182
Year 3	74.2	72.5	1.7		0.257
Year 4	75.0	72.1	2.9	*	0.061
Year 5	73.5	74.1	-0.6		0.691
Years 1 through 5	86.9	85.4	1.5		0.193
Average quarterly employment rate					
Year 1	61.6	61.4	0.2		0.887
Year 2	64.0	63.7	0.3		0.847
Year 3	64.9	63.9	1.0		0.502
Year 4	64.8	64.2	0.6		0.672
Year 5	64.9	64.4	0.5		0.732
Years 1 through 5	64.0	63.5	0.5		0.651
Employed in all quarters					
Year 1	47.1	47.9	-0.9		0.571
Year 2	51.1	51.9	-0.8		0.634
Year 3	53.3	53.8	-0.5		0.784
Year 4	52.9	53.7	-0.8		0.652
Year 5	54.6	52.9	1.6		0.352
Years 1 through 5	24.8	27.3	-2.5		0.109
Earnings ($)					
Total earnings					
Year 1	11,967	12,144	-177		0.596
Year 2	14,178	14,044	134		0.760
Year 3	15,509	15,307	202		0.688
Year 4	16,526	16,346	180		0.742
Year 5	17,748	17,490	258		0.662
Years 1 through 5	75,929	75,332	598		0.767
Average annual earnings (%)					0.462
$0	13.1	14.6	-1.5		
$1–$10,000	31.9	32.4	-0.5		
$10,001–$25,000	31.7	29.3	2.4		
Greater than $25,000	23.4	23.7	-0.4		
Sample size (total = 2,548)	1,282	1,266			

Notes: The FSS impact sample includes housing choice voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Average quarterly employment rate is calculated as total quarters with employment divided by total quarters of followup, expressed as a percentage. Estimates were regression adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between research groups. The p-

value indicates the likelihood that the difference between the FSS group and the control group arose by chance. Statistical significance levels are indicated as * = 10 percent; ** = 5 percent; and *** = 1 percent.

Source: MDRC calculations using quarterly wage data from the National Directory of New Hires

Conclusions

For the full sample, the NDNH data reveal no impacts on quarterly earnings or employment. Given that a relatively large proportion of FSS group members have accrued escrow dollars and are relatively close to graduation, they have a strong financial incentive to maintain employment (if possible, during the COVID-19 pandemic) to be eligible to graduate. If so, FSS group members still enrolled in the program (about 30 percent) could conceivably start to earn more than the control group in Years 6 or 7. Chapter 6 examines the program's effects on subgroups and whether study participants, defined by baseline characteristics such as their work and educational status or the type of FSS program they were enrolled in, respond differently to the services and escrow incentive offered by FSS. FSS group members may improve their financial well-being by reducing their debt or maintaining debt with lower interest, using traditional financial services businesses, and forgoing use of high-interest alternative financial services businesses, such as payday loan establishments. Chapter 5 explores these issues for the full impact sample, and chapter 6 continues the analysis for selected subgroups.

Chapter 5. Impacts on Credit Use, Housing Costs, Receipt of Housing Subsidies, and Financial Well-Being

Chapter 5 analyzes whether the Family Self-Sufficiency (FSS) program led to positive effects on a series of financial security outcomes. The analysis uses credit scores and financial transactions data from Experian, the nation's largest credit bureau, as the primary source for calculating financial and material well-being outcomes and estimating program impacts. Experian data include transactions involving traditional financial services, such as store and credit cards, auto loans, and student loans. Experian also provided data on the use of alternative financial services (AFS), such as payday loans, recorded by Clarity Services, Inc., a subsidiary of Experian. Additional measures of financial well-being were calculated using HUD administrative data on participant housing expenditures and rent subsidies.[77]

The FSS program seeks to promote housing choice voucher (HCV) program households' self-sufficiency and financial security in several ways. First, FSS programs offer participants access to services and an escrow account that promote new employment, employment stability, and earnings growth. As discussed in chapter 4, after 5 years, FSS heads of household experienced similar incidences of employment and earnings on average compared with their counterparts in the control group. Nonetheless, the program could still improve FSS group households' financial situation in two other ways. Once a head of household enrolls in an FSS program, other adult household members covered by the housing voucher can receive FSS services (either way, their earnings are counted toward the issuance of escrow credits). In this way, FSS could potentially increase participants' household earnings and income beyond what they would have received in the absence of the program without directly affecting the head of household's employment and earnings. In addition, as discussed in chapter 2, many FSS programs strongly encourage participants to attend financial management workshops or meet with counselors to receive instruction in managing personal and household finances or qualifying to purchase a home. As advocates for financial empowerment services often attest, these activities can lead to tangible financial gains, even without increases in income.[78] For example, participants in financial security activities can learn to (1) increase savings; (2) reduce debt; (3) increase credit scores; (4) forgo high-cost, nontraditional lending sources; and (5) avoid financial hardship. Participants in financial security or homeownership preparation activities could also benefit in less tangible ways—for example, by reducing stress and experiencing a greater sense of control over life decisions and more optimism for the future.[79]

[77] See Verma et al., 2021, Chapter 6, for an analysis of FSS program impacts on indicators of financial well-being, using responses to a 36-month survey. A later report will include a similar analysis after 6 or 7 years of followup, using responses to a long-term followup survey. The report will also analyze additional followup for credit score and financial transactions data. See also Geyer et al. (2017), the Abt Associates' evaluation of the Compass Working Capital FSS programs in Cambridge and Lynn, Massachusetts, which found that FSS program enrollees averaged higher Experian FICO credit scores and incurred less derogatory debt than members of a comparison group.

[78] See, for example, Abbi (2012); Collins and Gjertson (2013); Lopez-Fernandini (2012); and McKernan, Ratcliffe, and Vinopal (2009).

[79] In this chapter, the terms *material well-being*, *financial well-being*, and *financial security* are used interchangeably.

The main findings from this analysis are as follows:

- Average Experian Vantage credit scores for both groups increased by about 20 points during the followup period. Most often, this increase did not place the participant on a higher level, which would be associated with easier access to credit.
- According to credit data, during the followup period, the FSS program did not lead to increases above the control group in average credit scores.
- Over a 5- to 6-year followup period, both the FSS and control groups incurred higher levels of debt over time, often for automobile and education loans. During 3 of these years, including 2019, FSS group members paid about $30 (or about 12 percent) more, on average, per month than control group members for these loans from traditional financial services lenders.
- About 6 out of 10 members from both groups experienced at least one relatively serious credit problem, such as forgoing payments or borrowing close to the limit of available credit, during the final year of followup.
- The FSS program had almost no statistically significant effects on credit use or the incidence of credit problems.
- Over 5 years, FSS group members paid, on average, about 5 percent more out of pocket for rent and utilities than did control group members. For about 10 percent of FSS group members who graduated from the program (and 17 percent, when all available followup is included), disbursements from their escrow account made up for these additional expenses.
- Not surprisingly, at the end of the followup period, the incidence of homeownership was very low (about 5 percent) for both research groups.

Experian and Clarity Credit Data

For the analysis, Experian provided Vantage 3.0 (hereafter, Vantage) credit scores and associated financial transactions data. VantageScores were chosen for this analysis over Experian's better known FICO scores because they include a larger number of financial services customers with low or moderate incomes.[80] Experian stores Vantage data in monthly archives, containing current "snapshots" of customers' credit scores, as well as financial transaction indicators that cover part or all of the previous 12 months. For this analysis, MDRC collected data from eight monthly archives, spaced 12 months apart, starting in December 2012 and ending in December 2019. The final month corresponds to the end of Year 5 of followup (month 60) for participants who entered the study during December 2014, the final month of random assignment, and to early in Year 7 (month 75) for study participants who entered the study during October 2013, the first month of random assignment. The chapter treats data for December 2012 as pre-random assignment history; December 2013 and 2014 data as occurring

[80] Experian also provided two types of FICO scores for the impact sample. Review of this information showed that about 85 to 90 percent of impact sample members had a FICO score as of the end of followup in December 2019, whereas 96 percent of impact sample members had a VantageScore. According to DeNicola (2019), VantageScores factor in recurring payments, such as utilities and rent, as well as the typical loan products used to calculate FICO credit scores, such as credit card and mortgage payments, allowing individuals with less complete credit histories to be scored. In addition, the Consumer Financial Protection Bureau (2012) cites a report by the Federal Reserve that found that VantageScores are highly correlated with the more commonly used FICO credit scores.

during the "random assignment period"; and data from December 2015 through December 2019 as post-random assignment followup outcomes.

VantageScores vary from 300 to 850. According to Experian and Clarity, scores may be grouped into the ranges or "levels" shown in exhibit 5.1.

Exhibit 5.1: VantageScore Ranges

Credit Score	Rating	Percentage of U.S. Customers (%)	Impact
300–499	Deep Subprime	5	Applicants will not likely be approved for credit.
500–600	Subprime	21	Applicants may be approved for some credit, although rates may be unfavorable and have conditions such as larger downpayment amounts.
601–660	Near Prime	13	Applicants may be approved for credit but likely not at competitive rates.
661–780	Prime: Good	38	Applicants are likely to be approved for credit at competitive rates.
781–850	Prime: Excellent	23	Applicants are most likely to receive the best rates and most favorable terms on credit accounts.

Note: Experian also refers to these ratings as "Very Poor," "Poor," "Fair," "Good," and "Excellent."

Sources: "What is a Good Credit Score?" Experian website: https://www.experian.com/blogs/ask-experian/credit-education/score-basics/what-is-a-good-credit-score/; Clarity Experian (2020), table 3, p. 16

The analysis that follows will use these range values but also combine categories into Subprime (deep subprime and subprime), Near Prime, and Prime (both good and excellent), as warranted, for simplicity.

Clarity uses the name Clear Early Risk Score™ (hereafter, Clarity scores) for its credit scoring metric. Clarity has calibrated its scores to the same range as Vantage—from 300 to 850—with equivalent range values. Clarity uses a different series of criteria for calculating scores, compared with Vantage and FICO, recognizing that the scores are intended primarily for use by alternative financial services lenders to evaluate the credit risk of potential borrowers, many of whom are in financial distress when applying for a loan and need immediate access to short-term credit. In addition, Clarity created its Clear Early Risk Score to provide credit ratings for financial services customers who lacked sufficient credit history or had too many credit problems to qualify for a Vantage or FICO score. By contrast, Clarity usually forgoes calculating a score for customers who never use AFS. For that reason, both Clarity and VantageScores are needed to obtain a relatively complete picture of each study participant's credit status.

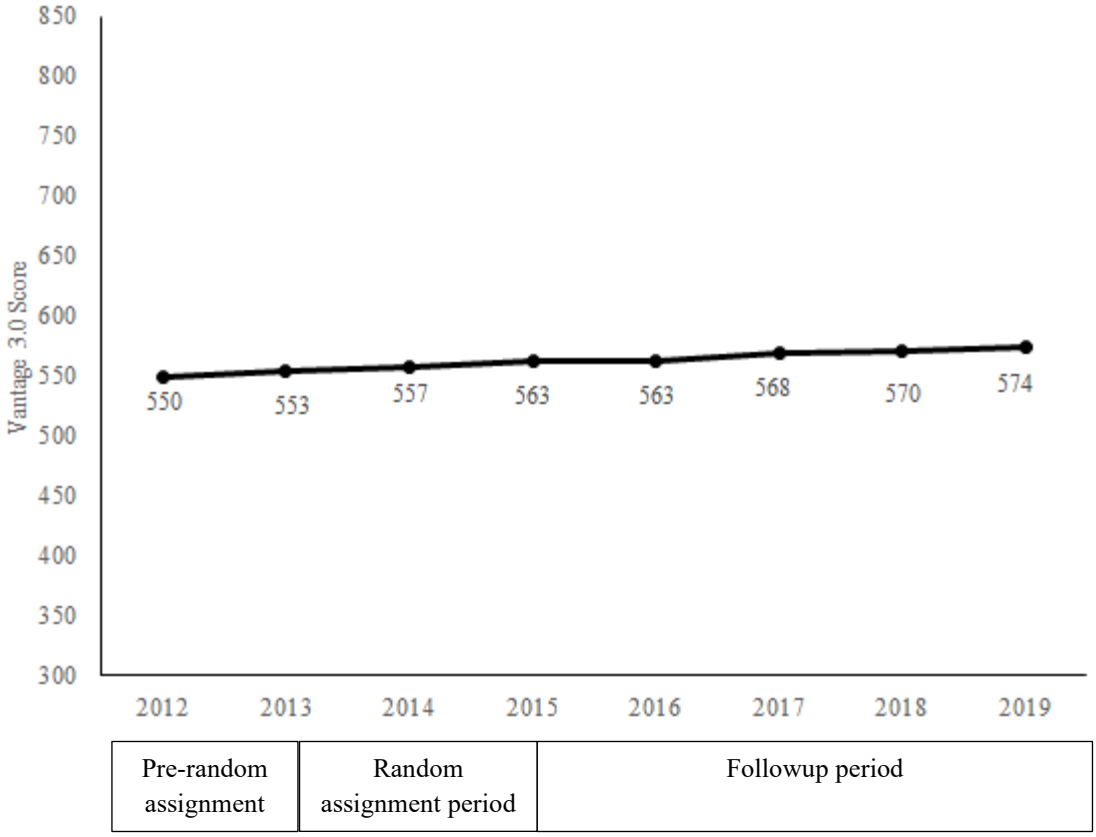
The impact analysis for credit scores compares average Vantage and Clarity scores and range values for FSS and control group members at the end of followup in December 2019 and compares trends in credit score values by research group. Next, the chapter compares FSS and control group members' levels of debt from traditional and AFS sources of credit—in December 2019 and over time. The chapter also examines whether FSS group members experienced a decrease below the level of the

control group in the incidence of credit problems, for example, from extremely late or forgone payments or from carrying a total balance close to the study participant's maximum credit limit. Experian financial transactions data also include mortgages and home equity loans. The analysis will use this information to compare rates of homeownership for FSS and control group members.

Impacts on Credit Scores

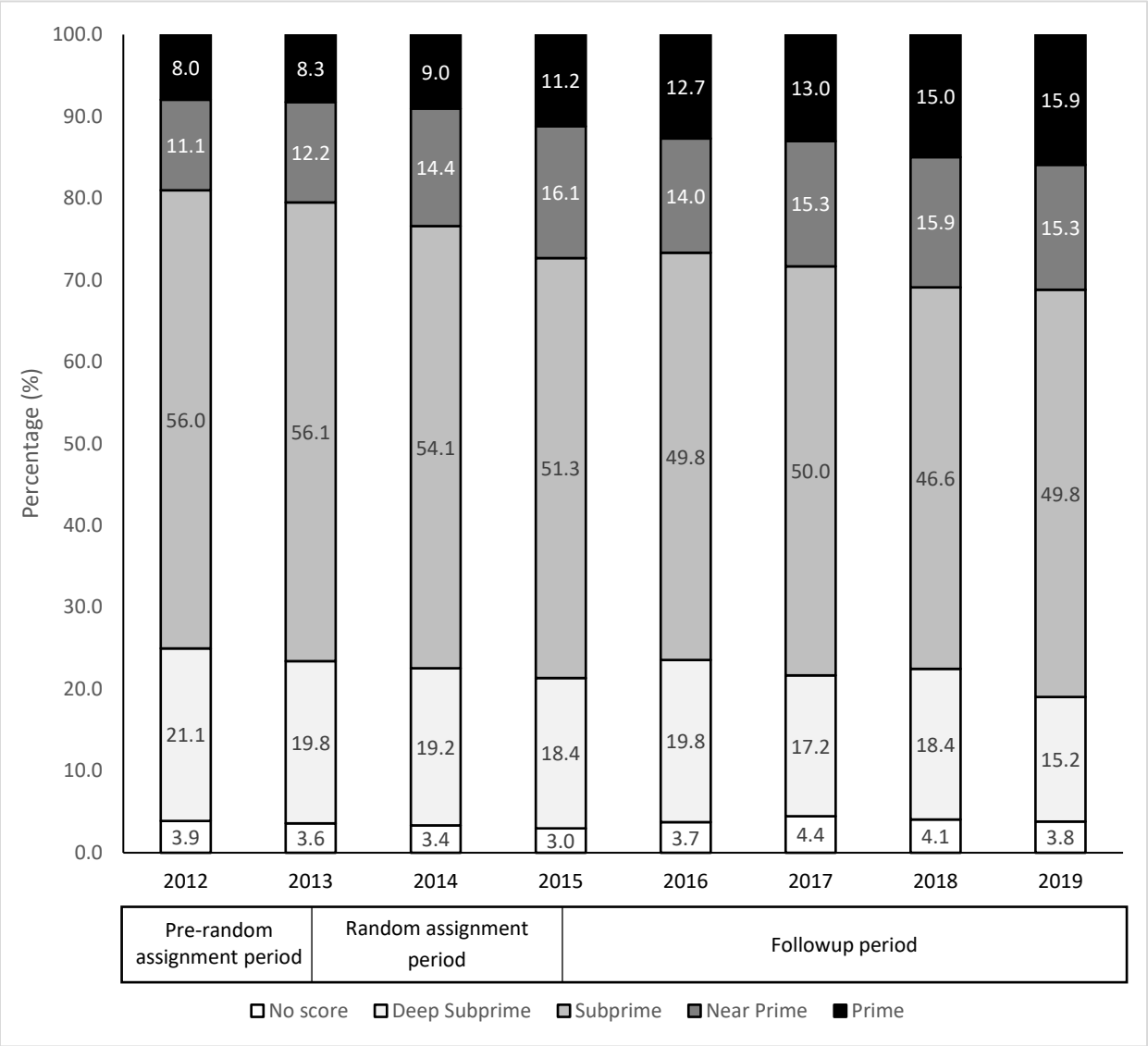
The analysis of the FSS program's impacts on credit scores begins with a short summary of year-by-year trends in credit scores for FSS group members. As exhibit 5.2 shows, the typical FSS group member received Subprime VantageScores (below 600) from 2012 through 2019. FSS group members' scores improved somewhat over time, averaging 555 during the random assignment years (2013 and 2014) and increasing by nearly 20 points during the 5 years of followup. During the followup years (2015–2019), the proportion of FSS group members with Prime VantageScores (above 660) increased fairly steadily, from about 8 percent in 2013 to 16 percent 6 years later, whereas the proportion of FSS group members with Subprime scores (below 601) decreased by a similar amount (see exhibit 5.3).

Exhibit 5.2: Family Self-Sufficiency Group Members' Average Experian Vantage 3.0 Credit Scores, 2012–19, Family Self-Sufficiency Impact Sample (FSS Group Only)



Sources: MDRC calculations using Experian Vantage 3.0 credit scores and Clarity Clear Early Risk scores data

Exhibit 5.3: Changes in FSS Group Members' Average Experian Vantage 3.0 Credit Scores, 2012–19, Family-Self Sufficiency Impact Sample (FSS Group Only)

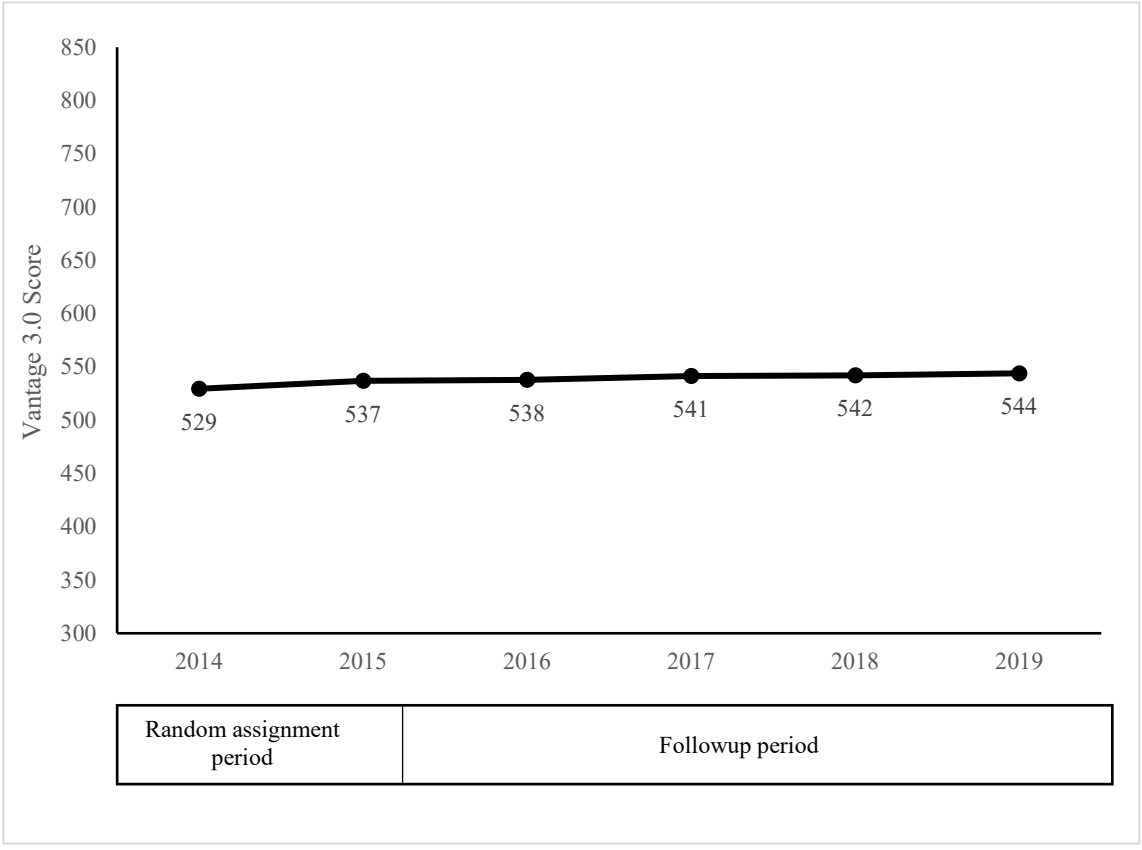


Sources: MDRC calculations using Experian Vantage 3.0 credit scores Clarity Clear Early Risk scores data

As suggested by the overall trend in average VantageScores, FSS group members tended to make modest improvements over time to their scores and range levels, but their scores often moved up or down, sometimes dramatically, year by year. As appendix exhibit D.1 shows, from the start of the random assignment period (in 2013) to the end of the followup period (in 2019), a little more than one-half of FSS group members experienced an increase in their VantageScores of at least 10 points, whereas a little more than one-third of FSS group members experienced a decrease in their score of 10 points or more. The largest percentage of FSS group members who improved their scores (11 percent) moved from the Subprime (below 601) level to the Near Prime (601–660) level, and only one-fourth of FSS group members had a Prime (above 660) level score in any monthly snapshot file from the followup period.

Trends in Clarity scores were less positive (see exhibit 5.4). In general, customers with lower VantageScores tended to use AFS loans more often than did customers with higher scores and therefore had a higher incidence of having a Clarity score. For example, in 2019, about 85 percent of FSS group members with Deep Subprime (below 500) VantageScores had a Clarity score, compared with about 30 percent of FSS group members with Prime (above 660) VantageScores (not shown in exhibits). Nonetheless, use of AFS increased over time. As exhibit 5.5 shows, in 2014 (the earliest year with Clarity credit score data), nearly one-half of FSS group members had no Clarity score, implying that they were not using AFS products. In 2019, the proportion with no Clarity score was about 14 percentage points lower, suggesting an increase in the use of nontraditional credit products.[81] Also, at no time in the followup period did the proportion of FSS group members with Prime Clarity scores (above 660) exceed 5 percent, an outcome related to the lesser use of AFS by FSS group members with higher VantageScores.[82]

Exhibit 5.4: Changes in Family Self-Sufficiency Group Members' Average Clarity Clear Early Risk Credit Scores, 2014–19

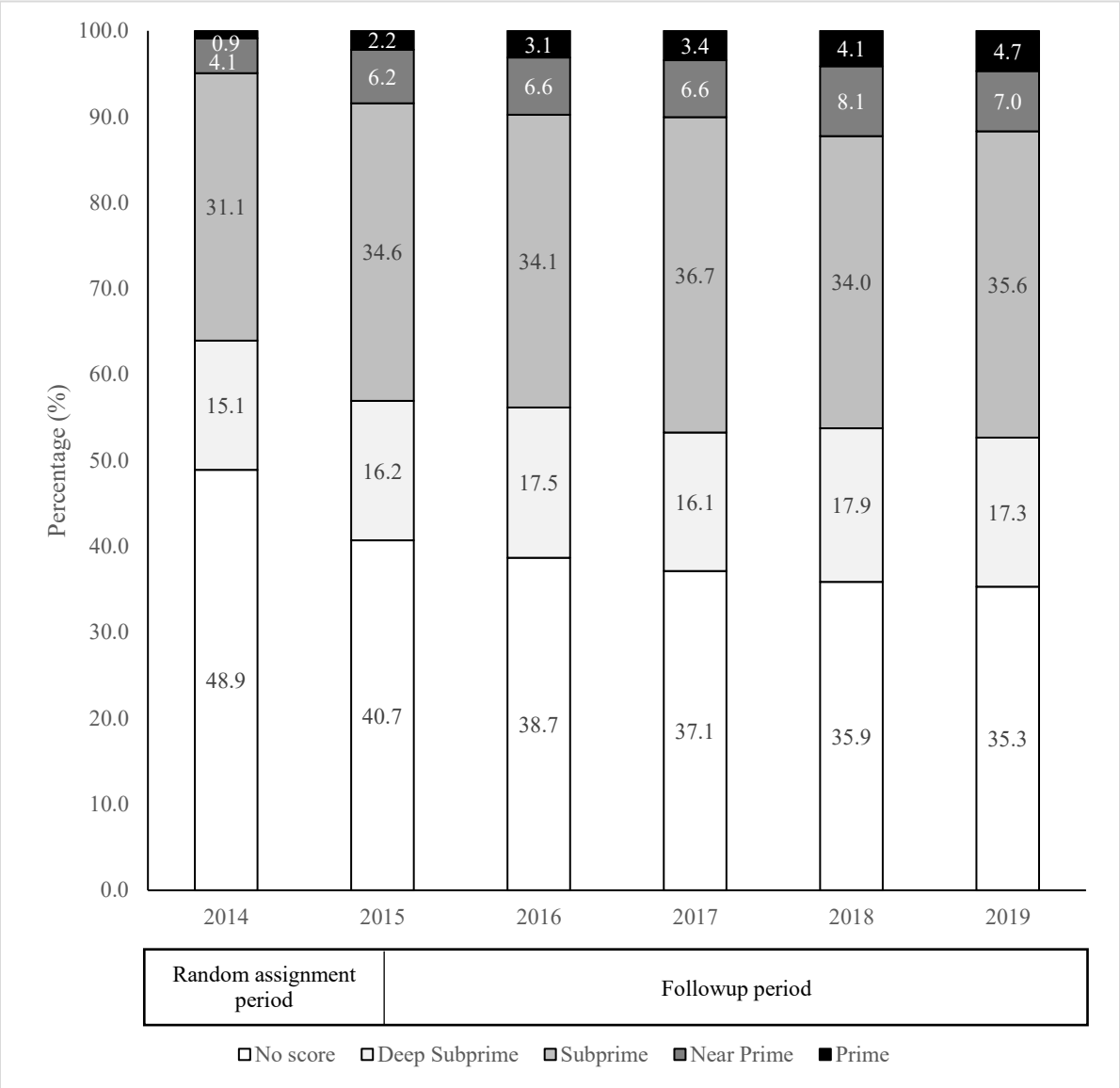


Sources: MDRC calculations using Experian Vantage 3.0 credit scores; Clarity Clear Early Risk scores data

[81] This pattern follows a national trend, as discussed in Clarity Experian (2020), p.16.

[82] As exhibit 5.4 shows, FSS group members with a Clarity score averaged a score of 544 in 2019, about 30 points below the average VantageScore for the FSS group.

Exhibit 5.5: Changes in the Distribution of Clarity Clear Early Risk Credit Scores, 2014–19, Family Self-Sufficiency Impact Sample (FSS Group Only)



Source: MDRC calculations using Clarity Clear Early Risk scores data.

On average, control group members recorded similar patterns of Vantage and Clarity credit scores as FSS group members. As exhibit 5.6 shows, at the end of the followup period (in 2019), control group members averaged a VantageScore of 571 and a Clarity score of 539, nearly identical to the averages for the FSS group. Members of both research groups were equally likely to increase their scores over time and equally likely to move into the Prime score range by the end of followup.

Exhibit 5.6: Impacts on Credit Scores After 5 to 6 Years of Followup, Family Self-Sufficiency Impact Sample

Outcome	FSS Group	Control Group	Difference (Impact)		P-Value
Has credit scores in 2019 (%)					0.966
No scores	3.5	3.5	-0.1		0.943
Experian Vantage 3.0 score only	31.4	33.2	-1.8		0.294
Clarity Clear Early Risk score only	0.3	0.3	0.0		0.913
Vantage and Clarity scores	64.9	62.9	1.9		0.283
Average Vantage 3.0 score	574	571	2		0.505
Vantage 3.0 score (%)					0.810
No score	3.8	3.9	-0.1		0.919
Deep Subprime	15.3	16.8	-1.5		0.295
Subprime	50.1	48.8	1.3		0.522
Near Prime	15.3	15.3	0.0		0.991
Prime	15.6	15.3	0.3		0.798
Average Clarity score	544	539	5		0.159
Clarity score (%)				*	0.099
No score	34.9	36.8	-1.9		0.289
Deep Subprime	17.4	19.0	-1.7		0.268
Subprime	36.0	32.1	3.9	**	0.039
Near Prime	7.0	8.8	-1.8		0.103
Prime	4.8	3.4	1.4	*	0.065
Sample size total = 2,548	1,282	1,266			

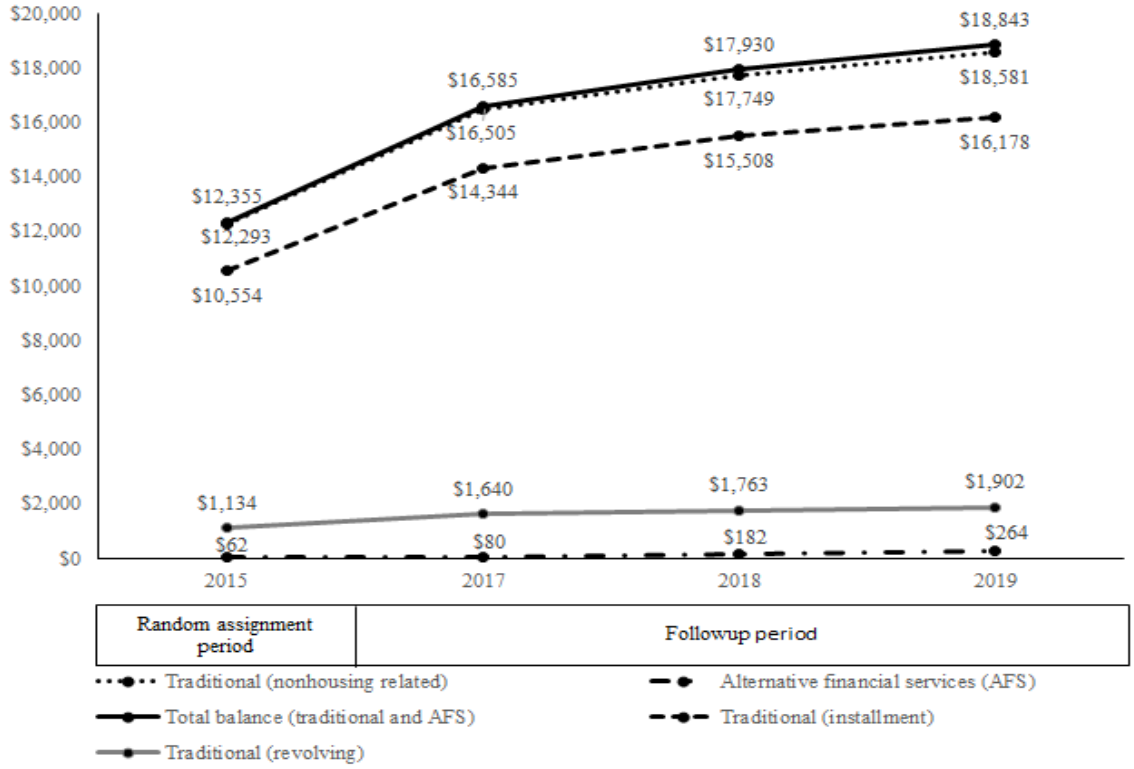
Notes: The FSS impact sample includes housing choice voucher heads of household who were randomly assigned between October 18, 2013, and December 22, 2014, and were age 18 to 61 at the time of random assignment. Sample sizes for specific outcomes may vary because of missing values. Estimates were regression adjusted using ordinary least squares, controlling for differences in sample member characteristics recorded at the time of random assignment. No special weights were applied to responses to adjust for differences in sample size by housing authority. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between the FSS group and the control group for continuous variables and selected outcomes expressed as proportions. In addition, a chi-square test for categorical variables was run to determine whether there is a difference in the distribution of related outcomes by research group. The p-value indicates the likelihood that the difference between the FSS group and the control group arose by chance. Statistical significance levels are indicated as * = 10 percent; ** = 5 percent; *** = 1 percent.

Sources: MDRC calculations using Experian Vantage 3.0 credit scores and Clarity Clear Early Risk credit scores.

Impacts on the Use of Traditional Financial Services and Sources of Credit

According to Vantage credit data covering traditional financial services (and summarized in exhibit 5.7), during the random assignment year of 2014, the typical FSS group member carried a balance of around $9,000 in nonhousing-related debt. Over the next 5 years of followup, FSS group members' average debt level nearly doubled, reaching an average of close to $19,000 in nonhousing-related debt. As exhibits 5.7 and 5.8 show, the largest proportion of FSS group members' nonhousing-related debt was for installment debt, which includes student debt, auto loans, and store financing for furniture, appliances, or other large purchases. (As appendix exhibit D.2 shows, automobile loans and student debt accounted for almost all of FSS group members' total balances for installment debt from traditional credit sources during each year of followup.)[83]

Exhibit 5.7: Changes in Debt Balance Amount from 2014 to 2019, by Type of Credit, Family Self-Sufficiency Group Members in the Family Self-Sufficiency Impact Sample



Notes: The FSS Impact sample includes housing choice voucher heads of household who were randomly assigned between October 18, 2013, and December 22, 2014, and were age 18 to 61 at the time of random assignment. Sample sizes for specific outcomes may vary because of missing values. Estimates were regression adjusted using ordinary least squares, controlling for differences in sample member characteristics recorded at the time of random assignment. No special weights were applied to responses to adjust for differences in sample size by housing authority. Rounding may cause slight discrepancies in calculating sums and differences.

[83] Appendix exhibit D.2 shows that average student debt increased during the followup, which suggests that some FSS group members were self-financing their attendance at degree programs or occupational skills training.

Sources: MDRC calculations using Experian Vantage 3.0 scores data and Clarity Early Risk scores data

Control group members also incurred increasing amounts of nonhousing-related debt from 2015 through 2019, mostly through greater levels of installment debt. In 2019, they averaged about $750 less in debt than the FSS group, although the difference was not statistically significant. By taking on higher levels of debt, FSS group members also averaged larger monthly payments over time, reaching nearly $400 per month by December 2019. As appendix exhibit D.2 shows, in 2019, the FSS program led to a statistically significant $30 (or 12-percent) increase over the control group level in payments to installment credit accounts with traditional financial services lenders. Increases above the control group in average payments were also recorded in 2016 and 2017.[84]

Impacts on the Use of Alternative Financial Services and Sources of Credit

In this section, the analysis considers whether FSS group members used AFS credit, such as payday and auto title loans, less often than their counterparts in the control group. It would be expected that FSS group members' greater access to financial management workshops and counseling would reinforce their reluctance to take out AFS short-term, high-interest loans, which often carry substantial risks.

According to research by Clarity on recent trends in AFS use, the greater availability of online short-term installment lending—more than tripling in loan volume between 2015 and 2019—has led to a sharp increase in overall AFS borrowing nationwide.[85] AFS installment loans, including loans issued from storefront businesses, typically carry higher balances than AFS short-term, single-payment loans (such as "payday loans") and often require repayment over an average of 7 to 12 months. Over time, the characteristics of AFS borrowers have become more diverse—including more borrowers with resources to repay loans of $2,000 or more. For example, according to Clarity, in 2019, about one-third of AFS borrowers nationwide had VantageScores in the Near Prime or Prime level (601 or higher), compared with about one-fourth 4 years earlier (Clarity Experian, 2020).

For this analysis, Experian made available Clarity data on AFS use in a series of annual snapshot files, covering December 2014 through December 2019. The 2014 data represent indicators of AFS use around the time of random assignment, whereas data from 2015 through 2019 contain AFS outcomes during the followup period. Clarity data categorize AFS loans according to whether they originate online or in a storefront business and also whether borrowers must repay the entire balance in a single payment or in installments over time.[86]

[84] See Verma et al. (2021). FSS group respondents to the FSS 36-Month Survey (administered in 2017) reported incurring about $14,000 in nonhousing-related debt, a somewhat smaller amount than the average for 2017 recorded by Experian. According to survey responses, average debt levels for FSS group members exceeded the control group average by about $1,600, a somewhat larger amount than recorded by Experian.

[85] See Clarity Experian (2020). The report covers changes in lending patterns from 2015 through 2019, before the onset of the COVID-19 pandemic and economic downturn. A later report in this evaluation will analyze changes in credit use during 2020.

[86] Some Clarity data do not include these categories and are categorized as "other" in exhibits and text. "Other" AFS loans tend to have larger balances than installment and single-payment loans and probably include mostly installment loans.

As appendix exhibit D.3 shows, a fairly small proportion of FSS group members (22 percent) took out an AFS loan during the followup years (2015 through 2019). The incidence of AFS borrowing increased somewhat over time—from 7 percent of FSS group members in 2015 to 12 percent in 2019. AFS borrowers, although a relatively small proportion of the entire FSS group, were relatively steady users of AFS credit. They averaged about one AFS loan per year and incurred about $3,000 (or $600 annually) in AFS debt during the followup period.[87]

During the followup years, control group members showed an almost identical pattern of AFS use, resulting in only scattered and small impacts on measures of AFS use.

Impacts on the Use of Credit (Traditional and AFS) and Incidence of Credit Problems

Exhibits 5.8 and 5.9 summarize FSS and control group members' total use of credit from traditional and AFS sources and incidences of credit problems during the followup period. As discussed above and in previous reports, FSS programs often provide participants with access to financial management workshops and counseling. Along with assistance on "cleaning up" problems in credit reports, FSS programs typically counsel participants to limit their debt and avoid high-risk lending products, such as those offered by AFS lenders. As exhibit 5.8 shows, in 2019, the last year of followup, almost no members of either research group relied solely on AFS credit, and only a modest proportion (11 percent) of members of each research group combined traditional and AFS credit use. The FSS program led to a small (3-percentage-point) and statistically significant increase over the control group average in the use of traditional lending sources. As discussed previously, debt levels approximately doubled for both research groups during the followup years, mainly because of increases in traditional credit use (most often, for automobile and student loans).

Exhibit 5.8: Impacts on Use of Traditional and Alternative Financial Services, Family Self-Sufficiency Impact Sample

Outcome	FSS Group	Control Group	Difference (Impact)	P-Value
Financial service use (%)				
2014				
No financial services	37.0	38.5	-1.5	0.411
Traditional financial services only	59.8	58.2	1.6	0.385
Alternative financial services only	1.1	0.5	0.6 *	0.098
Both traditional and alternative financial services	2.1	2.8	-0.7	0.250
2019				
No financial services	23.8	26.9	-3.1 *	0.060
Traditional financial services only	63.9	60.6	3.3 *	0.081
Alternative financial services only	1.8	1.8	0.0	0.977

[87] The calculation is $702 divided by 0.221 = $3,176.

Outcome	FSS Group	Control Group	Difference (Impact)		P-Value
Both traditional and alternative financial services	10.5	10.7	-0.2		0.861
Total balance ($)					
2014					
All financial services	9,489	9,153	336		0.601
Traditional financial services	9,478	9,140	337		0.600
Revolving credit	847	750	97		0.299
Installment credit	7,919	8,112	-193		0.738
Alternative financial services	11	13	-1		0.607
Single-payment credit	10	9	1		0.644
Installment credit	0	1	-1	**	0.040
Other credit	1	3	-1		0.323
2019					
All financial services	18,992	18,241	751		0.482
Traditional financial services	18,725	17,979	746		0.484
Revolving credit	1,892	1,969	-78		0.633
Installment credit	16,266	15,870	396		0.691
Alternative financial services	270	263	7		0.865
Single-payment credit	34	34	0		0.998
Installment credit	44	42	2		0.887
Other credit	192	187	5		0.884
Total monthly payment to all financial services ($)					
2014	211	206	5		0.645
2019	441	409	33		0.126
Average change in total balance between 2014 and 2019					
Change in total debt (%)					
Decrease	25.2	26.1	-0.9		0.606
Little to no change	16.3	16.7	-0.4		0.767
Increase	58.5	57.1	1.3		0.505
Average change in debt-to-income ratio between 2014 and 2019					
Change in debt-to-income ratio (%)					
Decrease	25.0	25.6	-0.6		0.743
Little to no change	29.4	28.9	0.4		0.815
Increase	44.9	44.3	0.6		0.787
Sample size total = 2,548	1,282	1,266			

Notes: The FSS impact sample includes housing choice voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Sample sizes for specific outcomes may vary because of missing values. Estimates were regression adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. No specific weights were applied to responses to adjust for differences in sample size by housing authority. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between the FSS group and the control group for continuous variables and selected outcomes expressed as proportions. In addition, a chi-square test for categorical variables was run to determine whether there is a difference in the distribution of related outcomes by research group. The p-value indicates the likelihood that the difference between the FSS group and the control group arose by chance. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

Source: MDRC calculations using Experian and Clarity Early Risk scores data

Exhibit 5.9: Impacts on Incidence of Credit Problems, Family Self-Sufficiency Impact Sample

Outcome (%)	FSS Group	Control Group	Difference (Impact)		P-Value
2014					
Any credit problem	51.5	52.9	-1.4		0.461
High debt-to-income ratio	12.8	11.4	1.4		0.281
Traditional financial services					
Total balance greater than or equal to 75 percent of total credit	38.3	37.9	0.4		0.836
Revolving credit	14.3	14.0	0.3		0.817
Installment credit	33.8	34.3	-0.4		0.802
Any debt 90 days or more past scheduled repayment date	15.5	15.9	-0.4		0.775
Revolving credit	3.0	4.3	-1.3	*	0.094
Installment credit	17.4	18.6	-1.2		0.421
Alternative financial services					
Incurred a late payment, loan collection, or charge off	2.3	2.2	0.0		0.947
2019					
Any credit problem	63.4	61.2	2.3		0.226
High debt-to-income ratio	19.3	18.8	0.5		0.738
Traditional financial services					
Total balance greater than or equal to 75 percent of total credit	43.0	43.3	-0.3		0.891
Revolving credit	20.8	21.4	-0.6		0.722
Installment credit	41.9	40.2	1.6		0.376
Any debt 90 days or more past scheduled repayment date	16.6	17.1	-0.5		0.743
Revolving credit	3.2	3.1	0.1		0.916
Installment credit	18.4	18.1	0.3		0.844
Alternative financial services					
Incurred a late payment, loan collection, or charge off	7.6	7.4	0.2		0.866
Sample size total = 2,548	1,282	1,266			

Notes: The FSS impact sample includes housing choice voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Sample sizes for specific outcomes may vary because of missing values. Estimates were regression adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. No specific weights were applied to responses to adjust for differences in sample size by housing authority. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between the FSS group and the control group for continuous variables and selected outcomes expressed as proportions. In addition, a chi-square test for categorical variables was run to determine whether there is a difference in the distribution of related outcomes by research group. The p-value indicates the likelihood that the difference between the FSS group and the control group arose by chance. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

Source: MDRC calculations using Experian and Clarity credit data

Increases in debt do not necessarily portend greater financial stress. Assuming greater debt, especially for education or training or for more reliable transportation, can lead to better employment and higher income. One metric used by lenders for gauging potential borrowers' relative financial health is called the "debt-to-income" (DTI) ratio, which compares a customer's total monthly loan repayments to his or her total pre-tax monthly income (Folger, 2021). According to online financial advice documents from the U.S. Consumer Financial Protection Bureau (2019), Experian, and others, lenders consider a DTI ratio of under 36 percent as an indicator of having a good financial condition and a DTI ratio above 43 percent as evidence of financial distress.[88] For this analysis, study participants' DTI ratio was estimated with Vantage and Clarity data on monthly loan payments and HUD IMS/PIC data on head-of-household income.[89] As exhibit 5.8 shows, as members of both research groups increased their debt levels, they also incurred greater uncertainty in their financial condition over time. More than 40 percent of the members of each research group increased their DTI ratio between 2014 (in the random assignment period) and 2019 (at the end of the followup period), whereas about one-fourth of FSS and control group members decreased their DTI ratio. Nonetheless, exhibits 5.9 and 5.10 show that relatively few members of each research group (about one in five) incurred a high and problematic level (above 43 percent) in this measure.[90]

Credit users may also demonstrate financial stress if they keep borrowing until their total balance reaches or approaches the limit of their available credit. Financial services corporations and lenders operationalize this potential credit problem by calculating a customer's ratio of total balance to total available credit. They often define a potential borrower as being financially at risk if he or she has a total balance that equals or exceeds 75 percent of his or her available credit.[91] Exhibit 5.9 shows a version of the balance-to-credit ratio for FSS and control group members, as measured with data from

[88] See Akin (2020); Investopedia (2020); U.S. CFPB (2019). According to these sources, lenders will typically reject a mortgage application for any applicant with a DTI above 43 percent.
[89] See appendix D.4 for additional details on measure construction.
[90] Not shown, an additional 5 percent of FSS group members had no recorded head-of-household income in their most recent HCV eligibility reexamination, according to IMS/PIC data, making it impossible to estimate a DTI ratio. These FSS group members would also be considered to have an at-risk financial condition.
[91] Experian routinely calculates this measure for several credit sources.

2014 and 2019.[92] As exhibit 5.9 shows, a relatively large proportion of members of each research group (about 40 percent) came close to "maxing out" their available credit during each of these years. Over time, the problem worsened somewhat for each group. By 2019, 43 percent of the members of each research group had borrowed 75 percent or more of their available credit. According to credit data, the FSS program did not affect the incidence of having a credit balance close to the maximum credit limit.

A perhaps more serious type of credit problem involves late or forgone payments for outstanding debt. Exhibit 5.9 shows that for traditional credit sources, about one in six FSS and control group members delayed or forwent repayment of the balance they owed for 90 or more days. In addition, in 2019, about 8 percent of FSS group members and 7 percent of control group members did not repay an AFS loan or delayed repayment.

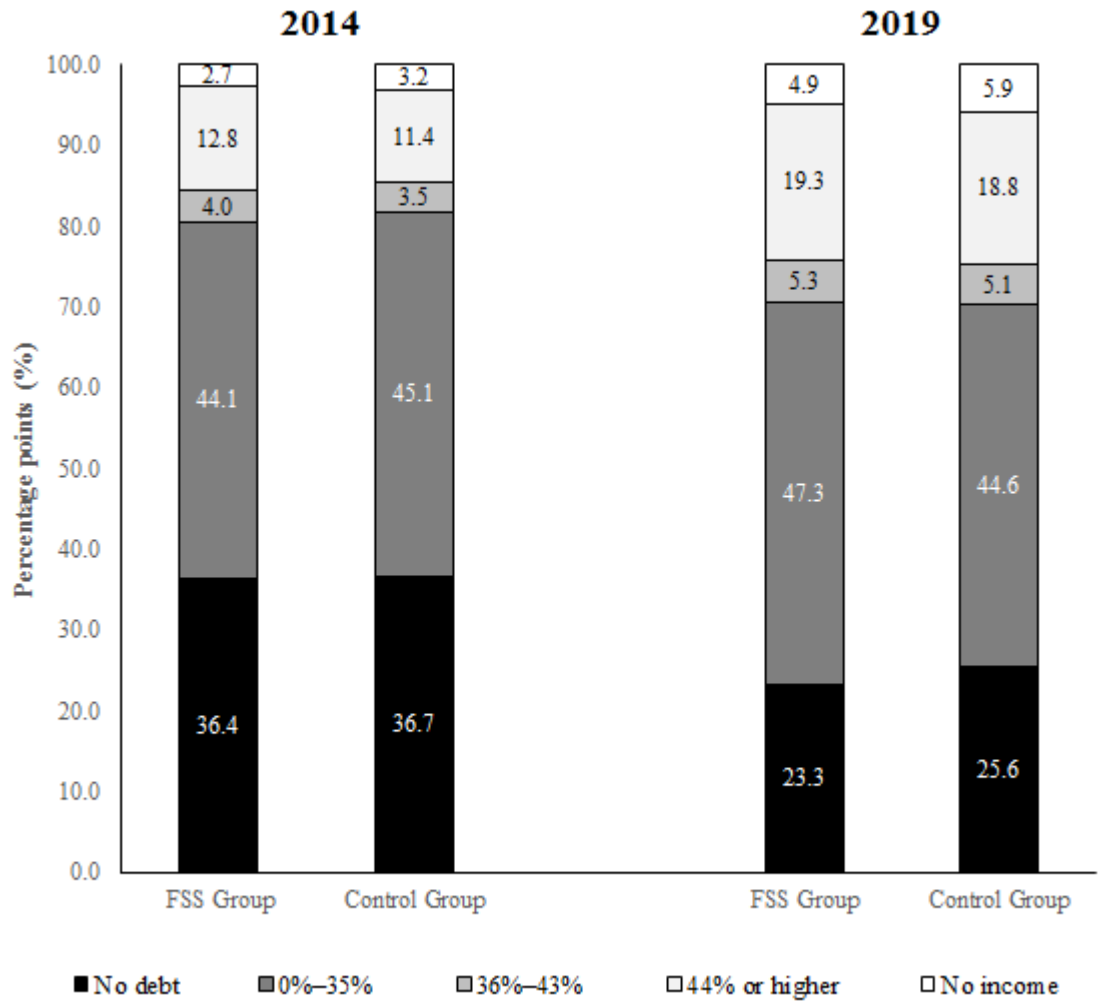
In total, about 60 percent of FSS group members experienced at least one of these types of credit problems during 2019—a similar proportion to that of the control group.

Impacts on Housing Status and Rent Subsidies

The FSS program implements a 5-year strategy to increase voucher holders' household income through better employment and, possibly, additional household members' employment, leading to graduation and the disbursement of escrow dollars. In the longer term (beyond graduation), FSS is intended to facilitate voucher holders' transition to homeownership or unsubsidized housing. During the 5-year contract period, the effects of FSS on housing status and subsidies are more difficult to predict. FSS group members should be expected to have a greater incentive than control group members to remain enrolled in the HCV program to accrue escrow credits and qualify for escrow disbursement—and possibly to maintain their access to FSS-related services and case management. Among study participants who remained in the HCV program, like the control group, FSS group members would also be expected to pay more out of pocket for rent and utilities as their earnings increase. Nevertheless, other factors, such as the lack of available low- and moderate-cost rental housing in each locality, household composition, and household income levels, likely affect study participants' housing choices, expenditures, and subsidy receipt.

[92] See appendix D.4 for additional details on measure construction.

Exhibit 5.10: Change in Debt-to-Income Ratio from 2014 to 2019, by Research Group, Family Self-Sufficiency Impact Sample



Notes: Debt-to-income ratio is calculated as estimated monthly payment to creditors divided by estimated monthly income expressed as a percentage. Individuals with debt-to-income ratios of 44 percent or higher or that have no income are often considered by creditors to be ineligible for additional credit.

Sources: MDRC calculations using baseline data and Experian and Clarity credit data

Exhibit 5.11 displays important summary measures of both groups' cumulative housing costs and rent subsidies during Years 1 through 5 and in Month 60 (at the end of Year 5), calculated for the impact sample from HUD administrative data. As exhibit 5.11 shows, a nearly equal proportion of FSS group and control group households (about 69 percent) remained enrolled in the HCV program in Month 60. During Month 60, FSS group members still in the HCV program averaged slightly higher out-of-pocket expenses (of $17) for rent and utilities. Concomitantly, FSS group members averaged lower amounts of housing subsidies. Over 5 years, the difference between the research groups in total out-of-pocket (family share) housing expenses was more pronounced, with FSS group members averaging nearly

$1,200 (or 5 percent) above the control group total, a statistically significant difference. This impact, however, overstates the effect of FSS on housing expenses for the portion of the FSS group who receive an FSS escrow disbursement at graduation.

Exhibit 5.11: Impacts on Shelter Costs and Housing Subsidies, Years 1 Through 5 Family Self-Sufficiency Impact Sample

Outcome	FSS Group	Control Group	Difference (Impact)		P-Value
Enrolled in HCV program in Month 60 (%)	68.8	69.3	-0.5		0.778
Gross rent (contract rent + utilities allowance)					
Year 1	15,134	15,027	107		0.418
Year 2	14,339	14,117	222		0.269
Year 3	13,597	13,441	156		0.539
Year 4	13,070	12,893	177		0.553
Year 5	12,640	12,587	53		0.874
Years 1–5	68,856	68,084	772		0.465
Family share					
Year 1	5,252	5,134	119		0.220
Year 2	5,306	5,110	196		0.126
Year 3	5,181	4,816	365	**	0.014
Year 4	4,919	4,667	252		0.116
Year 5	4,837	4,615	222		0.204
Years 1–5	25,694	24,521	1,173	**	0.034
Housing subsidy					
Total housing subsidy ($)					
Year 1	9,792	9,758	34		0.780
Year 2	8,965	8,894	72		0.662
Year 3	8,342	8,533	-191		0.325
Year 4	8,270	8,204	66		0.766
Year 5	7,851	8,045	-194		0.415
Years 1–5	43,347	43,631	-284		0.724
If HCV received in Month 60 ($)					
Average gross rent in Month 60	1,537	1,545	-7		
Average family share in Month 60	591	573	17		
Average housing subsidy in Month 60	960	979	-19		
Sample size total = 2,548	1,281	1,267			

Notes: The FSS impact sample includes housing choice voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Rent and subsidy calculations used data from each household's housing choice voucher annual and interim eligibility reexaminations. Recorded amounts were copied to successive months until a new eligibility reexamination took place or the household left housing assistance. Cumulative totals for former HCV households cover their months of eligibility following random assignment. Estimates were regression adjusted using ordinary

least squares, controlling for pre-random assignment characteristics of sample members. For each dollar amount outcome, values above the 99th percentile were considered outliers and dropped from the calculations. As a result of this procedure, adjusted mean values for total family share and subsidies detail do not sum to total rent plus utility allowance. A two-tailed t-test was applied to differences between the FSS group and the control group for continuous variables and selected outcomes expressed as proportions. In addition, a chi-square test for categorical variables was run to determine whether there is a difference in the distribution of related outcomes by research group. The p-value indicates the likelihood that the difference between the FSS group and the control group arose by chance. Statistical significance levels are indicated as * = 10 percent; ** = 5 percent; and *** = 1 percent. Results displayed in italics are nonexperimental. No tests of statistical significance were performed on differences between research groups in means or proportions. Sample sizes for specific outcomes may vary because of missing values. Rounding may cause slight discrepancies in calculating sums and differences.

Source: U.S. Department of Housing and Urban Development Inventory Management System (IMS)/PIH Information Center (PIC) data

Impacts on Homeownership

As discussed above and in previous reports, many FSS programs encourage participants to aim for homeownership and support prospective homeowners with financial empowerment and homeownership preparation workshops and individual counseling. Graduates from the FSS program may use the money disbursed from their escrow account to help purchase a home (or for other purposes). Nongraduates could also conceivably save enough from their earnings or other funds to make a downpayment on a house, although, as discussed in chapter 3, FSS group members who exited the program without graduating tended to have smaller increases in their income over time than did FSS group members who graduated from the program.

According to Vantage data, as of December 2019, only 5 percent of FSS group members had taken out a mortgage (and would be assumed to own a home), compared with 4 percent of the control group. A later report will analyze trends in graduations, disbursements, and takeup of mortgages and home equity loans during an additional year of followup. Most likely, the proportion of homeowners among FSS group members will increase over time as more FSS group members graduate from the program. It should also be recognized that the COVID-19 pandemic and associated economic downturn may thwart some FSS group members' aspirations to buy a home by requiring them to use all or most of their escrow disbursements to pay for basic household expenses.

Conclusions

In the future, FSS group members' ability to achieve greater financial well-being, compared with the control group, will largely depend on how many FSS group members graduate from the program and receive their escrow dollars. A one-time infusion of $5,000 or more can make a big difference to a household's finances, irrespective of whether the household uses the money to make a large purchase; fund the education of a family member; reduce debt; or weather reductions in hours worked, layoffs, and furloughs during the COVID-19 pandemic. For the full impact sample, patterns of credit use and changes over time in credit scores did not provide strong evidence of the positive effects of financial workshops and individual counseling offered by FSS programs, possibly because of the relatively short-term nature of this assistance. Nonetheless, as with the absence of impacts on employment, earnings, and credit scores for the full sample, results for the full impact sample may result from a combination of positive effects for some subgroups or clusters of PHAs with similar program approaches and negative effects for others. The next chapter explores these issues. It should also be recognized that financial well-being has a psychological component. As discussed in the previous report, using responses to a 36-month survey, a larger proportion of FSS group members, compared with the control group, provided a relatively positive assessment of their financial circumstances and their ability to handle problems. The next report will explore some of these issues again on the basis of responses to a long-term survey.

Chapter 6. Variation in Program Impacts

Findings on program impacts for the entire impact sample, presented in chapters 3 to 5, may mask positive or negative effects for certain groups that may have had different exposure to the Family Self-Sufficiency program or may have responded differently to FSS services and financial incentives.[93] Chapter 6 first examines the FSS program's longer-term impacts for subgroups, defined by characteristics of study participants, recorded at baseline. Next, the chapter considers whether programs with similar program implementation orientations and practices led to more positive (or negative) effects on earnings, housing subsidies, and indicators of financial security compared with other programs.

These analyses draw on housing agency program records, quarterly wage data from the National Directory of New Hires (NDNH), HUD data, and data on credit scores and credit outcomes from Experian. As in chapters 4 and 5, for each subgroup, the analysis considers whether differences in average outcomes between the FSS group and the control group are statistically significant at the 10-percent level or less. In addition, the exhibits in chapter 6 present the results of an H-statistic, which show the likelihood that the observed variation in program effects among related subgroups is statistically significant and did not occur by chance.

For subgroups defined by individual baseline characteristics, the main findings are:

- There are isolated differences in impacts by subgroup on measures of employment and earnings and financial well-being, but there is no consistent pattern of variation to suggest that the program is more effective for selected subgroups of respondents.
- The most consistent pattern of positive effects on employment and earnings outcomes was recorded for FSS group members with a 2-year college degree or higher at random assignment, but each of these differences with the control group was above the 10-percent level of statistical significance.
- FSS group members in three subgroups (2-year college graduates or higher, working part-time hours at random assignment, and having no recorded income at random assignment) experienced statistically significant increases above the control group on one or more outcomes based on credit scores or use of credit.
- On average, at the end of Year 5, FSS group members in most subgroups were paying a larger share of their housing costs out of pocket and received smaller subsidies than their counterparts in the control group.

For FSS program clusters with similar implementation features, the main findings are:

- With one exception, there are isolated differences in impacts when study participants are grouped into "site clusters" on the basis of similar implementation features for FSS programs, but there is no consistent pattern of variation.

[93] Throughout this chapter, the terms *housing agency*, *public housing agency* (*PHA*), *site*, and *FSS program* will be used interchangeably.

- FSS programs with the strongest emphasis on financial services and goal attainment did not lead to consistently better outcomes for FSS group members, compared with the control group, on outcomes based on credit scores or use of credit.
- Over 5 years of followup, FSS programs with a strong emphasis on monitoring and engagement averaged earnings decreases relative to the control group of about $18,000 (or 17 percent) per study participant. By Year 5, however, the differences in average earnings between research groups were smaller (10 percent) and no longer statistically significant. In addition, by the end of followup, FSS group members in programs with the strongest emphasis on monitoring and engagement had, on average, received more financial benefits than had control group members from a combination of higher average housing subsidies over time and average total disbursements from their escrow accounts.

Program Impacts by Subgroups: Who Benefits in Years 3 Through 5?

The FSS program offers three potential financial benefits to participants, compared with what they would likely realize on their own initiative: (1) greater access to employment preparation services and education and training, which could lead to gains in employment, employment stability, and earnings; (2) greater access to financial management workshops and counseling, which could lead to increased savings, lower debt, and increased ability to weather financial shocks; and (3) an escrow account, which could lead to the receipt of a one-time disbursement worth thousands of dollars at graduation (and possibly employment and earnings gains in the years before FSS graduation). As discussed in previous reports, FSS group members tend to engage in FSS services during the first 2 years of followup; they then either settle into ongoing employment as their primary means of pursuing their FSS goals or they exit the program.

During the early years of followup, FSS group members' use of services (particularly longer-term education and training) could carry opportunity costs (for example, from cutting back on employment to attend postsecondary education or occupational skills training) or actual costs from self-financing participation in these activities through student loans or other means. These patterns of service use and employment raise the possibility that FSS program effects would change from negative or near zero to positive during the months leading up to graduation, when FSS group members would most likely be employed, and continue through the time when FSS graduates receive and begin to use their escrow disbursement. Furthermore, it would be reasonable to expect that subgroups, such as FSS group members with a 2-year college degree or higher at random assignment, with the greatest likelihood of graduating and receiving an escrow disbursement, would also have the best chance of experiencing other positive effects by the end of the followup period. These financial gains could come from better employment and earnings outcomes compared with the control group, from better credit-related outcomes, or from the net value of the escrow disbursement. For these reasons, the analysis will focus on Year 5 outcomes or the last month of followup for this report.[94]

[94] The term *net value* is used because recipients of an escrow disbursement may receive lower housing subsidies (because of higher earnings) while accruing escrow.

Subgroups Based on Participant Baseline Characteristics

Exhibits 6.1A through 6.1E and appendix exhibits E.1 through E.5 show FSS program impacts on selected outcomes for subgroups based on their characteristics around the time of random assignment: employment status, highest educational attainment, estimated annual household income, receipt of Supplemental Security Income or Social Security Disability Insurance (SSI/SSDI) benefits, reported barriers to employment, and percentage of out-of-pocket rent and utilities expenses during the month of random assignment.[95] Of importance to the FSS evaluation is examining whether the FSS program's combination of services and financial incentives leads to increases above the control group more consistently among subgroups with greater disadvantages in the labor market or subgroups with fewer disadvantages.[96] Each exhibit illustrates the impacts for selected outcomes for a particular subgroup.

Employment and Earnings

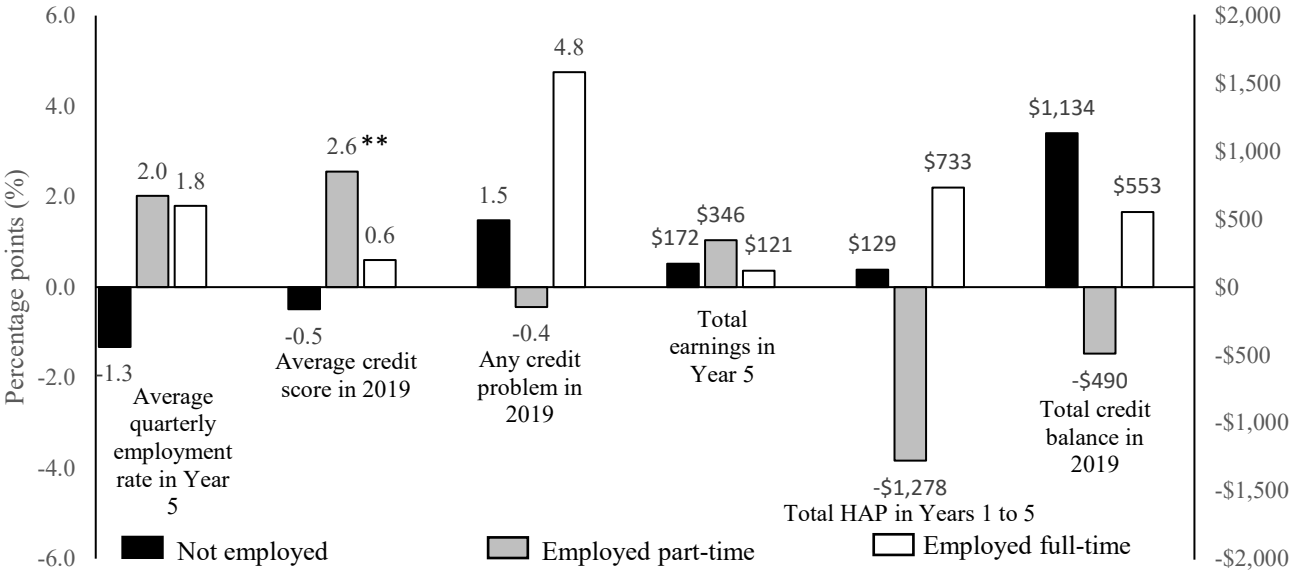
For employment and earnings measures from NDNH data, mean values for FSS and control group members varied substantially by subgroup. However, the FSS program led to only small and not statistically significant differences (or impacts) on these measures when average values for each research group are compared. For example, in any given quarter during Years 1 through 5, about 82 percent of control group members who reported working full-time hours at baseline were employed, according to NDNH quarterly wage data—nearly twice the rate for control group members with no reported employment at baseline (see appendix exhibit E.1). Over 5 years, FSS and control group members recorded nearly identical average quarterly employment rates for all employment subgroups. Similarly, control group members with full-time employment at baseline averaged almost $125,000 in total earnings over 5 years, more than three times the average for control group members with no employment at baseline. Moreover, the proportion of control group members in the full-time employment subgroup who averaged more than $25,000 per year in earnings (49 percent) was nearly six times larger than the proportion for control group members with no employment at baseline. For

[95] Employment status, highest educational attainment, having a barrier to employment, and SSI/SSDI benefits receipt are self-reported; estimated household income and out-of-pocket rent and utilities expenses were collected from HUD administrative data. Appendix exhibits E.1 through E.5 include regression-adjusted mean values for FSS and control group members, as well as FSS control group differences (impacts) in outcomes. These tables also include results for two additional subgroups: having or not having at least one barrier to employment (self-reported) and percentage of household income used to pay for rent and utilities (family share, from HUD administrative data). This subgroup analysis should be considered as *exploratory.* The final report will present a more formal analysis that will include outcome data covering additional years of followup and a machine learning framework that includes cross-validation to help reduce the number of tests and help validate any patterns seen.

[96] The most disadvantaged subgroups include those who are not employed at study entry, have no educational degree or credential, have no annual household income or income up to $10,000, reported one or more barriers to employment, are receiving SSI or SSDI benefits, and are paying up to 25 percent of their housing expenses out of pocket (the last measure is related to the amount of household income). The moderately disadvantaged subgroups include those who are employed part time, have a high school diploma or equivalent or some college, have an annual household income of $10,001 to $20,000, and are paying between 25.01 and 50.00 percent of their housing expenses out of pocket. The least disadvantaged subgroups include those who are employed full time, have a 2-year college degree or higher, have an annual household income of more than $20,000, and are paying more than 50 percent of their household expenses out of pocket. The remaining subgroups may be considered "mixed," meaning that they include study participants with a broad range of characteristics that could affect their future employment or earnings (for example "not receiving SSI/SSDI" and "not having a barrier to employment").

all of these measures, averages for the FSS group are slightly smaller, but the differences are not statistically significant.

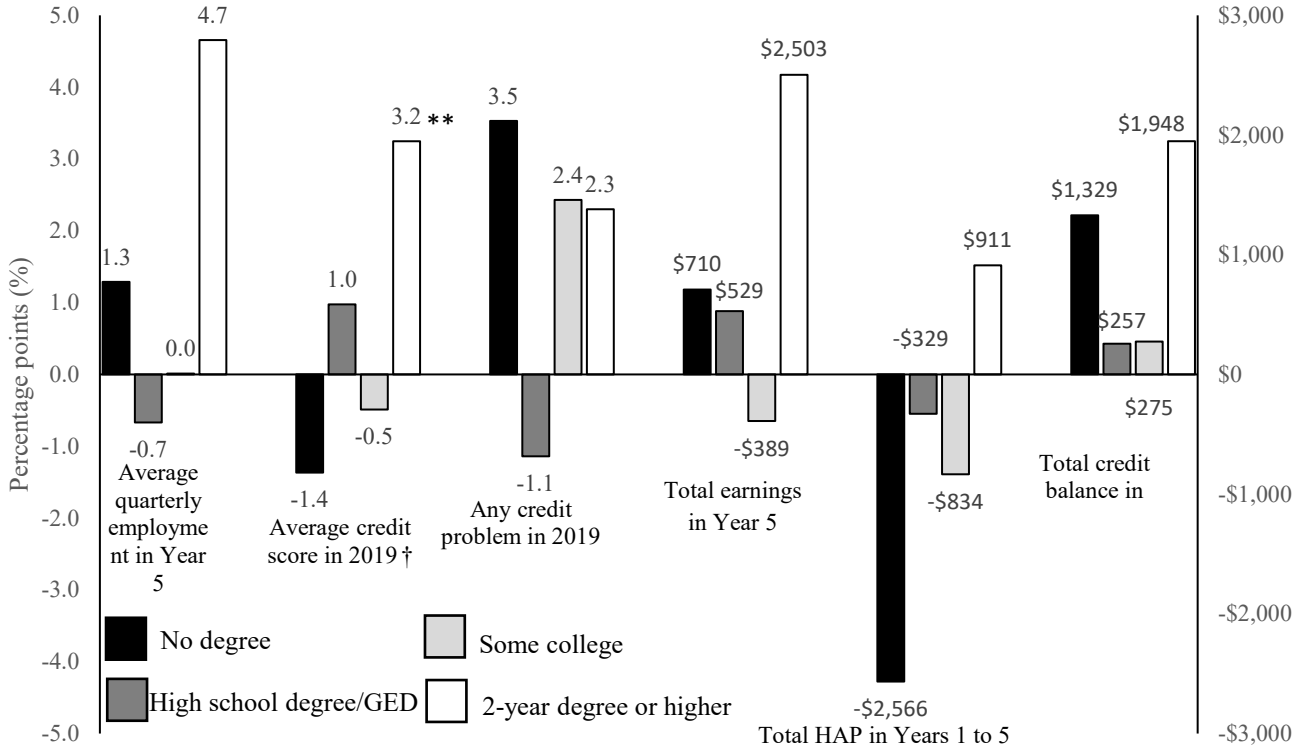
Exhibit 6.1A: Impacts on Selected Outcomes by Employment Status at Random Assignment



Notes: The FSS impact sample includes Housing Choice Voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Estimates were regression-adjusted using ordinary least squares, controlling for differences in sample member characteristics recorded at the time of random assignment. No special weights were applied to responses to adjust for differences in sample size by housing authority. Average quarterly employment rate is calculated as total quarters with employment divided by total quarters of followup, expressed as a percentage. The average credit score is expressed in "percentage change" format and calculated as (impact on average credit score / control group average) x 100. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent. The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as: † = 10 percent; †† = 5 percent; and ††† = 1 percent.

Sources: MDRC calculations from baseline data, U.S. Department of Housing and Urban Development Inventory Management System (IMS)/PIH Information Center (PIC) data, quarterly wage data from the National Directory of New Hires, and Experian and Clarity credit data.

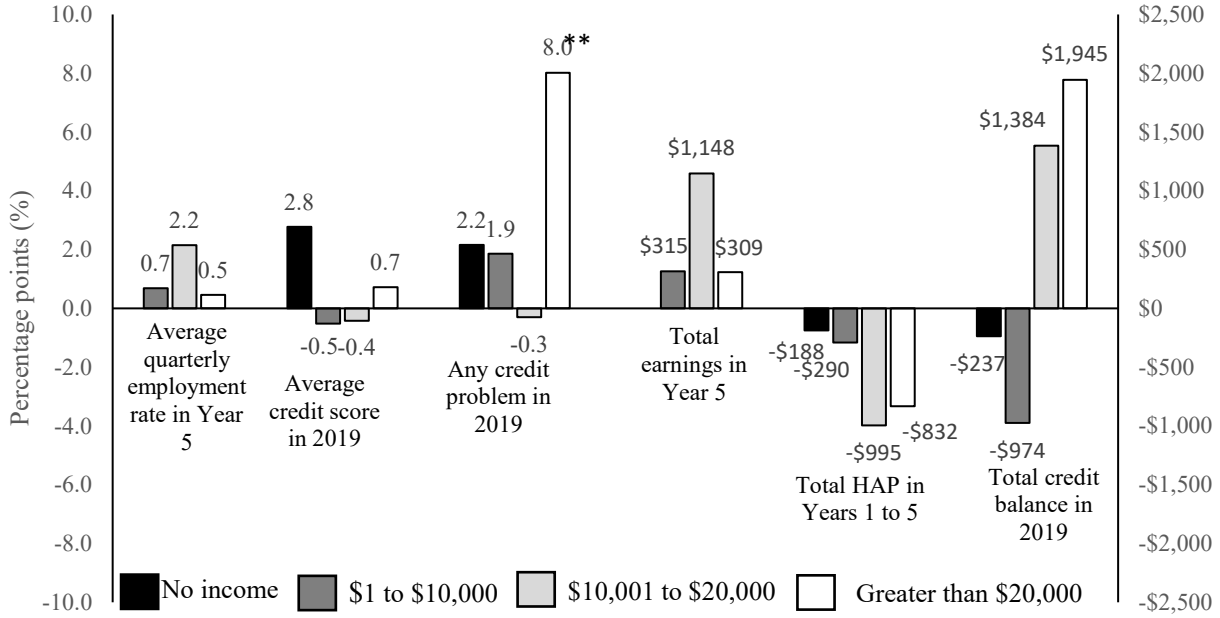
Exhibit 6.1B: Impacts on Selected Outcome by Educational Attainment at Random Assignment



Notes: The FSS impact sample includes Housing Choice Voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Estimates were regression-adjusted using ordinary least squares, controlling for differences in sample member characteristics recorded at the time of random assignment. No special weights were applied to responses to adjust for differences in sample size by housing authority. Average quarterly employment rate is calculated as total quarters with employment divided by total quarters of followup, expressed as a percentage. The average credit score is expressed in "percentage change" format and calculated as (impact on average credit score / control group average) x 100. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent. The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as: † = 10 percent; †† = 5 percent; and ††† = 1 percent.

Sources: MDRC calculations from baseline data, U.S. Department of Housing and Urban Development Inventory Management System (IMS)/PIH Information Center (PIC) data, quarterly wage data from the National Directory of New Hires, and Experian and Clarity credit data.

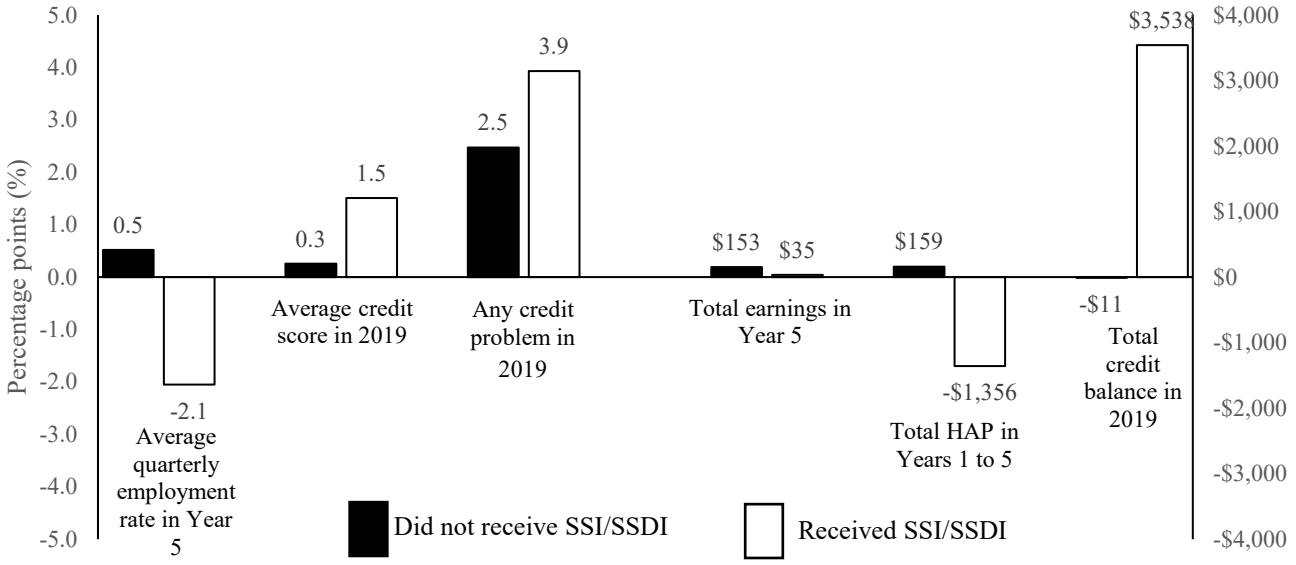
Exhibit 6.1C: Impacts on Selected Outcomes by Income at Random Assignment



Notes: The FSS impact sample includes Housing Choice Voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Estimates were regression-adjusted using ordinary least squares, controlling for differences in sample member characteristics recorded at the time of random assignment. No special weights were applied to responses to adjust for differences in sample size by housing authority. Average quarterly employment rate is calculated as total quarters with employment divided by total quarters of followup, expressed as a percentage. The average credit score is expressed in "percentage change" format and calculated as (impact on average credit score / control group average) x 100. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent. The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as: † = 10 percent; †† = 5 percent; and ††† = 1 percent.

Sources: MDRC calculations from baseline data, U.S. Department of Housing and Urban Development Inventory Management System (IMS)/PIH Information Center (PIC) data, quarterly wage data from the National Directory of New Hires, and Experian and Clarity credit data.

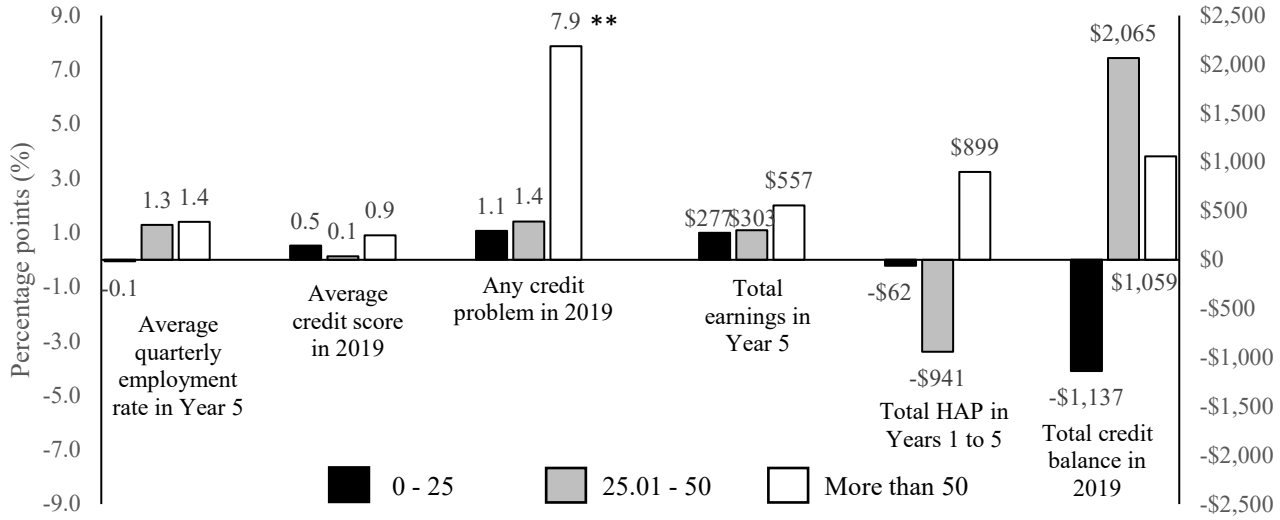
Exhibit 6.1D: Impacts on Selected Outcomes by Disability Status at Random Assignment



Notes: The FSS impact sample includes Housing Choice Voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Estimates were regression-adjusted using ordinary least squares, controlling for differences in sample member characteristics recorded at the time of random assignment. No special weights were applied to responses to adjust for differences in sample size by housing authority. Average quarterly employment rate is calculated as total quarters with employment divided by total quarters of followup, expressed as a percentage. The average credit score is expressed in "percentage change" format and calculated as (impact on average credit score / control group average) x 100. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent. The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as: † = 10 percent; †† = 5 percent; and ††† = 1 percent.

Sources: MDRC calculations from baseline data, U.S. Department of Housing and Urban Development Inventory Management System (IMS)/PIH Information Center (PIC) data, quarterly wage data from the National Directory of New Hires, and Experian and Clarity credit data.

Exhibit 6.1E: Impacts on Selected Outcomes by Percentage of Rent and Utilities Expenses Paid by Household at Random Assignment



Notes: The FSS impact sample includes Housing Choice Voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Estimates were regression-adjusted using ordinary least squares, controlling for differences in sample member characteristics recorded at the time of random assignment. No special weights were applied to responses to adjust for differences in sample size by housing authority. Average quarterly employment rate is calculated as total quarters with employment divided by total quarters of followup, expressed as a percentage. The average credit score is expressed in "percentage change" format and calculated as (impact on average credit score / control group average) x 100. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent. The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as: † = 10 percent; †† = 5 percent; and ††† = 1 percent.

Sources: MDRC calculations from baseline data, U.S. Department of Housing and Urban Development Inventory Management System (IMS)/PIH Information Center (PIC) data, quarterly wage data from the National Directory of New Hires, and Experian and Clarity credit data.

These patterns of impacts are repeated for the other subgroups. Results for Year 5 show similar patterns of average values for employment subgroup members and little or no difference in averages by research group.

One possible exception to these patterns is study participants who entered the evaluation with a 2-year college degree or higher (as discussed in chapter 3, FSS group members in this subgroup averaged the highest graduation rate and received the highest average disbursement amount). FSS group members with a postsecondary degree showed greater employment stability and higher earnings in Year 5, compared with the control group, but the differences were slightly above the 10-percent level of statistical significance, probably because of the small number of study participants in this group.

Credit Scores and Use of Credit

Exhibits 6.1A through 6.1E and appendix exhibit E.2 summarize the variation by subgroup in the FSS program's effects on credit scores. Once again, FSS group members with a 2-year college degree or higher experience the most consistently positive effects. In 2019, at the end of the followup period, FSS group members with a postsecondary degree averaged a higher VantageScore than the control group by 19 points (about 3 percent) and a higher average improvement in their credit scores since random assignment compared with the control group—a difference of 14 points. As of 2019, FSS group members in the graduate subgroup were the only subgroup members with an average score that placed them collectively in the Near Subprime rank. That year, the graduate subgroup also had the largest proportion of FSS group members with Prime VantageScores (of 661 or higher), 26 percent, which exceeded the control group mean by about 7 percentage points.

FSS group members with part-time employment at random assignment also experienced positive effects on credit scores compared with the control group. In 2019, they received an average VantageScore that exceeded the control group average by 15 points (3 percent). They also had a larger proportion of research group members in the Prime rank by 8 percentage points above the control group level.

A third subgroup that recorded gains above the control group on some credit score measures was FSS group members with no recorded earnings at random assignment. In 2019, control group members in that subgroup had the lowest average credit score (544) and the smallest proportion of research group members in the Prime rank (6 percent) among all subgroups. FSS group members with no recorded income exceeded these averages for the control group, although the difference between research groups in average credit scores was not statistically significant ($p=0.155$).[97] Finally, as appendix exhibit E.2 shows, a small proportion of FSS group members with no recorded income at random assignment (11 percent) entered the evaluation with a Subprime VantageScore and increased their score to Prime by the end of the followup period. In contrast, almost no control group member in the no-income subgroup improved his or her score as much.

Appendix exhibit E.2 also shows some scattered negative effects on credit scores. One noteworthy finding concerns members of the highest income subgroup at random assignment. By a margin of 9 percentage points, a smaller proportion of FSS group members had only a VantageScore, an indirect indicator of forgoing use of high-interest alternative financial services.[98]

As exhibits 6.1A to 6.1E and appendix exhibit E.3 show, subgroups differed considerably in average total debt from traditional and AFS lenders that study participants were carrying at the end of followup. Variation in debt levels was especially large among the educational attainment subgroups, a difference

[97] There is considerable overlap in membership in the no-income subgroup and the subgroup that paid out of pocket for 25 percent or less of total housing costs at random assignment. Not surprisingly, FSS group members in the latter subgroup recorded a small (4-percentage-point) increase above the control group level in the incidence of having a Prime VantageScore in 2019.

[98] Study participants in the highest income subgroup also tended to pay out-of-pocket for more than one-half of their total housing expenses. For that reason, a negative effect of similar magnitude was recorded for the FSS group for this outcome.

of more than $30,000 between study participants with no educational credentials and study participants with a 2-year college degree or higher. More generally, as appendix exhibit E.3 shows, members of less disadvantaged subgroups tended to accumulate higher levels of debt than study participants with lower incomes or greater barriers to employment. For some subgroups, the FSS control group difference in average total debt appears to be relatively large. For example, among recipients of SSI or SSDI benefits, FSS group members averaged more than $3,500 in total debt above the control group average. Nevertheless, none of the differences between research groups in debt levels are statistically significant.

Surprisingly, subgroups included in this analysis showed relatively similar patterns of borrowing from AFS lenders. For example, among control group members, the incidence of ever incurring AFS debt during followup ranged from 18 percent (among control group members with no educational credentials and control group members with no recorded income at random assignment) to 27 percent (among control members with full-time employment). FSS group members showed a relatively similar pattern of AFS borrowing, leading to no statistically significant differences in the incidence of AFS borrowing.

Next, the analysis considers whether the incidence of credit problems varied by subgroup and, more importantly, whether, for certain subgroups, the FSS program reduced the likelihood of incurring a credit problem below the level for the control group. As discussed in the previous chapter, having higher debt levels does not necessarily lead to a greater incidence of credit problems. For the FSS Impact Sample, however, this appears to be the case. For example, control group members with full-time employment at random assignment averaged more than one and one-half times the amount of debt of control group members with no employment ($23,000 compared with $14,000; see appendix exhibit E.3). In addition, about two-thirds of control group members with full-time employment at random assignment incurred at least one credit problem, more than 10 percentage points higher than control group members without employment. Among control group members, every subgroup except one (no degree or educational credentials) had a majority of members with at least one recorded credit problem in 2019. That year, among all subgroups, the largest proportion of control group members with at least one credit problem had a credit balance close to the maximum amount of available credit.

FSS group members in two subgroups, those recorded as having more than $20,000 in income at random assignment and those paying more than one-half of their expenses for rent and utilities out of pocket at random assignment, had a statistically significant difference in the likelihood of experiencing a credit problem at the end of the followup period. In both instances, the incidence for FSS group members exceeded the control group level by 8 percentage points.

Variation in Housing Outcomes

Appendix exhibit E.5 displays research group means and differences (impacts) for rent and housing subsidy outcomes for subgroups defined with baseline data. Several outcomes presented in the table are nonexperimental because they exclude FSS and control group members who exited the HCV program before the end of Year 5. Among control group members, enrollment levels in HCV (experimental comparison) show a fair amount of variation, ranging from 54 percent (for control group members who paid more than one-half of their housing expenses out of pocket) to about three-fourths

(for multiple subgroups). Among most subgroups, a similar proportion of FSS group members continued their enrollment in the HCV program, and the differences are not statistically significant.

A relatively consistent pattern appears when comparing rent and subsidy outcomes for ongoing HCV enrollees (nonexperimental). On average, at the end of Year 5, FSS group members in most subgroups were paying a larger share of their housing costs out of pocket and received smaller subsidies than their counterparts in the control group. These nonexperimental differences (higher expenditures and lower subsidies) between research groups were particularly large among study participants with a 2-year college degree or higher at random assignment.

The analysis of impacts on housing expenditures and subsidies also compares cumulative totals over 5 years for each research group. These comparisons are experimental, in which study participants receive zeroes for months when they are no longer enrolled in HCV. As appendix exhibit E.5 shows, over 5 years of followup, FSS group members in most subgroups averaged higher total housing expenses that they paid out of pocket, compared with the control group, although the difference was statistically significant for only three subgroups (FSS group members with some college credits or with a 2-year degree or higher at random assignment and FSS group members who did not receive SSI or SSDI disability benefits). For most subgroups, FSS group members also averaged less in total housing subsidies compared with the control group, although none of these differences were statistically significant. In contrast, escrow disbursements, most of which were or will be paid during Year 6 or later, may counteract and supersede reductions in housing subsidies from higher earnings over time. The magnitude of the financial effect of escrow disbursements varies by subgroup, as discussed in chapter 3, but exceeded $2,000 per FSS group member among those with a 2-year degree or higher at random assignment.

Subgroups Based on Program Implementation Features

This section analyzes whether the impacts of FSS on employment, earnings, and other outcomes varied by implementation features adopted by different housing agencies. As a first step, the analysis tests whether impacts on important outcomes differed by PHA for any reason. To address this issue, the authors ran statistical tests for 5-year employment and earnings outcomes using quarterly wage data from NDNH to determine whether any differences in impacts by PHA could be found and whether this variation was unlikely to have occurred by chance. Test results showed that impacts varied by PHA overall, although sample sizes for most housing agencies are too small to reliably estimate the magnitude of site-specific impacts. Nonetheless, results from these initial statistical tests and results of additional testing of impacts by PHA that control for sample member characteristics strongly suggest that in the first 5 years of followup, some PHAs have positive impacts on employment and earnings, some PHAs have effects close to zero, and some PHAs have negative impacts.[99] The final report will draw on the complete time series available for this evaluation (6 to 7 years of data) to explore this pattern and examine the factors driving the cross-site variation in impacts and draw more conclusive inferences.

[99] See Bloom et al. (2017) for a description of the statistical test. Test results showed that variation in the overall pattern of impacts by PHA is statistically significant at the 1-percent level, meaning that it was unlikely that all PHAs had the same impacts—negative, positive, or close to zero.

Next, the analysis considers whether PHAs with similar implementation orientation and practices have impacts of a similar magnitude and direction (see exhibit 6.2 for a description of the program clusters examined in chapter 6). Housing agencies may vary in impacts for reasons unrelated to differences in program implementation. For example, variation in impacts by PHA could result from differences in the characteristics of the research samples—as when certain PHAs have an unusually large proportion of subgroups who experienced positive or negative impacts on crucial outcomes. In theory, this caveat could apply to FSS, although, as discussed previously, the analysis based on 5 years of followup has not identified subgroups with consistently positive or negative impacts.[100] PHAs may also vary in impacts because of differences in local labor or housing markets that may affect employment opportunities or employment choices for FSS and control group members in unique ways (this issue will be explored in the final report and with additional followup). Grouping together PHAs on the basis of their implementation features, however, helps alleviate this measurement issue by combining participants from different regions of the United States; from small-, medium-, and large-sized cities and from suburban areas; and from high-growth and low-growth labor and housing markets.

Program Clusters Based on Program Focus

PHAs could vary in impacts because of differences in how FSS administrators and case managers work with participants to set their individual goals and training plans and whether these individual self-sufficiency road maps emphasize work, education, and training or focus on other aspects of financial security and management. For this analysis, the FSS programs are grouped into site clusters based on information recorded by case managers in FSS group members' Individual Training and Services Plans (ITSPs) soon after random assignment (for most, recorded the same day as or shortly after enrollment), interviews with FSS program administrators and case managers, and documents collected on site. Exhibits 6.3A through 6.3C and appendix exhibits E.6 through E.10 display the impacts on employment, earnings, and other outcomes for site clusters on the basis of the relative emphasis of each FSS program's (1) job search and postemployment services focus, (2) education and training focus, and (3) financial services focus.

Exhibit 6.2: Program Clusters: Data and Definitions

Site Cluster Measure	Source Data	Component Measure(s) per PHA
Program Emphasis and Orientation		
Emphasis on job search and postemployment services	Individual Training and Services Plans (ITSPs)	Proportion of initial ITSPs that listed participation in job search, self-employment preparation, or postemployment services as a goal or service.
Emphasis on education and training	Individual Training and Services Plans (ITSPs)	Proportion of initial ITSPs that listed participation in education or training as a goal or service.

[100] Results from additional tests using conditional impacts and with additional covariates that record the interaction between subgroup characteristics and membership in the FSS group suggest that variations in impacts by PHA are only partly explained by variations in the baseline characteristics of each PHA. An additional (informal) test involving the creation of site clusters of PHAs suggested that impacts could be positive for one or more subgroups in one cluster of PHAs and negative in another.

Site Cluster Measure	Source Data	Component Measure(s) per PHA
Program Emphasis and Orientation		
Emphasis on financial services	Individual Training and Services Plans (ITSPs)	Proportion of initial ITSPs that listed participation in financial counseling or workshops as a goal or service.
Emphasis on monitoring and engagement	Interviews with FSS administrators and case managers; Individual Training and Services Plans (ITSPs)	1. Average FSS caseload size. 2. Expected number of communications with an FSS case manager per year. 3. Proportion of ITSPs that included at least one goal to be completed in Year 1.

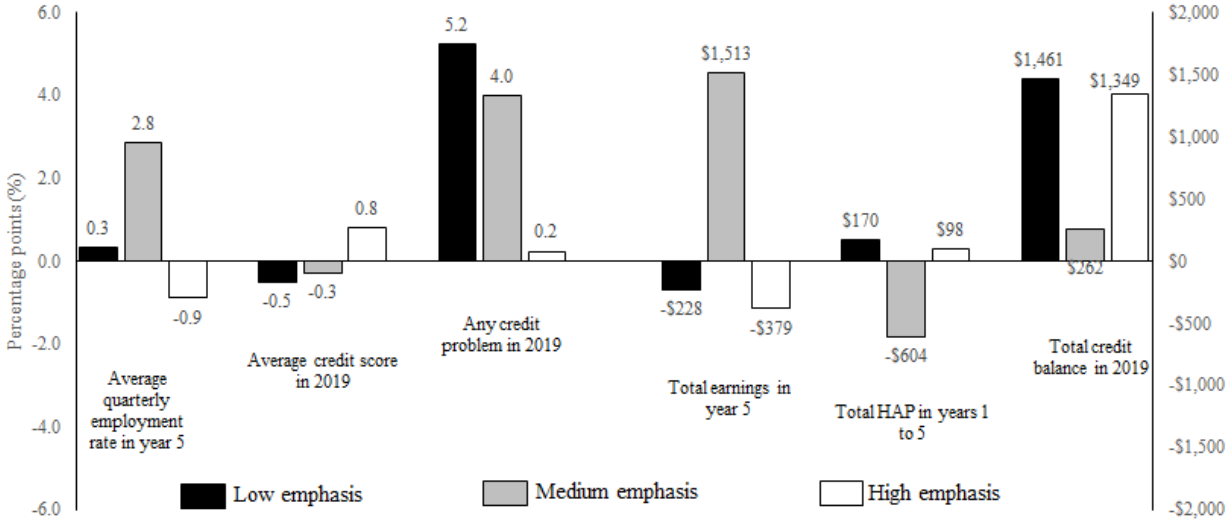
FSS = Family Self-Sufficiency. PHA = public housing agency.

Exhibits 6.3A, 6.3B, and 6.3C and appendix exhibit E.6 show the impacts of having a low, medium, or high emphasis on each type of program service.[101] For each test, the FSS program's impacts were estimated on average quarterly employment and average total earnings over 5 years and also, in Year 5, as measured with NDNH quarterly wage data. These exhibits show only scattered effects on quarterly employment or earnings with statistical significance: an increase in average total earnings over 5 years for PHAs with medium emphasis on provision of job search and postemployment services and an increase in employment stability in Year 5 for PHAs with the least emphasis on education and training.

Exhibits 6.3A through 6.3D and appendix exhibits E.7 through E.9 continue the analysis of the variation of FSS program effects by service approach—this time on outcomes related to credit scores, credit use, and credit problems. Of particular interest are the results for PHAs with the strongest emphasis on providing financial services and attaining financial goals, as these interventions would, at least in theory, be expected to improve credit-related outcomes. So far, however, the results show only a modest association between program approach and the incidence of positive effects on credit-related outcomes.

[101] Results for the "medium" clusters of PHAs may be the most difficult to interpret because PHAs could have a "medium" level of emphasis for different reasons—for example, because they target services to certain subgroups or because they give participants more leeway to define their goals and choose their services.

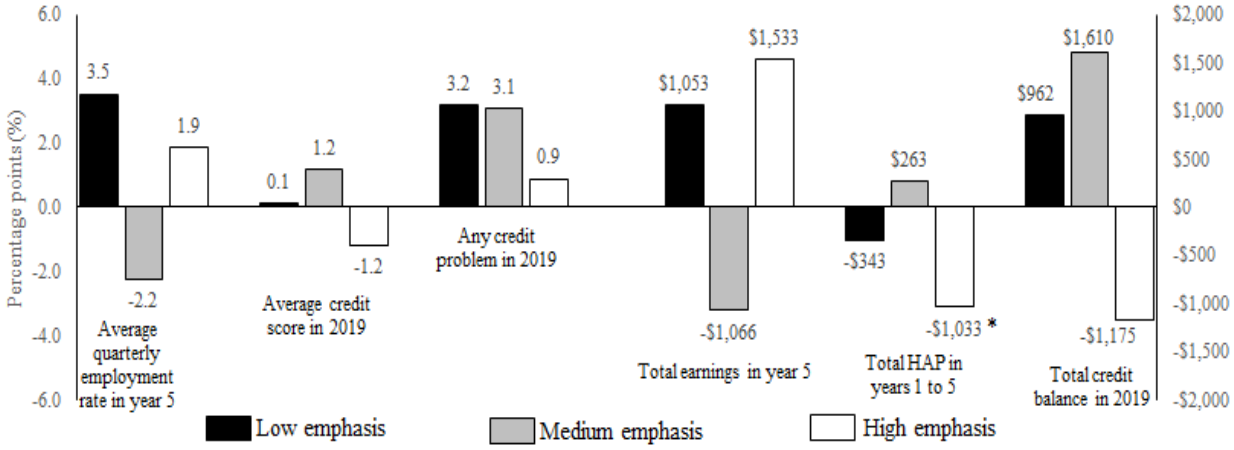
Exhibit 6.3A: Impacts on Selected Outcomes by Program Emphasis on Job Search and Postemployment Services



Notes: The FSS impact sample includes Housing Choice Voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Estimates were regression-adjusted using ordinary least squares, controlling for differences in sample member characteristics recorded at the time of random assignment. No special weights were applied to responses to adjust for differences in sample size by housing authority. Average quarterly employment rate is calculated as total quarters with employment divided by total quarters of followup, expressed as a percentage. The average credit score is expressed in "percentage change" format and calculated as (impact on average credit score / control group average) x 100. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent. The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as: † = 10 percent; †† = 5 percent; and ††† = 1 percent.

Sources: MDRC calculations from baseline data, U.S. Department of Housing and Urban Development Inventory Management System (IMS)/PIH Information Center (PIC) data, quarterly wage data from the National Directory of New Hires, and Experian and Clarity credit data.

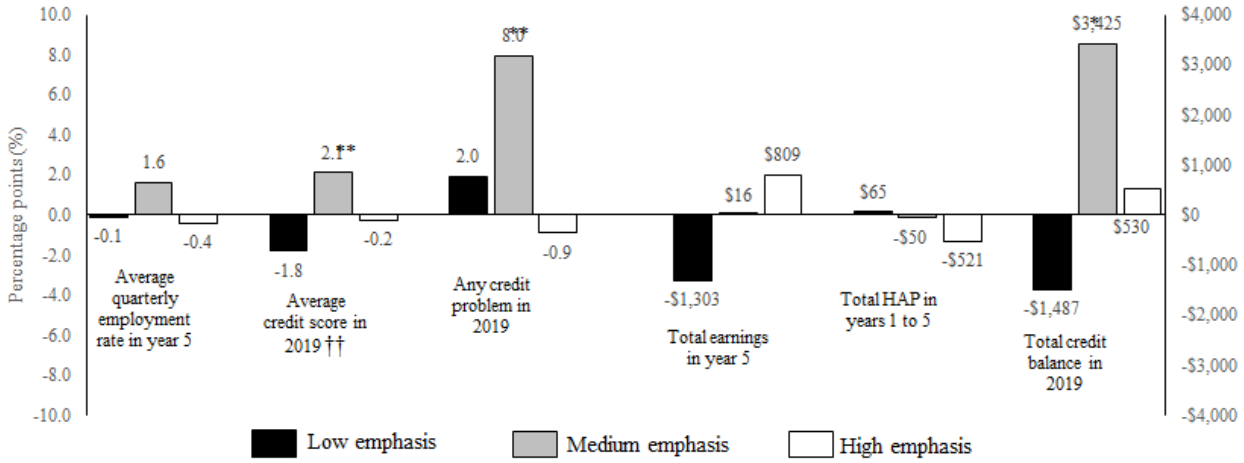
Exhibit 6.3B: Impacts on Selected Outcomes by Program Emphasis on Education and Training Services



Notes: The FSS impact sample includes Housing Choice Voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Estimates were regression-adjusted using ordinary least squares, controlling for differences in sample member characteristics recorded at the time of random assignment. No special weights were applied to responses to adjust for differences in sample size by housing authority. Average quarterly employment rate is calculated as total quarters with employment divided by total quarters of followup, expressed as a percentage. The average credit score is expressed in "percentage change" format and calculated as (impact on average credit score / control group average) x 100. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent. The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as: † = 10 percent; †† = 5 percent; and ††† = 1 percent.

Sources: MDRC calculations from baseline data, U.S. Department of Housing and Urban Development Inventory Management System (IMS)/PIH Information Center (PIC) data, quarterly wage data from the National Directory of New Hires, and Experian and Clarity credit data.

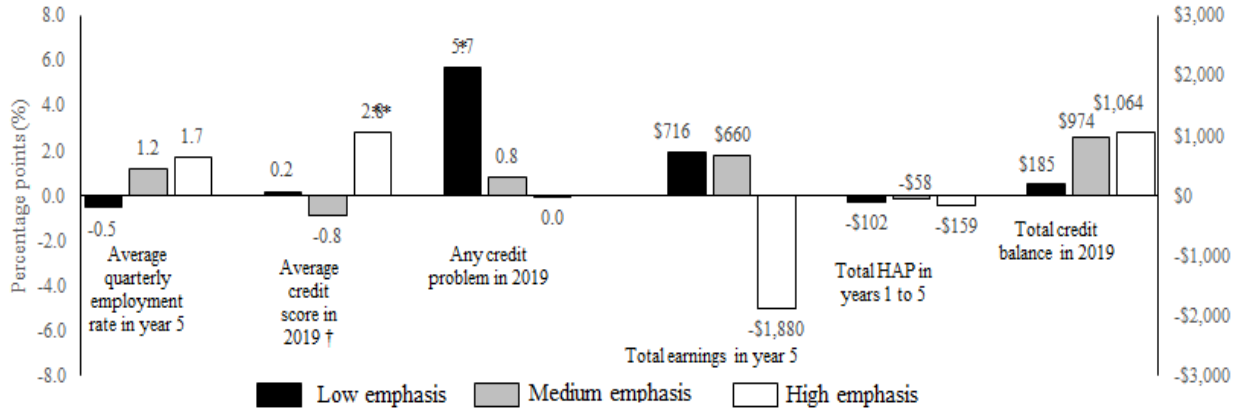
Exhibit 6.3C: Impacts on Selected Outcomes by Program Emphasis on Financial Services



Notes: The FSS impact sample includes Housing Choice Voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Estimates were regression-adjusted using ordinary least squares, controlling for differences in sample member characteristics recorded at the time of random assignment. No special weights were applied to responses to adjust for differences in sample size by housing authority. Average quarterly employment rate is calculated as total quarters with employment divided by total quarters of followup, expressed as a percentage. The average credit score is expressed in "percentage change" format and calculated as (impact on average credit score / control group average) x 100. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent. The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as: † = 10 percent; †† = 5 percent; and ††† = 1 percent.

Sources: MDRC calculations from baseline data, U.S. Department of Housing and Urban Development Inventory Management System (IMS)/PIH Information Center (PIC) data, quarterly wage data from the National Directory of New Hires, and Experian and Clarity credit data.

Exhibit 6.3D: Impacts on Selected Outcomes by Program Emphasis on Monitoring and Engagement



Notes: The FSS impact sample includes Housing Choice Voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Estimates were regression-adjusted using ordinary least squares, controlling for differences in sample member characteristics recorded at the time of random assignment. No special weights were applied to responses to adjust for differences in sample size by housing authority. Average quarterly employment rate is calculated as total quarters with employment divided by total quarters of follow-up, expressed as a percentage. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent. The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as: † = 10 percent; †† = 5 percent; and ††† = 1 percent. The impact is expressed in "percentage change" format and calculated as (impact on average credit score / control group average) x 100.

Source: MDRC calculations from baseline data, U.S. Department of Housing and Urban Development Inventory Management System (IMS)/PIH Information Center (PIC) data, quarterly wage data from the National Directory of New Hires, and Experian and Clarity credit data.

For example, FSS programs with the strongest emphasis on financial services and goal attainment did not increase average credit scores above the control group level and did not affect total debt or the amount of increase in debt levels over time. More positively, the absence of adverse effects on credit outcomes contrasts with results for FSS programs with medium emphasis on financial services and goals. For example, FSS group members in PHAs with medium emphasis accumulated, on average, more debt than did control group members and were also more likely to experience at least one credit problem. However, FSS group members in PHAs with the least emphasis on financial services and goals also fared better compared with their counterparts in the medium emphasis PHAs.

Variation in program approach appears to be only marginally related to differences by research group in housing-related outcomes. Over 5 years, in two clusters of PHAs (FSS programs with high emphasis on financial services and programs with medium emphasis on job search and postemployment services), the FSS group average exceeded by a statistically significant amount the average for the control group in total housing costs paid out of pocket, and no statistically significant differences were found for total housing subsidies. Finally, for reasons that are unclear, a larger proportion of FSS group

members in programs with a high emphasis on education and training had left HCV assistance by the end of Year 5 than their counterparts in the control group.

Program Clusters Based on Site Monitoring and Engagement Practices

Another test of variation in program implementation features, also presented in Verma et al. (2019; 2021), concerns the measure of how strongly administrators and case managers in PHAs emphasize monitoring and engagement with FSS group members. As discussed in previous chapters, the data used to group PHAs into low-emphasis, medium-emphasis, and high-emphasis site clusters are based on the housing agencies' FSS program implementation features and practices at study launch—caseload sizes, expectations about the frequency of contacts, and focus on establishing short-term goals. Sites classified as having a high or strong emphasis on monitoring and engagement have smaller caseload sizes, expect FSS group members and case managers to have more frequent contacts, and focus on establishing short-term goals. As discussed in previous reports, PHAs that ranked high on this measure tended to have relatively high participation rates for the FSS group, although differences in participation with the control group were not especially large. Moreover, as discussed previously (see exhibit 3.5), housing agencies with stronger emphasis on monitoring and engagement—especially those with relatively small caseload sizes—tended to have higher graduation rates after 5 years of followup compared with other housing agencies. However, some previous studies that analyzed links between program implementation practices and impacts on employment and earnings found that programs that ranked high on the studies' version of a monitoring and engagement indicator did not lead to statistically significant increases in employment and earnings (Bloom, Hill, and Riccio, 2001: 40–42).

Appendix exhibit E.6 shows impact results on employment and earnings outcomes for PHAs in the monitoring and engagement clusters. Between 61 percent and 65 percent of control group members were employed in any given quarter during Years 1 through 5. Average total earnings for control group members ranged from about $71,000 to $88,000, with the highest average earned by control group members in housing agencies with the strongest emphasis on monitoring and engagement. This variation in earnings is also reflected in the differences among the clusters of housing agencies in the proportion of control group members who were employed during every quarter of followup and the proportion of control group members who averaged more than $25,000 per year in earnings.

Over 5 years, for outcomes calculated with NDNH quarterly wage data, the FSS program did not affect employment or earnings levels in housing agencies with a low or medium emphasis on monitoring and engagement. In addition, on average, FSS group members in all three types of programs earned about the same amount (about $75,000) during Years 1 through 5. FSS programs with the strongest emphasis on monitoring and engagement, however, led to a relatively large and statistically significant decrease in total earnings (of nearly $13,000, or about 17 percent) compared with the control group. Similarly, by a margin of about 6 percentage points, a larger proportion of control group members than FSS group members earned more than $25,000 per year. Moreover, nearly one-third of control group members worked for pay during all 20 quarters of followup, compared with about 20 percent of FSS group members. Not shown in any exhibit, the FSS programs with a high emphasis on monitoring and

engagement led to an increase of similar magnitude in the proportion of study participants with low annual earnings (up to $10,000).

This pattern of earnings differences suggests that some FSS group members were working part time or working intermittently, whereas control group members were more likely to work full-time hours or in jobs with more weeks or months of employment. This pattern is consistent with a finding for programs having significant upfront opportunity costs, in which participants delay or forgo employment or cut back on employment to facilitate their service use. To be successful, such programs must eventually help participants find employment at relatively well-paying jobs. If so, over time, participants' earnings make up for their initial opportunity costs. As of Year 5, the pattern of impacts on employment and earnings suggests that FSS group members in programs with a strong emphasis on monitoring and engagement may be approaching the turning point when effects are no longer negative relative to the control group. As appendix exhibit E.6 shows, during Year 5, the differences between research groups in average quarterly employment, average total earnings, and incidence of employment during all four quarters were smaller than in previous years and no longer statistically significant.

Additional findings based on credit data show that FSS programs with a strong emphasis on monitoring and engagement realized gains relative to the control group. In 2019, the last year of followup, FSS group members in high-emphasis PHAs had VantageScores that exceeded the scores for control group members by an average of 16 points. FSS group members in these PHAs also increased their scores over time by an average of 30 points, compared with a 10-point increase for control group members. FSS group members in programs with low or medium emphasis on monitoring and engagement did not realize gains in credit scores relative to control group members. For the most part, FSS programs with a strong emphasis on monitoring and engagement did not lead to better or worse outcomes in measures of use of credit or incidence of credit problems relative to the control group more often than FSS programs with less emphasis. One exception to this finding was for the measure of having any type of credit problem in 2019. For this outcome, FSS group members in the low-emphasis programs recorded a modest increase (of 6 percentage points) in the incidence of having at least one credit problem, whereas no difference between the research groups was found for the medium- and high-emphasis programs (see appendix exhibit E.9). Results for debt-to-income ratio (a component of the measure of any credit problem) were less positive for housing agencies with a strong emphasis on monitoring and engagement, with the FSS group recording a 6-percentage-point increase above the control group level in the incidence of having a high level of debt repayments relative to monthly income.

FSS group members from programs with a strong emphasis on monitoring and engagement appear to have fared relatively well compared with the control group in measures of out-of-pocket housing expenditures and receipt of housing subsidies—or subsidies plus the value of escrow disbursements. As appendix exhibit E.10 shows, FSS group members in the housing agencies with low or medium emphasis paid an average of more than $1,000 per household in housing expenses above the control group during Years 1 through 5, whereas both research groups in the high-emphasis PHAs paid about the same amount.[102] Moreover, FSS group members in PHAs with a strong emphasis on monitoring

[102] The difference between research groups for PHAs with medium emphasis on monitoring and engagement was just above the 10-percent level of statistical significance (p-value = 0.108).

and engagement received several thousand dollars more on average in housing subsidies plus escrow disbursements than their counterparts in the control group.[103]

Conclusion

In several respects, the subgroup findings after 5 or more years of followup are consistent with the findings from the previous report that analyzed outcomes after 3 years. So far, FSS group members in multiple subgroups did not experience gains above the control group in employment and earnings measures calculated with NDNH administrative data, but they did show isolated positive effects on other measures of use of credit and financial well-being based on other data sources. In addition, FSS programs with the strongest emphasis on monitoring and engagement continued to show negative impacts on NDNH-recorded earnings. However, some evidence suggests that more positive effects on financial well-being may be seen after more FSS group members graduate from the program and receive their escrow disbursement (as discussed previously, graduations may be delayed or forgone because of the COVID-19 pandemic and economic downturn). The final report, based on an additional 12 months of followup for data sources used in this analysis and with responses to a long-term followup survey, will explore these issues further.

[103] Not shown, combining average escrow disbursements with average total housing subsidies yields an increase for the FSS group of about $4,500 (statistically significant).

Chapter 7. Summary and Next Steps in the Evaluation

This report updates and expands upon MDRC's interim reports examining the implementation and effects of the HUD Family Self-Sufficiency (FSS) program for housing choice voucher (HCV) recipients. These reports are part of the national evaluation of the FSS program sponsored by HUD. FSS programs offer participants referrals to a broad array of services, plus access to a long-term escrow account, designed to work together to promote earnings growth and financial self-sufficiency over the 5-year program period. At program enrollment, participants work with case managers to set goals and action steps to achieve them. Most FSS participants commit to at least one employment-related goal, along with other goals related to financial security, education, or homeownership. In this report, the evaluation covers the full 5 years of followup (and partway through Year 6 for some outcomes), tracing longer-term program outcomes and effects. Importantly, the new results capture participants' experiences in Years 4 and 5, the period leading up to their potential graduation from the program. This far into followup, there is no clear evidence that the FSS program encourages higher rates of economic mobility or financial security: both groups appear to experience comparable trajectories. About one-third of the FSS group members continue to be enrolled at the end of the followup period—and could qualify for additional extensions because of the pandemic—and new patterns of outcomes and effects may emerge in the remaining followup period covered by the evaluation. Nevertheless, the results offer some important insights and observations about the pattern of outcomes achieved by FSS participants in the 5 years following program enrollment. These insights and observations, along with the next steps for the evaluation, are the focus of this chapter.

What the 5-Year Results Tell Us

Case management strategies in Years 4 and 5 resemble efforts in the years leading up to the final push. Contact expectations for staff and how often they were expected to reach out to clients did not change significantly as participants approached Year 5. At the regularly scheduled annual or quarterly meetings, case managers typically reviewed clients' goals to assess whether they were "on track" to graduate. A small number of sites sent official notification of the contract end date by mail. These letters put in writing the date by which all goals must be completed for participants to graduate and earn their escrow.

Graduating from an FSS program, a marker of program success, is an outcome achieved by a small minority of FSS participants. At the end of Year 3, midway through the 5-year program, about 4 percent of FSS group members had graduated. This rate climbed to about 17 percent by the end of the followup period covered in this report: 14.2 percent graduated with an escrow disbursement, and the remaining 2.7 percent did not. Escrow disbursements were substantial for the graduates who had accrued escrow, averaging nearly $10,000 per recipient. Close to one-fourth of the individuals assigned to the FSS program group continue to be enrolled in the FSS program and have accrued sizable escrow balances (approximately $7,000 in the last month of followup); some or all of these individuals may successfully graduate from an FSS program and earn an escrow disbursement, an outcome to be tracked by the ongoing evaluation. The graduation rate could end up between 25 and 30 percent, placing the 18

housing agencies in the FSS evaluation above the combined average of 24 percent for the approximately 700 housing agencies with graduation rates published by HUD.[104]

A larger number of FSS participants accrue escrow credits, some with sizable balances, but only a small fraction graduate with an escrow disbursement. By the end of Year 1, nearly one-fourth of the FSS group had accrued some escrow. This rate climbed to about 52 percent by the end of Year 3 and remained under 60 percent by the end of the followup period. Relatively few additional FSS group members started accruing escrow after Year 3, suggesting that the probability of beginning to accrue escrow credits deteriorates about midway through the program. Further, a little more than 40 percent of the FSS group members who exited the FSS program during the followup period forfeited their escrow accruals because they ended their enrollment in the FSS program for reasons other than graduation. Thus, although the escrow account serves as an important draw for participants, the possibility of realizing the benefit of this savings instrument is quite diminished for most participants who enroll in the program (the benefits accrue to a smaller group).

FSS group members who left the program without graduating and continued to receive housing vouchers appear to have enrolled in FSS programs with more serious barriers to employment of any group: they had the lowest employment rate at random assignment of any group and the highest incidence of having a physical or mental health problem that made it difficult to find and keep a job. They also had the highest incidence of receiving SSI or SSDI disability benefits. Enrollment in the FSS program is open to individuals with a wide range of advantages and disadvantages in the labor market, but the program offers unequal chances of attaining the most tangible forms of program participation success—graduation and escrow disbursement. For different reasons, FSS group members at each extreme on the relative advantage continuum are less likely to benefit than FSS group members who are more in the middle. Increasing the proportion of FSS participants that could tangibly benefit from the program would require a program framework that calibrates success on the basis of starting levels or relies on targeting.

Several program staff members, when interviewed in 2020, stated that they viewed the escrow account as a draw for participants but did not necessarily see it motivating participants enough to engage in services, attain goals other than employment, and get them to the finish line. As some staff members indicated, their programs would see more graduations if accruing escrow were the sole requirement. They pointed to cases in which participants accrued significant escrow balances yet could not achieve their program goals to graduate from the program. The administrative data also confirmed instances of forfeitures of substantial amounts of accrued escrow. Having program staff members promote interim disbursements to support participants' pursuit of goals, as discussed below, might be a way to make the escrow benefit feel more tangible for participants. HUD may also want to consider alternative escrow models, especially ones structured around more short-term financial incentives, as in the case of the Work Rewards demonstration, or build the financial incentive into the rent policy, as in the case

[104]As noted in chapter 2, recent HUD guidance on determining "suitable employment" led FSS programs to eliminate additional employment requirements. This change, combined with the new performance measurement system, are expected to lead to increased graduation rates in the future.

of HUD's Jobs Plus program for public housing residents or the Rent Reform Demonstration for voucher holders.

Interim disbursements are rarely used. Although the escrow account is designed as a distant savings incentive, this policy tool includes a short-term benefit feature, which theoretically could allow participants to draw on their accrued savings to support the pursuit of their FSS goals. The administrative data gathered for the evaluation show extremely low levels of interim disbursements, however. At the end of Year 3, less than 1 percent of the FSS participants had received an interim escrow disbursement. This estimate will be updated for the final report, but the proportion of participants receiving interim disbursements is expected to remain relatively low on the basis of the pattern documented so far; unclear from available data, though, is whether a higher number of interim disbursements are requested but not approved by program staff (this information is not captured in PHA or HUD IMS/PIC administrative data). In 2020, staff members in all but one of the sites reported that participants were permitted to receive interim disbursements. Despite generally positive views about the possible benefits of providing interim disbursements, they confirmed the earlier finding that few participants receive one. For the most part, this program feature is not routinely publicized or discussed during check-in meetings.

Further, staff members' perspectives, such as their views that participants should accrue as much escrow as possible or look elsewhere to fund their needs, also affect the potential instrumental value of allowing interim disbursements. Providing staff members with additional guidance on the merits of short- and long-term uses of escrow balances might enable them to have conversations with participants about their escrow balances and how they can be used while the participants are building their escrow balances. For instance, the average balances for automobile and education installment loans in Vantage data imply that program staff could have encouraged participants' greater use of interim disbursements for such purposes.

Employment and earnings trajectories are similar for FSS and control group members. This evaluation, until recently, took place during a long economic expansion. It documents high levels of employment for both study groups. Against this background of high labor force participation, the evaluation tests the effectiveness of the FSS program on *increasing* participants' employment and earnings. On that front, so far, there is no evidence that program group members may have worked more or earned more than their counterparts in the control group. In the first year of followup, both research groups' employment rate was around 73 percent. A pattern of comparable employment rates and earnings is evident for each of the 5 years of followup, with program and control group members showing fairly high levels of attachment to the labor force (quarterly employment rates are somewhat lower for both groups, reflecting employment churning). As participants neared graduation, the point at which they could claim their escrow accruals, the FSS group's employment and earnings trajectories did not diverge from those of their control group counterparts. The subgroup analysis, focusing on baseline employment and education status, also does not point to clear differences in impacts for these groups. Overall, average annual earnings increased over time for both the FSS group and the control group, suggesting that FSS-type services add little to what individuals can do on their own or through job search and employment-focused services available to them in the community.

Although an additional year of employment and earnings outcomes remains to be examined for study participants, this overall pattern of labor market effects could lead to the conclusion that stronger (or different) approaches are needed to generate bigger and more transformative effects—such as interventions that can help with advancement (for those employed) and that can help participants with varying levels of barriers to employment to take significant steps toward self-sufficiency. The FSS program includes several attractive features—it gives participants at least 5 years to work toward their program goals and helps them build savings—but improvements in how the core components of the model are delivered might be necessary to help participants make progress toward their goals and to help them advance. Part of this effort could involve considering alternate case management or coaching strategies. A new generation of employment-focused interventions, including MDRC's MyGoals for Employment Success, combine personalized and structured goal setting and coaching with an explicit focus on participants' executive skills.[105] The Compass Working Capital model, which is being implemented by some FSS programs in Massachusetts, focuses on helping participants build financial management skills and goals. In this program, coaches handle financial skill building directly instead of referring participants to community agencies, as is common for FSS programs in this evaluation.[106] Access to additional (and flexible) grant funding from HUD could also allow programs to offer tuition relief, scholarships, stipends, and other support services, which FSS staff members believe is critical to help participants make progress.

Could impacts on some financial security outcomes occur without increases in earnings or household income? A self-sufficiency program, especially one with a focus on financial education and management, should be able to demonstrate improvements in other aspects of families' financial well-being. At the 3-year mark, and as documented in the interim report, survey data indicated that FSS programs were effective in increasing participants' connections to mainstream financial institutions, participants were more likely to be aware of their credit history, and they reported higher credit scores, compared with the control group. FSS group members, on average, however, incurred greater debt (it is unclear what is driving the higher debt levels). Consistent with programs that emphasize the use of financial security and homeownership preparation counseling and workshops, FSS programs led to positive effects on attitudinal and perceived well-being outcomes. FSS group members were more likely than control group respondents to report that they had improved their financial situation in the past year and were better able to plan for the future.

The detailed analysis of credit data presented in this report, the first of its kind for a national sample of FSS participants, allows the evaluation to examine some of the same financial security outcomes explored in prior survey efforts. Most importantly, this report considers whether FSS improves credit

[105] See Castells and Riccio (2020). MyGoals, designed by MDRC, is part of an evaluation funded by the U.S. Department of Health and Human Services (HHS), which tests different employment coaching programs for Temporary Assistance for Needy Families (TANF) and housing-assisted populations. The Kansas GOALs program for SNAP recipients also offers an example of a "next-generation" job-readiness/job-search program.

[106] Using a matched comparison design and PHA data sources, the study of the Compass approach showed positive earnings and reduced TANF receipt for Compass participants than for their matched peers. Participants also achieved positive credit and debt outcomes that exceeded benchmarks. See Abt Associates evaluation: https://www.abtassociates.com/sites/default/files/files/Insights/reports/2017/Compass%20FSS%20Evaluation%20Report_09082017_0.pdf.

scores above control group levels, which can positively affect other financial outcomes, including access to traditional credit. Despite the FSS program's general emphasis on financial education and management, the longitudinal data show that most study participants have credit scores in the Subprime category, and the program did not lead to increases above the control group in average credit scores. The two exceptions are the subgroups with higher graduation rates—those with 2-year degrees or more and part-time employment—which had modest gains in credit scores above the control group's levels.

Both study groups also incurred high (and increasing) levels of debt, with automobile and education loans accounting for the largest proportion of their non-housing-related debt, which was incurred to support their education and employment needs. FSS group participants were repaying their debt with higher installment payments, which could be a function of debt management strategies participants were exposed to through their participation in financial education activities, yet programs may need to resort to other strategies—including stronger employment interventions—to help FSS participants improve their credit scores and access to traditional credit. Further, special attention may be needed to assess the types of financial management services participants are receiving and whether these services—workshops or one-on-one counseling—are robust enough to make a difference. The finding that the FSS program led to a small and statistically significant increase over the control group average in the use of traditional lending sources without alternative financial services is encouraging.

So far, effects of FSS on housing costs and subsidies are small. Five years out, roughly the same proportion of FSS and control group households remained enrolled in the HCV program. Moreover, cumulatively over 5 years (and including the entire impact sample), FSS group members paid, on average, about 5 percent more out-of-pocket for subsidized housing (family share) than control group members (a statistically significant difference). However, the difference between research groups in average total housing subsidies is close to $0 and not statistically significant. Non-experimental comparisons involving study participants in each research group who remained enrolled in the HCV program at the end of year 5 show the FSS group as incurring a small increase in monthly family share and a small decrease in monthly housing subsidies, compared with control group members. These findings suggest that the main effects of FSS on housing costs and subsidies, if any, are yet to come. They are likely contingent on the proportion of FSS group members who are still enrolled in FSS and HCV at the end of year 5 who go on to graduate from the FSS and on the proportion of graduates who decide to move to unsubsidized housing or, possibly, to use their escrow disbursement to help pay for housing expenses out-of-pocket. The evaluation will continue to examine the long-term interaction between employment and housing outcomes—whether those who recently graduated and earned sizable escrow disbursements continue to receive housing assistance or move to private market housing without a subsidy or use their escrow disbursement to purchase a home; in this way, their exits from the voucher program could enable PHAs to assist new households. An additional year of housing subsidy data, along with the longer-term followup survey, will also allow the evaluation to examine families' housing circumstances roughly 6 to 7 years after study entry.

The Evaluation Going Forward

The FSS evaluation is slated to end in 2022, providing 6 to 7 years of followup for the study sample. Not only will this length of followup allow the evaluation to track the remaining FSS participants through their extended contract period and examine post-FSS circumstances for those who graduated (how they are faring financially, whether they continue to receive housing subsidies, and how they use their escrow), it will also support an analysis of how families fared in the aftermath of the COVID-19 pandemic. The FSS programs in this study made dramatic changes in their daily operations, and most shifted online to engage with program participants. So far, a small minority of FSS group members have received an escrow disbursement, which could improve their financial well-being and help them cope within the COVID-19 context.

The final report will take into account the pandemic and its implications for the program's effects on participants' work outcomes, graduation and escrow receipt, financial well-being, and receipt of housing and other government subsidies. No further qualitative data collection is planned for the final report, but a brief survey to be fielded in 2021 to capture the longer-term outcomes and post-exit circumstances of current and former FSS participants in the study has been adapted to gather information on how families coped with the economic shocks caused by the pandemic. The final report will also provide more conclusive evidence about who benefits and whether new patterns of outcomes and impacts are revealed for particular subgroups of participants or subsets of programs.

Appendix A

Appendix Exhibit A.1: Staffing, Escrow, and Graduation Policies, 2020

	Case Management Staffing				Escrow		Graduation Requirements[a]			
Housing Agency	Number with FSS Caseload	HCV Responsibilities	Homeownership Responsibilities	At Least One Annual In-Person Meeting Expected	Interim Escrow Disbursement Permitted	Withdrawal Limits	Employment Hours	Employment Earnings	Employment Stability	Limitations on Revising Goals
Housing Agency #1	5 or more	No	Yes	Yes	Yes	Up to 50% of the balance	30 hours per week	--	6 months	1 year (final goal); 6 months (interim goals)
Housing Agency #2	1–4	Yes	No	Yes	Yes	Up to 25% of the balance	--	--	--	6 months
Housing Agency #3	1–4	No	No	Yes	Yes	Up to 50% of the balance	--	--	--	--
Housing Agency #4	1–4	No	Yes	Yes	No	N/A	--	--	--	6 months
Housing Agency #5	5 or more	Yes	No	No	Yes	None	--	--	--	--
Housing Agency #6	5 or more	Yes	Yes	No	Yes	Up to 50% of the balance	--	--	--	1 year
Housing Agency #7	1–4	No	Yes	Yes	Yes	Up to 50% of the balance	30 hours per week (exceptions made on case-by-case basis)	Earnings must be deemed "reasonable" by Housing Agency staff	--	--
Housing Agency #8	1–4	Yes	No	Yes	No	N/A	--	--	--	2 years but reviewed on a case-by-case basis as requested
Housing Agency #9	1–4	No	Yes	Yes	Yes	For enrollees after March 1, 2018, a maximum of $5,000 during FSS contract	--	--	--	6 months
Housing Agency #10	5 or more	Yes	No	Yes	Yes	Up to 25% of the balance	32 hours per week	--	12 months	12 months

(continued)

Appendix Exhibit A.1 (continued)

	Case Management Staffing				Escrow		Graduation Requirements[a]			
Housing Agency	Number with FSS Caseload	HCV Responsibilities	Homeownership Responsibilities	At Least One Annual In-Person Meeting Expected	Interim Escrow Disbursement Permitted	Withdrawal Limits	Employment Hours	Employment Earnings	Employment Stability	Limitations on Revising Goals
Housing Agency #11	1–4	No	Yes	Yes	Yes	Cannot withdraw until after 12 months of accruing escrow and maintaining employment	30 hours per week	A "decent" job (such as. a job with opportunity for growth)	12 months	2.5 years
Housing Agency #12	1–4	Yes	Yes	Yes	Yes	Less than 100% of the balance	--	More than minimum wage	--	--
Housing Agency #13	1–4	No	No	Yes	Yes	Up to 30% of the balance	--	--	--	3 months
Housing Agency #14	1–4	No	Yes	Yes	Yes	Enrolled for at least 1 year; Up to 25% of the balance (annually); car repairs require 20% contribution by participant	30 hours per week	--	6 months	--
Housing Agency #15	1–4	Yes	Yes	Yes	Yes	Up to two disbursements within a 12-month period; Up to 30% of the balance (exceptions for home purchase and education)	--	--	--	--

(continued)

Appendix Exhibit A.1 (continued)

	Case Management Staffing				Escrow		Graduation Requirements[a]			
Housing Agency	Number with FSS Caseload	HCV Responsibilities	Homeownership Responsibilities	At Least One Annual In-Person Meeting Expected	Interim Escrow Disbursement Permitted	Withdrawal Limits	Employment Hours	Employment Earnings	Employment Stability	Limitations on Revising Goals
Housing Agency #16	5 or more	No	Yes	Yes	Yes	Up to 50% of the balance	--	--	--	2 months
Housing Agency #17	1–4	Yes	Yes	Yes	Yes	Up to 50% of the balance	30 hours per week	--	--	6 months

Notes: FSS = Family Self-Sufficiency. HCV = Housing Choice Vouchers. TANF = Temporary Assistance for Needy Families. [a]Unless otherwise noted, all requirements are as of graduation. No receipt of TANF benefits for 12 months is a requirement at all sites. [b]Some sites have different employment requirements for disabled and/or elderly clients. These are not included in the exhibit.
Source: Information collected during MDRC interviews with FSS administrators and case managers in Quarter 4, 2015, and in Quarter 2, 2018 and Quarter 2, 2020

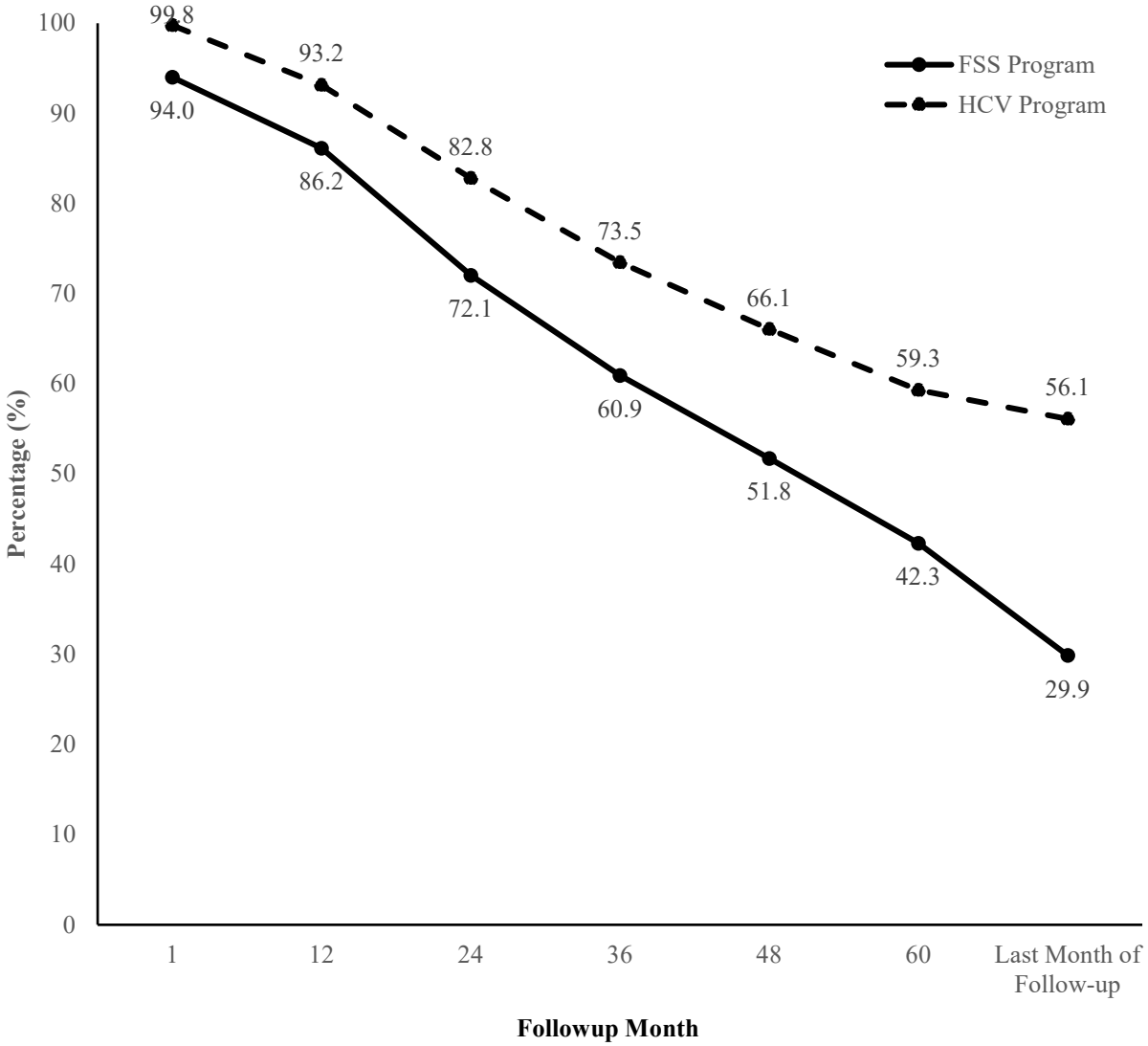
Exhibit A.2: Methodology for Creating Site Clusters

Site clusters were created from a variety of source data, described in exhibit 6.2. Some site clusters were created from a single measure, whereas others were created from two or three measures. Measures were created using the following procedure:

- Calculate site-level mean values for each source measure.
- Calculate a cross-site mean ("mean of means") for each source measure.
- Calculate the cross-site standard deviation for each source measure.
- Calculate site-level *z-scores* for each source measure. For each site (PHA), subtract the site-level mean from the cross-site mean. Then, divide the difference by the cross-site standard deviation.
- For site clusters created from two or three source measures, sum the *z-scores* and then divide by the number of component measures to create an average composite score.
- Group sites with similar scores into high, medium, or low categories. Sites with an average *z-score* value above 0.5 were grouped in the high category, whereas sites with an average *z-score* below -0.5 were grouped in the low category. The remaining sites with average *z-scores* of between -0.5 and +0.5 were grouped in the medium sites.

Appendix B

Exhibit B.1: Family Self-Sufficiency and HCV Program Enrollment Status Following Random Assignment Family Self-Sufficiency Impact Sample (FSS Group Only)



Notes: Month 1 is the month of random assignment. For most FSS group members, followup ended between months 61 and 72 after random assignment.
Sources: U.S. Department of Housing and Urban Development Inventory Management System (IMS)/PIH Information Center (PIC) data and Housing authority administrative data

Appendix C

Exhibit C.1: Impacts on Employment and Earnings by Quarter, FSS Impact Sample

Outcomes	FSS Group	Control Group	Difference (Impact)		P-Value
Quarterly Employment (%)					
Not employed at random assignment					
Quarter 2	25.9	30.2	– 4.3	*	0.079
Quarter 3	33.9	33.2	0.7		0.788
Quarter 4	38.4	35.6	2.7		0.289
Quarter 5	40.8	36.8	4.0		0.126
Quarter 6	42.9	40.2	2.6		0.311
Quarter 7	45.5	44.9	0.5		0.848
Quarter 8	45.0	43.7	1.3		0.628
Quarter 9	44.0	42.8	1.2		0.649
Quarter 10	45.3	45.5	– 0.2		0.932
Quarter 11	46.0	46.0	– 0.1		0.981
Quarter 12	48.0	47.8	0.2		0.939
Quarter 13	47.9	47.1	0.9		0.755
Quarter 14	47.8	47.2	0.5		0.848
Quarter 15	49.6	48.2	1.3		0.623
Quarter 16	47.3	47.9	– 0.6		0.838
Quarter 17	48.3	48.6	– 0.3		0.910
Quarter 18	47.8	49.9	– 2.0		0.461
Quarter 19	46.4	49.2	– 2.7		0.327
Quarter 20	46.8	48.8	– 2.1		0.454
Quarter 21	48.5	46.9	1.6		0.573
Employed part-time (1–34 hours) at random assignment					
Quarter 2	81.8	80.8	1.1		0.688
Quarter 3	78.4	81.2	– 2.8		0.344
Quarter 4	79.7	77.6	2.2		0.489
Quarter 5	81.2	77.0	4.2		0.170
Quarter 6	77.3	74.1	3.2		0.326
Quarter 7	78.2	75.4	2.9		0.376
Quarter 8	75.9	77.5	– 1.6		0.622
Quarter 9	77.3	75.7	1.6		0.621
Quarter 10	77.1	74.1	3.0		0.374
Quarter 11	78.8	73.5	5.3		0.103
Quarter 12	75.7	74.9	0.9		0.789
Quarter 13	74.5	71.1	3.4		0.320
Quarter 14	73.4	72.3	1.1		0.744

(continued)

Exhibit C.1 (continued)

Outcomes	FSS Group	Control Group	Difference (Impact)		P-Value
Employed part-time (1–34 hours) at random assignment					
Quarter 15	72.5	71.9	0.6		0.865
Quarter 16	73.1	74.2	– 1.1		0.741
Quarter 17	73.4	73.2	0.2		0.943
Quarter 18	74.6	73.5	1.0		0.765
Quarter 19	75.3	75.6	– 0.3		0.920
Quarter 20	77.1	73.1	4.0		0.237
Quarter 21	77.3	73.9	3.4		0.312
Employed full-time (35 hours or more) at random assignment					
Quarter 2	87.7	88.2	– 0.5		0.795
Quarter 3	84.9	86.6	– 1.8		0.412
Quarter 4	84.1	86.3	– 2.2		0.320
Quarter 5	82.5	84.8	– 2.3		0.345
Quarter 6	81.6	84.0	– 2.4		0.351
Quarter 7	82.0	84.9	– 2.9		0.254
Quarter 8	80.7	84.3	– 3.7		0.155
Quarter 9	78.7	84.4	– 5.6	**	0.035
Quarter 10	80.4	83.3	– 2.9		0.271
Quarter 11	81.2	81.8	– 0.6		0.824
Quarter 12	81.6	80.0	1.6		0.568
Quarter 13	82.0	80.4	1.6		0.566
Quarter 14	81.9	80.9	1.0		0.698
Quarter 15	82.3	81.8	0.6		0.828
Quarter 16	80.7	81.3	– 0.6		0.820
Quarter 17	81.1	79.4	1.8		0.527
Quarter 18	82.6	78.3	4.2		0.116
Quarter 19	80.6	77.7	2.9		0.318
Quarter 20	81.7	79.4	2.3		0.407
Quarter 21	79.2	81.4	– 2.3		0.414
Total Impact Sample					
Quarter 2	58.8	60.8	– 2.0		0.154
Quarter 3	60.7	61.7	– 1.0		0.510
Quarter 4	62.9	61.7	1.2		0.421
Quarter 5	63.9	61.5	2.4		0.122
Quarter 6	63.4	62.1	1.3		0.410
Quarter 7	65.1	64.7	0.4		0.799
Quarter 8	63.9	64.5	– 0.5		0.734

(continued)

Exhibit C.1 (continued)

Outcomes	FSS Group	Control Group	Difference (Impact)	P-Value
Quarter 9	63.4	63.5	– 0.1	0.947
Quarter 10	64.2	64.1	0.2	0.921
Quarter 11	65.1	63.8	1.3	0.439
Quarter 12	65.2	64.5	0.7	0.686
Quarter 13	65.1	63.3	1.8	0.292
Quarter 14	64.8	63.7	1.0	0.547
Quarter 15	65.4	64.4	1.0	0.541
Quarter 16	64.2	64.5	– 0.4	0.829
Quarter 17	64.9	64.0	0.8	0.624
Quarter 18	65.2	64.5	0.7	0.682
Quarter 19	64.1	64.5	– 0.4	0.822
Quarter 20	65.1	64.3	0.8	0.643
Quarter 21	65.2	64.2	0.9	0.574
Total Earnings ($)				
Not employed at random assignment				
Quarter 2	610	730	– 120	0.189
Quarter 3	1,026	1,022	4	0.973
Quarter 4	1,195	1,205	– 10	0.936
Quarter 5	1,374	1,310	64	0.637
Quarter 6	1,585	1,544	41	0.780
Quarter 7	1,910	1,807	103	0.542
Quarter 8	1,970	1,885	85	0.615
Quarter 9	2,028	1,755	273	0.106
Quarter 10	2,183	2,039	144	0.447
Quarter 11	2,288	2,222	66	0.728
Quarter 12	2,386	2,325	61	0.759
Quarter 13	2,372	2,282	90	0.635
Quarter 14	2,404	2,424	– 20	0.921
Quarter 15	2,516	2,502	15	0.942
Quarter 16	2,529	2,513	17	0.938
Quarter 17	2,579	2,570	8	0.970
Quarter 18	2,623	2,690	– 67	0.763
Quarter 19	2,646	2,610	36	0.870
Quarter 20	2,713	2,745	– 32	0.891
Quarter 21	2,878	2,643	235	0.303

(continued)

Exhibit C.1 (continued)

Outcomes	FSS Group	Control Group	Difference (Impact)		P-Value
Employed part-time (1–34 hours) at random assignment					
Quarter 2	3,167	3,186	– 19		0.914
Quarter 3	3,241	3,133	108		0.575
Quarter 4	3,307	3,149	158		0.454
Quarter 5	3,571	3,314	257		0.253
Quarter 6	3,707	3,345	362		0.144
Quarter 7	3,512	3,689	– 177		0.473
Quarter 8	3,769	3,904	– 136		0.610
Quarter 9	3,915	3,922	– 7		0.981
Quarter 10	4,079	3,824	255		0.359
Quarter 11	4,054	3,884	170		0.541
Quarter 12	4,143	3,947	196		0.477
Quarter 13	4,106	3,804	301		0.288
Quarter 14	4,196	4,060	136		0.650
Quarter 15	4,213	4,248	– 35		0.908
Quarter 16	4,325	4,186	139		0.652
Quarter 17	4,590	4,073	518	*	0.093
Quarter 18	4,545	4,356	190		0.563
Quarter 19	4,595	4,594	1		0.998
Quarter 20	4,658	4,763	– 105		0.766
Quarter 21	4,861	4,601	260		0.439
Employed full-time (35 hours or more) at random assignment					
Quarter 2	5,639	5,696	– 57		0.768
Quarter 3	5,656	5,765	– 109		0.599
Quarter 4	5,497	5,774	– 277		0.233
Quarter 5	5,338	5,805	– 467	*	0.066
Quarter 6	5,736	5,755	– 20		0.940
Quarter 7	5,854	6,074	– 220		0.401
Quarter 8	5,637	5,936	– 300		0.268
Quarter 9	5,885	6,004	– 119		0.676
Quarter 10	5,963	6,038	– 75		0.800
Quarter 11	5,929	6,065	– 136		0.641
Quarter 12	5,963	6,215	– 251		0.426
Quarter 13	5,963	6,262	– 299		0.331
Quarter 14	6,065	6,275	– 209		0.507
Quarter 15	6,364	6,439	– 76		0.810
Quarter 16	6,303	6,459	– 155		0.639
Quarter 17	6,510	6,253	256		0.420
Quarter 18	6,718	6,474	244		0.465

(continued)

Exhibit C.1 (continued)

Outcomes	FSS Group	Control Group	Difference (Impact)	P-Value
Quarter 19	6,732	6,656	76	0.824
Quarter 20	6,700	6,757	– 57	0.868
Quarter 21	6,757	6,899	– 142	0.682
Total Impact Sample				
Quarter 2	2,781	2,870	– 90	0.285
Quarter 3	2,983	3,015	– 32	0.737
Quarter 4	3,041	3,090	– 49	0.636
Quarter 5	3,162	3,169	– 6	0.955
Quarter 6	3,399	3,271	128	0.275
Quarter 7	3,520	3,579	– 59	0.632
Quarter 8	3,556	3,618	– 63	0.621
Quarter 9	3,704	3,576	128	0.330
Quarter 10	3,821	3,704	118	0.392
Quarter 11	3,846	3,813	32	0.813
Quarter 12	3,937	3,907	30	0.832
Quarter 13	3,905	3,883	22	0.879
Quarter 14	3,987	3,999	– 12	0.935
Quarter 15	4,123	4,136	– 13	0.930
Quarter 16	4,132	4,140	– 9	0.956
Quarter 17	4,285	4,071	214	0.162
Quarter 18	4,349	4,268	81	0.610
Quarter 19	4,392	4,334	58	0.716
Quarter 20	4,443	4,453	– 10	0.950
Quarter 21	4,564	4,436	129	0.434
Sample size (total = 2,548)	1,282	1,266		

Notes: The FSS impact sample includes Housing Choice Voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between research groups. The p-value indicates the likelihood that the difference between the FSS group and control group arose by chance. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; and *** = 1 percent.

Source: MDRC calculations using baseline data and quarterly wage data from the National Directory of New Hires.

Exhibit C.2: Regression Coefficients for Estimated Impacts on Total Earnings in Years 1 to 5, Family Self-Sufficiency Impact Sample

	Parameter Estimate	P-Value
Intercept	14,612	0.109
Assigned to FSS Group (impact)	598	0.767
Covariates		
Sample member characteristics		
Female	6,482	0.089
Age 18–34	18,523	<.0001
Age 35–44	14,598	<.0001
Married or cohabitating	2,550	0.517
Black	3,004	0.268
1 child	4,152	0.196
2 children	7,644	0.025
3 or more children	4,244	0.248
Has a child age 5 or younger	– 597	0.820
Education		
High school diploma or GED	1,805	0.566
Some college	4,294	0.154
2-year college degree or higher	19,395	<.0001
Has trade license or training certificate	540	0.797
Public assistance		
Received SNAP/food stamps	– 512	0.852
Received SSI or SSDI	– 12,172	0.000
Received TANF	238	0.943
Received Housing Choice Voucher less than 4 years	404	0.871
Received Housing Choice Voucher 4–7 years	5,435	0.044
Hardship and barriers to employment		
Has any barrier to employment	– 10,080	<.0001
Reported 1 hardship in the year before random assignment	– 2,442	0.384
Reported 2 hardships in the year before random assignment	– 2,588	0.401
Reported 3 or more hardships in year before random assignment	– 4,248	0.128

(continued)

Exhibit C.2 (continued)

	Parameter Estimate	P-Value
Employment		
Currently employed	9,446	0.005
Currently employed full-time	5,444	0.079
Employed 1–6 months in the year before random assignment	9,550	0.006
Employed 7–11 months in the year before random assignment	2,507	0.554
Employed 12 months in the year before random assignment	– 920	0.826
Earnings		
Employed in the quarter before random assignment	– 223	0.950
Employed in the second quarter before random assignment	– 2,770	0.423
Total earnings in the 2 quarters before random assignment	6	<.0001
Total earnings squared in the 2 quarters before random assignment	0	0.763
Enrollment		
Randomly assigned in quarter 4, 2013	– 8,310	0.190
Randomly assigned in quarter 1, 2014	– 2,245	0.444
Randomly assigned in quarter 2, 2014	2,163	0.425
Housing Authority of the City of Alameda	11,928	0.093
Orange County Housing Authority	2,816	0.704
Housing Authority of the City of Riverside	– 622	0.929
Housing Authority of the City of Deerfield Beach	– 3,458	0.727
Housing Authority of the City of Ft. Lauderdale	– 8,353	0.292
Baltimore County Housing Office	– 9,606	0.223
Housing Opportunities Commission of Montgomery County	1,507	0.844
Housing Authority of Kansas City	– 2,101	0.790
Jersey City Housing Authority	– 3,587	0.681
Akron Metropolitan Housing Authority	– 15,596	0.097
Columbus Metropolitan Housing Authority	– 472	0.958
Lucas Metropolitan Housing Authority	– 8,687	0.378
Youngstown Metropolitan Housing Authority	– 5,129	0.586
Dallas Housing Authority	1,578	0.834
Fort Worth Housing Authority	– 9,724	0.270
Houston Housing Authority	398	0.957
Tarrant County Housing Assistance Office	– 13,426	0.094
Enrolled in FSS for help with employment	– 2,463	0.312
Medical coverage		
Public medical insurance	– 7,185	0.021
Private medical insurance	5,057	0.166

(continued)

Exhibit C.2 (continued)

	Parameter Estimate	P-Value
Savings		
Had checking or savings account	7,563	0.002
Had savings between $1–$500	– 2,749	0.260
Had savings greater than $500	748	0.843
Debt		
$1–$1,000	– 1,439	0.704
$1,001–$5,000	3,723	0.275
$5,001–$10,000	5,703	0.123
$10,001–$20,000	4,974	0.147
$20,001 or greater	11,466	0.001
R-square	0.506	
Sample size	2,548	

Notes: The FSS impact sample includes Housing Choice Voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. No special weights were applied to responses to adjust for differences in sample size by site.
Sources: MDRC calculations using baseline data and quarterly wage data from the National Directory of New Hires

Exhibit C.3: Unadjusted and Adjusted Impacts on Employment and Earnings in Years 1 to 5, Family Self-Sufficiency Impact Sample

	Adjusted Impacts				Unadjusted Impacts			
Outcomes	FSS Group	Control Group	Difference (Impact)	P-Value	FSS Group	Control Group	Difference (Impact)	P-Value
Ever employed (%)	86.9	85.4	1.5	0.193	86.7	85.7	1.0	0.483
Average quarterly employment rate (%)	64.0	63.5	0.5	0.651	63.6	63.9	– 0.3	0.827
Total earnings ($)	75,929	75,332	598	0.767	74,569	76,709	– 2,140	0.447
Sample size (total=2,548)	1,282	1,266			1,282	1,266		

Notes: The FSS impact sample includes Housing Choice Voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Average quarterly employment rate is calculated as: total quarters with employment divided by total quarters of followup, expressed as a percentage. Regression-adjusted estimates used ordinary least squares, controlling for pre-random assignment characteristics of sample members. No special weights were applied to adjust for differences in sample size by housing authority. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between research groups. The p-value indicates the likelihood that the difference between the FSS group and control group arose by chance. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; and *** = 1 percent.

Source: MDRC calculations using quarterly wage data from the National Directory of New Hires

Exhibit C.4: Total Earnings in Years 1 to 5 by Level of Exclusion for Outlier Values, Family Self-Sufficiency Impact Sample

Outcome	Sample Size	Mean	Standard Deviation	95th Percentile	99th Percentile	Maximum
Earnings ($)						
Include all values	2,548	76,299	72,490	215,619	278,566	534,445
Reset values above $25,000 to $0	2,548	75,632	70,963	212,361	274,734	371,134
Exclude top 1 percent	2,523	73,359	67,447	203,064	253,193	278,566
Exclude top 5 percent	2,421	66,541	59,686	178,984	204,803	215,619

Notes: The FSS Impact sample includes Housing Choice Voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment.
Source: MDRC calculations using quarterly wage data from the National Directory of New Hires

Exhibit C.5: Impacts on Total Earnings in Years 1 to 5 by Level of Exclusion for Outlier Values, Family Self-Sufficiency Impact Sample

Outcome	FSS Group	Control Group	Difference (Impact)	P-Value
Earnings ($)				
Include all values	76,339	76,257	82	0.968
Reset values above $25,000 to $0	75,929	75,332	598	0.767
Exclude top 1 percent	74,239	72,459	1,780	0.361
Exclude top 5 percent	67,153	65,918	1,235	0.500
Sample size (total = 2,548)	1,282	1,266		

Notes: The FSS impact sample includes Housing Choice Voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Sample sizes for specific outcomes may vary because of exclusion of outliers and missing values. Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. No special weights were applied to responses to adjust for differences in sample size by site. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between research groups. The p-value indicates the likelihood that the difference between the FSS group and control group arose by chance. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; and *** = 1 percent.
Source: MDRC calculations using quarterly wage data from the National Directory of New Hires

Exhibit C.6: Impacts on Employment and Earnings During Years 1 to 5 by Weighting Strategy, Family Self-Sufficiency Impact Sample

Outcomes	FSS Group	Control Group	Difference (Impact)		P-Value
Unweighted					
Ever employed (%)	86.9	85.4	1.5		0.193
Average quarterly employment rate (%)	64.0	63.5	0.5		0.651
Total earnings ($)	75,929	75,332	598		0.767
Equal weighting					
Ever employed (%)	87.4	85.0	2.3	**	0.038
Average quarterly employment rate (%)	64.1	63.5	0.7		0.553
Total earnings ($)	75,328	76,046	– 717		0.708
Weighting by total FSS households[a]					
Ever employed (%)	86.8	85.6	1.3		0.267
Average quarterly employment rate (%)	63.9	63.6	0.3		0.783
Total earnings ($)	75,620	75,749	– 129		0.948
Sample size (total=2,548)	1,282	1,266			

Notes: The FSS Impact sample includes Housing Choice Voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Average quarterly employment rate is calculated as: total quarters with employment divided by total quarters of follow-up, expressed as a percentage. Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between research groups. The p-value indicates the likelihood that the difference between the FSS group and control group arose by chance. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; and *** = 1 percent. [a]Total FSS caseload includes 5,686 households enrolled in FSS as of December 31, 2014. The total includes FSS group members and FSS participants who enrolled in the program before the start of random assignment, enrolled in the program after the end of random assignment, or withdrew from the research sample.

Sources: MDRC calculations using quarterly wage data from the National Directory of New Hires and December 2014 data from the U.S. Department of Housing and Urban Development (HUD) Public and Indian Housing Information Center (PIC) Data

Exhibit C.7: Impacts on Changes in Reported Estimated Gross Annual Head-of-Household Earnings, Family Self-Sufficiency Impact Sample

Outcome	FSS Group	Control Group	Difference (Impact)		P-Value
Months 1 and 61, if still enrolled in HCV program					
Average change ($)	5,229	4,096	1,133		
Change in earnings (%)					
Increase	46.6	45.6	1.0		
No change	30.2	31.4	– 1.2		
Decrease	23.2	23.0	0.3		
Had earnings (%)					
Months 1 and 61	34.1	34.0	0.0		
Month 1 only	15.0	13.5	1.5		
Month 61 only	20.8	21.2	– 0.4		
No reported earnings	30.2	31.3	– 1.1		
Month 1 and current or most recent month of enrollment in HCV program					
Average change ($)	5,646	5,100	546		0.333
Change in earnings (%)					0.303
Increase	49.8	47.1	2.7		
No change	29.6	31.9	– 2.3		
Decrease	20.6	21.0	– 0.4		
Had earnings (%)				*	0.061
Month 1 and current or most recent month	39.4	38.5	0.9		
Month 1 only	12.2	11.9	0.3		
Current or most recent month only	20.5	19.6	0.9		
No reported earnings	27.9	30.0	– 2.1		
Sample size (total = 2,466)	1,239	1,226			

Notes: The FSS impact sample includes Housing Choice Voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Income calculations used data from each household's most recent Housing Choice Voucher eligibility reexamination that took place between Months 1 through 61 after their date of random assignment. For these calculations, households with no reported income or who exited or became ineligible from the Housing Choice Voucher program were excluded from the calculations. Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. For each dollar amount outcome, values above the 99th percentile were considered as outliers and dropped from the calculations. The p-value indicates the likelihood that the difference between the FSS group and control group arose by chance. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; and *** = 1 percent. Sample sizes for specific outcomes may vary because of missing values. Rounding may cause slight discrepancies in calculating sums and differences.

Source: MDRC calculations using U.S. Department of Housing and Urban Development Inventory Management System (IMS)/PIH Information Center (PIC) data

Appendix D

Exhibit D.1: Impacts on Indicators of Change Over Time in Credit Scores, 2013–19, Family Self-Sufficiency Impact Sample

Outcome	FSS Group	Control Group	Difference (Impact)		P-Value
Average number of years with credit scores (2015–19)					
No scores	0.16	0.17	– 0.01		0.774
Experian Vantage 3.0 score only	1.69	1.76	– 0.07		0.361
Clarity Clear Early Risk score only	0.03	0.02	0.01		0.557
Vantage and Clarity scores	3.13	3.05	0.07		0.346
Vantage 3.0 score					
Pre-Random assignment year					
2012	549	548	1		0.725
Random assignment years					
2013	553	550	3		0.330
2014	557	556	1		0.718
Followup years					
2015	562	559	2		0.422
2016	562	563	– 1		0.634
2017	568	568	– 1		0.804
2018	569	569	0		0.949
2019	574	571	2		0.505
Years with Vantage 3.0 score (2015–19)					
No score	0.18	0.19	0.00		0.913
Deep Subprime	0.90	0.90	0.00		0.971
Subprime	2.48	2.52	– 0.04		0.532
Near Prime	0.76	0.73	0.04		0.411
Prime	0.67	0.66	0.01		0.867
1 year or more with prime credit score (%)	25.0	23.5	1.5		0.331
Highest score (2015–19) (%)	626	624	2		0.382
Change in score from 2013 to 2019	20	21	– 2		0.617
Change in score from 2013 to 2019 (%)					
– 500 – – 51 points	19.8	17.9	1.9		0.244
– 50 – – 10 points	16.3	16.2	0.2		0.919
– 9 – 9 points (little change)	11.8	11.0	0.8		0.529
10 - 49 points	16.9	20.6	– 3.8	**	0.019
50 - 99 points	18.7	17.5	1.2		0.450
100 points or more	16.6	16.9	– 0.3		0.847

(continued)

Exhibit D.1 (continued)

Outcome	FSS Group	Control Group	Difference (Impact)	P-Value
Change in score level from 2013 to 2019 (%)				
Increase				
Deep Subprime/Subprime to Prime (300–600 to 661–850)	6.9	6.7	0.2	0.850
Near Prime to Prime (601–660 to 661–850)	3.1	3.2	– 0.2	0.835
Deep Subprime/Subprime to Near Prime (300–600 to 601–660)	10.7	12.4	– 1.7	0.188
No change in score level	71.3	69.4	1.9	0.313
Decrease				
Prime to Near Prime (661–850 to 601–660)	1.1	1.1	0.1	0.910
Near Prime to Deep Subprime/Subprime (601–660 to 300–600)	5.5	5.8	– 0.4	0.699
Prime to Deep Subprime/Subprime (661–850 to 300–600)	1.5	1.3	0.2	0.747
Clarity score				
Average number of years with Clarity score (2015–19)	3.15	3.08	0.08	0.314
1 year or more with Clarity score (%)	75.5	74.0	1.6	0.338
Average score (impact sample members with a Clarity score)				
Pre-Random assignment year				
2012	*n/a*	*n/a*	*n/a*	
Random assignment years				
2013	*n/a*	*n/a*	*n/a*	
2014	*529*	*526*	*3*	
Followup years				
2015	*536*	*534*	*3*	
2016	*538*	*536*	*1*	
2017	*541*	*539*	*2*	
2018	*542*	*542*	*0*	
2019	*544*	*539*	*5*	
Sample size (total = 2,548)	1,282	1,266		

(continued)

Exhibit D.1 (continued)

Notes: The FSS impact sample includes Housing Choice Voucher heads of household who were randomly assigned between October 18, 2013, and December 22, 2014, were age 18 to 61 at the time of random assignment. Sample sizes for specific outcomes may vary because of missing values. Estimates were regression-adjusted using ordinary least squares, controlling for differences in sample member characteristics recorded at the time of random assignment. No special weights were applied to responses to adjust for differences in sample size by housing authority. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between the FSS group and the control group for continuous variables and selected outcomes expressed as proportions. In addition, a chi-square test for categorical variables was run to determine whether there is a difference in the distribution of related outcomes by research group. The p-value indicates the likelihood that the difference between the FSS group and control group arose by chance. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.
Source: MDRC calculations using Experian Vantage 3.0 credit scores and Clarity Clear Early Risk scores

Exhibit D.2: Impacts on Total Credit and Average Monthly Payment, 2013–19, Family Self-Sufficiency Impact Sample

Outcome ($)	FSS Group	Control Group	Difference (Impact)	P-Value
Average total balance				
Total non-housing related credit-accounts				
2013	8,202	7,456	747	0.169
2014	9,478	9,140	337	0.600
2015	12,465	11,971	494	0.508
2016	15,481	13,272	2,209***	0.008
2017	16,649	15,538	1,110	0.229
2018	17,881	17,173	708	0.481
2019	18,725	17,979	746	0.484
Revolving credit accounts				
2013	642	613	30	0.722
2014	847	750	97	0.299
2015	1,133	1,018	115	0.313
2016	1,446	1,252	193	0.140
2017	1,633	1,498	135	0.414
2018	1,754	1,743	12	0.944
2019	1,892	1,969	– 78	0.633
Installment credit accounts				
2013	6,888	6,541	347	0.460
2014	7,919	8,112	– 193	0.738
2015	10,678	10,755	– 77	0.912
2016	13,457	11,804	1,653**	0.032
2017	14,426	13,717	709	0.399
2018	15,574	15,124	450	0.629
2019	16,266	15,870	396	0.691
Average total installment balance by type				
Auto loans				
2013	3,074	2,970	104	0.687
2014	3,401	3,408	– 7	0.980
2015	4,563	4,577	– 14	0.968
2016	5,470	4,990	480	0.185
2017	5,992	5,256	737*	0.054
2018	6,098	6,015	83	0.846
2019	6,590	6,052	538	0.218
Student loans				
2013	3,658	3,403	256	0.532
2014	4,277	4,522	– 244	0.628
2015	5,749	5,979	– 230	0.696
2016	7,572	6,557	1,015	0.124
2017	8,033	8,145	– 112	0.877
2018	9,060	8,707	353	0.658
2019	9,176	9,148	29	0.973

(continued)

Exhibit D.2 (continued)

Outcome ($)	FSS Group	Control Group	Difference (Impact)	P-Value
Personal installment loans				
2013	155	168	– 12	0.724
2014	241	182	58	0.190
2015	366	199	167***	0.003
2016	415	256	159***	0.010
2017	400	316	84	0.198
2018	416	402	14	0.836
2019	500	670	– 171	0.230
Average monthly payments				
Total non-housing-related credit accounts				
2013	169	171	– 2	0.859
2014	201	197	4	0.696
2015	252	243	9	0.448
2016	300	270	30**	0.022
2017	333	294	39***	0.010
2018	359	336	23	0.190
2019	384	352	32*	0.052
Revolving credit accounts				
2013	30	28	1	0.621
2014	40	36	5	0.190
2015	53	46	7*	0.090
2016	65	59	6	0.221
2017	76	66	10	0.123
2018	79	76	3	0.649
2019	85	88	– 3	0.646
Installment credit accounts				
2013	136	136	0	0.991
2014	156	154	2	0.826
2015	196	192	4	0.715
2016	233	206	26**	0.016
2017	252	224	27**	0.024
2018	265	249	16	0.225
2019	286	256	30**	0.028
Sample size (total = 2,548)	1,282	1,266		

Notes: The FSS impact sample includes Housing Choice Voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Sample sizes may vary because of missing values. Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. No specific weights were applied to responses to adjust for differences in sample size by housing authority. Rounding may cause slight discrepancies in sums and differences. A two-tailed t-test was applied to differences between the FSS group and control group for continuous variables and selected outcomes expressed as proportions. In addition, a chi-square test for categorical variables was run to determine whether there is a difference in the distribution of related outcomes by research group. The p-value indicates the likelihood that the difference between the FSS group and the control group by chance. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent. The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups.

Source: MDRC calculations using Experian Vantage 3.0 scores data

Exhibit D.3: Impacts on Use of Alternative Financial Services, Family Self-Sufficiency Impact Sample

Outcome	FSS Group	Control Group	Difference (Impact)	P-Value
Ever used AFS (%)				
Total AFS				
2014	3.2	3.3	– 0.1	0.850
2015	6.8	6.1	0.7	0.450
2016	9.2	7.7	1.5	0.170
2017	8.1	8.7	– 0.5	0.630
2018	10.5	9.8	0.8	0.516
2019	12.3	12.5	– 0.2	0.879
AFS Single Payment loans				
2014	2.9	2.4	0.5	0.458
2015	4.7	4.3	0.4	0.614
2016	6.0	5.2	0.8	0.383
2017	5.3	5.5	– 0.2	0.820
2018	5.2	4.4	0.8	0.344
2019	3.7	3.9	– 0.2	0.778
AFS Installment loans				
2014	0.0	0.4	– 0.4**	0.031
2015	0.9	0.9	0.0	0.933
2016	1.8	1.3	0.5	0.286
2017	1.9	2.2	– 0.3	0.568
2018	3.3	3.2	0.0	0.957
2019	4.0	3.8	0.2	0.847
Total AFS balance ($)				
Total AFS				
2014	11	13	– 1	0.607
2015	63	58	4	0.742
2016	103	88	15	0.373
2017	82	100	– 19	0.268
2018	186	175	11	0.737
2019	270	263	7	0.865
AFS Single Payment loans				
2014	10	9	1	0.644
2015	36	37	0	0.962
2016	53	52	1	0.931
2017	46	50	– 4	0.721
2018	39	46	– 7	0.621
2019	34	34	0	0.998

(continued)

Exhibit D.3 (continued)

Outcome	FSS Group	Control Group	Difference (Impact)	P-Value
AFS Installment loans				
2014	0	1	– 1**	0.040
2015	6	4	2	0.503
2016	12	12	0	0.999
2017	11	18	– 7	0.183
2018	27	30	– 3	0.679
2019	44	42	2	0.887
Sample size (total = 2,548)	1,282	1,266		

Notes: The FSS impact sample includes Housing Choice Voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Rounding may cause slight discrepancies in sums and differences. Sample sizes may vary because of missing values. Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. A two-tailed t-test was applied to differences between the FSS group and control group for continuous variables and selected outcomes expressed as proportions. The p-value indicates the likelihood that the difference between the FSS group and the control group by chance. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.
Source: MDRC calculations using Experian and Clarity credit data

Appendix E

Exhibit E.1: Impacts on Selected Employment and Earnings Outcomes in Years 1 to 5, by Selected Baseline Characteristics, Family Self-Sufficiency Impact Sample

Outcome	FSS Group	Control Group	Difference (Impact)	P-Value	Sample Sizes: FSS Group	Sample Sizes: Control Group
In Years 1 to 5						
Average quarterly employment rate (%)						
Employment status						
Not employed	44.3	44.0	0.3	0.885	575	551
Employed Part-Time	76.6	75.0	1.6	0.475	335	313
Employed Full-Time	81.9	82.5	-0.6	0.740	372	402
Educational attainment						
No degree or credential	58.9	55.3	3.7	0.188	257	253
High school degree or GED	61.0	61.5	– 0.5	0.828	319	297
Some college	66.7	66.7	0.0	0.990	470	512
2-year college degree or higher	69.0	67.8	1.1	0.669	236	204
Total household income						
$1–$10,000	52.1	53.4	– 1.3	0.582	318	320
$10,001–$20,000	59.4	57.5	1.9	0.366	438	401
More than $20,000	75.3	73.7	1.6	0.313	526	545
Reported barrier to employment						
Yes	51.5	50.6	1.0	0.599	534	517
No	72.4	73.0	– 0.6	0.663	748	749
Disability status						
Received SSI/SSDI	38.6	36.9	1.6	0.563	177	188
Did not receive SSI/SSDI	68.1	68.1	0.0	0.989	1,105	1,078
Percentage of rent and utilities expenses paid by household						
0–25	56.1	57.1	– 1.0	0.568	583	550
25.01–50	64.3	62.5	1.8	0.355	419	410
More than 50	79.6	76.8	2.8	0.174	280	306
Percentage of household income used for rent and utilities						
0–30	65.0	63.9	1.1	0.438	832	816
More than 30	62.5	62.4	0.1	0.953	450	450
Total earnings ($)						
Employment status						
Not employed	41,816	40,823	993	0.715	575	551
Employed Part-Time	80,557	77,984	2,573	0.535	335	313
Employed Full-Time	121,210	123,602	– 2,392	0.578	372	402

(continued)

Exhibit E.1 (continued)

Outcome	FSS Group	Control Group	Difference (Impact)	P-Value	Sample Sizes: FSS Group	Sample Sizes: Control Group
Educational attainment						
No degree or credential	58,783	56,157	2,626	0.486	257	253
High school degree or GED	69,764	67,898	1,866	0.631	319	297
Some college	79,686	80,411	– 725	0.831	470	512
2-year college degree or higher	98,193	94,016	4,177	0.503	236	204
Total household income						
$1–$10,000	48,920	50,542	– 1,622	0.681	318	320
$10,001–$20,000	57,951	56,287	1,664	0.602	438	401
More than $20,000	107,391	103,743	3,648	0.296	526	545
Reported barrier to employment						
Yes	51,501	53,933	– 2,432	0.409	534	517
No	92,960	90,510	2,450	0.384	748	749
Disability status						
Received SSI/SSDI	34,137	31,468	2,669	0.484	177	188
Did not receive SSI/SSDI	82,617	82,988	– 371	0.871	1,105	1,078
Percentage of rent and utilities expenses paid by household						
0–25	54,359	55,196	– 837	0.775	583	550
25.01–50	73,799	73,425	374	0.916	419	410
More than 50	121,130	116,733	4,397	0.366	280	306
Percentage of household income used for rent and utilities						
0–30	77,278	75,849	1,429	0.568	832	816
More than 30	74,492	73,338	1,154	0.740	450	450
Average annual earnings greater than $25,000 (%)						
Employment status						
Not employed	8.2	8.4	– 0.2	0.887	575	551
Employed Part-Time	22.8	20.4	2.4	0.420	335	313
Employed Full-Time	45.7	49.0	– 3.3	0.308	372	402
Educational attainment						
No degree or credential	13.9	13.2	0.7	0.789	257	253
High school degree or GED	21.2	20.7	0.5	0.853	319	297
Some college	24.3	25.6	– 1.3	0.584	470	512
2-year college degree or higher	37.1	34.0	3.1	0.449	236	204
Total household income						
$1–$10,000	10.0	11.9	– 1.9	0.413	318	320
$10,001–$20,000	12.4	12.8	– 0.4	0.859	438	401
More than $20,000	40.5	38.7	1.8	0.472	526	545

(continued)

Exhibit E.1 (continued)

Outcome	FSS Group	Control Group	Difference (Impact)	P-Value	Sample Sizes: FSS Group	Sample Sizes: Control Group
Reported barrier to employment						
Yes	13.7	16.2	– 2.5	0.199	534	517
No	30.1	29.1	1.0	0.610	748	749
Disability status						
Received SSI/SSDI	8.6	6.8	1.8	0.469	177	188
Did not receive SSI/SSDI	25.7	26.7	– 1.1	0.501	1,105	1,078
Percentage of rent and utilities expenses paid by household						
0–25	10.9	13.0	– 2.1	0.246	583	550
25.01–50	22.2	23.1	– 0.9	0.715	419	410
More than 50	49.3	45.4	3.8	0.303	280	306
Percentage of household income used for rent and utilities						
0–30	22.9	23.9	– 1.0	0.565	832	816
More than 30	24.6	23.0	1.6	0.514	450	450
In Year 5 Average quarterly employment rate (%)						
Employment status						
Not employed	47.4	48.7	– 1.3	0.586	575	551
Employed Part-Time	76.1	74.0	2.0	0.493	335	313
Employed Full-Time	81.0	79.2	1.8	0.463	372	402
Educational attainment						
No degree or credential	57.6	56.4	1.3	0.727	257	253
High school degree or GED	61.6	62.2	– 0.7	0.828	319	297
Some college	67.3	67.3	0.0	0.996	470	512
2-year college degree or higher	73.5	68.9	4.7	0.169	236	204
Total household income						
$1–$10,000	55.0	54.4	0.7	0.834	318	320
$10,001–$20,000	60.9	58.7	2.2	0.440	438	401
More than $20,000	74.6	74.1	0.5	0.828	526	545
Reported barrier to employment						
Yes	52.7	52.7	0.0	0.992	534	517
No	73.1	73.0	0.1	0.940	748	749

(continued)

Exhibit E.1 (continued)

Outcome	FSS Group	Control Group	Difference (Impact)	P-Value	Sample Sizes: FSS Group	Sample Sizes: Control Group
Disability status						
Received SSI/SSDI	39.2	41.3	– 2.1	0.609	177	188
Did not receive SSI/SSDI	69.0	68.5	0.5	0.748	1,105	1,078
Percentage of rent and utilities expenses paid by household						
0– 25	58.6	58.7	– 0.1	0.981	583	550
25.01–50	64.6	63.3	1.3	0.617	419	410
More than 50	78.0	76.6	1.4	0.628	280	306
Percentage of household income used for rent and utilities						
0–30	65.7	65.8	– 0.1	0.970	832	816
More than 30	64.0	61.2	2.7	0.283	450	450
Total earnings ($)						
Employment status						
Not employed	10,860	10,688	172	0.835	575	551
Employed Part-Time	18,660	18,314	346	0.778	335	313
Employed Full-Time	26,908	26,787	121	0.920	372	402
Educational attainment						
No degree or credential	13,192	12,482	710	0.505	257	253
High school degree or GED	16,581	16,053	529	0.648	319	297
Some college	18,467	18,856	– 389	0.706	470	512
2-year college degree or higher	23,787	21,284	2,503	0.146	236	204
Total household income						
$1–$10,000	12,481	12,166	315	0.780	318	320
$10,001–$20,000	14,694	13,547	1,148	0.265	438	401
More than $20,000	23,653	23,345	309	0.752	526	545
Reported barrier to employment						
Yes	12,317	13,028	– 712	0.417	534	517
No	21,567	20,627	940	0.248	748	749
Disability status						
Received SSI/SSDI	8,313	8,278	35	0.978	177	188
Did not receive SSI/SSDI	19,254	19,102	153	0.817	1,105	1,078

(continued)

Exhibit E.1 (continued)

Outcome	FSS Group	Control Group	Difference (Impact)	P-Value	Sample Sizes: FSS Group	Sample Sizes: Control Group
Percentage of rent and utilities expenses paid by household						
0–25	13,844	13,566	277	0.755	583	550
25.01–50	17,094	16,791	303	0.766	419	410
More than 50	26,427	25,870	557	0.685	280	306
Percentage of household income used for rent and utilities						
0–30	18,024	17,917	107	0.886	832	816
More than 30	17,570	16,382	1,188	0.228	450	450
Employed in all four quarters (%)						
Employment status						
Not employed	35.8	35.6	0.3	0.915	575	551
Employed Part-Time	65.8	62.1	3.7	0.331	335	313
Employed Full-Time	72.3	70.7	1.6	0.611	372	402
Educational attainment						
No degree or credential	48.9	46.4	2.5	0.558	257	253
High school degree or GED	52.6	50.9	1.7	0.626	319	297
Some college	55.7	55.3	0.4	0.891	470	512
2-year college degree or higher	62.7	56.4	6.2	0.150	236	204
Total household income						
$1–$10,000	44.5	40.4	4.1	0.266	318	320
$10,001–$20,000	49.6	45.4	4.2	0.199	438	401
More than $20,000	65.2	65.6	– 0.4	0.876	526	545
Reported barrier to employment						
Yes	42.7	40.7	2.0	0.481	534	517
No	62.7	61.8	1.0	0.680	748	749
Disability status						
Received SSI/SSDI	29.8	29.9	– 0.1	0.975	177	188
Did not receive SSI/SSDI	58.5	57.0	1.5	0.424	1,105	1,078
Percentage of rent and utilities expenses paid by household						
0–25	46.6	44.6	2.0	0.493	583	550
25.01–50	54.4	51.9	2.5	0.425	419	410
More than 50	70.3	70.3	– 0.1	0.986	280	306

(continued)

Exhibit E.1 (continued)

Outcome	FSS Group	Control Group	Difference (Impact)	P-Value	Sample Sizes: FSS Group	Sample Sizes: Control Group
Percentage of household income used for rent and utilities						
0–30	54.9	54.1	0.8	0.734	832	816
More than 30	54.4	50.5	3.9	0.184	450	450
Sample size (total = 2,548)	1,282	1,266				

Notes: The FSS impact sample includes Housing Choice Voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Average quarterly employment rate is calculated as: total quarters with employment divided by total quarters of follow-up, expressed as a percentage. Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between research groups. The p-value indicates the likelihood that the difference between the FSS group and control group arose by chance. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; and *** = 1 percent. The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as: † = 10 percent; †† = 5 percent; and ††† = 1 percent.
Sources: MDRC calculations using baseline data, U.S. Department of Housing and Urban Development Inventory Management System (IMS)/PIH Information Center (PIC) data, and quarterly wage data from the National Directory of New Hires

Exhibit E.2: Impacts on Selected Credit Score Outcomes by Selected Baseline Characteristics, Family Self-Sufficiency Impact Sample

Outcome	FSS Group	Control Group	Difference (Impact)		P-Value		Sample Sizes: FSS Group	Sample Sizes: Control Group
Average Experian Vantage 3.0 credit score in 2019								
Employment status								
Not employed	561	564	– 3		0.546		545	524
Employed Part-Time	584	569	15	**	0.033		322	297
Employed Full-Time	585	581	3		0.581		366	397
Educational attainment								
No degree or credential	567	575	– 8		0.324	†	246	237
High school degree or GED	574	568	6		0.413	†	303	281
Some college	562	565	– 3		0.593	†	455	501
2-year college degree or higher	605	586	19	**	0.022	†	229	199
Total household income								
No income	559	544	15		0.155		134	120
$1–$10,000	558	560	– 3		0.592		424	410
$10,001–$20,000	578	581	– 2		0.690		344	340
More than $20,000	591	588	3		0.650		331	348
Reported barrier to employment								
Yes	569	571	– 1		0.774		507	499
No	577	572	5		0.276		726	719
Disability status								
Received SSI/SSDI	576	568	9		0.308		165	178
Did not receive SSI/SSDI	573	572	1		0.682		1068	1040
Rent burden[a]								
Lower	574	574	0		0.958		568	569
Higher	573	568	5		0.274		576	581
Percentage of rent and utilities expenses paid by household								
0–25	563	560	3		0.545		561	525
25.01–50	579	578	1		0.898		400	392
More than 50	589	583	5		0.475		272	301

(continued)

Exhibit E.2 (continued)

Outcome	FSS Group	Control Group	Difference (Impact)		P-Value		Sample Sizes: FSS Group	Sample Sizes: Control Group
Has Vantage 3.0 credit score of 661 or higher in 2019 (Prime) (%)								
Employment status								
Not employed	11.6	11.7	– 0.1		0.961	††	575	551
Employed Part-Time	22.1	14.4	7.8	** *	0.008	††	335	313
Employed Full-Time	17.1	19.8	– 2.7		0.311	††	372	402
Educational attainment								
No degree or credential	15.0	16.7	– 1.7		0.579		257	253
High school degree or GED	15.8	12.3	3.4		0.216		319	297
Some college	11.5	13.7	– 2.2		0.286		470	512
2-year college degree or higher	26.1	19.3	6.8	*	0.095		236	204
Total household income								
No income	12.8	6.3	6.5	*	0.091		139	129
$1– $10,000	11.9	11.2	0.7		0.761		449	426
$10,001–$20,000	17.6	17.0	0.6		0.827		353	354
More than $20,000	19.2	22.0	– 2.9		0.328		341	357
Reported barrier to employment								
Yes	15.2	15.1	0.0		0.986		534	517
No	15.7	15.5	0.2		0.912		748	749
Disability status								
Received SSI/SSDI	11.0	13.6	– 2.6		0.482		177	188
Did not receive SSI/SSDI	16.2	15.7	0.5		0.718		1105	1078
Rent burden[a]								
Lower	16.2	15.9	0.3		0.878		591	593
Higher	14.8	13.6	1.2		0.540		599	604
Percentage of rent and utilities expenses paid by household								
0–25	14.2	10.6	3.6	*	0.061		583	550
25.01–50	16.5	18.2	– 1.7		0.506		419	410
More than 50	17.6	19.2	– 1.5		0.632		280	306

(continued)

Exhibit E.2 (continued)

Outcome	FSS Group	Control Group	Difference (Impact)		P-Value		Sample Sizes: FSS Group	Sample Sizes: Control Group
Has Vantage 3.0 score only, no Clarity Clear Early Risk score, in 2019 (%)								
Employment status								
Not employed	32.5	33.1	– 0.7		0.811		575	551
Employed Part-Time	33.1	31.9	1.2		0.734		335	313
Employed Full-Time	29.0	33.6	– 4.6		0.149		372	402
Educational attainment								
No degree or credential	35.6	36.5	– 0.9		0.833		257	253
High school degree or GED	33.7	35.5	– 1.8		0.631		319	297
Some college	27.5	29.1	– 1.6		0.566		470	512
2-year college degree or higher	31.1	36.6	– 5.4		0.228		236	204
Total household income								
No income	33.4	30.0	3.4		0.607	†	139	129
$1– $10,000	31.3	32.7	– 1.4		0.652	†	449	426
$10,001–$20,000	32.0	29.7	2.2		0.516	†	353	354
More than $20,000	29.7	38.8	– 9.1	***	0.007	†	341	357
Reported barrier to employment								
Yes	31.7	33.5	– 1.8		0.527		534	517
No	31.1	33.2	– 2.1		0.367		748	749
Disability status								
Received SSI/SSDI	26.5	29.9	– 3.4		0.494		177	188
Did not receive SSI/SSDI	32.2	33.8	– 1.6		0.400		1105	1078
Rent burden[a]								
Lower	34.4	36.5	– 2.1		0.417		591	593
Higher	27.7	30.0	– 2.2		0.389		599	604
Percentage of rent and utilities expenses paid by household								
0–25	33.9	33.5	0.4		0.890	†	583	550
25.01–50	31.0	30.0	1.0		0.742	†	419	410
More than 50	27.2	36.6	– 9.5	**	0.013	†	280	306

(continued)

Exhibit E.2 (continued)

Outcome	FSS Group	Control Group	Difference (Impact)		P-Value	Sample Sizes: FSS Group	Sample Sizes: Control Group
Average change in Vantage 3.0 scores, 2013 to 2019							
Employment status							
Not employed	18	23	– 4		0.415	533	511
Employed Part-Time	23	13	10		0.135	314	294
Employed Full-Time	19	25	– 6		0.383	361	396
Educational attainment							
No degree or credential	17	20	– 3		0.706	238	231
High school degree or GED	23	26	– 3		0.676	295	276
Some college	19	24	– 5		0.397	450	496
2-year college degree or higher	22	8	14	*	0.083	225	198
Total household income							
No income	26	15	11		0.383	132	118
$1–$10,000	11	24	– 13	**	0.037	410	402
$10,001–$20,000	26	22	4		0.504	342	334
More than $20,000	20	22	– 1		0.840	324	347
Reported barrier to employment							
Yes	21	24	– 2		0.674	491	489
No	19	19	– 1		0.905	717	712
Disability status							
Received SSI/SSDI	27	18	9		0.416	159	172
Did not receive SSI/SSDI	19	22	– 3		0.484	1049	1029
Rent burden[a]							
Lower	15	22	– 8		0.138	553	560
Higher	24	19	6		0.255	567	573
Percentage of rent and utilities expenses paid by household							
0–25	18	20	– 2		0.707	546	515
25.01–50	19	22	– 3		0.660	394	386
More than 50	24	21	3		0.694	268	300

(continued)

Exhibit E.2 (continued)

Outcome	FSS Group	Control Group	Difference (Impact)		P-Value		Sample Sizes: FSS Group	Sample Sizes: Control Group
Increased Vantage 3.0 score from 600 or lower (Deep Subprime/Subprime) to 661 or higher (Prime), 2013–19 (%)								
Employment status								
Not employed	7.0	7.4	– 0.4		0.802		533	511
Employed Part-Time	8.7	4.7	4.0	*	0.062		314	294
Employed Full-Time	5.8	6.8	– 1.0		0.577		361	396
Educational attainment								
No degree or credential	7.4	4.1	3.2		0.173		238	231
High school degree or GED	7.1	6.6	0.5		0.819		295	276
Some college	6.6	6.7	– 0.1		0.978		450	496
2-year college degree or higher	7.7	8.9	– 1.2		0.684		225	198
Total household income								
No income	11.2	1.9	9.3	***	0.009	†	132	118
$1– $10,000	6.2	7.9	– 1.7		0.385	†	410	402
$10,001–$20,000	6.4	6.0	0.5		0.815	†	342	334
More than $20,000	7.0	7.3	– 0.3		0.872	†	324	347
Reported barrier to employment								
Yes	8.4	6.5	1.8		0.293		491	489
No	6.1	6.7	– 0.6		0.650		717	712
Disability status								
Received SSI/SSDI	8.5	6.7	1.8		0.596		159	172
Did not receive SSI/SSDI	6.8	6.6	0.2		0.827		1049	1029
Rent burden[a]								
Lower	5.4	6.7	– 1.3		0.379		553	560
Higher	8.1	6.3	1.7		0.274		567	573
Percentage of rent and utilities expenses paid by household								
0–25	7.2	5.6	1.6		0.308		546	515
25.01–50	7.7	7.1	0.6		0.749		394	386
More than 50	5.7	7.6	– 1.9		0.384		268	300
Sample size (total=2548)	1,282	1,266						

(continued)

Exhibit E.2 (continued)

Notes: The FSS Impact sample includes Housing Choice Voucher heads of household who were randomly assigned between October 18, 2013, and December 22, 2014, and were age 18 to 61 at the time of random assignment. Sample sizes for specific outcomes may vary because of missing values. Estimates were regression-adjusted using ordinary least squares, controlling for differences in sample member characteristics recorded at the time of random assignment. No special weights were applied to responses to adjust for differences in sample size by housing authority. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between the FSS group and the control group for continuous variables and selected outcomes expressed as proportions. In addition, a chi-square test for categorical variables was run to determine whether there is a difference in the distribution of related outcomes by research group. The p-value indicates the likelihood that the difference between the FSS group and control group arose by chance. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent. The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups.

Statistical significance levels are indicated as: † = 10 percent; †† = 5 percent; and ††† = 1 percent. [a]Based on HUD Housing Choice Voucher program regulations, households described as having a "lower rent burden" did not have to pay more than required out-of-pocket expenses for rent and utilities in month 1 (the month of random assignment) because their gross rent was less than or equal to the area payment standard (representing the maximum housing subsidy allowed) and because the household was paying less than or equal to 30 percent of their adjusted monthly income for rent and utilities (representing the expected percentage of household income to be paid for rent and utilities). In contrast, households described as having a "higher rent burden" paid more than required out-of-pocket expenses for rent and utilities because their gross rent was higher than the area payment standard and because the household was paying more than 30 percent of their adjusted monthly income for rent and utilities. Not shown in table: Results for 130 respondents (7 percent) who had a combination of "lower" and "higher" rent burden in month 1.

Sources: MDRC calculations using baseline data and Experian Vantage 3.0 scores data and Clarity Clear Early Risk scores data

Exhibit E.3: Impacts on Selected Credit Outcomes, by Selected Baseline Characteristics, Family Self-Sufficiency Impact Sample

Outcome	FSS Group	Control Group	Difference (Impact)	P-Value	Sample Sizes: FSS Group	Sample Sizes: Control Group
Total balance (traditional and alternative financial services) in 2019 ($)						
Employment status						
Not employed	15,339	14,205	1,134	0.447	561	534
Employed Part-Time	19,227	19,716	– 490	0.827	329	306
Employed Full-Time	23,645	23,091	553	0.799	371	402
Educational attainment						
No degree or credential	9,160	7,831	1,329	0.375	251	244
High school degree or GED	12,012	11,755	257	0.861	309	286
Some college	17,811	17,537	275	0.862	467	508
2-year college degree or higher	42,217	40,269	1,948	0.665	234	204
Total household income						
No income	16,232	16,468	– 237	0.954	136	125
$1–$10,000	16,211	17,185	– 974	0.568	436	416
$10,001– $20,000	18,364	16,980	1,384	0.483	351	347
More than $20,000	23,803	21,859	1,945	0.426	338	354
Reported barrier to employment						
Yes	17,244	16,423	821	0.640	524	510
No	20,196	19,547	648	0.640	737	732
Disability status						
Received SSI/SSDI	17,118	13,580	3,538	0.247	174	183
Did not receive SSI/SSDI	19,165	19,176	– 11	0.993	1087	1059
Rent burden[a]						
Lower	17,184	17,917	– 733	0.632	584	579
Higher	20,647	18,487	2,160	0.198	586	595
Percentage of rent and utilities expenses paid by household						
0–25	15,970	17,108	– 1,137	0.450	572	537
25.01–50	19,391	17,326	2,065	0.290	410	400
More than 50	23,501	22,442	1,059	0.687	279	305

(continued)

Exhibit E.3 (continued)

Outcome	FSS Group	Control Group	Difference (Impact)	P-Value		Sample Sizes: FSS Group	Sample Sizes: Control Group
Change in total balance since 2014 ($)							
Employment status							
Not employed	8,466	7,270	1,196	0.445		554	527
Employed Part-Time	10,228	10,532	– 304	0.898		324	301
Employed Full-Time	10,484	11,140	– 656	0.757		370	401
Educational attainment							
No degree or credential	3,941	3,910	31	0.981		245	240
High school degree or GED	5,740	5,207	533	0.715		305	281
Some college	8,340	9,489	– 1,149	0.485		466	505
2-year college degree or higher	24,482	19,092	5,389	0.246		232	203
Total household income							
No income	10,192	8,510	1,682	0.669		135	124
$1–$10,000	8,845	9,885	– 1,040	0.565		429	410
$10,001–$20,000	8,831	9,370	– 539	0.796		349	342
More than $20,000	10,685	9,086	1,599	0.503		335	353
Reported barrier to employment							
Yes	8,327	8,012	315	0.852		517	503
No	10,340	10,274	66	0.964		731	726
Disability status							
Received SSI/SSDI	7,415	7,259	156	0.959		173	178
Did not receive SSI/SSDI	9,878	9,666	212	0.858		1075	1051
Rent burden[a]							
Lower	7,746	9,596	– 1,850	0.238	†	576	574
Higher	10,930	9,108	1,822	0.278	†	582	587
Percentage of rent and utilities expenses paid by household							
0–25	9,113	9,369	– 256	0.872		564	529
25.01–50	9,683	9,346	337	0.867		407	396
More than 50	9,811	9,528	283	0.911		277	304

(continued)

Exhibit E.3 (continued)

Outcome	FSS Group	Control Group	Difference (Impact)	P-Value		Sample Sizes: FSS Group	Sample Sizes: Control Group
Ever used alternative financial services in 2015–19 (%)							
Employment status							
Not employed	18.0	19.6	– 1.6	0.502		556	531
Employed Part-Time	21.9	21.6	0.3	0.930		327	304
Employed Full-Time	26.8	27.3	– 0.5	0.872		366	399
Educational attainment							
No degree or credential	21.4	17.5	3.9	0.289		249	243
High school degree or GED	20.6	18.9	1.7	0.605		306	285
Some college	22.9	26.2	– 3.3	0.241		462	505
2-year college degree or higher	22.7	22.1	0.6	0.886		232	201
Total household income							
No income	22.0	17.7	4.3	0.464		136	125
$1–$10,000	18.4	20.1	– 1.7	0.545		432	414
$10,001–$20,000	23.0	23.1	– 0.1	0.966		346	344
More than $20,000	26.4	24.4	2.0	0.537		335	351
Reported barrier to employment							
Yes	21.5	19.8	1.7	0.498		516	506
No	22.6	23.5	– 0.9	0.685		733	728
Disability status							
Received SSI/SSDI	19.3	25.9	– 6.7	0.168		168	180
Did not receive SSI/SSDI	22.4	21.6	0.8	0.660		1081	1054
Rent burden[a]							
Lower	21.0	18.9	2.1	0.349	†	579	576
Higher	22.5	25.7	– 3.1	0.211	†	580	590
Percentage of rent and utilities expenses paid by household							
0–25	17.8	18.8	– 0.9	0.698		570	535
25.01–50	22.1	24.5	– 2.4	0.424		403	396
More than 50	29.5	25.9	3.6	0.339		276	303
Sample size(total=2548)	1,282	1,266					

(continued)

Exhibit E.3 (continued)

Notes: The FSS Impact sample includes Housing Choice Voucher heads of household who were randomly assigned between October 18, 2013, and December 22, 2014, and were age 18 to 61 at the time of random assignment. Sample sizes for specific outcomes may vary because of missing values. Estimates were regression-adjusted using ordinary least squares, controlling for differences in sample member characteristics recorded at the time of random assignment. No special weights were applied to responses to adjust for differences in sample size by housing authority. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between the FSS group and the control group for continuous variables and selected outcomes expressed as proportions. In addition, a chi-square test for categorical variables was run to determine whether there is a difference in the distribution of related outcomes by research group. The p-value indicates the likelihood that the difference between the FSS group and control group arose by chance. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent. The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as: † = 10 percent; †† = 5 percent; and ††† = 1 percent. [a]Based on HUD Housing Choice Voucher program regulations, households described as having a "lower rent burden" did not have to pay more than required out-of-pocket expenses for rent and utilities in month 1 (the month of random assignment) because their gross rent was less than or equal to the area payment standard (representing the maximum housing subsidy allowed) and because the household was paying less than or equal to 30 percent of their adjusted monthly income for rent and utilities (representing the expected percentage of household income to be paid for rent and utilities). In contrast, households described as having a "higher rent burden" paid more than required out-of-pocket expenses for rent and utilities because their gross rent was higher than the area payment standard and because the household was paying more than 30 percent of their adjusted monthly income for rent and utilities. Not shown in table: Results for 130 respondents (7 percent) who had a combination of "lower" and "higher" rent burden in month 1.

Sources: MDRC calculations using baseline data and Experian and Clarity credit data

Exhibit E.4: Impacts on Incidence of Credit Problems in 2019, by Selected Baseline Characteristics, Family Self-Sufficiency Impact Sample

Outcome (%)	FSS Group	Control Group	Difference (Impact)		P-Value	Sample Sizes: FSS Group	Sample Sizes: Control Group
Experienced any recorded credit problem							
Employment status							
Not employed	57.0	55.5	1.5		0.614	561	534
Employed Part-Time	63.4	63.9	– 0.4		0.908	329	306
Employed Full-Time	72.2	67.5	4.8		0.148	371	402
Educational attainment							
No degree or credential	50.6	47.1	3.5		0.464	251	244
High school degree or GED	57.1	58.2	– 1.1		0.784	309	286
Some college	67.5	65.1	2.4		0.416	467	508
2-year college degree or higher	76.0	73.7	2.3		0.582	234	204
Total household income							
No income	59.7	57.5	2.2		0.753	136	125
$1–$10,000	60.3	58.4	1.9		0.577	436	416
$10,001–$20,000	62.2	62.5	– 0.3		0.933	351	347
More than $20,000	71.3	63.3	8.0	*	0.026	338	354
Reported barrier to employment							
Yes	60.9	58.3	2.6		0.390	524	510
No	64.9	63.5	1.5		0.545	737	732
Disability status							
Received SSI/SSDI	59.7	55.8	3.9		0.483	174	183
Did not receive SSI/SSDI	64.3	61.8	2.5		0.217	1087	1059
Rent burden[a]							
Lower	62.2	59.6	2.6		0.346	584	579
Higher	65.3	63.3	2.1		0.453	586	595
Percentage of rent and utilities expenses paid by household							
0–25	60.5	59.4	1.1		0.712	572	537
25.01–50	62.3	60.9	1.4		0.675	410	400
More than 50	71.8	63.9	7.9	*	0.042	279	305

(continued)

Exhibit E.4 (continued)

Outcome (%)	FSS Group	Control Group	Difference (Impact)		P-Value		Sample Sizes: FSS Group	Sample Sizes: Control Group
High debt-to-income ratio								
Employment status								
Not employed	19.1	18.0	1.0		0.671		559	535
Employed Part-Time	22.1	19.9	2.2		0.504		328	305
Employed Full-Time	17.7	18.5	– 0.8		0.779		371	401
Educational attainment								
No degree or credential	16.1	13.2	2.9		0.398		249	243
High school degree or GED	15.4	18.0	– 2.6		0.411		309	287
Some college	19.2	18.8	0.5		0.857		467	507
2-year college degree or higher	27.5	27.5	0.0		0.999		233	204
Total household income								
No income	24.2	11.5	12.7	**	0.027	††	132	123
$1–$10,000	17.6	21.7	– 4.2		0.137	††	436	416
$10,001–$20,000	19.2	21.7	– 2.6		0.425	††	351	348
More than $20,000	19.7	15.0	4.7		0.113	††	339	354
Reported barrier to employment								
Yes	18.9	17.9	1.0		0.693		523	509
No	19.7	19.3	0.4		0.862		735	732
Disability status								
Received SSI/SSDI	21.4	21.4	0.0		0.993		173	182
Did not receive SSI/SSDI	18.8	18.5	0.2		0.887		1085	1059
Rent burden[a]								
Lower	17.3	18.7	– 1.4		0.549		585	580
Higher	22.1	17.8	4.3	*	0.072		586	596
Percentage of rent and utilities expenses paid by household								
0–25	19.6	18.8	0.8		0.732		569	538
25.01–50	20.1	19.9	0.3		0.930		411	399
More than 50	18.0	16.8	1.1		0.731		278	304

(continued)

Exhibit E.4 (continued)

Outcome (%)	FSS Group	Control Group	Difference (Impact)	P-Value	Sample Sizes: FSS Group	Sample Sizes: Control Group
Total balance (traditional financial services) greater than or equal to 75 percent of total credit						
Employment status						
Not employed	38.5	40.2	– 1.7	0.544	575	551
Employed Part-Time	43.2	42.2	1.0	0.789	335	313
Employed Full-Time	48.5	49.4	– 1.0	0.789	372	402
Educational attainment						
No degree or credential	28.6	28.3	0.2	0.955	257	253
High school degree or GED	38.5	36.8	1.7	0.669	319	297
Some college	46.5	48.9	– 2.4	0.458	470	512
2-year college degree or higher	56.1	59.2	– 3.1	0.500	236	204
Total household income						
No income	44.6	41.9	2.8	0.688	139	129
$1–$10,000	44.0	42.8	1.2	0.718	449	426
$10,001–$20,000	39.6	42.2	– 2.6	0.469	353	354
More than $20,000	45.5	44.5	1.1	0.772	341	357
Reported barrier to employment						
Yes	41.1	41.7	– 0.6	0.840	534	517
No	44.1	44.6	– 0.5	0.827	748	749
Disability status						
Received SSI/SSDI	37.2	36.8	0.5	0.931	177	188
Did not receive SSI/SSDI	44.2	44.2	0.0	0.993	1105	1078
Rent burden[a]						
Lower	43.1	41.2	2.0	0.479	591	593
Higher	42.7	46.0	– 3.3	0.240	599	604
Percentage of rent and utilities expenses paid by household						
0– 25	43.0	42.8	0.1	0.962	583	550
25.01–50	39.0	40.4	– 1.4	0.667	419	410
More than 50	49.2	47.8	1.5	0.727	280	306

(continued)

Exhibit E.4 (continued)

Outcome (%)	FSS Group	Control Group	Difference (Impact)		P-Value		Sample Sizes: FSS Group	Sample Sizes: Control Group
Any traditional financial services balance 90 days or more past scheduled repayment date								
Employment status								
Not employed	15.6	14.5	1.2		0.595		561	534
Employed Part-Time	15.5	18.9	– 3.4		0.276		329	306
Employed Full-Time	19.2	18.8	0.4		0.889		371	402
Educational attainment								
No degree or credential	11.0	10.9	0.1		0.980		251	244
High school degree or GED	12.3	15.8	– 3.5		0.234		309	286
Some college	21.4	18.6	2.8		0.284		467	508
2-year college degree or higher	21.2	19.8	1.4		0.731		234	204
Total household income				*				
No income	10.8	21.1	– 10.4	*	0.044		136	125
$1–$10,000	17.8	15.8	2.0		0.445		436	416
$10,001–$20,000	15.9	14.5	1.4		0.631		351	347
More than $20,000	18.9	18.9	0.0		0.999		338	354
Reported barrier to employment								
Yes	13.7	15.3	– 1.6		0.478		524	510
No	18.6	18.3	0.3		0.895		737	732
Disability status								
Received SSI/SSDI	13.9	13.0	1.0		0.801		174	183
Did not receive SSI/SSDI	17.1	17.7	– 0.7		0.687		1087	1059
Rent burden[a]								
Lower	15.1	17.8	– 2.7		0.222		584	579
Higher	16.8	16.5	0.3		0.896		586	595
Percentage of rent and utilities expenses paid by household								
0–25	15.6	17.3	– 1.7		0.460		572	537
25.01–50	18.1	14.7	3.4		0.202		410	400
More than 50	17.5	18.7	– 1.2		0.715		279	305
Incurred late payment, loan collection, or charge off for alternative financial service								
Employment status								
Not employed	6.3	5.1	1.2		0.396		556	531
Employed Part-Time	6.4	9.2	– 2.7		0.221		327	304
Employed Full-Time	11.0	8.7	2.2		0.317		366	399
Educational attainment								
No degree or credential	6.1	7.0	– 0.9		0.709	†	249	243
High school degree or GED	8.3	4.5	3.8	*	0.073	†	306	285
Some college	6.9	10.3	– 3.4	*	0.063	†	462	505
2-year college degree or higher	8.0	6.7	1.4		0.615	†	232	201

(continued)

Exhibit E.4 (continued)

Outcome (%)	FSS Group	Control Group	Difference (Impact)		P-Value		Sample Sizes: FSS Group	Sample Sizes: Control Group
Total household income								
No income	9.7	6.3	3.4		0.385		136	125
$1–$10,000	5.8	6.8	– 1.0		0.549		432	414
$10,001–$20,000	7.9	5.7	2.1		0.276		346	344
More than $20,000	9.7	9.3	0.4		0.857		335	351
Reported barrier to employment								
Yes	8.0	4.9	3.1	*	0.053	††	516	506
No	7.4	9.0	– 1.6		0.264	††	733	728
Disability status								
Received SSI/SSDI	6.0	7.7	– 1.7		0.579		168	180
Did not receive SSI/SSDI	7.7	7.5	0.2		0.875		108 1	1054
Rent burden[a]								
Lower	7.1	7.8	– 0.8		0.622		579	576
Higher	8.0	7.5	0.5		0.754		580	590
Percentage of rent and utilities expenses paid by household								
0–25	7.1	6.1	1.0		0.529	††	570	535
25.01–50	5.1	9.0	– 3.9	**	0.037	††	403	396
More than 50	12.0	7.9	4.1		0.107	††	276	303
Sample size (total=2548)	1,282	1,266						

Notes: The FSS Impact sample includes Housing Choice Voucher heads of household who were randomly assigned between October 18, 2013, and December 22, 2014, and were age 18 to 61 at the time of random assignment. Sample sizes for specific outcomes may vary because of missing values. Estimates were regression-adjusted using ordinary least squares, controlling for differences in sample member characteristics recorded at the time of random assignment. No special weights were applied to responses to adjust for differences in sample size by housing authority. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between the FSS group and the control group for continuous variables and selected outcomes expressed as proportions. In addition, a chi-square test for categorical variables was run to determine whether there is a difference in the distribution of related outcomes by research group. The p-value indicates the likelihood that the difference between the FSS group and control group arose by chance. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent. The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as: † = 10 percent; †† = 5 percent; and ††† = 1 percent. [a]Based on HUD Housing Choice Voucher program regulations, households described as having a "lower rent burden" did not have to pay more than required out-of-pocket expenses for rent and utilities in month 1 (the month of random assignment) because their gross rent was less than or equal to the area payment standard (representing the maximum housing subsidy allowed) and because the household was paying less than or equal to 30 percent of their adjusted monthly income for rent and utilities (representing the expected percentage of household income to be paid for rent and utilities). In contrast, households described as having a "higher rent burden" paid more than required out-of-pocket expenses for rent and utilities because their gross rent was higher than the area payment standard and because the household was paying more than 30 percent of their adjusted monthly income for rent and utilities. Not shown in table: Results for 130 respondents (7 percent) who had a combination of "lower" and "higher" rent burden in month 1.
Sources: MDRC calculations using baseline data and Experian and Clarity credit data

Appendix Exhibit E.5: Impacts on Selected Indicators of Rent and Subsidies in Years 1 to 5, by Selected Baseline Characteristics, Family Self-Sufficiency Impact Sample

Outcome	FSS Group	Control Group	Difference (Impact)	P-Value	Sample Sizes: FSS Group	Sample Sizes: Control Group
Enrolled in HCV program in month 60 (%)						
Employment status						
Not employed	73.3	73.4	– 0.1	0.977	572	550
Employed part-time	71.4	73.8	– 2.4	0.506	336	312
Employed full-time	61.0	59.1	1.9	0.589	373	405
Educational attainment						
No degree or credential	71.9	72.8	– 0.9	0.826	257	256
High school degree or GED	69.9	71.4	– 1.5	0.681	319	297
Some college	69.6	68.6	0.9	0.752	470	510
2-year college degree or higher	62.2	64.1	– 1.9	0.700	235	204
Total household income						
No income	62.8	72.0	– 9.2	0.204	115	108
$1–$10,000	74.9	73.1	1.9	0.548	433	410
$10,001–$20,000	72.7	74.0	– 1.3	0.708	342	352
More than $20,000	59.6	61.5	– 1.9	0.590	391	397
Reported barrier to employment						
Yes	72.7	70.1	2.6	0.365	532	516
No	66.0	69.0	– 3.0	0.201	749	751
Disability status						
Received SSI/SSDI	70.1	74.2	– 4.1	0.427	176	187
Did not receive SSI/SSDI	68.9	68.2	0.7	0.728	1105	1080
Percentage of rent and utilities expenses paid by household						
0–25	74.1	75.4	– 1.3	0.630	582	550
25.01–50	69.7	71.6	– 1.9	0.551	419	408
More than 50	58.1	53.9	4.2	0.299	280	307
Rent burden[a]						
Lower	69.0	73.0	– 4.0	0.134	585	587
Higher	69.4	65.8	3.6	0.184	579	584
Average gross rent in month 60, if received HCV ($)						
Employment status						
Not employed	1,514	1,499	15		421	402
Employed part-time	1,554	1,556	– 2		237	233
Employed full-time	1,564	1,608	– 44		229	238

(continued)

Appendix Exhibit E.5 (continued)

Outcome	FSS Group	Control Group	Difference (Impact)	P-Value	Sample Sizes: FSS Group	Sample Sizes: Control Group
Educational attainment						
No degree or credential	1,572	1,636	– 64		183	188
High school degree or GED	1,491	1,480	11		225	210
Some college	1,510	1,516	– 5		332	345
2-year college degree or higher	1,611	1,609	2		147	130
Total household income						
No income	1,323	1,384	– 61		74	76
$1–$10,000	1,433	1,477	– 43		325	299
$10,001–$20,000	1,533	1,544	– 11		250	259
More than $20,000	1,736	1,697	39		238	239
Reported barrier to employment						
Yes	1,476	1,485	– 10		388	360
No	1,582	1,589	– 8		499	513
Disability status						
Received SSI/SSDI	1,448	1,377	70		121	141
Did not receive SSI/SSDI	1,556	1,572	– 16		766	732
Percentage of rent and utilities expenses paid by household						
0–25	1,561	1,594	– 34		430	416
25.01–50	1,525	1,497	28		293	291
More than 50	1,504	1,497	7		164	164
Rent burden[a]						
Lower	1,483	1,456	27		405	427
Higher	1,541	1,577	– 36		403	383
Average family share in month 60, if received HCV ($)						
Employment status						
Not employed	492	463	29		421	402
Employed part-time	587	562	25		237	233
Employed full-time	783	764	19		229	238
Educational attainment						
No degree or credential	564	600	– 36		183	188
High school degree or GED	611	577	34		225	210
Some college	551	536	16		332	345
2-year college degree or higher	727	578	149		147	130
Total household income						
No income	462	415	47		74	76
$1–$10,000	428	438	– 10		325	299
$10,001–$20,000	600	553	47		250	259
More than $20,000	831	827	3		238	239

(continued)

Appendix Exhibit E.5 (continued)

Outcome	FSS Group	Control Group	Difference (Impact)	P-Value	Sample Sizes: FSS Group	Sample Sizes: Control Group
Reported barrier to employment						
Yes	506	515	– 9		388	360
No	655	615	39		499	513
Disability status						
Received SSI/SSDI	491	496	– 5		121	141
Did not receive SSI/SSDI	609	585	24		766	732
Percentage of rent and utilities expenses paid by household						
0–25	484	475	9		430	416
25.01–50	619	598	21		293	291
More than 50	807	794	14		164	164
Rent burden[a]						
Lower	546	523	23		405	427
Higher	616	590	26		403	383
Average housing subsidy in month 60, if received HCV ($)						
Employment status						
Not employed	1,023	1,043	– 19		421	402
Employed part-time	982	1,001	– 18		237	233
Employed full-time	810	860	– 50		229	238
Educational attainment						
No degree or credential	1,019	1,036	– 17		183	188
High school degree or GED	880	910	– 30		225	210
Some college	976	994	– 18		332	345
2-year college degree or higher	923	1,025	– 102		147	130
Total household income						
No income	880	964	– 84		74	76
$1–$10,000	1,009	1,045	– 36		325	299
$10,001–$20,000	945	994	– 49		250	259
More than $20,000	932	887	45		238	239
Reported barrier to employment						
Yes	983	980	3		388	360
No	938	982	– 44		499	513
Disability status						
Received SSI/SSDI	961	900	61		121	141
Did not receive SSI/SSDI	961	993	– 31		766	732
Percentage of rent and utilities expenses paid by household						
0–25	1,082	1,123	– 41		430	416
25.01–50	916	907	8		293	291
More than 50	735	725	10		164	164

(continued)

Appendix Exhibit E.5 (continued)

Outcome	FSS Group	Control Group	Difference (Impact)		P-Value	Sample Sizes: FSS Group	Sample Sizes: Control Group
Rent burden[a]							
Lower	944	941	3			405	427
Higher	942	995	– 53			403	383
Average total family share in years 1 to 5 ($)							
Employment status							
Not employed	20,527	19,591	936		0.210	562	539
Employed part-time	26,063	25,492	572		0.621	329	305
Employed full-time	32,775	30,986	1,789		0.125	365	396
Educational attainment							
No degree or credential	25,174	25,084	90		0.948	252	250
High school degree or GED	25,036	24,233	803		0.473	316	290
Some college	25,266	23,663	1,603	*	0.075	457	498
2-year college degree or higher	28,695	25,574	3,122	**	0.038	231	202
Total household income							
No income	16,726	15,991	735		0.669	111	104
$1–$10,000	17,682	17,084	598		0.465	427	403
$10,001–$20,000	26,429	25,203	1,226		0.200	340	349
More than $20,000	35,799	34,923	875		0.482	378	384
Reported barrier to employment							
Yes	23,657	22,594	1,063		0.208	526	506
No	27,058	25,954	1,104		0.142	730	734
Disability status							
Received SSI/SSDI	23,560	23,880	– 320		0.815	173	186
Did not receive SSI/SSDI	26,006	24,665	1,341	**	0.029	1083	1054
Percentage of rent and utilities expenses paid by household							
0–25	19,063	18,439	624		0.387	572	539
25.01–50	28,810	28,068	741		0.433	417	404
More than 50	33,920	31,865	2,055		0.152	267	295
Rent burden[a]							
Lower	23,415	22,339	1,076		0.156	578	578
Higher	27,505	26,265	1,240		0.149	571	576
Average total housing subsidy in years 1 to 5 ($)							
Employment status							
Not employed	48,955	48,826	129		0.918	564	542
Employed part-time	44,639	45,917	– 1,278		0.434	331	304
Employed full-time	34,471	33,737	733		0.633	363	392

(continued)

Appendix Exhibit E.5 (continued)

Outcome	FSS Group	Control Group	Difference (Impact)	P-Value	Sample Sizes: FSS Group	Sample Sizes: Control Group
Educational attainment						
No degree or credential	45,604	48,170	– 2,566	0.189	254	246
High school degree or GED	42,300	42,629	– 329	0.830	315	290
Some college	42,617	43,451	– 834	0.535	459	500
2-year college degree or higher	42,416	41,505	911	0.679	230	202
Total household income						
No income	41,786	41,973	– 188	0.952	112	106
$1–$10,000	48,915	49,206	– 290	0.840	430	403
$10,001–$20,000	45,063	46,058	– 995	0.524	336	347
More than $20,000	35,581	36,413	– 832	0.601	380	382
Reported barrier to employment						
Yes	44,895	44,289	606	0.640	524	506
No	41,952	43,468	– 1,516	0.153	734	732
Disability status						
Received SSI/SSDI	40,254	41,610	– 1,356	0.516	174	186
Did not receive SSI/SSDI	43,993	43,834	159	0.857	1084	1052
Percentage of rent and utilities expenses paid by household						
0–25	52,678	52,740	– 62	0.961	571	539
25.01–50	41,887	42,828	– 941	0.507	417	402
More than 50	27,494	26,594	899	0.568	270	295
Rent burden[a]						
Lower	42,746	43,603	– 857	0.467	578	581
Higher	43,243	43,291	– 48	0.969	573	573
Sample size (total =2,548)	1,281	1,267				

(continued)

Appendix Exhibit E.5 (continued)

Notes: The FSS impact sample includes Housing Choice Voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Sample sizes for specific outcomes may vary because of missing values. Estimates were regression-adjusted using ordinary least squares, controlling for differences in sample member characteristics recorded at the time of random assignment. No special weights were applied to responses to adjust for differences in sample size by housing authority. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between the FSS group and the control group for continuous variables and selected outcomes expressed as proportions. In addition, a chi-square test for categorical variables was run to determine whether there is a difference in the distribution of related outcomes by research group. The p-value indicates the likelihood that the difference between the FSS group and control group arose by chance. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent. The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as: † = 10 percent; †† = 5 percent; and ††† = 1 percent. [a]Based on HUD Housing Choice Voucher program regulations, households described as having a "lower rent burden" did not have to pay more than required out-of-pocket expenses for rent and utilities in month 1 (the month of random assignment) because their gross rent was less than or equal to the area payment standard (representing the maximum housing subsidy allowed) and because the household was paying less than or equal to 30 percent of their adjusted monthly income for rent and utilities (representing the expected percentage of household income to be paid for rent and utilities). In contrast, households described as having a "higher rent burden" paid more than required out-of-pocket expenses for rent and utilities because their gross rent was higher than the area payment standard and because the household was paying more than 30 percent of their adjusted monthly income for rent and utilities. Not shown in table: Results for 160 respondents (6 percent) who had a combination of "lower" and "higher" rent burden in month 1. Results displayed in italics are non-experimental. No tests of statistical significance were performed on differences between research groups in means or proportions.

Sources: MDRC calculations using baseline data, U.S. Department of Housing and Urban Development Inventory Management System (IMS)/PIH Information Center (PIC) data, and responses to the FSS 36-Month Survey

Exhibit E.6 Impacts on Employment and Earnings in Years 1 to 5, by Program Approach, Family Self-Sufficiency Impact Sample

Outcome	FSS Group	Control Group	Difference (Impact)		P-Value		Sample Sizes: FSS Group	Sample Sizes: Control Group
In Years 1 to 5 Average quarterly employment rate (%)								
Emphasis on job search and post-employment services								
Low	65.7	64.6	1.0		0.642		286	289
Medium	62.3	60.7	1.6		0.482		351	352
High	64.3	64.5	– 0.2		0.911		645	625
Emphasis on education and training								
Low	64.6	61.8	2.7		0.186	†	386	392
Medium	63.4	65.9	– 2.5		0.131	†	578	568
High	64.4	61.4	3.0		0.204	†	318	306
Emphasis on financial services								
Low	59.3	59.4	– 0.1		0.979		239	235
Medium	63.5	64.2	– 0.7		0.739		420	419
High	66.2	64.6	1.6		0.318		623	612
Program emphasis on monitoring and engagement								
Low	61.9	61.0	0.9		0.656		469	468
Medium	66.8	65.3	1.4		0.384		551	547
High	61.9	64.4	– 2.5		0.329		262	251
Total earnings ($)								
Emphasis on job search and post-employment services								
Low	72,944	74,201	– 1,257		0.754		286	289
Medium	76,811	70,118	6,693	*	0.086		351	352
High	76,504	79,069	– 2,565		0.395		645	625
Emphasis on education and training								
Low	73,721	69,566	4,156		0.244		386	392
Medium	74,931	78,964	– 4,033		0.182		578	568
High	79,727	76,699	3,028		0.500		318	306
Emphasis on financial services								
Low	62,399	63,511	– 1,112		0.789		239	235
Medium	76,611	79,497	– 2,886		0.432		420	419
High	80,490	77,193	3,297		0.274		623	612

(continued)

Exhibit E.6 (continued)

Outcome	FSS Group	Control Group	Difference (Impact)		P-Value		Sample Sizes: FSS Group	Sample Sizes: Control Group
Program emphasis on monitoring and engagement								
Low	74,327	70,762	3,565		0.297	†† †	469	468
Medium	76,939	73,770	3,169		0.291	†† †	551	547
High	75,546	88,435	– 12,889	** *	0.008	†† †	262	251
Average annual earnings greater than $25,000 (%)								
Emphasis on job search and post-employment services								
Low	22.0	24.6	– 2.5		0.423		286	289
Medium	22.9	21.8	1.1		0.668		351	352
High	23.8	24.9	– 1.1		0.573		645	625
Emphasis on education and training								
Low	22.1	19.3	2.9		0.251		386	392
Medium	22.7	25.3	– 2.6		0.222		578	568
High	25.9	26.7	– 0.7		0.803		318	306
Emphasis on financial services								
Low	16.5	15.5	1.0		0.723		239	235
Medium	24.5	25.6	– 1.1		0.664		420	419
High	24.9	26.0	– 1.1		0.611		623	612
Program emphasis on monitoring and engagement								
Low	23.9	22.0	1.8		0.425		469	468
Medium	22.2	22.1	0.1		0.970		551	547
High	24.6	30.9	– 6.3	**	0.046		262	251
In Year 5 Average quarterly employment rate (%)								
Emphasis on job search and post-employment services								
Low	66.9	66.6	0.3		0.916		286	289
Medium	62.5	59.6	2.8		0.342		351	352
High	65.2	66.1	– 0.9		0.678		645	625
Emphasis on education and training								
Low	66.3	62.8	3.5		0.195		386	392
Medium	64.2	66.5	– 2.2		0.316		578	568
High	64.4	62.5	1.9		0.551		318	306

(continued)

Exhibit E.6 (continued)

Outcome	FSS Group	Control Group	Difference (Impact)		P-Value		Sample Sizes: FSS Group	Sample Sizes: Control Group
Emphasis on financial services								
Low	62.3	62.4	– 0.1		0.978		239	235
Medium	65.3	63.6	1.6		0.537		420	419
High	65.4	65.8	– 0.4		0.850		623	612
Program emphasis on monitoring and engagement								
Low	60.8	61.3	– 0.5		0.844		469	468
Medium	68.1	66.9	1.2		0.586		551	547
High	65.9	64.2	1.7		0.610		262	251
Total earnings ($)								
Emphasis on job search and post-employment services								
Low	17,210	17,438	– 228		0.848		286	289
Medium	17,242	15,730	1,513		0.178		351	352
High	18,195	18,574	– 379		0.667		645	625
Emphasis on education and training								
Low	17,466	16,413	1,053		0.312		386	392
Medium	17,606	18,672	– 1,066		0.239		578	568
High	18,279	16,746	1,533		0.222		318	306
Emphasis on financial services								
Low	15,408	16,711	– 1,303		0.312		239	235
Medium	18,297	18,281	16		0.988		420	419
High	18,167	17,357	809		0.340		623	612
Program emphasis on monitoring and engagement								
Low	17,095	16,379	716		0.474		469	468
Medium	18,060	17,401	660		0.453		551	547
High	18,072	19,952	– 1,880		0.193		262	251
Employed during all four quarters (%)								
Emphasis on job search and post-employment services								
Low	59.2	56.0	3.2		0.372		286	289
Medium	50.3	47.5	2.8		0.431		351	352
High	54.5	55.0	– 0.5		0.858		645	625
Emphasis on education and training								
Low	58.7	51.9	6.8	**	0.033	††	386	392
Medium	51.5	54.8	– 3.2		0.229	††	578	568
High	55.2	50.8	4.4		0.225	††	318	306

(continued)

Exhibit E.6 (continued)

Outcome	FSS Group	Control Group	Difference (Impact)	P-Value	Sample Sizes: FSS Group	Sample Sizes: Control Group
Emphasis on financial services						
Low	53.4	52.1	1.3	0.741	239	235
Medium	55.5	52.7	2.8	0.367	420	419
High	54.4	53.4	1.0	0.687	623	612
Program emphasis on monitoring and engagement						
Low	51.8	51.3	0.5	0.857	469	468
Medium	57.4	53.8	3.6	0.186	551	547
High	53.6	54.0	– 0.3	0.937	262	251
Sample size (total = 2,548)	1,282	1,266				

Notes: The FSS impact sample includes Housing Choice Voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Average quarterly employment rate is calculated as: total quarters with employment divided by total quarters of follow-up, expressed as a percentage. Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between research groups. The p-value indicates the likelihood that the difference between the FSS group and control group arose by chance. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; and *** = 1 percent. The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as: † = 10 percent; †† = 5 percent; and ††† = 1 percent. "Confirmatory comparisons" use qualitative and quantitative data collected around the time of random assignment outcomes or data collected for FSS program participants who enrolled in FSS before the start of the evaluation and are not included in the FSS impact sample.

Sources: MDRC calculations using baseline data, data collected from Individual Training and Services Plan forms, information provided by FSS administrators and case managers, and quarterly wage data from the National Directory of New Hires

Exhibit E.7: Impacts on Credit Scores in 2019, by Program Approach, Family Self-Sufficiency Impact Sample

Outcome	FSS Group	Control Group	Difference (Impact)		P-Value		Sample Sizes: FSS Group	Sample Sizes: Control Group
Average Experian Vantage 3.0 credit score in 2019								
Emphasis on job search and post-employment services								
Low	553	555	– 3		0.662		273	279
Medium	583	585	– 2		0.801		334	335
High	577	572	5		0.337		626	604
Emphasis on education and training								
Low	571	570	1		0.895		368	377
Medium	567	561	7		0.154		556	546
High	587	594	– 7		0.339		309	295
Emphasis on financial services								
Low	553	563	– 10		0.175	†	232	226
Medium	578	566	12	**	0.038	†	395	402
High	578	580	– 1		0.768	†	606	590
Program emphasis on monitoring and engagement								
Low	586	585	1		0.859	†	451	449
Medium	558	563	– 5		0.298	†	530	527
High	582	566	16	**	0.035	†	252	242
Has Vantage 3.0 credit score of 661 or higher in 2019 (Prime) (%)								
Emphasis on job search and post-employment services								
Low	8.9	10.6	– 1.8		0.489		286	289
Medium	17.3	17.4	0.0		0.992		351	352
High	17.4	16.4	1.0		0.597		645	625
Emphasis on education and training								
Low	14.4	12.9	1.5		0.537		386	392
Medium	13.7	12.5	1.2		0.518		578	568
High	20.8	23.2	– 2.4		0.439		318	306
Emphasis on financial services								
Low	9.0	14.7	– 5.6	*	0.056	†	239	235
Medium	16.0	12.6	3.3		0.153	†	420	419
High	17.6	17.6	0.0		0.987	†	623	612
Program emphasis on monitoring and engagement								
Low	20.7	18.8	1.9		0.450		469	468
Medium	9.9	12.5	– 2.7		0.152		551	547
High	18.1	15.0	3.1		0.315		262	251

(continued)

Exhibit E.7 (continued)

Outcome	FSS Group	Control Group	Difference (Impact)		P-Value		Sample Sizes: FSS Group	Sample Sizes: Control Group
Has Vantage 3.0 score only, no Clarity Clear Early Risk score, in 2019 (%)								
Emphasis on job search and post-employment services								
Low	29.5	28.3	1.2		0.753		286	289
Medium	37.5	39.3	– 1.7		0.635		351	352
High	29.2	31.8	– 2.6		0.273		645	625
Emphasis on education and training								
Low	30.9	29.0	1.9		0.568		386	392
Medium	25.7	29.8	– 4.1		0.115		578	568
High	42.2	45.0	– 2.8		0.470		318	306
Emphasis on financial services								
Low	24.7	27.2	– 2.5		0.542		239	235
Medium	31.2	33.7	– 2.5		0.421		420	419
High	33.2	36.2	– 3.0		0.245		623	612
Program emphasis on monitoring and engagement								
Low	37.8	41.4	– 3.7		0.227		469	468
Medium	25.4	27.1	– 1.7		0.525		551	547
High	33.1	30.8	2.3		0.568		262	251
Average change in Vantage 3.0 scores, 2013 to 2019								
Emphasis on job search and post-employment services								
Low	10	22	– 12		0.113		268	274
Medium	22	25	– 3		0.625		326	330
High	22	20	2		0.749		614	597
Emphasis on education and training								
Low	7	21	– 13	**	0.037	†	363	369
Medium	28	22	6		0.256	†	550	540
High	18	24	– 6		0.369	†	295	292
Emphasis on financial services								
Low	11	23	– 12		0.156		232	221
Medium	24	18	6		0.339		388	399
High	20	24	– 4		0.396		588	581
Program emphasis on monitoring and engagement								
Low	22	23	– 1		0.899	†††	437	444
Medium	12	25	– 13	**	0.011	†††	524	516
High	30	10	20	**	0.014	†††	247	241

(continued)

Exhibit E.7 (continued)

Outcome	FSS Group	Control Group	Difference (Impact)		P-Value		Sample Sizes: FSS Group	Sample Sizes: Control Group
Increased Vantage 3.0 score from 600 or lower (Deep Subprime/Subprime) to 661 or higher (Prime), 2013–19 (%)								
Emphasis on job search and post-employment services								
Low	3.5	7.9	– 4.4	*	0.035	†	268	274
Medium	6.3	7.4	– 1.1		0.576	†	326	330
High	8.5	6.0	2.4		0.110	†	614	597
Emphasis on education and training								
Low	5.1	6.6	– 1.5		0.400		363	369
Medium	8.3	7.1	1.3		0.439		550	540
High	5.7	6.9	– 1.2		0.572		295	292
Emphasis on financial services								
Low	5.5	8.8	– 3.3		0.193		232	221
Medium	7.0	6.0	1.0		0.586		388	399
High	7.1	6.7	0.4		0.798		588	581
Program emphasis on monitoring and engagement								
Low	7.8	6.3	1.5		0.398		437	444
Medium	5.5	7.6	– 2.2		0.161		524	516
High	8.5	5.4	3.0		0.212		247	241
Sample size (total=2548)	1,282	1,266						

Notes: The FSS Impact sample includes Housing Choice Voucher heads of household who were randomly assigned between October 18, 2013, and December 22, 2014, and were age 18 to 61 at the time of random assignment. Sample sizes for specific outcomes may vary because of missing values. Estimates were regression-adjusted using ordinary least squares, controlling for differences in sample member characteristics recorded at the time of random assignment. No special weights were applied to responses to adjust for differences in sample size by housing authority. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between the FSS group and the control group for continuous variables and selected outcomes expressed as proportions. In addition, a chi-square test for categorical variables was run to determine whether there is a difference in the distribution of related outcomes by research group. The p-value indicates the likelihood that the difference between the FSS group and control group arose by chance. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent. The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as: † = 10 percent; †† = 5 percent; and ††† = 1 percent. [a]Based on HUD Housing Choice Voucher program regulations, households described as having a "lower rent burden" did not have to pay more than required out-of-pocket expenses for rent and utilities in month 1 (the month of random assignment) because their gross rent was less than or equal to the area payment standard (representing the maximum housing subsidy allowed) and because the household was paying less than or equal to 30 percent of their adjusted monthly income for rent and utilities (representing the expected percentage of household income to be paid for rent and utilities). In contrast, households described as having a "higher rent burden" paid more than required out-of-pocket expenses for rent and utilities because their gross rent was higher than the area payment standard and because the household was paying more than 30 percent of their adjusted monthly income for rent and utilities. Not shown in table: Results for 130 respondents (7 percent) who had a combination of "lower" and "higher" rent burden in month.
Sources: MDRC calculations using baseline data and Experian Vantage 3.0 credit scores and Clarity Clear Early Risk scores data

Exhibit E.8: Impacts on Incidence of Credit Outcomes in 2019, by Program Approach, Family Self-Sufficiency Impact Sample

Outcome	FSS Group	Control Group	Difference (Impact)		P-Value	Sample Sizes: FSS Group	Sample Sizes: Control Group
Total balance (traditional and alternative financial services) in 2019 ($)							
Emphasis on job search and post-employment services							
Low	20,260	18,799	1,461		0.534	279	286
Medium	18,370	18,109	262		0.897	344	342
High	19,082	17,733	1,349		0.379	638	614
Emphasis on education and training							
Low	20,869	19,908	962		0.628	377	286
Medium	18,151	16,541	1,610		0.311	569	559
High	18,188	19,362	– 1,175		0.612	315	301
Emphasis on financial services							
Low	17,422	18,909	– 1,487		0.550	235	232
Medium	20,241	16,816	3,425	*	0.075	408	408
High	19,117	18,587	530		0.735	618	602
Program emphasis on monitoring and engagement							
Low	15,479	15,294	185		0.902	463	457
Medium	20,986	20,012	974		0.574	542	539
High	21,013	19,949	1,064		0.708	256	246
Change in total balance since 2014 ($)							
Emphasis on job search and post-employment services							
Low	11,349	10,803	546		0.816	276	282
Medium	9,192	9,688	– 497		0.807	339	341
High	9,290	8,041	1,249		0.428	633	606
Emphasis on education and training							
Low	9,736	9,476	260		0.902	373	376
Medium	9,649	8,667	982		0.556	567	553
High	9,456	9,936	– 481		0.818	308	300
Emphasis on financial services							
Low	8,171	9,138	– 968		0.716	235	228
Medium	10,999	7,741	3,258	*	0.096	403	405
High	9,660	9,880	– 220		0.888	610	596
Program emphasis on monitoring and engagement							
Low	7,498	7,926	– 428		0.796	455	452
Medium	11,275	11,024	251		0.889	539	531
High	10,100	7,565	2,536		0.317	254	246

(continued)

Exhibit E.8 (continued)

Outcome	FSS Group	Control Group	Difference (Impact)	P-Value	Sample Sizes: FSS Group	Sample Sizes: Control Group
Ever used alternative financial services in 2015–19 (%)						
Emphasis on job search and post-employment services						
Low	26.4	24.9	1.5	0.702	277	285
Medium	16.3	17.3	– 1.0	0.724	340	340
High	23.2	23.5	– 0.3	0.908	632	609
Emphasis on education and training						
Low	26.9	30.6	– 3.8	0.258	373	381
Medium	23.9	23.1	0.8	0.756	562	555
High	12.3	9.9	2.4	0.371	314	298
Emphasis on financial services						
Low	33.2	31.0	2.2	0.622	234	230
Medium	22.8	24.5	– 1.7	0.568	403	408
High	17.7	16.6	1.0	0.633	612	596
Program emphasis on monitoring and engagement						
Low	19.4	20.6	– 1.2	0.646	459	456
Medium	24.5	24.7	– 0.2	0.950	536	532
High	21.8	19.0	2.8	0.457	254	246
Sample size(total=2548)	1,282	1,266				

Notes: The FSS Impact sample includes Housing Choice Voucher heads of household who were randomly assigned between October 18, 2013, and December 22, 2014, and were age 18 to 61 at the time of random assignment. Sample sizes for specific outcomes may vary because of missing values. Estimates were regression-adjusted using ordinary least squares, controlling for differences in sample member characteristics recorded at the time of random assignment. No special weights were applied to responses to adjust for differences in sample size by housing authority. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between the FSS group and the control group for continuous variables and selected outcomes expressed as proportions. In addition, a chi-square test for categorical variables was run to determine whether there is a difference in the distribution of related outcomes by research group. The p-value indicates the likelihood that the difference between the FSS group and control group arose by chance. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent. The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as: † = 10 percent; †† = 5 percent; and ††† = 1 percent.

Sources: MDRC calculations using baseline data and Experian and Clarity credit data

Exhibit E.9: Impacts on Incidence of Credit Problems in 2019, by Program Approach, Family Self-Sufficiency Impact Sample

Outcome (%)	FSS Group	Control Group	Difference (Impact)		P-Value	Sample Sizes: FSS Group	Sample Sizes: Control Group
Experienced any recorded credit problem							
Emphasis on job search and post-employment services							
Low	65.3	60.1	5.2		0.190	279	286
Medium	63.4	59.4	4.0		0.285	344	342
High	62.7	62.5	0.2		0.932	638	614
Emphasis on education and training							
Low	66.6	63.4	3.2		0.337	377	286
Medium	64.3	61.2	3.1		0.275	569	559
High	58.5	57.7	0.9		0.827	315	301
Emphasis on financial services							
Low	62.4	60.5	2.0		0.662	235	232
Medium	67.0	59.0	8.0	*	0.015	408	408
High	61.7	62.6	– 0.9		0.749	618	602
Program emphasis on monitoring and engagement							
Low	60.2	54.5	5.7	*	0.076	463	457
Medium	66.7	65.9	0.8		0.783	542	539
High	62.5	62.6	0.0		0.997	256	246
High debt-to-income ratio							
Emphasis on job search and post-employment services							
Low	19.3	19.7	– 0.4		0.909	275	285
Medium	19.5	18.0	1.5		0.629	344	343
High	19.5	18.5	0.9		0.684	639	613
Emphasis on education and training							
Low	20.0	23.4	– 3.4		0.260	376	383
Medium	18.5	17.0	1.5		0.528	569	558
High	19.2	17.0	2.3		0.485	313	300
Emphasis on financial services							
Low	16.2	20.4	– 4.2		0.248	234	232
Medium	20.4	16.9	3.5		0.205	408	408
High	19.8	19.5	0.4		0.871	616	601
Program emphasis on monitoring and engagement							
Low	18.7	17.6	1.1		0.680	463	458
Medium	19.6	21.9	– 2.3		0.346	538	538
High	20.2	14.0	6.2	*	0.077	257	245

(continued)

Exhibit E.9 (continued)

Outcome (%)	FSS Group	Control Group	Difference (Impact)		P-Value		Sample Sizes: FSS Group	Sample Sizes: Control Group
Total balance (traditional financial services) greater than or equal to 75 percent of total credit								
Emphasis on job search and post-employment services								
Low	51.4	43.6	7.8	*	0.052	††	286	289
Medium	41.2	40.1	1.1		0.767	††	351	352
High	40.2	45.0	– 4.8	*	0.073	††	645	625
Emphasis on education and training								
Low	46.2	45.6	0.5		0.881		386	392
Medium	42.2	44.4	– 2.1		0.457		578	568
High	41.6	37.2	4.5		0.249		318	306
Emphasis on financial services								
Low	42.4	45.4	– 3.0		0.499		239	235
Medium	45.1	40.5	4.6		0.164		420	419
High	42.7	43.4	– 0.7		0.803		623	612
Program emphasis on monitoring and engagement								
Low	38.5	38.1	0.5		0.883		469	468
Medium	47.7	48.3	– 0.6		0.841		551	547
High	42.2	40.8	1.4		0.757		262	251
Any traditional financial services balance 90 days or more past scheduled repayment date								
Emphasis on job search and post-employment services								
Low	20.5	17.7	2.8		0.400		279	286
Medium	16.1	13.4	2.7		0.336		344	342
High	15.9	18.1	– 2.2		0.296		638	614
Emphasis on education and training								
Low	19.6	17.8	1.8		0.528		377	382
Medium	15.2	18.3	– 3.1		0.165		569	559
High	15.4	13.8	1.7		0.577		315	301
Emphasis on financial services								
Low	16.5	16.9	– 0.5		0.897		235	232
Medium	19.1	18.1	1.0		0.711		408	408
High	14.7	16.6	– 1.9		0.369		618	602
Program emphasis on monitoring and engagement								
Low	16.3	15.2	1.0		0.675		463	457
Medium	16.3	19.2	– 3.0		0.209		542	539
High	18.2	15.2	3.0		0.382		256	246

(continued)

Exhibit E.9 (continued)

Outcome	FSS Group	Control Group	Difference (Impact)		P-Value		Sample Sizes: FSS Group	Sample Sizes: Control Group
Incurred late payment, loan collection, or charge off for alternative financial service								
Emphasis on job search and post-employment services								
Low	8.2	6.8	1.4		0.538	†	277	285
Medium	7.8	4.0	3.7	**	0.043	†	340	340
High	7.5	9.3	– 1.8		0.253	†	632	609
Emphasis on education and training								
Low	9.2	9.9	– 0.6		0.776		373	381
Medium	8.4	8.3	0.1		0.951		562	555
High	3.7	3.2	0.5		0.749		314	298
Emphasis on financial services								
Low	8.0	12.8	– 4.8	*	0.099		234	230
Medium	8.1	7.0	1.1		0.545		403	408
High	6.9	5.8	1.2		0.421		612	596
Program emphasis on monitoring and engagement								
Low	7.9	7.2	0.7		0.714		459	456
Medium	7.6	7.6	– 0.1		0.964		536	532
High	7.1	7.3	– 0.2		0.943		254	246
Sample size(total=2548)	1,282	1,266						

Notes: The FSS Impact sample includes Housing Choice Voucher heads of household who were randomly assigned between October 18, 2013, and December 22, 2014, and were age 18 to 61 at the time of random assignment. Sample sizes for specific outcomes may vary because of missing values. Estimates were regression-adjusted using ordinary least squares, controlling for differences in sample member characteristics recorded at the time of random assignment. No special weights were applied to responses to adjust for differences in sample size by housing authority. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between the FSS group and the control group for continuous variables and selected outcomes expressed as proportions. In addition, a chi-square test for categorical variables was run to determine whether there is a difference in the distribution of related outcomes by research group. The p-value indicates the likelihood that the difference between the FSS group and control group arose by chance. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent. The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as: † = 10 percent; †† = 5 percent; and ††† = 1 percent.

Sources: MDRC calculations using baseline data and Experian and Clarity credit data

Exhibit E.10: Impacts on Selected Indicators of Rent and Subsidies in Years 1 to 5, by elected Program Implementation Features, Family Self-Sufficiency Impact Sample

Outcome	FSS Group	Control Group	Difference (Impact)		P-Value	Sample Size: FSS Group	Sample Size: Control Group
Enrolled in HCV program in month 60 (%)							
Emphasis on job search and post-employment services							
Low	65.2	67.0	– 1.8		0.656	282	287
Medium	78.3	79.6	– 1.3		0.671	351	352
High	65.5	64.5	1.0		0.699	648	628
Emphasis on education and training							
Low	68.4	68.6	– 0.2		0.949	385	392
Medium	67.3	66.2	1.1		0.689	577	567
High	70.6	77.6	– 7.0	*	0.050	319	308
Emphasis on financial services							
Low	56.1	58.1	– 2.1		0.660	238	235
Medium	75.8	73.6	2.2		0.465	419	418
High	68.9	70.9	– 2.0		0.437	624	614
Emphasis on monitoring and engagement							
Low	72.8	71.3	1.6		0.596	472	472
Medium	64.1	64.9	– 0.8		0.789	547	545
High	72.0	75.0	– 3.1		0.441	262	250
Average gross rent in month 60, if received HCV ($)							
Emphasis on job search and post-employment services							
Low	1,248	1,195	53			185	191
Medium	1,592	1,590	1			275	280
High	1,633	1,674	– 41			427	402
Emphasis on education and training							
Low	1,299	1,310	– 12			267	265
Medium	1,547	1,582	– 35			393	371
High	1,796	1,753	43			227	237
Emphasis on financial services							
Low	1,146	1,180	– 33			132	138
Medium	1,665	1,679	– 14			320	305
High	1,556	1,572	– 16			435	430
Emphasis on monitoring and engagement							
Low	1,591	1,604	– 13			346	334
Medium	1,268	1,277	– 9			352	352
High	1,941	1,942	– 2			189	187

(continued)

Exhibit E.10 (continued)

Outcome	FSS Group	Control Group	Difference (Impact)	P– Value	Sample Sizes: FSS Group	Sample Sizes: Control Group
Average family share in month 60, if received HCV ($)						
Emphasis on job search and post-employment services						
Low	456	451	4		185	191
Medium	634	558	76		275	280
High	617	646	– 30		427	402
Emphasis on education and training						
Low	547	493	54		267	265
Medium	573	605	– 32		393	371
High	667	618	50		227	237
Emphasis on financial services						
Low	461	489	– 28		132	138
Medium	618	604	14		320	305
High	610	579	31		435	430
Emphasis on monitoring and engagement						
Low	612	559	53		346	334
Medium	526	524	1		352	352
High	663	700	– 37		189	187
Average housing subsidy in month 60, if received HCV ($)						
Emphasis on job search and post-employment services						
Low	802	746	56		185	191
Medium	969	1,049	– 80		275	280
High	1,033	1,031	2		427	402
Emphasis on education and training						
Low	776	820	– 43		267	265
Medium	981	989	– 8		393	371
High	1,139	1,142	– 3		227	237
Emphasis on financial services						
Low	701	695	6		132	138
Medium	1,048	1,075	– 27		320	305
High	970	1,007	– 36		435	430
Emphasis on monitoring and engagement						
Low	979	1,045	– 66		346	334
Medium	776	772	4		352	352
High	1,278	1,243	35		189	187

(continued)

Exhibit E.10 (continued)

Outcome	FSS Group	Control Group	Difference (Impact)		P-Value	Sample Sizes: FSS Group	Sample Sizes: Control Group
Average total family share in years 1 to 5 ($)							
Emphasis on job search and post-employment services							
Low	21,135	20,189	946		0.364	271	280
Medium	29,871	27,540	2,330	**	0.044	348	346
High	25,432	24,714	719		0.393	637	614
Emphasis on education and training							
Low	23,388	22,069	1,320		0.167	381	386
Medium	24,759	24,298	461		0.586	562	553
High	30,021	28,244	1,777		0.185	313	301
Emphasis on financial services							
Low	20,449	19,944	505		0.687	234	233
Medium	25,900	25,210	689		0.505	406	403
High	27,407	25,976	1,432	*	0.092	616	604
Emphasis on monitoring and engagement							
Low	27,284	25,286	1,998	**	0.046	464	463
Medium	23,712	22,416	1,295		0.108	537	538
High	27,356	27,376	– 20		0.989	255	239
Average total housing subsidy in years 1 to 5 ($)							
Emphasis on job search and post-employment services							
Low	35,891	36,192	– 302		0.864	281	286
Medium	51,332	52,952	– 1,621		0.300	349	347
High	42,587	41,448	1,139		0.441	628	605
Emphasis on education and training							
Low	37,797	38,955	– 1,158		0.369	384	387
Medium	41,312	40,585	727		0.617	562	551
High	53,780	55,326	– 1,546		0.484	312	300
Emphasis on financial services							
Low	31,217	31,074	143		0.926	237	234
Medium	48,342	48,920	– 578		0.739	404	399
High	44,479	45,262	– 783		0.573	617	605
Emphasis on monitoring and engagement							
Low	46,722	46,993	– 271		0.861	466	459
Medium	35,684	36,367	– 683		0.569	545	545
High	55,040	52,739	2,301		0.397	247	234
Sample size (total =2,548)	1,281	1,267					

(continued)

Exhibit E.10 (continued)

Notes: The FSS impact sample includes Housing Choice Voucher households that were randomly assigned between October 18, 2013, and December 22, 2014, and with a head of household age 18 to 61 at the time of random assignment. Sample sizes for specific outcomes may vary because of missing values. Estimates were regression-adjusted using ordinary least squares, controlling for differences in sample member characteristics recorded at the time of random assignment. No special weights were applied to responses to adjust for differences in sample size by housing authority. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between the FSS group and the control group for continuous variables and selected outcomes expressed as proportions. In addition, a chi-square test for categorical variables was run to determine whether there is a difference in the distribution of related outcomes by research group. The p-value indicates the likelihood that the difference between the FSS group and control group arose by chance. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent. The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as: † = 10 percent; †† = 5 percent; and ††† = 1 percent. Results displayed in italics are non-experimental. No tests of statistical significance were performed on differences between research groups in means or proportions.

Sources: MDRC calculations using baseline data, data collected from Individual Training and Services Plan forms, information provided by FSS administrators and case managers, and U.S. Department of Housing and Urban Development Inventory Management System (IMS)/PIH Information Center (PIC) data.

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