Pathways to Financial Resilience

36-Month Impacts of the Grameen America Program

Kelsey Schaberg
Daron Holman
M. Victoria Quiroz Becerra
Richard Hendra

mdrc
BUILDING KNOWLEDGE TO IMPROVE SOCIAL POLICY

March 2022

The Grameen America evaluation was funded by the Robin Hood Foundation.

Dissemination of MDRC publications is supported by the following organizations and individuals that help finance MDRC's public policy outreach and expanding efforts to communicate the results and implications of our work to policymakers, practitioners, and others: The Annie E. Casey Foundation, Arnold Ventures, Charles and Lynn Schusterman Family Foundation, The Edna McConnell Clark Foundation, Ford Foundation, The George Gund Foundation, Daniel and Corinne Goldman, The Harry and Jeanette Weinberg Foundation, Inc., The JPB Foundation, The Joyce Foundation, The Kresge Foundation, and Sandler Foundation.

In addition, earnings from the MDRC Endowment help sustain our dissemination efforts. Contributors to the MDRC Endowment include Alcoa Foundation, The Ambrose Monell Foundation, Anheuser-Busch Foundation, Bristol-Myers Squibb Foundation, Charles Stewart Mott Foundation, Ford Foundation, The George Gund Foundation, The Grable Foundation, The Lizabeth and Frank Newman Charitable Foundation, The New York Times Company Foundation, Jan Nicholson, Paul H. O'Neill Charitable Foundation, John S. Reed, Sandler Foundation, and The Stupski Family Fund, as well as other individual contributors.

For information about MDRC and copies of our publications, see our website: www.mdrc.org.

Pathways to Financial Resilience

36-Month Impacts of the Grameen America Program

Kelsey Schaberg
Daron Holman
M. Victoria Quiroz Becerra
Richard Hendra

March 2022

OVERVIEW

This report summarizes 36-month findings from the evaluation of the Grameen America program, a microfinance institution that provides loans to women with low incomes in the United States who are seeking to start or expand a small business. Its objective is to reduce poverty through the provision of small loans, financial training, and peer support.

The Grameen America evaluation used a randomized controlled trial design to explore the mechanisms of program operations and whether the model leads to improved outcomes for borrowers. The evaluation includes an implementation analysis, which examines how the program operates and the experiences of borrowers and program staff, and an impact analysis, which assesses the program's effects on participants' outcomes, including the study's two primary outcomes: overall net income and types of material hardship. Other outcomes include wage-based work and self-employment, wage-based and self-employment earnings and other income, credit scores, savings, assets and remittances, social support, and financial well-being. The implementation analysis includes outcomes from program-tracking data, as well as findings from interviews with borrowers and Grameen America staff, focus groups, and researchers' observations of the program. The impact findings in this report are based on study participants' responses to a 36-month survey and credit report data from a major credit reporting agency. The Grameen America evaluation was funded by the Robin Hood Foundation.

Key Findings

- The evaluation provides evidence that the Grameen America program contributed to reducing the types of material hardship experienced. The program also produced a positive but modest increase in monthly net income (defined as a woman's earnings from any business, wage-based job, and other sources, minus business expenses), though the evidence is not as definitive. The difference in net income seems related to higher average earnings from a business. The program did not have an effect on wage-based employment.

- Grameen America also increased nonretirement savings, increased the likelihood of having a VantageScore (a type of credit score), deepened relationships among members of loan groups, broadened social support systems, and increased overall well-being.

- The evaluation suggests that the relationship among wage-based work, business ownership, savings, and material hardship is complex. Overall, the evidence suggests that there were several ways material hardship might have been reduced. Increased cash flow from the loans might have allowed women in the program to meet financial obligations and thus reduce material hardship. Increased social support among Grameen America program participants may have reduced material hardship by giving women someone to turn to in a time of need. Increased savings may have given women additional funds to draw on. Increases in VantageScores may also have reduced material hardship by giving women access to other financial products such as credit cards to use to cover expenses. Future research could provide more insights into these complexities.

Overall, the study found it was not *just* increased income or *just* the loan that led to the program's positive effects. The weight of the evidence suggests that women who experience life circumstances similar to those in the Grameen America program are likely to be more financially resilient in the face of unexpected challenges if they are offered more options to combine work and businesses, more ways to strengthen their peer networks, and more liquidity. Understanding the financial lives of the women served by Grameen America at a more granular level is an important area for future research.

CONTENTS

Appendix

EXHIBITS

Tables

Figures

Boxes

ACKNOWLEDGMENTS

We thank the Robin Hood Foundation for its generous support.

Many people supported the evaluation and the creation of this report. First, many thanks to the Grameen America Union City branch staff, who worked hard and were ever-innovative in helping to recruit participants for this study. In particular, we would like to thank Lourdes Aguilar, Andrea Cabrera, Elida Coronel, Martha Desiderio, Mufakkharul Islam, Monica Nuñez, and Yessica Soriano. We would also like to thank Andrea Jung, Marcus Berkowitz, Habibur Chowdhury, Alethia Mendez, Katherine Rosenberg, and Shah Alam from Grameen America's headquarters in New York City. We would like to thank Sarah Oltmans from the Robin Hood Foundation, as well as Amanda Stern and Steven Lee (both formerly of Robin Hood) for their support for the broader evaluation.

We would also like to thank the members of our expert steering group who provided valuable design advice: Jonathan Morduch, from New York University's Robert F. Wagner Graduate School of Public Service; David Zimmerman, from Williams College; Christopher Wimer, from the Center on Poverty and Social Policy at Columbia University; David Roodman, now at the Open Philanthropy Project; Lisa Servon, from the University of Pennsylvania; Michael Weinstein, from Impact Matters, who served as chief program officer for the Robin Hood Foundation; Stephen Nuñez, from the Jain Family Institute; Ralph Bradburd, from Williams College; and William Keep, from the College of New Jersey.

We are greatly appreciative of our internal staff who helped with the creation and review of the report. Cynthia Miller, John Martinez, and James Riccio provided insightful comments on the report. Ron Bass (from MDRC) and David Getman (from Decision Information Resources) oversaw the survey effort, and Simran Vazirani and Nikki Ortolani managed the project budget. Former MDRC staffers Beatriz Gil, Rachel Pardo, Reshma Patel, and Jennifer Uribe played critical roles in the early operations of the project; Dan Gallagher and Anastasia Korolkova provided programming support; and Toni Castro-Cosio provided qualitative data collection and analysis support. Felicia Felix coordinated preparation and production of the report. Jill Kirschenbaum edited the report, and Ann Kottner prepared it for publication. We would also like to thank our external consultant, Farhana Hossain, who created engaging exhibits for the report.

Most of all, we would like to thank the Grameen America research participants, whose involvement in the study is helping us to better understand how to support and assist individuals trying to advance economically though self-employment.

The Authors

EXECUTIVE SUMMARY

Soledad sold homemade food to help her family get through a rough financial period. Alejandra worked a part-time job and sold nutritional products on the side. Isabel worked as a stylist at a hair salon and also sold beauty products to some of her clients; she hoped to open her own salon one day. Mercedes was caring for her children at home and contributing to her family's household income by selling beauty products and perfume. When these four women joined the Grameen America program, they each had their own ambitions and goals. But they also had one thing in common: They saw Grameen America, a microlending program, as a way to help them accomplish some of those goals. The program offers small loans to women entrepreneurs with very low incomes for the express purpose of starting or growing a business.

How does a program like Grameen America help women achieve their dreams of running a business that could sustain them and their families? Does investing in a small business increase overall income? Do borrowers experience fewer types of material hardship due to their participation in the program? MDRC's evaluation of the Grameen America program sought to answer these questions.

Safe and affordable financial products are not always available to individuals with limited material assets or credit histories. Microlending programs such as Grameen America aim to fill that gap, offering borrowers loans to invest in small businesses that have the potential to generate income and eventually improve financial well-being.[1] The field of microfinance has expanded rapidly in the developing world since it began in the 1970s, following early excitement about its promise to reduce poverty. As of 2019 there were approximately 10,000 microfinance institutions serving more than 140 million borrowers worldwide.[2] These programs provide opportunities for economic mobility by enabling users to borrow, invest in a business, build a credit history, and save.

[1] The terms microfinance, microcredit, and microlending are often used interchangeably. In the past few decades, the definition of microfinance has expanded and now covers microcredit and additional services—such as savings, insurance, training, and health services—that are offered to individuals with low incomes.

[2] Tom Thunstrom, "21 Microfinance Statistics You Need to Know in 2021" (September 15, 2021), https://fitsmallbusiness.com/microfinance-statistics/.

Despite the widespread implementation of the microfinance model, there is limited rigorous evidence that shows its effects on business growth, income, economic hardship, and other outcomes, particularly in advanced economies.[3] The rigorous evidence that is available (mostly from studies in nonindustrialized countries) shows that microfinance can lead to modest positive impacts on some outcomes for some groups.[4] For example, studies have shown that microlending programs work better for individuals who have existing businesses.[5] It is unclear whether the results from prior studies can be generalized to a program like Grameen America that is operating in an industrialized country like the United States. This study, funded by the Robin Hood Foundation, aimed to learn whether and how the Grameen America program can increase income for its borrowers and improve their lives.

The evaluation provides strong evidence that the Grameen America program contributed to reducing types of material hardship experienced as well as to positive impacts on several other outcomes such as nonretirement savings, the likelihood of having a VantageScore (a type of credit score), social support, and well-being. The program also produced a positive but modest increase in monthly net income, though the evidence is not as definitive. The program had no impact on work-life balance, assets, and remittances.

The Grameen America Model

Grameen America provides small loans to women living in poverty so they can start or expand a small business.[6] In this way, the model theorizes, women may be able to grow their businesses, pay back their loans, develop credit histories, and eventually earn more income and improve the well-being of their households. The model is based on the Grameen Bank program first launched in Bangladesh in the late 1970s with the goal of reducing poverty among women living in rural areas with limited employment options; the model has since spread throughout the nonindustrialized world.[7] Grameen America was established in New York City in 2008 and has since expanded to 19 U.S. cities and distributed $2.12 billion in small loans to 142,500 women.[8] Consistent with Grameen America's mission to empower women, the organization gives loans only to women entrepreneurs.

[3] Numerous quasi-experimental studies have been conducted on group microfinance programs. However, most of these studies lack a reliable counterfactual—that is, a means of determining what would have happened in the absence of the microfinance programs being studied—making it difficult to estimate the impacts of the programs. See Dean Karlan and Nathanael Goldberg, "Microfinance Evaluation Strategies: Notes on Methodology and Findings," Pages 17-58 in Beatriz Armendáriz and Marc Labie (eds.), *The Handbook of Microfinance* (Hackensack, NJ: World Scientific, 2011) for a review of methodological issues when evaluating microfinance programs.

[4] Jonathan Bauchet, Cristobal Marshall, Laura Starita, Jeanette Thomas, and Anna Yalouris, *Latest Findings from Randomized Evaluations of Microfinance* (Washington, DC: Consultative Group to Assist the Poor/The World Bank, 2011) provides a summary of the interventions and findings from several randomized experiments of microfinance programs.

[5] Bruno Crépon, Florencia Devoto, Esther Duflo, and William Pariente, *Impact of Microcredit in Rural Areas of Morocco: Evidence from a Randomized Evaluation* (Cambridge, MA: MIT Working Paper, 2011); Manuela Angelucci, Dean Karlan, and Jonathan Zinman, "Win Some Lose Some? Evidence from a Randomized Microcredit Program Placement Experiment by Compartamos Banco," Working Paper 19119 (Cambridge, MA: National Bureau of Economic Research, 2013).

[6] Victoria Quiroz Beccera, Kelsey Schaberg, Daron Holman, Richard Hendra, *Putting Microfinance to the Test: 18-Month Impacts of the Grameen America Program* (New York City, NY: MDRC, 2020).

[7] Brett E. Coleman, "The Impact of Group Lending in Northeast Thailand." *Journal of Development Economics* 60, 1 (1999): 105-144.

[8] Grameen America. n.d. "Our Impact." Website: https://www.grameenamerica.org/impact.

The Grameen America group-lending model requires potential borrowers to form a group of five women before they are eligible to apply for loans; the group members must know and live near one another but cannot be immediate family members. After forming a group, women participate in five days of mandatory training called Continuous Group Training (CGT), during which they learn about the terms and conditions of a Grameen America loan, the rules of the program, and their responsibilities as borrowers. Once this training is completed, the five-member loan groups are officially enrolled in the program. Each member of an approved group then receives her first loan, which is typically between $500 and $1,500, and with an interest rate of between 15 and 18 percent.[9]

Next, five or six loan groups come together to form loan centers of 25 to 30 women; they meet on a weekly basis, usually at the home or business of one of the borrowers, to make their loan payments.[10] Each woman receives her own loan and is responsible for paying it back. Grameen America reports loan payments to several of the major credit reporting agencies to help borrowers establish credit histories. For any one woman to be able to receive another loan, all group and center members must be current on *their* loan payments. In this way, group vetting and social pressure, as opposed to traditional loan underwriting, are used to ensure repayment. Subsequent loans are typically for larger amounts and are designed to help members expand their businesses.

Evaluation Design

MDRC evaluated the Grameen America program at the organization's branch in Union City, New Jersey. The branch was opened expressly for this study in early 2014 and serves borrowers in Union City, Jersey City, Hoboken, and the surrounding municipalities in northern New Jersey.

The Grameen America evaluation used a randomized controlled trial design to test whether participation in the program resulted in improved financial well-being and reduced material hardship for borrowers relative to what would have happened in the absence of the program. Given Grameen America's group-lending model, the evaluation was designed using a method known as "cluster random assignment." The research team used the method to estimate the program's impacts by randomly assigning entire five-member loan groups to either a research group that was eligible to receive a Grameen America loan and participate in the program (the Grameen America group) or to a research group that was not eligible to receive a loan or to participate in the Grameen America program (the control group).[11] To qualify for the study, loan groups had to be formed prior to random assignment and were then randomized. While randomizing intact lending groups made it difficult to recruit for the study, it helped to maximize the study's treatment contrast—that is, there was a large difference between the percentage of Grameen America group members and control group members who received loans.

[9] Loan amounts have changed over time. In 2014, when the MDRC study was launched, the first loan amount ranged from $500 to $1,500. In May 2018, Grameen America expanded the range to $2,000. The interest rate for Grameen America loans was 15 percent through June 2016 and 18 percent thereafter.

[10] The average term of a Grameen America loan is 25 weeks.

[11] Randomization took place after a group had formed but before the group attended the five-day CGT training that was required before program enrollment. For the full analysis plan, see Richard Hendra, Stephen Nuñez, and Kelsey Schaberg, "The Small Loan Study," *AEA RCT Registry* (2018), available at https://doi.org/10.1257/rct.2756-6.0.

This provided a fairer and stronger test of the group lending model than some previously designed studies of microlending programs.[12]

Between March 2014 and March 2017, 1,492 women in 300 loan groups enrolled in the Grameen America evaluation. Roughly 70 percent of the women were randomly assigned to the Grameen America group and had the option to apply to the program and receive a loan, while the other 30 percent were randomly assigned to the control group and could not receive a Grameen America loan. (Control group members were free to seek out loans from other organizations and lenders.) By comparing the outcomes of the two research groups over time, the study can confidently attribute any differences in outcomes to the Grameen America program.

The Grameen America evaluation has two main components: an *implementation analysis* and an *impact analysis*. The implementation analysis examines how the Grameen America program operated, the experiences of program staff and borrowers, and how the program might achieve its goals. This report presents a set of longitudinal case studies based on three rounds of interviews with 15 women in the Grameen America group completed over a four-year period. It also presents brief life histories of four of those women—Soledad, Alejandra, Isabel, and Mercedes—with a focus on the relationship among life events, business ownership, and wage-based employment. The report also uses documentation from program observations, demographic information captured when participants entered the study, data from Grameen America's internal records on loan receipt and repayment, and interviews with Grameen America staff and two focus groups with Grameen America group members.

The impact analysis assesses the effect that the Grameen America program had on participant outcomes, including impacts on self- and wage-based employment, earnings and income, assets, and financial well-being. These outcomes were measured using follow-up surveys completed at 6, 18, and 36 months after women entered the study, as well as credit report data collected from a major credit reporting agency. This report examines outcomes based on the 36-month survey data and credit report data as of 34 to 39 months after individuals joined the study.

This is the third and final report from the MDRC Grameen America evaluation. A previous report presented outcomes based on a follow-up survey conducted roughly 18 months after women entered the study. That report showed that the Grameen America program reduced material hardship in the previous year but did not result in an increase in net income, the two primary outcomes the program aims to affect (and the study's two primary outcomes). The report also found that the Grameen America program had a statistically significant impact on a wide range of secondary outcomes, including increasing self-employment and earnings from a business, establishing and increasing credit scores, and increasing life satisfaction and well-being.

Women who stayed in Grameen America for the full 36-month period captured by this report had the opportunity to receive up to six loans, with potential increases for each new loan; regular investment of Grameen America loans into their businesses, according to the program model, could potentially lead to higher earnings. Small businesses, however, take a long time to build and consolidate, and many of

[12] Jonathan Bauchet, Cristobal Marshall, Laura Starita, Jeanette Thomas, and Anna Yalouris, *Latest Findings from Randomized Evaluations of Microfinance* (Washington, DC: Consultative Group to Assist the Poor/The World Bank, 2011) provides a summary of the interventions and findings from several randomized experiments of microfinance programs.

them ultimately fail. Thus, going into this report, it was an open question as to whether impacts seen at 18 months would fade, persist, or grow over the course of three years.

Key Findings

A high-level summary of the evaluation's impact findings are shown in Figure ES.1. The final results of the Grameen America study at about 36 months after random assignment show that the Grameen America program led to a complex set of impacts.[13]

- ✦ The study assessed the effect of the program on net income, one of the study's primary outcomes, which includes earnings from any businesses the women operated (after deducting business expenses) combined with earnings from wage-based jobs and income from other activities, such as renting out a room or caring for children in their homes. Women in the Grameen America group reported having an average net income of $1,485 in the prior month, compared with $1,312 for women in the control group. The 13 percent difference is positive and just below the threshold for statistical significance.
- ✦ The program produced a statistically significant effect on the likelihood of having a net income of $1,800 or more in the prior month.
- ✦ The program did not produce a statistically significant increase in overall household income.[14]
- ✦ The study measured experiences of material hardship, including not being able to pay the full amount of monthly rent or a mortgage, not being able to pay for utilities, and not being able to pay for health services and medication, among others. The Grameen America program reduced the likelihood of experiencing any material hardship in the past year. About 40 percent of women in the Grameen America group reported experiencing any type of material hardship in the previous year compared with 47 percent of women in the control group, a statistically significant difference of 7 percentage points.
- ✦ Similarly, women in the Grameen America group reported experiencing fewer types of material hardship in the previous year, the study's other primary outcome—0.9 types of material hardship, on average, compared with 1.1 types of material hardship experienced by women in the control group.
- ✦ The Grameen America program increased business ownership. About 87 percent of women in the Grameen America group reported operating a business three years after study entry, compared with 75 percent of women in the control group. The program also increased both monthly business revenue (by $555) and monthly business expenses (by $425), leading to an increase of $127 in average monthly business earnings.[15] All of these impacts are statistically significant.

[13] It should be noted that all of these outcomes were measured before the onset of the Covid-19 pandemic.

[14] Household income included any income from study participants combined with earnings from other members of their household and income from public benefit programs for any member of the household.

[15] Note that calculations for average monthly earnings from a business include people who did not have a business. For these individuals, average monthly earnings from a business were set to $0.

Figure ES.1

Grameen America 36-Month Impact Snapshot

EMPLOYMENT, INCOME, MATERIAL HARDSHIP

CREDIT, SAVINGS, DEBT

SOCIAL SUPPORT, WELL-BEING

Statistically significant

MEDIATING OUTCOMES: Outcomes directly targeted by the Grameen America program and help explain the mechanisms that lead to the primary outcomes

+ 11.7 Business ownership

+ $127 Monthly business earnings

+ 17.2 Had a VantageScore (a type of credit score)

+ 2.3 Had someone they could ask for a favor or to borrow something small

+ 9.6 Had someone they could ask to borrow $250 for a few weeks due to an emergency

PRIMARY OUTCOMES: The main outcomes or goals of the program

SECONDARY OUTCOMES: Those not directly targeted by the program, those that are expected to be affected by the primary outcomes, and those that are less likely to be affected given the timing of measurement

+ 0.9 Employment in a wage-earning job

− $21 Monthly wage earnings

+ $172 Total participant net income in prior month

+ $157 Total household net income in prior month

− 0.2 Types of material hardship in the last 12 months (N)

− 2.0 Has health insurance

− $97 Debt: average amount owed on loans and bills

+ $839 Savings: average nonretirement savings for respondent and her live-in partner or spouse

+ 8.1 Overall well-being: very satisfied with life

+ 10.0 Involved in at least half of household’s financial decisions

+ 3.8 Work-life balance: ability to spend time with family

+ 3.6 Purchased an asset

+ 2.7 Sent a remittance abroad in past 12 months

Grameen America borrowers often moved in and out of self- and wage-based employment and combined income from multiple sources to make ends meet.

The study found no statistically significant effect on individual net income, though there was a modest increase. The difference in net income seems related to higher average earnings from a business. Despite no effect on individual net income the program reduced material hardship.

Grameen America also increased savings, helped establish credit histories, and increased overall life satisfaction.

SOURCE: MDRC calculations from responses to the Grameen America 36-month survey and credit report data from a major credit agency.

NOTES: Plus and minus symbols indicate increase or decrease for the Grameen America group in comparison to the control group.

All measures except dollar amount measures and "types of material hardship in the last 12 months" are percentage point increases or decreases.

- ✦ The Grameen America program did not have a statistically significant effect on wage-based employment or earnings from a wage-based job. Three years after they entered the study, 49 percent of women in the Grameen America group reported wage-based employment, compared with 48 percent of women in the control group.

- ✦ The difference in net income levels was likely due, in part, to women in the Grameen America group having higher average earnings from their businesses compared with women in the control group. As noted above, earnings from wage-based employment were similar for both groups.

- ✦ Grameen America increased the amount of nonretirement savings for women in the Grameen America group and their live-in spouses or partners by a statistically significant amount. Women in the Grameen America group reported having average savings of $2,076, compared with $1,237 for women in the control group. The increase in nonretirement savings may have included funds set aside from the Grameen America loan or from increased business earnings.

- ✦ Grameen America increased the likelihood of having a VantageScore, a type of credit score created by the three major credit bureaus, and substantially increased the likelihood of having a "prime" VantageScore (a score in the highest range, between 650 and 850).

- ✦ The Grameen America program contributed to deepening relationships among members of the loan groups and to broadening social support systems. Also, women in the Grameen America group reported higher levels of overall well-being and financial empowerment. The program had no effect on work-life balance, nonliquid assets, or remittances.

Conclusion

The evaluation of Grameen America suggests that the program is more than a small loan to support a business. The weight of the evidence suggests that by giving women with life circumstances similar to those in the Grameen America program more options to combine work and businesses, by strengthening peer networks, and by providing some extra liquidity, they are likely to be more financially resilient in the face of unexpected challenges. The evaluation also suggests that small business operation and wage-based work and how that relates to income, material hardship, and savings is complex for women in the Grameen America program, many of whom live precarious financial lives. Overall, it appears there are several pathways through which material hardship might be reduced. That is, there are various aspects of the Grameen America program that likely contribute to reducing material hardship.

Increasing income (even if not by a statistically significant amount) might increase cash flow and allow women in the program to meet financial obligations, thereby reducing material hardship. Additionally, material hardship might be lessened through the increases seen in nonretirement savings. Having some savings might allow women to draw from these funds in times of need. The program also contributed to strengthening relationships among members of loan groups and broadening social support systems, which could reduce material hardship by giving women someone to turn to in a time of need. Increases in the VantageScore and prime VantageScore could also reduce material hardship by giving women access to other financial products—such as credit cards—to use to cover expenses. Future research could examine some of these relationships more closely.

Overall, the evidence presented throughout the report makes it clear that it was not *just* increased income or *just* the loan that led to Grameen America's positive effects. By supporting more opportunities to combine work and businesses, by strengthening peer networks, and by providing some extra liquidity, the program helped borrowers become more financially resilient and able to face economic challenges in new ways.

While this is the last impact report focused on the Grameen America program, the research team is planning a future report that will examine the benefits and costs of the program. In addition, a follow-up study may take a deep look at the financial lives of a number of Grameen America participants and their households over a period of time, to better understand the dynamics of household cash flows. In this way, the team hopes to address some of the open questions raised by this report and to inform future interventions aimed at supporting populations with very low incomes.

1 The Potential of a Small Loan

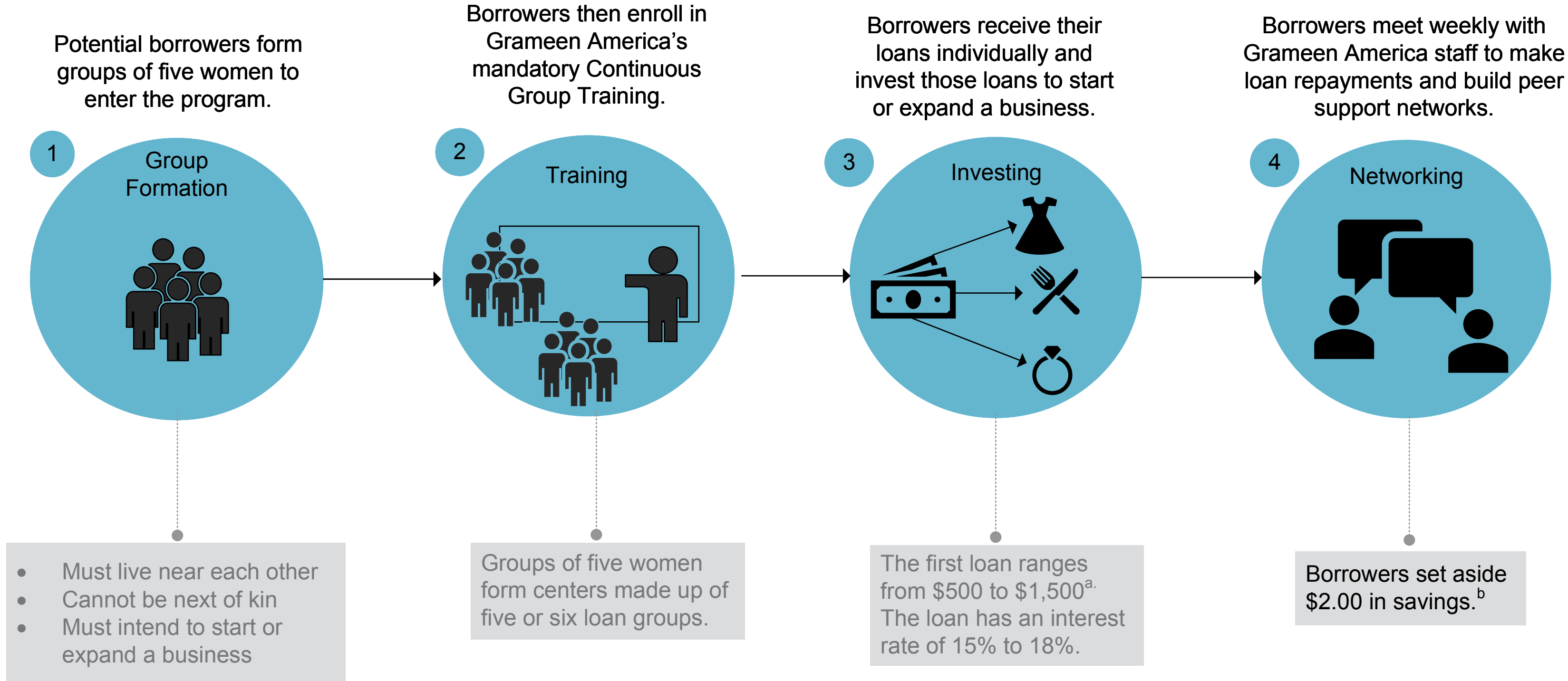
Grameen America is a microfinance institution that provides loans to women living in poverty who want to start or expand a small business. The program is based on the Grameen Bank model developed in Bangladesh in the late 1970s by Muhammad Yunus. Its objective is to reduce poverty by providing small loans, financial training, and peer support. In 2008, Grameen America was established in New York City. Since then, the program has expanded to 19 U.S. cities and has distributed $2.12 billion in small loans to 142,500 women.[1] By investing in small enterprises, the model theorizes, women can grow their businesses, pay back their loans, develop credit histories, and eventually earn more income. This report presents final findings of a study to evaluate the Grameen America program.

The Grameen America program uses a group-lending model. Five potential borrowers who know one another, are not next of kin, and live near each other must form a group before they are eligible to apply for loans. After completing five days of mandatory training called Continuous Group Training, which includes learning about the terms of the Grameen America loan and other requirements of the program, each member of an approved group receives her own loan and is responsible for paying it back. Borrowers meet on a weekly basis to make loan payments, and these meetings give them the opportunity to interact with other like-minded entrepreneurs. Unlike in traditional loan underwriting, in which lenders assess such things as a potential borrower's credit history and assets, there are several means of ensuring repayment in the Grameen America program, such as group vetting, social pressure, and an ongoing social contract among members of a loan group. The program's reliance on social networks to recruit participants draws on such relationships and loyalty to friends to encourage compliance with program rules. If a member successfully pays back her loan, she is eligible to apply for another one, but only if all the other members in the group are current on *their* payments. Consistent with Grameen America's mission to empower women, the organization gives loans only to self-identified women entrepreneurs. Borrowers use their loans to start or invest in relatively small enterprises, such as selling cosmetics or clothing in the community, or preparing homemade food and selling it to friends and family. (See Figure 1.1 for an overview of the Grameen America model.)

[1] Grameen America (2021).

Figure 1.1

Grameen America Model



NOTES: [a]Grameen America expanded the range of the starter loan to $2,000 in 2018.
[b]This aspect of the model was not implemented till late in the evaluation.

The Evaluation of Grameen America

This evaluation focuses on the Grameen America branch in Union City, New Jersey. The branch was initially opened for this study in early 2014 and serves borrowers in Union City, Jersey City, Hoboken, and the surrounding municipalities in northern New Jersey.

The evaluation explores the Grameen America model and whether the program improved financial well-being and reduced material hardship for borrowers relative to what would have happened in the absence of the program. Because Grameen America uses a group-lending model, the evaluation was designed using a method known as "cluster random assignment." This method estimated program impacts by randomly assigning entire five-member loan groups to either a research group that was eligible to receive a Grameen America loan, referred to in this report as the Grameen America group, or to one that was not eligible to receive a loan or participate in the program, referred to as the control group.[2] While randomizing intact lending groups made it difficult to recruit for the study, ultimately it helped to maximize the study's service contrast (that is, there is a large difference between the percentage of Grameen America group members and control group members who received loans), and therefore provided a fairer and stronger test of the group-lending model than some previously designed studies of microlending programs.[3]

Between March 2014 and March 2017, 1,492 women in 300 loan groups enrolled in the Grameen America evaluation.[4] Roughly 70 percent of the women were randomly assigned to the Grameen America group and the other 30 percent were assigned to the control group.[5] By comparing the outcomes of these two groups over time, the study could confidently attribute any differences in outcomes to the Grameen America program. The study timeline is displayed in Figure 1.2.

The Grameen America evaluation has two main components: an implementation analysis and an impact analysis. The implementation analysis examines how the Grameen America program operated as well as the experiences of program staff and borrowers, to understand how the program might achieve its goals. The implementation analysis includes a set of longitudinal case studies based on three rounds of interviews with 15 women in the Grameen America group completed over a four-year period. This report presents brief life histories of four of those women: Soledad, Alejandra, Isabel, and Mercedes.[6] The life histories focus on the relationship among life events, business ownership, and wage employment. The

[2] Randomization took place after a five-member loan group had formed but before the group attended Continuous Group Training. For the full analysis plan, see Hendra, Nuñez, and Schaberg (2018).

[3] Bauchet et al. (2011).

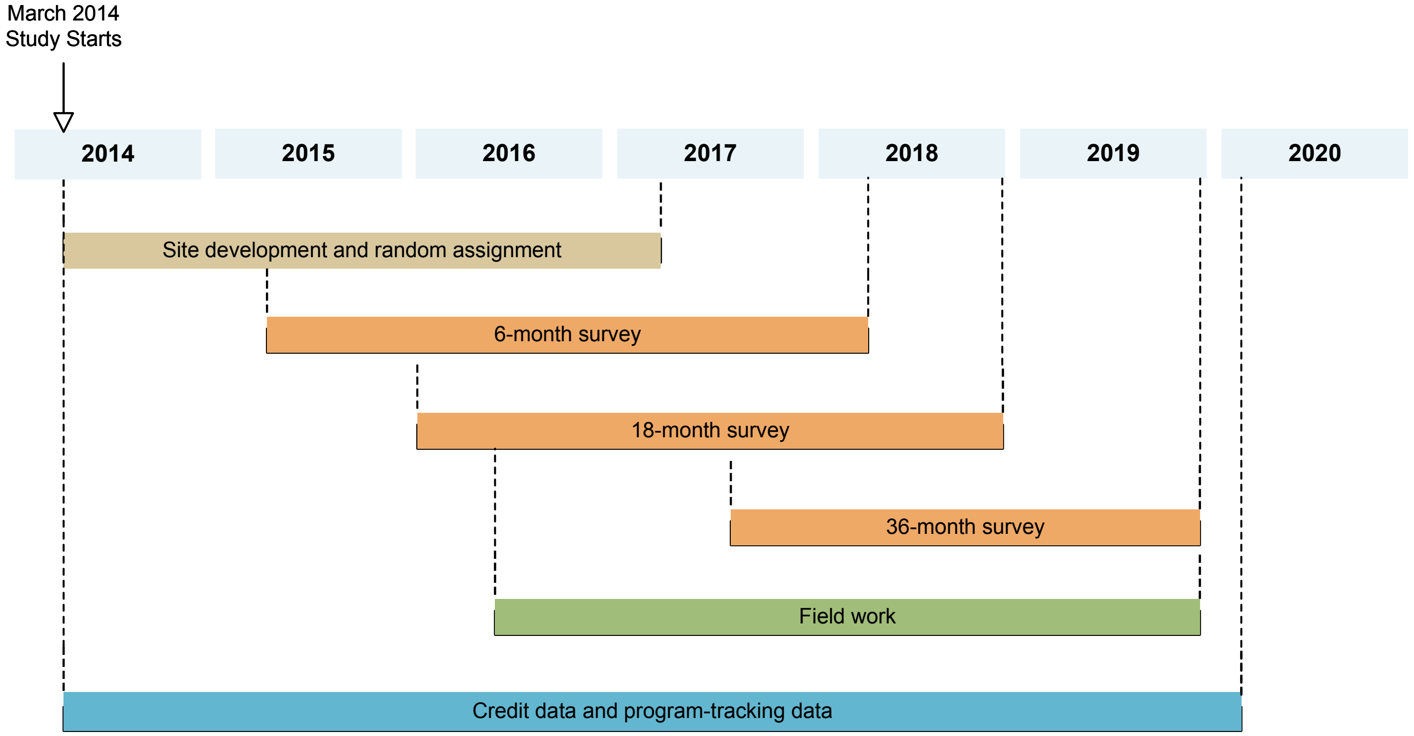
[4] At the end of a loan cycle, any Grameen America participant can decide not to take out another loan. When this happens, the remaining group members must find a replacement for that individual before anyone in the group can receive another loan. Starting in June 2016, these replacements were also randomly assigned using an 80/20 random assignment ratio. In total, 246 replacements were randomly assigned, 188 to the Grameen America group and 58 to the control group. The replacements were not included in the findings presented in this report.

[5] A "cascading" random assignment ratio was used because of the nature of Grameen America's own recruitment process. Nearly all recruitment occurs through recommendations and referrals from existing loan groups. As a result, it's necessary to quickly build up enough loan groups to get to a tipping point where recruitment takes off. Random assignment for the MDRC study slowed this process. Therefore, after an initial period of very slow recruitment using a 50/50 random assignment ratio, the ratio was changed to 80/20 and then later to 65/35. The statistical analysis adjusts for these changes in ratios.

[6] The report uses pseudonyms to protect the privacy of study participants.

Figure 1.2

Grameen America Evaluation Study Timeline



Site development and random assignment	1.492 people were randomly assigned.
Surveys	Three surveys were administered at three different timepoints. The bars refer to when each survey was fielded.
Fieldwork	Data collection consisted of staff interviews, program observations, focus groups, and participant interviews.
Credit data and program-tracking data	Data consisted of program-tracking data provided by Grameen America and credit data collected on a biannual basis.

report also includes documentation from program observations, demographic information captured at the time the women entered the study, Grameen America data on loan receipt and repayment, interviews with Grameen America staff, and two focus groups with Grameen America borrowers.[7] This report presents analyses from these various data sources.

[7] The 15 women included in the case studies were selected from the 28 participants who were initially interviewed. Those 28 were randomly selected at three points in time to capture earlier and later entrants into the program. The 15 women with whom additional interviews were conducted were chosen based on key patterns observed during a scan of the findings from the initial interviews. Based on analyses from these interviews, the research team focused the second set of interviews on the women's employment histories to learn more about how they combined self- and wage-based employment and their businesses. The third round of interviews focused on the social capital and social networks in the program and the participants' communities, as well as on topics related to financial inclusion. Each interview also included an inventory of household income sources and expenditures.

The impact analysis assesses the effect that the Grameen America program had on participant outcomes, including the impact on self- and wage-based employment, gross earnings and net income, assets, and financial well-being. These outcomes were measured using follow-up surveys completed 6, 18, and 36 months after women entered the study, as well as credit report data collected from a major credit bureau. This report examines outcomes based on the 36-month survey data and credit report data as of 34 to 39 months after individuals joined the study.

This is the third and final report from the MDRC Grameen America evaluation.[8] A previous report presented outcomes based on a follow-up survey conducted roughly 18 months after study entry. The report looked at a wide range of outcomes, including the two main outcomes (referred to as the "primary outcomes") the program aims to affect: increasing individual net income and reducing types of material hardship experienced. It showed that Grameen America did not result in an increase in net income, but it did reduce material hardship (see Table 1.1) That report also showed that the program had a statistically significant impact on a wide range of outcomes (referred to as "secondary outcomes"), including increasing self-employment and earnings from a business, establishing and increasing credit scores, and increasing life satisfaction and well-being.

As shown in this report, over a period of 36 months since random assignment, women who stayed in Grameen America had the opportunity to receive up to six loans, with potential increases for each new loan. Regular investment of Grameen America loans into their businesses could potentially lead to higher earnings. Small businesses, however, take a long time to build and consolidate, and many fail. Thus, this report addresses the question of whether over the course of three years a loan could aid borrowers and increase business earnings and income. If loans were paid in full, women in the Grameen America group also had the opportunity to build a longer credit history and thus had the potential to access a broader set of financial products. These women also had the chance to meet with their loan groups weekly over a three-year period, which might result in stronger social ties that members could rely on in times of need.

Key Findings

The results of the Grameen America study at about 36 months after random assignment show that the program led to an encouraging set of impacts. In general, the impacts at 36 months were quite similar to those measured at 18 months, as shown in Table 1.1, with the main notable exception that the findings related to net income looked somewhat more positive at 36 months.[9]

- The study assessed the effect of the program on net income, one of the study's primary outcomes, which includes earnings from any businesses the women operated (after business expenses) combined with earnings from wage-based jobs and income from other activities, such as renting out a room or caring for children in their homes. Women in the Grameen America group reported having an average net income of $1,485 in the prior

[8] The first report looked at a limited set of outcomes over a roughly 6-month follow-up period. See Schaberg et al. (2019) for more information.

[9] All data collection for this report was completed before the onset of the Covid-19 pandemic.

Table 1.1

Impacts on Primary and Mediating Outcomes at 18 Months and 36 Months

	18-Month Impacts				36-Month Impacts			
Outcome	Grameen America Group	Control Group	Difference (Impact)	P-Value	Grameen America Group	Control Group	Difference (Impact)	P-Value
Primary outcomes								
Average total net income in prior month ($)	1,270	1,313	-44	0.676	1,485	1,312	172	0.101
Types of material hardship experienced in the last 12 months (N)	1.0	1.5	-0.5***	0.000	0.9	1.1	-0.2**	0.049
Mediating outcomes								
Currently operates own business(es) (%)	93.8	74.5	19.3***	0.065	86.5	74.8	11.7***	0.000
Average monthly earnings from own business(es) ($)	459	319	140*	0.323	483	356	127*	0.086
Respondent has someone they could ask: (%)								
For a favor like a ride, to babysit, or to borrow something small	79.2	70.6	8.6**	0.017	79.2	77.0	2.3	0.466
To borrow $250 from for a few weeks because of an emergency	79.3	72.6	6.7**	0.020	82.0	72.4	9.6***	0.001
Sample size	805	340			740	321		

SOURCE: MDRC calculations from responses to the Grameen America 18-month and 36-month surveys.

NOTES: Sample sizes may vary because of missing values.
Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

month, compared with $1,312 for women in the control group. The 13 percent difference is positive and just below the threshold for statistical significance.

- The program produced a statistically significant effect on the likelihood of having a net income of $1,800 or more in the prior month.[10]

- The program did not produce a statistically significant impact on total household income.[11]

- The study measured experiences of material hardship, including not being able to pay the full amount of monthly rent or a mortgage, not being able to pay for utilities, or not being able to pay for health services and medication, among others. The Grameen America program reduced the likelihood of experiencing any material hardship in the previous year. About 40 percent of women in the Grameen America group reported experiencing any type of material hardship in the previous year compared with 47 percent of women in the control group, a statistically significant difference of 7 percentage points.

- Similarly, women in the Grameen America group reported experiencing fewer types of material hardship, the study's other primary outcome—0.9 types of material hardship, on average, compared with 1.1 types of material hardship experienced by women in the control group.

- The Grameen America program increased business ownership: About 87 percent of women in the Grameen America group reported operating a business 36 months after study entry, compared with 75 percent of women in the control group. The program also increased both monthly business revenue (by $555) and monthly business expenses (by $425), leading to an increase of $127 in average monthly business earnings. All of these impacts are statistically significant.

- The program did not have a statistically significant effect on wage-based employment or earnings from a wage-based job. Three years after they entered the study, 49 percent of women in the Grameen America group reported wage-based employment, compared with 48 percent of women in the control group.

- The difference in net income levels was likely due, in part, to women in the Grameen America group having higher average earnings from their businesses compared with women in the control group. As noted above, earnings from wage-based employment were similar for both groups.

[10] Impacts on this measure were not statistically significant in the 18-month report. This measure was mentioned in the analysis plan (https://www.socialscienceregistry.org/trials/2756). The threshold of $1,800 was set based on the top quartile of the control group earnings distribution as mentioned on page 35 (top) of the analysis plan. Based on reviewer comments, the team ran impacts based on alternative thresholds, including $1,700 and $1,900. The results showed that impacts at those thresholds were also statistically significant, which reinforces the evidence that Grameen America increased the percentage of participants with relatively high net income levels.

[11] Household income included any income from study participants combined with earnings from other members of their household and any income from public benefit programs.

- Grameen America increased the amount of nonretirement savings for women in the Grameen America group and their live-in spouses or partners by a statistically significant amount. Women in the Grameen America group reported having average savings of $2,076, compared with $1,237 for women in the control group. The increase in nonretirement savings may have included funds set aside from the Grameen America loan or from increased business earnings.

- Grameen America increased the likelihood of having a VantageScore, a type of credit score created by the three major credit bureaus, and substantially increased the likelihood of having a "prime" VantageScore (a score in the highest range, between 650 and 850).

- The Grameen America program contributed to deepening relationships among members of the loan groups and to broadening social support systems. Also, women in the Grameen America group reported higher levels of overall well-being and financial empowerment. The program had no effect on work-life balance, nonliquid assets, or remittances.

2

Microloans in Theory and in Practice

The Grameen microlending model originated in Bangladesh as a program aimed at reducing poverty among women living in rural areas with limited employment options. Providing women with loans so they could invest in small businesses, the model posited, would give them a way to generate income to support their families and eventually lift themselves out of poverty. Grameen has since grown into a worldwide network of independent lending organizations with a presence in 30 countries, and its model has been adopted by many microlenders throughout the developing world. But how does it work in the United States?

As illustrated in Figure 2.1, the Grameen America model seeks to improve the economic well-being of women and their families through three main mechanisms: by offering borrowers access to small loans to invest in a business, by helping them build a credit history, and by strengthening their social networks. The model also offers program participants the option of putting a small sum of money—usually $2 per week—into a savings account for a rainy day fund.[1] The Grameen America loans are distributed for the express purpose of investing in a business. The model posits that this investment will contribute to increased earnings. Over time, the business grows and earnings increase, which eventually can lead to decreased material hardship and to improved overall financial well-being. Investment in a business may lead to reduced participation in wage-based employment, however. In such cases, earnings from the business might be offset by decreased earnings from wage-based employment.

Loan repayments are made on a weekly basis over the course of about six months; Grameen America reports loan payments and arrears to three major credit bureaus. In this way, the program allows women to build a credit history and, in turn, a credit score. Building a credit history might provide program participants access to a broader set of financial options in the future, such as lower-interest bank loans, car loans, or lines of credit. Additionally, a good credit score may help reduce or eliminate the need for deposits on utility or cell phone accounts. When loans are paid in full, the women

[1] The Union City branch of Grameen America, where the evaluation took place, did not require borrowers to open a savings account or make weekly savings contributions until later in the evaluation in 2017. As such, this mechanism of the model is not factored into this evaluation.

Figure 2.1
Grameen America Theory of Change

GROUP LENDING MODEL
Loans and services offered by the Grameen America program are designed to improve a borrower's business, credit, and network for support.

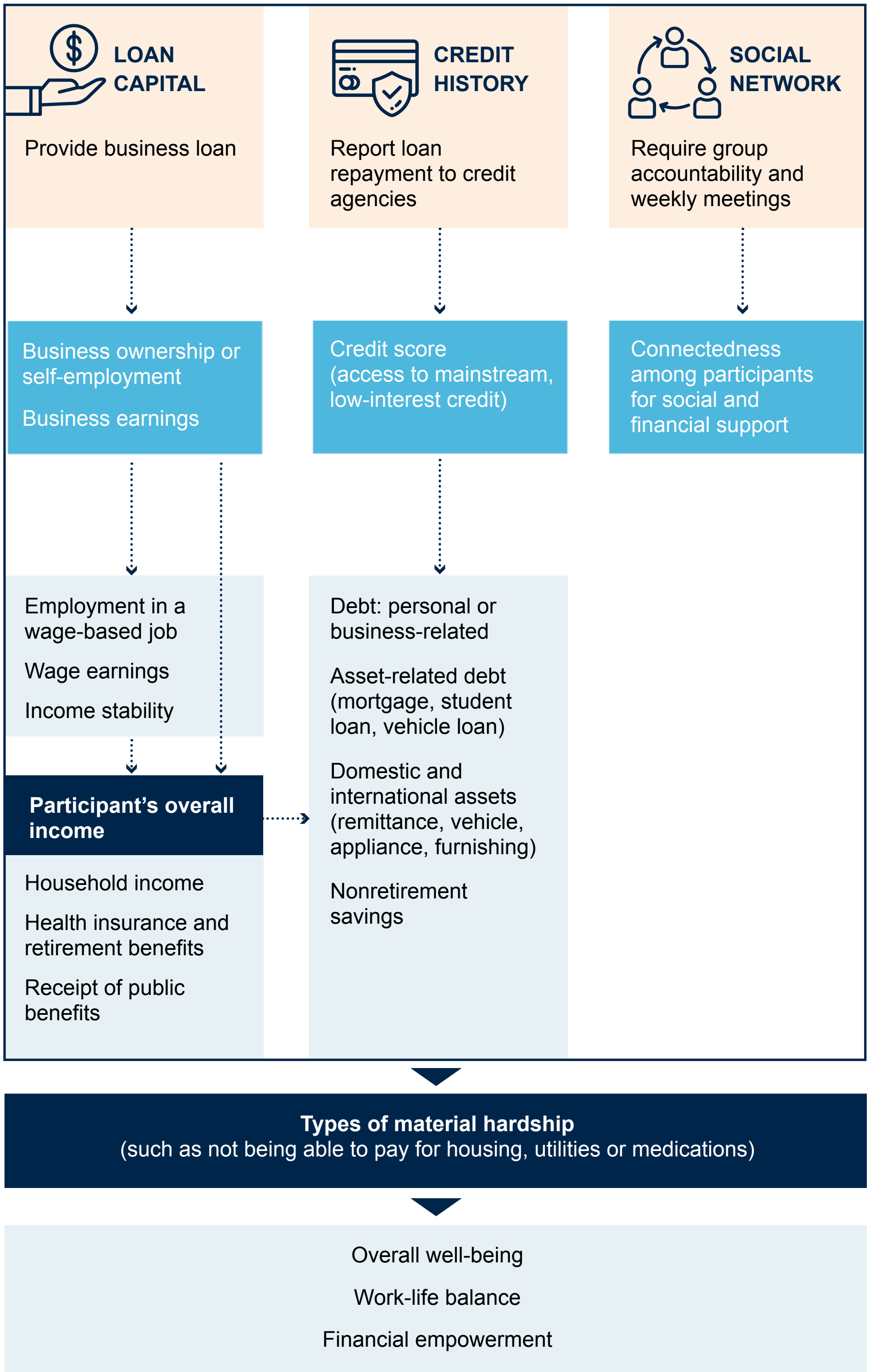
MEDIATING OUTCOMES
Outcomes directly targeted by the Grameen America program and are expected to lead to improve a borrower's income and experience with material hardship.

PRIMARY OUTCOMES
The main outcomes of the program are to improve a borrower's income and experience with material hardship.

SECONDARY OUTCOMES
Secondary outcomes are those not directly targeted by the program, those that are expected to be affected by the primary outcomes, and those that are less likely to be affected given the timing of measurement.

For example, business ownership may leave less time for borrowers to work in wage-based jobs, affecting their total income. This could, in turn, affect their savings and benefit receipt.

Outcomes related to all three areas — business loan, credit history, and social network — are expected to contribute to a borrower's financial and social well-being.



can continue in the program and apply for increases on subsequent loans. Thus, those who remain in the program might have access to larger sums of capital, potentially enabling them to invest in larger or durable items and build assets. Larger loans, however, also come with the risk of greater indebtedness.

Loans are distributed individually; however, borrowers must form a group of five women in order to enter the program. One of the program requirements is that the members of a group must know one another before joining, but they cannot be immediate family members. Knowing each other, the model assumes, can serve as a way of exerting social pressure to ensure loan repayment, in lieu of traditional loan underwriting. All participants are also required to go through five days of training called Continuous Group Training (CGT), during which they learn the terms and conditions of the loan as well as the rules of the program.

Five or six loan groups come together to form loan centers of 25 to 30 women, who meet on a weekly basis, usually at the home or business of one of the borrowers, to make their loan repayments. In this way, the program seeks to enhance members' social and business support networks. Having a broad network of support can provide borrowers with additional friends and acquaintances they can turn to in times of need, such as for last-minute babysitting or to borrow a small amount of money. Moreover, being part of a network of women entrepreneurs can potentially facilitate the exchange of business know-how and might contribute to expanding a person's clientele. Of course, there is the possibility that such networks can saturate a market or lead to more competition. Market saturation could also have displaced the business activity of others outside the study. This possibility could not be measured with the research design being used here.

Over 36 months of random assignment, women in the program had the opportunity to receive up to six loans if they continued uninterrupted in the program and invested the loans in their businesses. Having regular and larger loans could potentially lead to higher investments in the business and, therefore, a more stable business and higher earnings. Higher earnings could allow some women to invest in assets and potentially increase the amount and frequency of remittances. Also, over three years, women in the program group had the opportunity to build a longer and potentially stronger credit history if they made regular payments on all their loans. Additionally, women enrolled in the program over the course of three years had the opportunity to meet regularly with their peers and potentially build stronger social ties.

Enrollment in the Study

The study was conducted in Grameen America's branch in Union City, New Jersey. Recruitment ran from March 2014 to March 2017. To enroll in the study, women had to form a loan group of five members, in keeping with the Grameen America model. Once a loan group was formed, all members were invited to an intake meeting, where they were given information about the study.

During the intake meetings, loan groups were randomly assigned to one of two study groups: the Grameen America group, in which women were eligible to receive all the services that a Grameen America borrower typically receives; or a control group, in which participants were not eligible to receive services from the program for up to five years.[2] Assigning groups at random rather than individuals was important for maintaining intact loan groups, given that the Grameen America model relies on existing social ties among group members. The research team determined that randomizing once each initial group of five was formed but before the members started CGT helped reduce the burden on women who would be assigned to the control group. At the same time, this strategy limited the number of women entering the study who might not qualify for a loan.[3] Once a group of five was assigned to be in the Grameen America group, borrowers set up a meeting with the center manager (CM) to start training. Those in the control group were given a monetary incentive and reminded that they could not enter the Grameen America loan program for the next five years. A total of 1,492 women in 300 loan groups enrolled in the study; 70 percent were assigned at random to the Grameen America group and 30 percent were assigned to the control group.

The information collected when women enrolled in the study suggests that the program reached its target population: women whose household incomes were below the poverty line. Figure 2.2 shows selected characteristics of all the women enrolled in the Grameen America study at the time they entered it, regardless of whether they were assigned to the Grameen America group or the control group. As expected, by virtue of the random assignment research design, there were no meaningful or systematic differences in baseline characteristics between women assigned to either of the two research groups. (For more information about baseline characteristics by research group, see Appendix Table A.4.)

On average, the annual individual income for all study participants was about $18,650 when they entered in the study.[4] About 65 percent of women in the study reported that they had experienced economic hardship in the previous three months. Despite their low incomes, only 41 percent of women in the study reported their household received any type of government assistance. Only 20 percent of members received food stamps through the Supplemental Nutrition Assistance Program; only 12 percent received assistance from the Women, Infants, and Children program; and about 25 percent received Medicaid or other public health insurance (not shown).[5] Half of all study participants had a wage-based job when they entered the study, and about three-fourths were operating a business. Figure 2.3 shows the most common types of businesses that women entering the study were operating or intended to operate. Interviews with program participants and observations of the program indicate that, for the most part, the businesses that women intended to start or grow were not capital-intensive. Examples included women selling food made in their home kitchens or selling beauty products in the park while their children played there.

[2] Originally, women assigned to the control group were told that they would not be able to enter the program for five years. However, the research team decided to end the embargo in early 2020, given that no further data collection was planned after this time. This resulted in s shorter embargo period—at a minimum, three years—for women who entered the study later in the enrollment period.

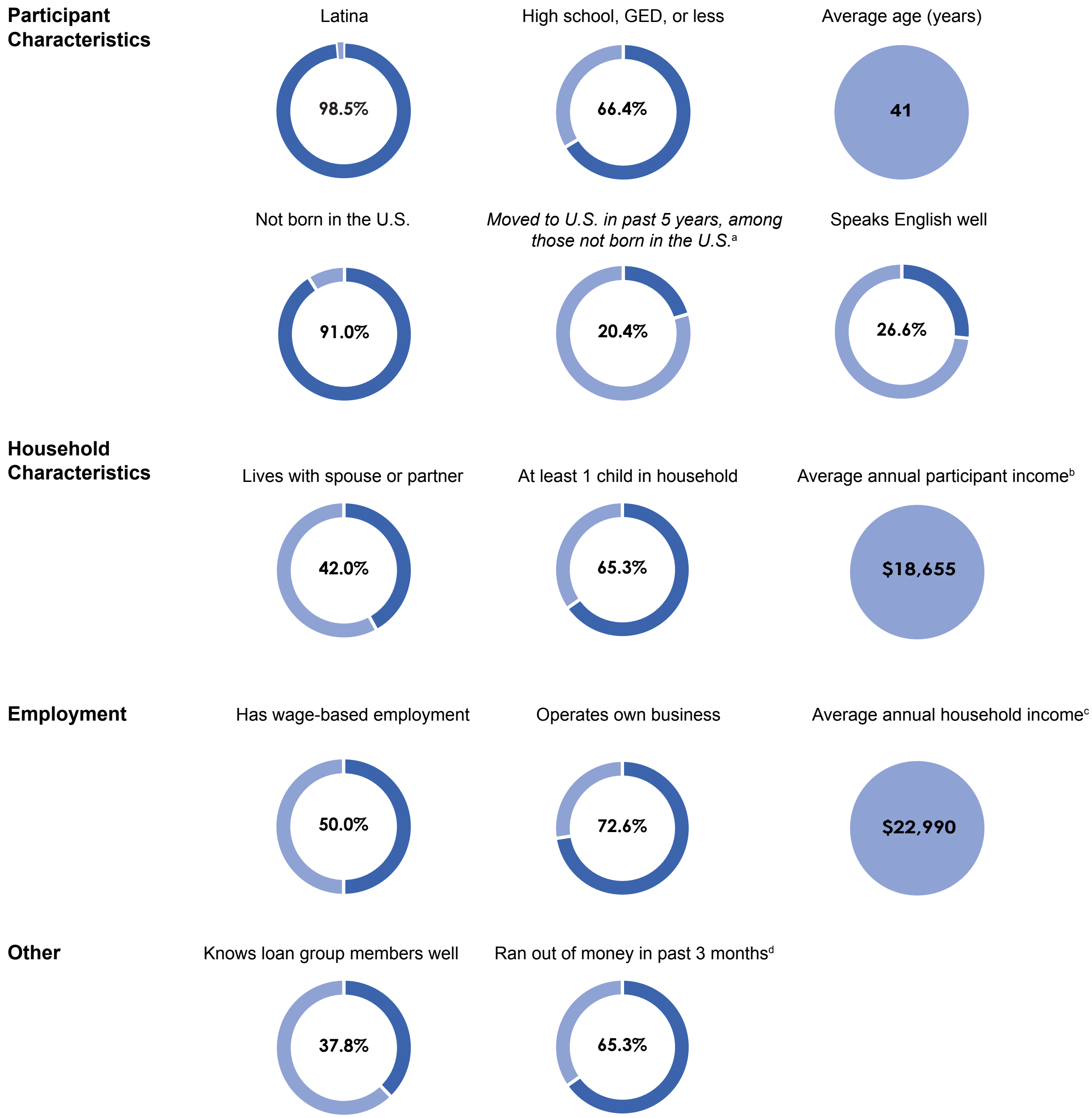
[3] For details about study design decisions, see Schaberg (2019).

[4] Due to time constraints, income was measured differently at study entry than in follow-up surveys. At study entry, income was measured by how much women earned in a typical week and was asked about in ranges. In follow-up surveys, income was measured over the prior month and was asked about in exact amounts or ranges (when the exact amount was not provided). Further, in the follow-up surveys, business earnings were calculated as business revenue minus business expenses, while at study entry, women were asked how much they made from their businesses. These differences are likely why respondent income values were higher at study entry than in follow-up surveys.

[5] These numbers are not cumulative. Study participants could have received assistance from multiple programs.

Figure 2.2

Selected Characteristics of all Women Enrolled in the Study at the Time of Entry



SOURCE: MDRC calculations from the Grameen America Baseline Inormation Form

NOTES: Sample sizes may vary because of missing values.

[a]Italics indicate the metric is not among the full sample shown in the figure.

[b]This measure is a sum of total earnings from self-employment and total earnings from a job. For the first 195 individuals randomly assigned, this also includes income from other types of work.

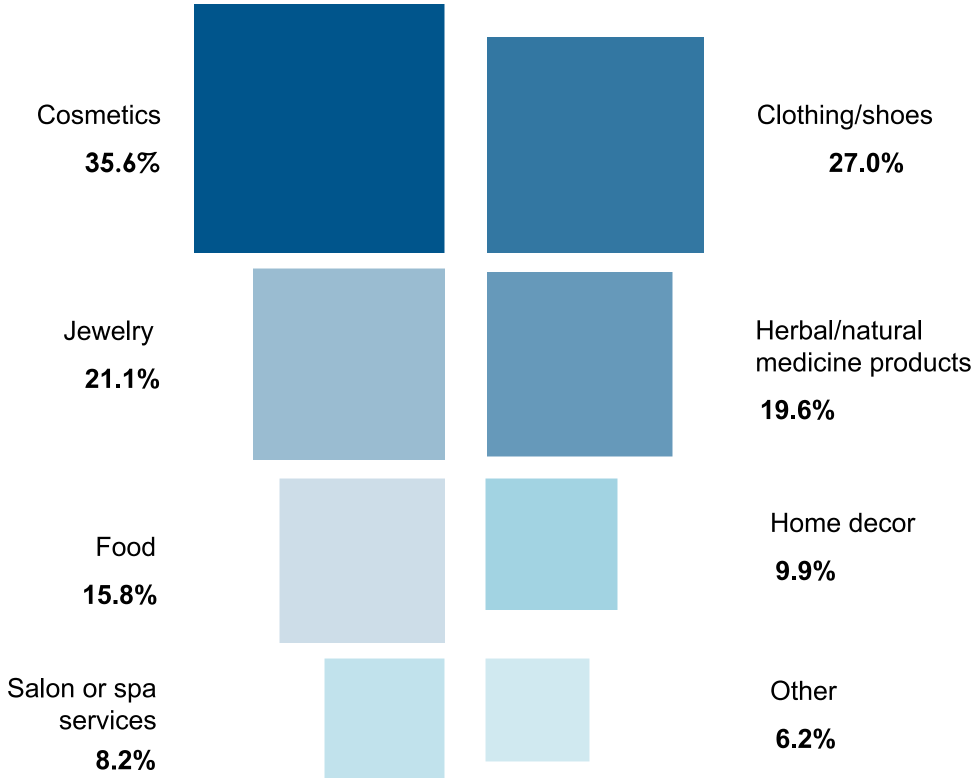
[c]This measure is a sum of total earnings from self-employment, total earnings from a job, and family member contributions to income.

[d]Data not available for first 195 participants randomly assigned.

Figure 2.3

Grameen America Study Particpants' Business Types

Grameen America requires its borrowers to use their loans to start or expand a business, but borrowers choose the type of business they want to operate. The chart below shows the most common business types that women in the Grameen America group reported operating or planning to operate at the time they enrolled in the study. Participants could select more than one business type. The relative sizes of the boxes indicate which business types were used most often.



SOURCE: MDRC calculations from the Grameen America baseline information form.

NOTE: The sample size is 1,492.

Most of the women enrolled in the study identified as Hispanic or Latina, and the average age was 41. The majority (91 percent) were born outside the United States and about 27 percent spoke English well. Of the participants born in another country, the majority (about 80 percent) had been in the United States for more than five years.[6] About 34 percent of study participants had less than a high school education, and 32 percent had completed at most a high school education or obtained a GED. About 65 percent of study participants were parents to at least one child who lived with them.

[6] To protect the privacy of study participants, the research team did not ask participants about their immigration status. Grameen America does not ask immigration status of potential or current participants.

The Program in Practice and Perspectives

> The goal of Grameen America is to help poor women go out there and start a business and maybe start having their own income, so that they don't depend too much on their husband, partner, or family.... We motivate women to start their business by lending them money. Then, they support each other in their loan group.

That's how one CM described the goal of Grameen America. Her statement highlights that the program not only offers loans to start a business, but that in doing so, it may contribute to women's financial independence. The CM also noted the social aspect of the program for achieving its goal, by bringing together women entrepreneurs who could support each other.

CGT sessions begin soon after women form their five-member groups.[7] In general, CGT takes place over the course of five days, although the length may vary depending on the assessment of the CMs. During the training, potential loan groups learn about the terms and conditions of the loans, the rules of the program, and their responsibilities as borrowers. Center managers emphasize the importance of following "discipline" and adhering to the rules of the program—in particular, attending and being on time for weekly in-person meetings to make loan payments.

During the training, CMs fill out paperwork to assess each potential borrower's income, the type of business she has or plans to start, and how she intends to use the loan.[8] Center managers also use the training sessions as an opportunity to assess the level of interest and commitment of the potential borrowers and whether they are likely to adhere to the discipline that the program demands. Also, at some point during the training, loan group members elect a president and a secretary whose primary responsibilities are to maintain communication among members and between the group and the CM.

Once group members have taken the training, they meet with the Grameen America branch manager in what is known as "recognition," during which the branch manager tests each participant's knowledge of the program rules, the terms of her loan, and whether she knows the other members of her group. The branch manager may also visit the homes of group members during this phase to verify their addresses and to ensure that they meet income requirements. If all group members pass the test, the group is officially recognized, and each member can receive a loan.

Receiving a Loan

After the group is accepted into the program, the CM fills out a loan proposal—a document in which each group member states the amount she wishes to borrow. All members of the group and center must sign this form before the new group members can receive loans. The amount of the first loan in the study

[7] In this study, women started CGT after the random assignment process.

[8] In December 2016, Grameen America transitioned from paper forms to digital forms.

ranged from $500 to $1,500.[9] Grameen America loans have an interest rate of 15 to 18 percent.[10] To ensure repayment, CMs try to assess whether the amount requested corresponds to the likely revenue a woman's business will generate, as well as her other sources of available income. One CM described the way she makes decisions about loan amounts this way:

> If I see that the business is going well, I have given participants $1,500 to start. If I see that is not going well, if I have even a slight doubt ... maybe I'll give them only $1,000.... I don't know, sometimes you judge and well, I prefer not to take risks and don't give them $1,500.... I probably make mistakes sometimes, but I don't like to take risks....

Interviews with CMs combined with researchers' observations of the program suggest that CMs encourage women to borrow only the amount that they think they can repay. This practice stands in contrast with payday or other subprime loans, which usually do not establish guidelines regarding the ability of borrowers to pay and may lead people to borrow more than they can afford, potentially entering a cycle of debt.[11] The branch manager makes the final decision on loan amounts, although CMs can make recommendations based on their knowledge of a participant's situation.

Center managers take into consideration various aspects of a borrower's life to determine loan amounts. The program does not require any documentation of income or earnings from the borrower's business, which makes it easier to enter the program. Given that, however, CMs must assess the credit worthiness of potential borrowers based on the information they can gather during initial contact and training. A CM described the way she makes loan amount determinations this way:

> I think that people who are just starting, it's $1,000 because they are just going to invest [in a business]. People who I see have an Herbalife club, I give them $1,000. $1,500 for people who you see walking around with their pursues and clothing [to sell].... That is, everything is a matter of analyzing the person. If I see a young woman who is selling Mary Kay, mmmh, okay, $1,000.

Some of the criteria that CMs said they used to gauge loan amounts included a borrower's self-reported income, how long she had operated her business, the perceived popularity of the items she sold, the kinds of items sold or services provided, her age, and perceived attitude during training.[12]

Program participants must go to the branch office to receive their loan checks.[13] Grameen America usually negotiates with a local branch of a commercial bank so that its borrowers can open free or low-cost savings accounts. As noted earlier, in the Grameen America model, borrowers are asked to save a small

9 As noted, loan amounts have changed over time. When the study was launched in 2014, the first loan amount ranged from $500 to $1,500. In May 2018, Grameen America expanded the range to $2,000.

10 As of March 2021, all Grameen America loans nationwide had an interest of 18 percent.

11 Center for Responsible Lending (2015). Still, the extent to which Grameen America borrowers take out additional loans is an empirical question that is addressed later in the report.

12 Grameen America does not condone discrimination based on age.

13 In 2017, Grameen America introduced debit cards to transfer loans to borrowers. In 2020, the program introduced direct fund transfer to borrower's accounts.

amount on a weekly basis as a way to reinforce discipline and provide women with a fund to draw from so they can make loan repayments in difficult times. In the Union City branch, however, Grameen America could not reach an agreement with a local bank to participate at the outset of the study. As a result, borrowers in the study were encouraged although not required to open a savings account and make weekly deposits in it until 2017.[14]

Weekly Meetings

Borrowers start attending weekly meetings and making loan payments (weekly payments include both the principal and interest) right after their loan group is recognized. Meetings are short—about 15 or 20 minutes—and usually take place at the home or business of one of the center members.[15] During these meetings, CMs collect weekly payments and resolve any issues related to payments. They may also review receipts of women who have received the loans to ensure that the loans have been used as intended. One participant described her views of the meetings as this way:

> Well, we always talk about how it [the loan] was helpful, what we did with it, how we invested it. We spend a very pleasant time while we're in the meeting because we talk about different things.

As the quote suggests, meetings give the group members a chance to learn about each other's businesses and exchange information. Weekly meetings are also an opportunity for borrowers to ask questions and resolve any issues related to their loans, and to demonstrate to program staff and to each other their commitment to the program and its discipline. Lending groups and the center play an important role here. As mentioned, members of each lending group elect a president and a secretary who are charged with ensuring that communication flows smoothly among team members and between the loan groups and program staff. Commonly, the president of the loan group calls her group members to remind them of the meeting. When a borrower is late for a meeting, the president or the secretary calls her to find out what is holding her up and to ensure she shows up to make her payment. If a borrower does not show up at a meeting, members of her loan group and the center pitch in to make the payment, with the expectation of recovering it later.

After Paying a Loan

It takes roughly six months (25 payments) to repay a Grameen America loan. Throughout this time and during the weekly meetings, CMs note how often each member adheres to the rules of the program, such as being on time for meetings and making regular payments. Not adhering to these rules has consequences for obtaining subsequent loans and future loan amounts. As noted, loan groups and the

---

[14] Given that this savings requirement was not in effect until late in the follow-up period, it likely does not explain the savings impact described in Chapter 5.

[15] Replacements in the study were selected by members of loan groups but were then randomly assigned for the study using an 80/20 random assignment ratio. This was necessary in order to maintain the fairness of the process. It is possible that the composition of the loan group changed over time (for example, groups could become "stronger" or "weaker" on several dimensions) and it was important to enable replacements in the study in order to capture the typical program experience.

centers exercise a form of peer pressure to ensure borrowers abide by the rules. At the end of each loan cycle, participants can decide whether to continue in the program and obtain a second loan. If a borrower decides to leave the program, the remaining four women in her loan group must find someone to replace her if they want to continue in the program and receive further loans. Center managers may bend this rule if, in their judgement, the remaining group members exercise discipline and promise to bring in another member soon.

If a borrower wants to obtain a subsequent loan, all members of the center must agree to it. She may also request an increase in her next loan. Center managers determine whether to approve the increase based on her adherence to the program's rules as well as on criteria used when she first entered the program (such as general attitude). There is no limit to how many loans a borrower can receive through the program, as long as she complies with the program's rules.

In late 2019, Grameen America introduced a new type of loan, the Business Expansion Loan, to help more established entrepreneurs grow their businesses. The loans are available to qualifying existing members and start at $10,000. This could be an important next step for borrowers because larger loans may make it easier for them to make the kinds of capital investments necessary to grow their businesses. There is no evidence, however, that the women in the Grameen America program group received these larger loans, at least during the three-year follow-up period captured by the study.[16]

Loan Receipt, Characteristics, and Repayment History

Program-tracking data provided by Grameen America indicate that within 36 months after entering the study, 87 percent of the women in the Grameen America group received at least one loan, and many received multiple loans over their time in the program.[17] Approximately 36 percent of women who received a loan took out at least six loans over the course of their time in the program. Table 2.1 details more information on loan receipt among the Grameen America group.

As noted earlier, after participants received a loan from Grameen America, they started repayments at the weekly center meetings. The average term of a Grameen America loan is 25 weeks, and borrowers are required to make payments on both the principal and the interest each week.[18] The Grameen America program-tracking data show that through 36 months of follow-up, loan repayment rates were high: 99 percent of women who took out at least one loan paid off their loans within 36 weeks.[19] There may be several reasons why the program has such a high repayment rate. For one, there is a built-in incentive to repay if borrowers want to obtain subsequent loans. Also, the group-lending model may serve to ensure repayment. A CM described her role in collecting payments from borrowers this way:

[16] The Grameen America program-tracking data showed that the largest loan received as of 36 months was $4,750.

[17] The program-tracking data do not describe any impact-related information.

[18] The Grameen America loan term is sometimes longer than 25 weeks. This is the case if, for example, the center meetings in which payments are collected fall on a holiday or are not held for some other reason.

[19] Quiroz-Becerra, Schaberg, Holman, and Hendra (2020).

Obviously, all of them have to make the payment of the person who did not arrive [to the meeting].... I cannot leave without [payment].... During the training, I explain that if there is an emergency, her peers have to help her pay because it was an emergency. That's why they form the group.

As noted above, lending group and center members are expected to make a payment if one of their peers cannot make theirs, with the hope of recovering it in the future. Although borrowers are individually liable for loans, interviews with program participants and observations of the program suggest that par-

Table 2.1

Loan and Repayment History Within 36 Months of Random Assignment, Among Grameen America Group Members

Outcome	Grameen America Group Members
Ever taken out a loan from Grameen America (%)	87.5
Among those with at least one loan from Grameen America	
Number of loans taken out	*3.8*
1 loan (%)	*24.5*
2 loans	*11.5*
3 loans	*10.3*
4 loans	*8.4*
5 loans	*9.5*
6-7 loans	*35.7*
Currently has an open loan (as of 36 months) (%)	*30.9*
Number of days first loan was open	*169*
Principal on first loan ($)	*1,300*
Principal on last/most recent loan[a] ($)	*2,266*
Total amount paid towards all loans[b] ($)	*7,360*
Number of loans paid off in full	*3.0*
Ever had a loan that was not paid off within 36 weeks[c] (%)	*0.7*
Sample size	1,044

SOURCE: MDRC calculations from program-tracking data provided by Grameen America.

NOTES: The data includes 36 months of follow-up for all Grameen America group members.

Italics indicate the metric is not among the full sample shown in the table.

[a]For individuals who had an open loan as of 36 months, this is the principal amount for that loan. For individuals who did not have an open loan as of 36 months, this is the principal amount for the most recent loan taken out.

[b]Total amount paid only includes payments toward the loan principal, not payments toward the loan interest.

[c]The average term of Grameen America loans is 25 weeks. Individuals who paid off their loan after week 36 are included in this measure.

ticipants believed that they were responsible for repaying the loans of those who defaulted, whether that person was part of their individual loan group or of the larger center.

Access to Financial Services

Individuals with low incomes have limited access to capital to launch enterprises that could help them support themselves financially.[20] To raise start-up funds, aspiring entrepreneurs must often rely on subprime lenders and risk having to pay high interest rates. Or they may turn to relatives or friends, potentially straining relationships. The starter loans that Grameen America offers are relatively small ($500 to $1,500) compared with business loans from commercial banks. Even so, the businesses that the women in Grameen America typically invest in are not capital-intensive operations, and the loans the program offers may be enough to get started. Borrowers also have the opportunity to obtain larger loans.

As already noted, the program provides loans at interest rates of 15 to 18 percent.[21] Other loan options are available for small businesses; however, those loans may have steep entry requirements such as a high credit score or substantial collateral, putting them out of reach of some Grameen America borrowers. Unlike commercial banks, Grameen America has relatively low barriers to entry. It does not require collateral, a guarantor, or a formal business plan, and does not ask to review the credit scores or credit histories of potential borrowers.

Women in the Grameen America group and the control group were asked whether they had taken out a loan from any lender since entering the study, how much they had borrowed to start or expand their businesses, and whether they had received loans from Grameen America. Table 2.2 presents impacts on loan receipt roughly 36 months after women joined the study. The table compares the likelihood that women in the Grameen America group received loans and other services with the likelihood that women in the control group received loans and other services. This comparison was necessary to determine whether the program effectively achieved its goals. It is also important to keep in mind that women in both groups were all interested in continuing or starting a business when they joined the study. That is, women in both groups were similarly entrepreneurial, although only those in the Grameen America group had the opportunity to obtain a loan from the program. A majority of women entering the study (73 percent) were operating a business when they enrolled in the program (as shown in Figure 2.2). As such, the research team was able to assess the difference that a small loan made in supporting entrepreneurial women. Box 2.1 explains how to read the impact tables in this report.

As expected, most women in the Grameen America group (83 percent) reported taking out at least one loan from Grameen America. Unintentionally, about 7 percent of women in the control group received

[20] Sherraden, Sanders, and Sherraden (2004).

[21] The interest rate for Grameen America loans was 15 percent through June 2016 and 18 percent thereafter. Grameen America set a 0 percent interest rate as a temporary response to the COVID-19 pandemic from April to June, 2020.

Table 2.2

Impacts on Loan Receipt at 36 Months

Outcome	Grameen America Group	Control Group	Difference (Impact)		90% Confidence Interval Lower	Upper	P-Value
Loan receipt							
Took out at least one loan from any lender (%)	84.9	21.9	63.0	***	57.5	68.4	0.000
Took out at least one loan from any lender to start or expand a business (%)	82.1	13.1	69.0	***	64.1	73.9	0.000
Currently has a loan to start or expand a business (%)	52.2	6.0	46.2	***	41.3	51.1	0.000
Average amount taken out in loans to start or expand a business ($)	4,756	378	4,378	***	3,751	5,004	0.000
Grameen America loan receipt							
Took out at least one loan from Grameen America (%)	83.4	6.5	77.0	***	72.7	81.2	0.000
Currently has a Grameen America loan (%)	49.8	3.8	46.1	***	41.1	51.0	0.000
Sample size	740	321					

SOURCE: MDRC calculations from responses to the Grameen America 36-month survey.

NOTES: Sample sizes may vary because of missing values.
Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.
All outcomes in this table are considered mediating outcomes, which are outcomes directly targeted by the Grameen America program, and help explain the mechanisms that lead to the primary outcomes.
Rounding may cause slight discrepancies in sums and differences.

a loan from Grameen America.[22] The difference in rates between the two groups is large and statistically significant and demonstrates that the implementation of the evaluation went through as planned.

Table 2.2 also shows that some women in both research groups took out at least one loan from lenders other than Grameen America. This suggests that some women in both groups had access to credit outside of the Grameen America program. Around 85 percent of women in the Grameen America group and 22 percent of women in the control group took out a loan from any lender.

In addition, women in the Grameen America group received more capital to start or expand a business than women in the control group. On average, women in the Grameen America group took out an aver-

[22] At the end of a loan cycle, any Grameen America participant can decide not to take out a subsequent loan and leave the group. When this happens, the remaining group members must find a replacement for that individual in their group before any of them can receive another loan. The evaluation team learned partway through the study enrollment period that this is how some control group members were entering the Grameen America program and getting loans. Starting in June 2016, any replacement members were randomly assigned to either be permitted to join an existing Grameen America group or to be placed in the control group. In addition to promoting fairness, this established a formal process for checking that the individuals suggested as replacements had not already been randomly assigned to the control group.

Box 2.1

How to Read the Impact Tables in This Report

Most tables in this report use a similar format, illustrated below. The table shows the loan receipt outcomes for the Grameen America group and the control group. For example, the table shows that 85 percent of Grameen America group members took out at least one loan, compared with 22 percent of control group members.

Because study participants were assigned randomly to either the Grameen America group or the control group, the effects of Grameen America can be estimated by the difference in outcomes between the two groups. The "Difference" column in the table shows the Grameen America group's loan receipt outcomes minus the control group's loan receipt outcomes—in other words, Grameen America's impact on loan receipt. For example, the impact on taking out at least one loan is calculated by subtracting 22 from 85, yielding 63 percentage points.

The "P-Value" column gives an indication of how unlikely it is that the impact arose by chance. The lower the p-value, the less likely it is that the impact arose by chance. Impacts are considered statistically significant if they have a p-value below 0.100; this means there is less than a 10 percent chance that the impact arose by chance assuming the true impact is zero. Differences marked with asterisks are statistically significant. The number of asterisks indicates whether the impact is statistically significant at the 1 percent, 5 percent, or 10 percent level (the lower the level, the more asterisks and the less likelihood that the impact was due to chance). For example, the p-value for the outcome of taking out at least one loan is 0.000. This indicates there is less than a 1 percent chance of observing an impact of 63 percentage points if Grameen America really had no effect on taking out at least one loan. Three asterisks indicate that this impact is statistically significant at the 1 percent level.

The next two columns show the 90 percent confidence interval, which is an estimate of the statistical imprecision of the effects of Grameen America. Specifically, there is a 90 percent chance that the true effect would fall within the 90 percent confidence interval. A narrower confidence interval suggests a more precise estimate than a wider confidence interval (which indicates greater variability and thus greater uncertainty). Confidence intervals in which zero does not fall between the lower and upper limits indicate that the impact estimate is significantly different from zero at the 10 percent level of statistical significance. This means there is less than a 10 percent chance this estimate would have been seen if Grameen America made no difference (this is also indicated by the asterisks).

Outcome	Grameen America Group	Control Group	Difference (Impact)	90% Confidence Interval Lower	90% Confidence Interval Upper	P-Value
Took out at least one loan (%)	84.9	21.9	63.0***	57.5	68.4	0.000
Took out at least one loan from Grameen America (%)	83.4	6.5	77.0***	72.7	81.2	0.000

SOURCE: MDRC calculations from responses to the Grameen America 36-month survey.

NOTES: Sample sizes may vary because of missing values.
Statistical significance levels are indicated as: ***=1 percent, ** = 5 percent; * = 10 percent.

age of $4,756 in business loans within 36 months of study entry, compared with women in the control group, who took out an average of $378.

These high rates of loan receipt among women in the Grameen America group, along with the large difference in the rates of loan receipt between the two research groups, indicate that the study achieved a large service contrast. This allowed the study to provide a good test of the effects of the Grameen America program relative to what would have happened without the program. Small differences between the two research groups in the rates of services received, also called "service contrasts," have been an issue in several previous studies of microfinance programs.[23]

One thing to note is that while the percentage of women in the Grameen America group who ever had a Grameen America loan (83 percent) was high, it was a decrease compared with findings from the 18-month survey, when around 88 percent of women in the Grameen America group reported having taken out at least one loan from Grameen America. After 36 months, only half of the women in the Grameen America group currently had an open Grameen America loan. This suggests that women were either not continuing in the program or were not taking out subsequent loans. There are many reasons why a borrower might choose not to continue in the program. For example, she might decide to set aside her business to take on full-time employment or to care for her children. Other women might decide a loan is unnecessary once they have achieved a desired level of business growth. Chapter 3 will further elaborate on this point.

Support Starting a Small Business

As noted earlier, before receiving a loan, potential Grameen America borrowers must take five days of training that explains the rules of the program and the terms and conditions of the loans. Aside from that, CMs offer participants no formal support during the weekly meetings. The Grameen America model assumes that borrowers have agency and a basic capacity to run a business, and, as such, the program does not formally offer business advice; this is different from some other similar programs.[24] Similarly, by bringing women together, the program assumes that borrowers can help one another with local and culturally relevant support and advice on how to run a business.

[23] Bauchet et al. (2011).

[24] Karlan (2015).

3 Starting and Growing a Small Business

The Grameen America model posits that a loan will help a small business grow and as it grows, earnings from the business will grow as well. In this way the program offers a pathway to economic advancement, less material hardship, and increased overall well-being, with better cash flow and some level of financial independence. Running a business can also offer a more flexible work environment relative to low-wage jobs. At the same time, self-employment comes with risks. Many small businesses fail or take a long time to reach sustainability.[1] Thus, one important question in this study is whether the Grameen America program increased the likelihood that borrowers started and sustained a small business, and whether the loans contributed to increased business earnings.

While the Grameen America model focuses on increasing investment in a business, it might also have an effect on wage-based employment. The program could potentially reduce wage-based employment if borrowers were able to rely on income from their businesses. At the same time, it might have no effect if borrowers continued to work for an employer and simply used their businesses to generate extra income on the side.

Sustaining a Business Over Time

When a Grameen America borrower obtains a loan, she is expected to spend the money on a small business within a few weeks of receiving it. In-depth interviews with borrowers in the program suggest that most women spent all or part of their loans as intended, to purchase inventory for a new business or to expand an existing one. At times, some borrowers also set aside money from their loans for future business expenses or other purposes, a dynamic described in more detail in Chapter 4.

Obtaining a loan and investing it in a business is just the beginning. Sustaining a business requires time, effort, and know-how. Life circumstances might alter the course of a business, particularly small ventures like the ones that most Grameen America borrowers operate.

[1] Sherraden, Sanders, and Sherraden (2004).

Take the case of Soledad, for example (Box 3.1 and Figure 3.1). She joined the Grameen America program and invested in a business making and selling homemade food to friends and family, to help pay off her credit card debt. Once her financial situation stabilized, she put aside her business and left the program. Then, she rejoined the program when her financial situation changed again, after she separated from her husband. Referring to that difficult time, Soledad said:

> I didn't have money. I had separated [from my husband]. My daughter was still in school. What could I do to pay bills?... I was not going to starve, nor was I going to let my daughter starve. So, I started to sell [homemade food] again. But to sell you must have money to invest, to purchase stuff and all that. So I decided to go back to Grameen, and I started to connect with people so I could sell my food.

To handle her new situation, Soledad combined income from her home business with a job cleaning houses.

Alejandra's story (Box 3.2 and Figure 3.2) illustrates a similar dynamic. Her husband paid most of the household expenses after their youngest child was born, while she supplemented their income with a small business that she operated from home—selling shoes from a catalogue. Then, facing a period of financial hardship, she took a full-time, wage-based job and ran several small businesses on the side. As the couple's financial situation became more stable, Alejandra reduced the time she spent in her wage-based job and also invested less time in her businesses.

Soledad's and Alejandra's stories illustrate ways in which life events can affect decisions about running a business or taking wage-based employment. One question of the study was whether the Grameen America program contributed to sustaining a business over the 36-month study period.

As shown in Table 3.1, Grameen America increased small business ownership. Roughly 36 months after study entry, a large share of the women in the Grameen America group—87 percent—reported operating at least one business, compared with 75 percent of women in the control group.[2] The 12 percentage point difference is statistically significant and noteworthy, given the high percentage of women in the control group who were operating a business.[3]

It should be reiterated that the study enrolled and randomly assigned women entrepreneurs to the Grameen America group and to the control group, and that women in both groups were similarly entrepreneurial. This might partly explain why many women in the control group continued to pursue business ventures, even without a Grameen America loan. Nonetheless, the findings are encouraging and suggest that most women in the Grameen America group not only started their own businesses but

[2] This high rate of self-employment suggests the Grameen America program is well-targeted. Other evaluations of interventions designed to promote small businesses have seen much lower rates of self-employment among program group members. For example, in the Self-Employment Investment Demonstration—which tested the feasibility of operating a program that encouraged self-employment among welfare recipients—only 25 percent of enrollees opened a business within seven months of enrollment. See Guy, Doolittle, and Fink (1991).

[3] This example shows the importance of random assignment. Without random assignment, it would likely be assumed that the control group's business ownership rate would be much lower.

Box 3.1

Soledad

When Soledad joined Grameen America, she planned to invest her loan in her homemade food business. At the time, she was selling food on the weekends and making daily meals for five students—friends of her son—during the week. Occasionally, she prepared food for social gatherings and house parties. Soledad had experience in the food business. Back in her country of origin, she had studied to be a cook, and she had helped run a restaurant in Asia when she lived there for a time.

Soledad had originally started her business in her New Jersey neighborhood to help pay back the money she owed on her credit cards. A self-described compulsive buyer, Soledad had overspent and racked up a lot of debt. So in addition to selling food, she started other ventures to pay off her bills as fast as she could. She bought purses from a friend who worked for a manufacturer and sold them in the neighborhood. She also sold jeans and girdles on consignment in another friend's store and picked up the money from the sales once a week.

Soledad lived with her husband and her teenage daughter in a rental apartment. Her husband paid for most of the household expenses with wages from his factory job and with money he made delivering newspapers. Soledad contributed as well, but most of what she earned went to paying off the credit cards. It would take the couple seven years to start to dig out of their financial hole.

When Soledad got her first loan from Grameen America, her goal was to build up her food business so she and her husband could pay off the last of their debts and start to rebuild their credit rating. She hoped to hire someone who could help her prepare the food that she sold at house parties. Still, she didn't see herself turning that business into a restaurant one day. Her earlier experience in that business had taught her how labor intensive it was. Instead, she had another venture in mind: She wanted to open an Herbalife nutrition club. Her large circle of friends and acquaintances, she thought, would give her a foothold in that new enterprise, just as it had helped her sell her food.

After about two years, Soledad financial situation had improved. She no longer needed the extra income from her businesses and could rely on her husband's income alone. So she left the Grameen America program. She no longer needed the loans. That all changed a year and a half later, when she and her husband separated. "When he left, then I restarted [my business]. I was left with nothing," she said in an interview. "I went back to Grameen to be able to invest money and sell food, to buy beer and organize parties where I could sell food and drinks, you know. That's why I returned to Grameen."

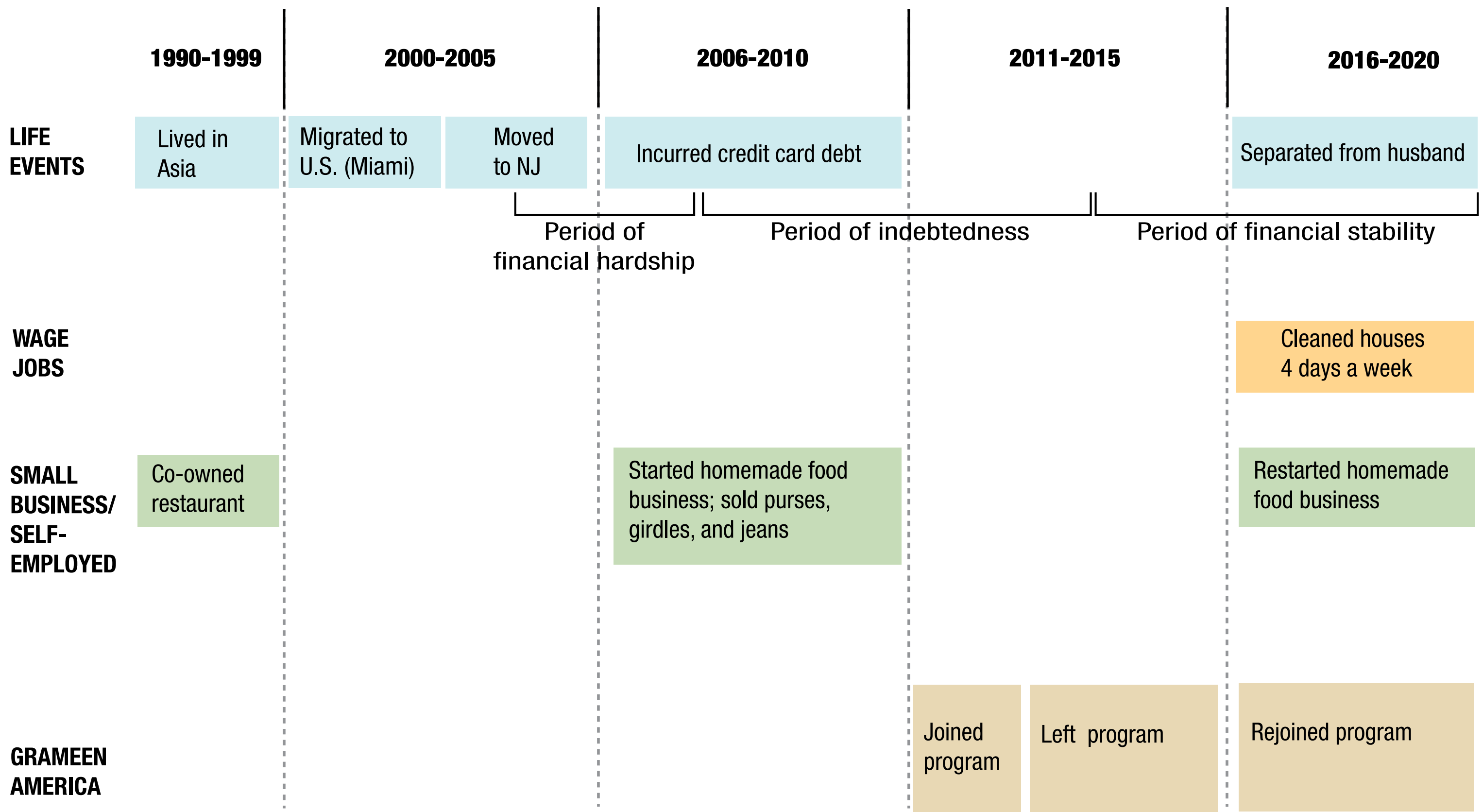
Soledad started cooking again. Just as before, she sold her food on the weekends and catered special occasions. Once a month, she organized social gatherings at her home for friends and acquaintances, where she sold food and beer. She also cleaned houses four days a week. Her daughter started working while attending college and started making regular contributions to help pay the household expenses. Once again, Soledad's circumstances had changed and so had her views of her business. She was considering the possibility of opening a small restaurant. She knew it would require a sizable investment.

continued to operate them 36 months after enrolling in the study.[4] It also suggests that in the absence of the program, fewer women might have been able to start their own businesses or to be able to sustain them over time.

[4] The business ownership rates for both research groups at 36 months were lower than the rates observed in the 18-month survey. At that time, 94 percent of Grameen America group members and 75 percent of control group members reported operating their own business. One important question for future research is the life span of small businesses and whether the Grameen America program can help women sustain their businesses over a long period of time.

Figure 3.1

Soledad



Box 3.2

Alejandra

Alejandra grew up in a rural area in South America. As a young woman, she dreamed of going to college and getting a degree in biology. She decided to migrate to New York City where her mother lived, to work and save up money to pay for college. But things didn't turn out as she had planned. Shortly after arriving, Alejandra started working two jobs—at a bakery and in a restaurant. Part of her salary went to supporting her siblings back home and she covered her monthly expenses with the rest. She applied to a local community college but ultimately couldn't attend because she couldn't afford the tuition. She continued working the two jobs and sending remittances to her siblings.

Eventually, Alejandra married and had a child. Her husband worked construction, and Alejandra continued working in the restaurant and the bakery. She also started a business selling shoes from a catalog. She and her husband shared some household expenses with two of his relatives who lived with them. When her second child was born, Alejandra quit working her two jobs, but continued selling shoes. She also started taking care of other people's children in her home.

Then, Alejandra and her family decided to move to New Jersey. At first, she tried to continue selling shoes and started building her clientele in the new location, but the business sputtered out. She didn't know many people in her new neighborhood and she was competing with lower prices at the nearby outlet stores.

Then life took a difficult turn. Her husband was arrested and detained. Suddenly, Alejandra was the sole provider for her children. The two relatives who lived with her stepped up to help pay the rent and other expenses. Her sister also sent money when she could. Alejandra took a full-time job at a cleaning company. She also made tamales and other homemade food on the weekends to sell in the neighborhood and continued to care for children in her home whenever she could to supplement her income.

After two years in detention, her husband was released. The couple had borrowed money from friends and family to help pay for bail and legal fees, and they'd wound up with a debt of about $10,000. Her husband went back to work at a construction company and Alejandra continued working for the cleaning company. Not long after, she was laid off. She looked for another job but couldn't find one with a schedule that allowed her to take care of her children.

Then, a neighbor invited her to sell Herbalife products. Alejandra invested $1,000 of her own money to get started. Her neighbor also told her about Grameen America, and Alejandra decided to join the program so she could get a loan and invest in her business. She partnered with her neighbor to open up a storefront. Mornings she sold Herbalife products there, and afternoons she spent taking care of her kids at home. The storefront venture didn't last long, however. The two partners had to close because of problems with the landlord. Alejandra continued selling Herbalife on her own to a handful of clients. She also went back to work at the cleaning company. This time, however, she only worked part-time.

Alejandra's household income fluctuated every month; her work hours changed from week to week, as did her husband's, and so did their earnings. Still, Alejandra and her husband were paying back their debt. Her husband had a credit card with a $500 credit limit, and Alejandra had a bank card account that she deposited money in and then used like a credit card. She said that one of the things that had attracted her to Grameen America was the possibility of building a credit history, and that was starting to happen.

Two years after joining Grameen America, Alejandra and her family decided to move to a new apartment. By that time, she and her husband had paid off their debt. She had also built a more solid credit history. She had received a preapproval letter from a credit card company, which she saw as proof that she was building a credit history. And although it was challenging to find a new apartment, it was easier to find one this time around because she had a credit score; the landlord made it easy for the couple to sign the lease.

(continued)

Box 3.2 (continued)

Their new apartment was more expensive than the old one, though, and so were other expenses like utility bills. So Alejandra chose to go back to full-time work at the cleaning company. Increasing her wage-based employment gave her a steadier income month to month and allowed her to meet her financial obligations. But it also meant she didn't have time to dedicate to her Herbalife business, and she stopped participating in the Grameen America program. No longer able to rely on extra income from Herbalife sales and without access to a Grameen America loan, Alejandra looked for other ways to save money for a rainy day fund and decided to join a rotating savings group.

Impacts of Grameen America on the Characteristics of Small Businesses

Soledad relied on her extended social network to sell the food she prepared at home. During the week she would call friends and acquaintances to let them know she was making a special dish for the weekend and took orders. Soledad's business was like those of many women who participated in the MDRC study. Interviews with program participants suggest that most of their businesses were small, home-operated enterprises with a small customer base—primarily family, friends, and acquaintances. (Grameen America does not provide guidance on or limit the types of businesses borrowers can operate; instead, borrowers make that choice themselves.)

Table 3.1 shows the types of businesses operated by all women enrolled in the study 36 months after study entry.[5] Among women in the Grameen America group, 31 percent operated a cosmetics business; 25 percent operated a clothing, shoes, or accessory business; 18 percent operated an herbal and natural medicine product business; and 18 percent operated a jewelry business. These were also some of the most common types of businesses operated by women in the control group, in addition to, for example, food businesses.

Another way to break out the types of businesses that women in the study were operating is by business model. Some women used the direct-selling/multilevel marketing model (MLM), as described in Box 3.3. Grameen America increased the rate of women operating a direct-selling/MLM business: 36 percent of women in the Grameen America group and 26 percent of those in the control group reported operating a direct-selling/MLM business about 36 months after study entry. As noted earlier, Grameen America increased overall business ownership. Thus, much of the increase in business ownership at 36 months appears to have been driven by operating direct-selling/MLM businesses.

Impact of Grameen America on Business Profitability

Investing in a small business is a key step, but not the only step, toward increasing a borrower's income and financial well-being; her business must also be profitable. That is, the amount of money brought in by the business (the revenue) must exceed the amount of money spent to operate it (the

[5] These outcomes are not directly included in Grameen America's theory of change. Therefore, in this study, they are considered secondary outcomes.

Figure 3.2
Alejandra

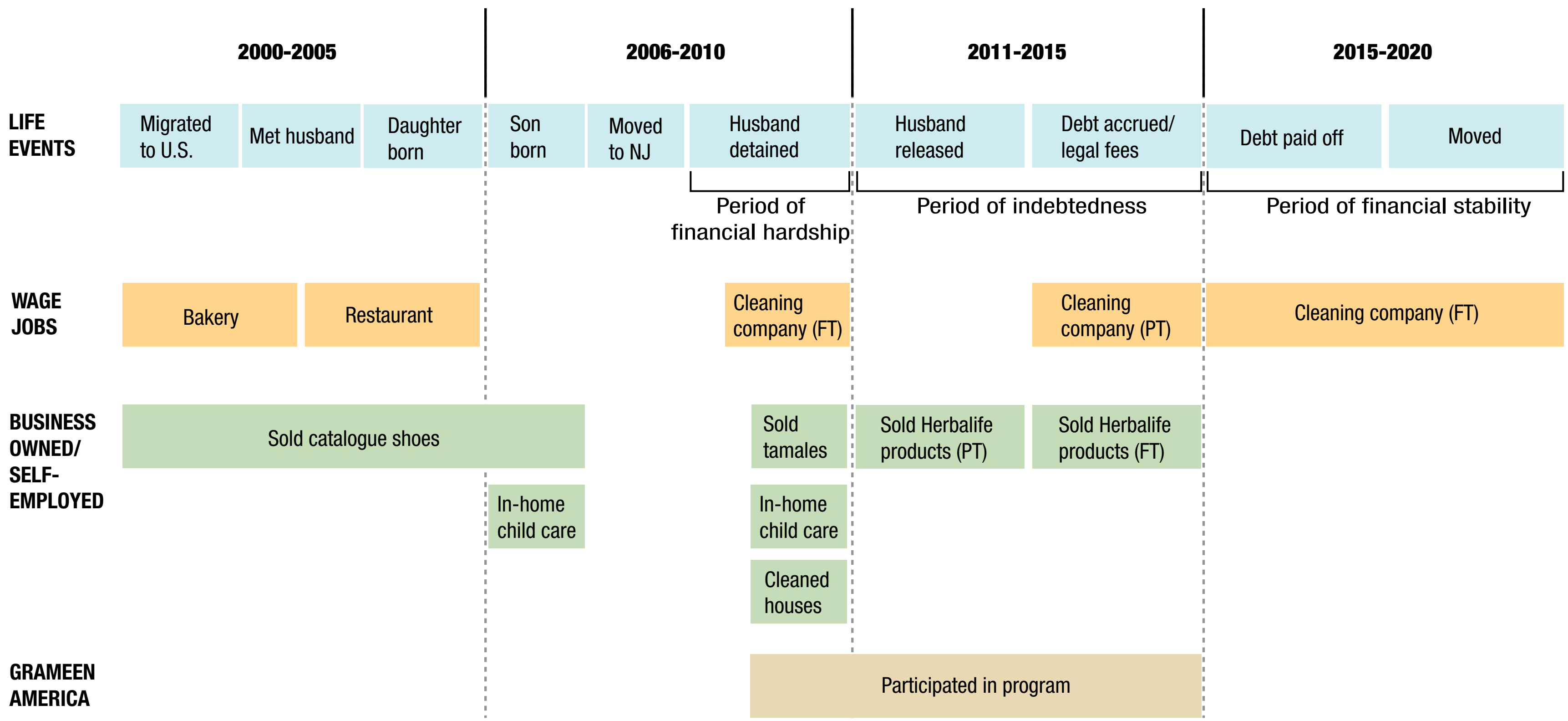


Table 3.1

Impacts on Self-Employment at 36 Months

Outcome	Grameen America Group	Control Group	Difference (Impact)	90% Confidence Interval Lower	90% Confidence Interval Upper	P-Value
Mediating outcomes						
Currently operates at least one business (%)	86.5	74.8	11.7***	7.1	16.3	0.000
Average monthly earnings from own business(es)[a] ($)	483	356	127*	5	249	0.086
Secondary outcomes						
Currently operates a direct-selling or multilevel marketing business (%)	36.4	25.7	10.7***	5.1	16.3	0.002
Business type, among those operating own business:						
Food	*13.0*	*17.1*				
Cosmetics	*30.9*	*34.7*				
Jewelry	*18.4*	*10.2*				
Clothing/shoes/accessories	*24.8*	*17.7*				
Salon/spa services	*12.8*	*11.0*				
Herbal/natural medicine products	*18.4*	*13.5*				
Home decor	*5.6*	*5.7*				
Cleaning	*9.6*	*10.1*				
Child care	*8.3*	*12.0*				
Laundry services	*0.5*	*-0.1*				
Transportation	*1.5*	*0.8*				
Other	*8.1*	*5.0*				
Average monthly earnings from own business(es) are $750 or more (%)	27.1	21.7	5.4*	0.2	10.5	0.085
Average monthly revenue from own business(es) ($)	1,641	1,086	555***	329	781	0.000
Average monthly expenses from own business(es) ($)	1,156	731	425***	259	592	0.000
Average number of hours worked at own business(es) in prior week	19.5	14.5	5.0***	3.2	6.8	0.000
Has any paid employees at own business(es) (%)	20.2	14.3	5.9**	1.3	10.4	0.033
Sample size	740	321				

SOURCE: MDRC calculations from responses to the Grameen America 36-month survey.

NOTES: Outcomes shown in italics are nonexperimental. Statistical significance tests are not conducted on nonexperimental outcomes.

Sample sizes may vary because of missing values.

Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

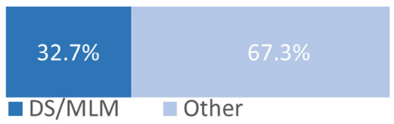
Rounding may cause slight discrepancies in sums and differences.

[a]Average monthly earnings are calculated as monthly business revenue minus monthly business expenses.

Box 3.3

Direct-Selling and Multilevel Marketing Business Models

Grameen America offers women entrepreneurs loans to start or grow a small business. Borrowers, however, decide on their own what type of business they wish to start or invest in. Businesses of special interest in this study are those that use a direct-selling or multilevel marketing (MLM) model. In the direct-selling model, individuals (often called "distributors") sell products directly to consumers in a nonretail environment such as their homes. MLM models also allow individuals to sell products directly; in addition, MLMs offer individuals the opportunity to derive income from recruiting other distributors. In this report, the interest in these models comes, in part, from the fact that at the time the participants enrolled in the Grameen America study, nearly a third of them were operating or intended to invest in a direct-selling/MLM type of business.



Women in the study who were operating or intending to operate a direct-selling/MLM business at study entry

MLM companies have come under scrutiny in the media and in the courts. Some investigations have raised concerns about the marginal profitability of these businesses for the majority of distributors.[*] Others have raised ethical questions about MLMs and noted the potential for the model to devolve into pyramid schemes.[†] While the current study was not intended to evaluate MLMs as such, it is concerned with assessing whether women in the study who planned to operate these types of businesses fared differently from the women who planned to operate other types of ventures. Therefore, one of the research subgroups is defined as whether or not women were operating or planned to operate a direct-selling/MLM business when they entered the study. Findings for this subgroup are presented in this chapter.

Direct-Selling and Multilevel Marketing Models

Direct-selling emerged in the 20th century as a new model of retail sales, with people selling regionally or nationally branded products door-to-door—essentially replacing 19th-century peddlers. Direct sales companies usually hired regional managers to recruit and train the door-to-door salespeople, who in turn earned a commission on each sale. Regional managers were also often compensated based on the sales made by the salesforce in their region. Companies like Avon and the Fuller Brush Company adopted this kind of model.[‡]

In the 1940s, the MLM model, similar to the direct-selling model, emerged. While both rely on selling to one's social network, in the MLM model, distributors can also recruit and train other distributors. An individual can earn by directly selling products to her own customers and by selling products to other distributors (who then sell the products to their customers). An individual can also earn company compensation from personal purchases of inventory as well as from her distributors' personal purchases of inventory. Companies such as Herbalife and Mary Kay follow the MLM model.

Unlike in traditional retail, direct-selling and MLM business owners can neither adjust the selling price of the company's products nor control or shape the product marketing; these are both set by the company. Also, distributors cannot seek out lower-cost vendors or higher-quality merchandise.

While many companies use the MLM model, academics and others have raised a variety of concerns about its effectiveness. For one thing, distributors' reliance on their personal social networks to sell the products can quickly result in a saturated market. At the same time, the ability to recruit new distributors through one's social network is reduced over time as personal networks reach their limit. Further, without clear information from a company about where other distributors are located, distributors may face heightened competition in an area, which may reduce the potential profitability of the business.

(continued)

Box 3.3 (continued)

Another concern is the potential for "inventory loading," in which a company offers distributors bonuses or other compensation for meeting volume targets—that is, by purchasing a certain amount of inventory each month. This may create a built-in incentive for distributors to purchase inventory to meet the targets rather than to satisfy actual customer demand, potentially leaving them with more merchandise than they can sell.[§] This can result in financial losses for the distributors as they are unable to make back the money that was spent purchasing the inventory. To address this, some companies have buyback policies. The company buys back unsold inventory or requires that the inventory purchased must be sold within a given amount of time, to avoid inventory loading.[||]

Other critics have questioned whether products in MLMs are actually being sold to customers outside the network of distributors, or just inside the network itself by distributors purchasing inventory. Finally, critics point to the potential for pyramid schemes, in which a distributor receives compensation primarily from recruiting new distributors, instead of from sales. This type of scheme requires a "perpetual recruitment chain in which the design of the scheme's compensation plan dooms the vast majority of participants to financial failure."[#] Pyramid schemes are illegal in the United States. Some companies that use an MLM model have made provisions to reduce incentives based solely on recruitment.

[*] Alpert, Bill (2012).
[†] Muncy (2004); Keep and Vander Nat (2014).
[‡] Keep and Vander Nat (2014).
[§] Federal Trade Commission (2018).
[||] For a cautionary note on buyback policies, see Croft, Cutts, and Mould (2000).
[#] Keep and Vander Nat (2014).

expenses).[6] Also, for the purposes of the study, the earnings from borrowers' businesses (the income or profit after expenses) had to be higher than the amount they could have earned if they had not joined the Grameen America program. Table 3.1 shows that Grameen America increased both monthly business revenue (by $555) and monthly business expenses (by $425). And because the program increased business revenue by a greater amount than it increased business expenses, the program increased average monthly earnings from a small business. Women in the Grameen America group earned $483, on average, from their businesses in the prior month, while women in the control group earned an average of $356.[7] The 36 percent increase of $127 is statistically significant. Grameen America group members were also more likely than control group members to have average monthly earnings from a business of more than $750 (27 percent of women in the Grameen America group compared with 22 percent of women in the control group).

Table 3.1 also shows the average number of hours that women in the study spent working on their businesses. On average, women in the Grameen America group said that they worked 20 hours a week on their businesses, compared with 15 hours a week for the women in the control group. This five-hour dif-

[6] Expenses include any interest or fees paid on business loans, including loans from Grameen America. The loan principal is not included in revenue, and repayments of the loan principal are not included in expenses.

[7] Survey respondents were asked how much they earned from each of their businesses in the prior month (their revenue) and how much they spent on each business in the prior month (their expenses). Average monthly earnings from a business were then calculated as business revenue minus business expenses. Both of these averages factor in zero dollars in earnings for women who did not have any business income in the prior month, either because they did not have a business or because the one they had did not produce any income.

ference is statistically significant. Finally, more women in the Grameen America group had paid employees than women in the control group (20 percent compared with 14 percent, respectively). This difference is statistically significant.

It is worth noting that the same percentage of women in the Grameen America group at 36 months and at 18 months had paid employees (20 percent, not shown). However, fewer women in the control group had paid employees at 36 months (14 percent) compared with the control group at 18 months (17 percent). The difference is not statistically significant. This could suggest that the businesses of women in the control group were growing at a slower pace compared with businesses of women in the Grameen America group and were less likely to support paid employees.

Wage Employment

The study examines whether devoting more time to a business led to less involvement in wage-based employment, and the potential trade-offs of this strategy. The Grameen America program could have no effect if borrowers continued to work for an employer and simply used their businesses to generate extra income on the side. On the other hand, the program could potentially reduce wage-based employment if borrowers were able to rely more on income from their businesses. At the same time, Soledad and Alejandra's life experiences show how circumstances such as the birth of a child, separation from a husband, or other family circumstances informed decisions about how much time to devote to a business or wage-based employment.

So, what effect did Grameen America have on wage-based employment? When the research team surveyed women at 18 months after entering the study, the data suggested that participation in the program led to decreased participation in wage-based employment for women in the Grameen America group.[8] They had either not started working a wage-based job or had stopped working one, temporarily or permanently. However, data from the 36-month survey suggest that for many participants, not having a wage-based job may have been temporary: The Grameen America program did not have a statistically significant effect on wage-based employment at 36 months after study entry. As shown in Table 3.2, 49 percent of women in the Grameen America group reported working for an employer around 36 months after they entered the study, compared with 48 percent of women in the control group. This could suggest that some women chose to switch out of self-employment or to supplement their income with wage-based earnings.

Were there trade-offs associated with focusing more on wage employment in this way? What was the program's impact on earnings from a job? Did wage-based employment provide higher earnings than other alternatives, such as operating a business?

To help answer those questions, the team examined monthly earnings from wage-based employment. As shown in Table 3.2, average monthly earnings from waged-based work for women in the Grameen America group ($876) were similar to those for women in the control group ($897). The difference ($21) is not statistically significant.

[8] Eighteen months after entering the study, 45 percent of women in the Grameen America group reported working a wage-based job compared with 52 percent of those in the control group.

Table 3.2

Impacts on Wage-Based Employment and Earnings at 36 Months

Outcome	Grameen America Group	Control Group	Difference (Impact)	90% Confidence Interval Lower	90% Confidence Interval Upper	P-Value
Secondary outcomes						
Currently works for an employer (%)	49.3	48.4	0.9	-5.1	6.9	0.808
Average number of jobs currently working	0.5	0.5	0.0	-0.1	0.1	0.988
Average hourly wage at current job, among those currently employed[a] ($)	*14.56*	*13.10*				
Average monthly earnings at current job(s) ($)	876	897	-21	-148	105	0.783
Average monthly earnings at current job(s) are at least $1,250 (%)	35.5	34.4	1.2	-3.9	6.3	0.704
Average number of hours worked per week at current job(s)	16.2	17.0	-0.8	-3.0	1.5	0.572
Sample size	740	321				

SOURCE: MDRC calculations from responses to the Grameen America 36-month survey.

NOTES: Outcomes shown in italics are nonexperimental. Statistical significance tests are not conducted on nonexperimental outcomes.

Sample sizes may vary because of missing values.

Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Rounding may cause slight discrepancies in sums and differences.

[a]For sample members currently employed at more than one job, the hourly wage at the job they earned the most was used.

Choosing to operate a business or to take a wage-based job could affect other outcomes. Qualitatively, the case studies suggest that women who had wage-based employment valued having a steady source of income, even if it came from a low-wage job that had to be supplemented with income from other sources, such as operating a small business. Referring to her decision to run her business on a part-time basis, Alejandra said:

> If you devote time to a business ... in a year, you can see good profits.... But right now, I cannot do it.... I cannot leave my job now and devote myself to my business. I know I would make money, but I would have to spend too much time in it.... And my job guarantees me a salary compared to running a business.... I run my business part-time because I can have some money for anything I need.... But leaving my job and devoting myself to the business, I'm not there yet.

While the wage-based jobs that women in the case studies had tended to offer a limited set of benefits, such as paid sick leave or vacation time, those benefits were valued, as was the steady source of income—something that operating a small business might not always provide.[9]

The case studies also reflect the changing role that businesses may have played in these entrepreneurs' economic lives. That is, at one point in time a borrower may have seen her business as her main source of income and invested time and effort to help expand it. At another point in time, her business may have supplemented wages from a wage-based job and thus she may not have felt the need to invest as much time or money in it. This is noteworthy, because in evaluating the Grameen America program, the fact that a business didn't grow might not be an indication that the program had no impact. Rather, it might reflect the changing roles that borrowers assigned to their businesses and how that fit within a wider portfolio of financial strategies over time. Chapter 6 discusses this in more detail.

[9] The 36-month survey did not ask about employer-provided benefits or any other trade-offs associated with abandoning wage-based employment in order to operate a business.

4

Impact of Grameen America on Net Income and Material Hardship

When Isabel joined Grameen America, she worked as a hairdresser at a salon six days a week, cleaned houses when she wasn't working at the salon, and sold beauty products on the side. Operating a small business was one of several strategies she used to meet her financial obligations. "[I started selling] to be able to make a bit more money, to solve my financial problems," Isabel said in an interview. "I had to do something else [besides my job]."

Isabel's life experiences, described further in Box 4.1 and depicted in Figure 4.1, echo those of other women interviewed for this study, and similar circumstances are well documented in the literature: Households with low incomes often draw on multiple sources to make ends meet. Researchers have also noted the value of small loans for households coping with income volatility, even if overall income does not increase. Households that routinely experience such volatility or face unexpected expenses can take advantage of such loans to cope with financial instability.[1]

Could access to a Grameen America loan to invest in a small business help Isabel increase her income? And more broadly, could such loans help alleviate the economic hardships and instability that she and other women who experience similar circumstances regularly endure? This chapter examines the impact Grameen America had on increasing borrowers' net income and reducing material hardship—the two main goals of the program. (See Box 4.2 for more about estimating impacts on these primary measures.)

Net Income

Around 36 months into the study, Grameen America and control group members were asked about their net income in the prior month. For the Grameen America evaluation, net income was defined as earnings from any businesses the women operated (minus business expenses) combined with earnings from wage-based jobs and income from other activities, such as renting out

[1] Collins, Morduch, Rutherford, and Ruthven (2009); Cull and Morduch (2017).

Box 4.1

Isabel

When Isabel migrated from the Caribbean to the United States, after she and her first husband divorced, she brought with her the entrepreneurial skills she had first learned when she was13 years old, selling Avon products to her neighbors. In the States, Isabel started working at a salon and once again sold Avon products on the side. She moved up in her job—starting as a pedicurist and manicurist and then becoming a hairstylist—and split her earnings with the owner 50/50.

Isabel decided to start selling a new line of beauty products to her friends and clients. By then, Isabel had remarried, and her husband helped her with the money she needed to invest in her beauty business. Once a week, when she was not working at the salon, she also had a job as a housecleaner in a nearby apartment building.

Isabel worked at the salon six days a week, but her schedule varied from day to day, depending on how many appointments she had booked with her regular clients plus the occasional drop-in customer. This meant that her wages varied as well. To make up the difference, she would adjust the hours she devoted to her beauty business. It was around this time that she joined Grameen America and took out a loan to buy more beauty products. In the future, she hoped to open up her own salon.

After about two years, Isabel was still working at the salon and operating her side business selling beauty products. She had also purchased a salon chair and hair dryers so she could see clients in her home. She was still in the Grameen America program, but she thought it was time to take a break. Though she appreciated the loan she had received, she thought that the weekly meetings took time away from her business. She had also increased the number of houses she was cleaning each week. Sometimes she even needed extra help.

She hadn't stopped dreaming about owning her own salon, and had already gotten her license, which she considered an important first step. She calculated that it would take about $25,000 to open the business. However, as a relatively recent immigrant, she didn't think she could get a loan for that amount.

Fast forward another two more years. Isabel was working at a different salon, where she kept a larger share of her earnings—70 percent. And this owner allowed her to display and sell her beauty products right there on-site. So she went back to Grameen America and got another loan to invest in more products to sell. Meanwhile, she had stopped seeing clients in her home. She had moved to a different apartment and there wasn't a separate space to see her clients. So she brought these clients to her new job.

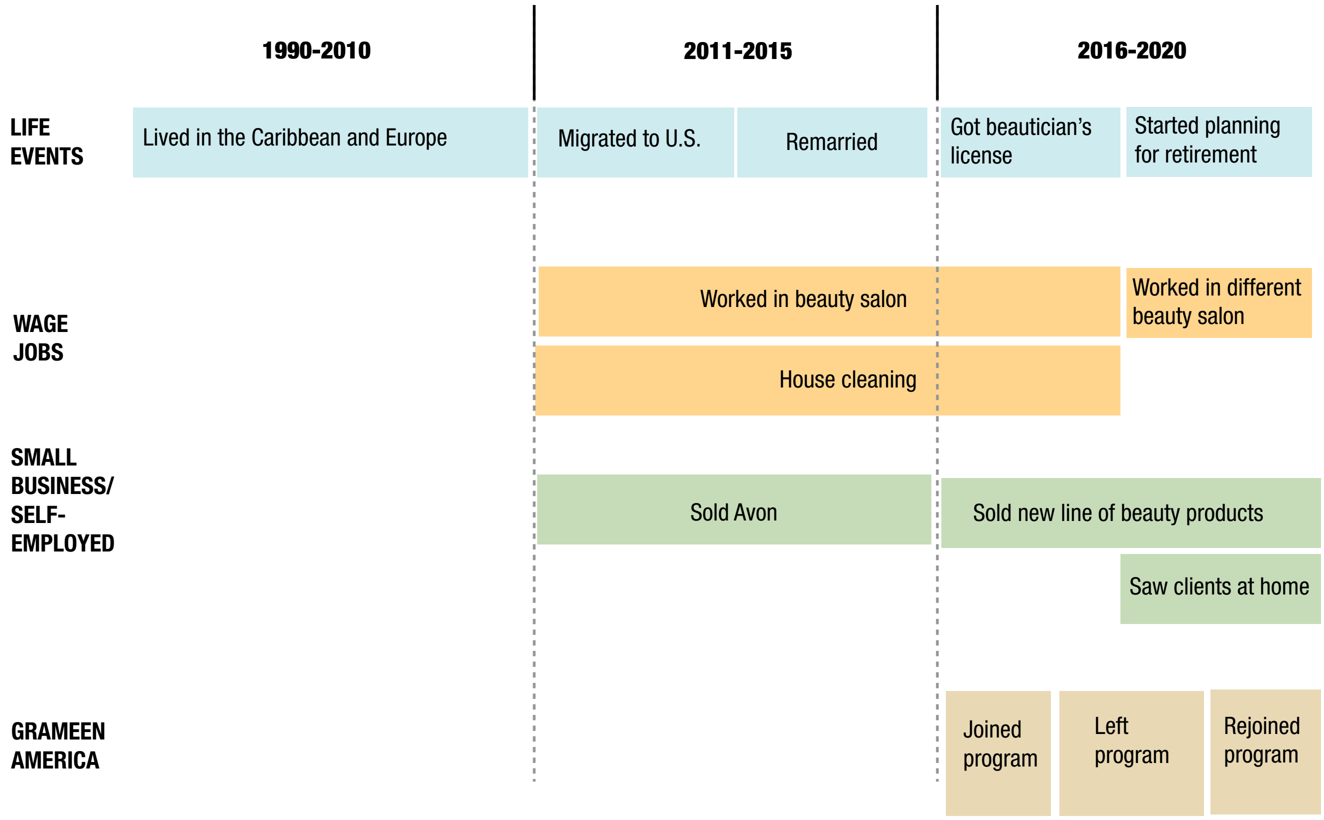
By now, Isabel and her husband were making plans for their retirement, and her dream of opening a beauty salon had faded. Instead, the focus was on the house they were building in the Caribbean. She wanted to be close to family once she retired.

a room or caring for children in their homes.[2] (Box 4.3 discusses an alternative measure of income not used in this study).

Table 4.1 shows the effect that Grameen America had on average net income in the prior month, one of the study's two primary outcomes. Women in the Grameen America group reported having an average net income of $1,485, compared with $1,312 for women in the control group. The 13 percent increase is positive and just below the threshold for statistical significance (p-value = .101). It was due, in part, to women in the Grameen America group having higher average earnings from their businesses compared with women in the control group. Earnings from wage-based employment were similar for the two groups.

[2] Income from these activities was captured as average income from other income-generating activities, as shown in Table 4.1.

Figure 4.1
Isabel



While the impact on average net income was just below the threshold for statistical significance, there was a statistically significant effect on the likelihood of having a total net income of $1,800 or more in the prior month. Thirty-six percent of women in the Grameen America group had an average net income of at least $1,800 in the prior month, compared with 30 percent of women in the control group. Overall, with this finding and the borderline p-value on net income, the weight of the evidence suggests that Grameen America probably had a positive effect on net income.

It should also be noted, however, that the total number of hours study participants worked (for their own businesses and for employers) was higher for the Grameen America group. Women in this group worked 36 hours per week, on average, compared with 32 hours for women in the control group. Thus, the effective hourly earnings for the Grameen America group were $8.90 compared with $9.33 for the control group; this difference is not statistically significant.

To better understand the impact of Grameen America on net income, it is important to consider how net income changed for women in both the Grameen America group and control group over time. Chapter 6 discusses how net income, as well as the earnings components that make up net income, changed over the course of three years.

Box 4.2
Impacts on Primary Outcomes at 36 Months

In recent years, the issue of multiple test bias has become more prominent in the academic literature and the field of program evaluation. Every time an impact on an outcome is estimated, there is a precisely defined probability (conventionally, 10 percent in studies such as the Grameen America evaluation) of concluding that a program had an impact when the observed difference is simply due to chance. Since researchers typically examine many outcomes, the probability that at least one estimate will be statistically significant, simply by chance, can get very high.

One approach to this problem is to conduct fewer impact estimates and to state in advance which tests will be conducted.†

The research team followed this approach, specifying two measures in the analysis planning phase—average net income (gross earnings minus expenses) in the prior month and number of types of material hardships experienced in the past year—as the most likely to be affected if the program were successful. Impact estimates on these measures were subjected to the Benjamini-Hochberg procedure, a tool used to control the false discovery rate.

Statistically significant impacts on these "primary" measures represent the highest level of evidence of the success of the programs with the available amount of follow-up data. If the program did not pass the confirmatory test but produced statistically significant impacts on other measures, it does not mean that the program was unsuccessful. It simply means that the program passed a lower standard of evidence, given the available amount of follow-up data.

The table below shows that the average net income in the prior month for the Grameen America group was $1,485, while the control group's income was $1,312; the difference was not statistically significant. However, the Grameen America group experienced an average of 0.9 types of material hardships in the past year, compared with 1.1 material hardships for the control group, a statistically significant increase; the impact on material hardship was still statistically significant after using the Benjamini-Hochberg procedure. The table displays the p-values before and after the adjustment.

Outcome (%)	Grameen America Group	Control Group	Difference (Impact)		P-Value	BH-Adjusted P-Value
Average net income in prior month ($)	1,485	1,312	172		0.101	—
Number of types of material hardships experienced in the last 12 months	0.9	1.1	-0.2	**	0.049	0.098
Sample Size	740	321				

SOURCE: MDRC calculations from responses to the Grameen America 18-month survey.

NOTES: BH = Benjamini-Hochberg.
Sample sizes may vary because of missing values.
Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

† Olken (2015).

Household Income

The life histories of the women presented in this report reflect the importance of the entire household's income for economic well-being. Alejandra, for example, as described in Chapter 3, shared expenses with two of her husband's relatives, who stepped in to make up for some of the lost income when her husband was in detention.

Box 4.3

An Alternative Measure of Income

There are different ways of measuring income. This study uses net income to determine whether the Grameen America program achieved its goal of improving economic well-being and eventually contributed to alleviating poverty. This measure includes earnings from a business (after deducting expenses), earnings from a job, and income from other sources. Net income is an appropriate measure for assessing poverty reduction because it is the amount of money a person brings home.

An alternative way of measuring income is by looking at gross income. This measure includes the same income sources but does not subtract business expenses. This way of measuring income emphasizes cash flow available to the household rather than take-home money. Using a gross income measure, the study found that women in the Grameen America group reported average gross income of $2,608 in the prior month, compared with $2,042 reported by the control group. The difference is statistically significant. While this measure has some benefits from an accounting perspective, it is important to recognize that it does not reflect the amount of money available to the household to pay for expenses or to save for the future (since some of the money has been used for business expenses). The net income measure in the report was used because it provides a bottom-line measure of the income available to households to use for these purposes.

The study sought to understand whether the Grameen America program had spillover effects on borrowers' total household incomes. If the program increased a borrower's income, other members of her household might alter their own financial behavior. For example, some might reduce the hours they worked if the household could instead rely on the borrower's income from a small business. In addition, increases in a borrower's income might also affect her households' eligibility for public benefits, including food stamps/Supplemental Nutrition Assistance Program (SNAP) benefits and welfare/cash assistance. Most of these public benefit programs have income eligibility requirements, asset limits, or other requirements, meaning one member in the household could receive services, but not another.

At about 36 months after study entry, women in the study were asked about their total household income in the prior month, which could include any income from study participants combined with earnings from other members of their households and any income from public benefit programs. Table 4.1 shows that the Grameen America program did not have a statistically significant effect on total household income in the prior month. The total household income of women in the Grameen America group was, on average, $3,303, compared with $3,147 for women in the control group; it appears that some of the increases in participants' net income were offset by reductions in income from other members of the household. However, the program's effect on earnings from other members of participants' households was not statistically significant.

Table 4.1 also shows that the Grameen America program did not have a statistically significant effect on the likelihood of anyone in the study participants' households receiving public benefits. Around 60 percent of women in the Grameen America group and 55 percent of women in the control group reported that they or someone in their household received any type of public benefits. This may relate to the lack of a statistically significant effect on total household income. That is, households that did not see their overall income increase would not see a change in their eligibility for public benefits that set a bar based on income levels. The most common types of public benefits that households in both groups received

Table 4.1

Impacts on Income, Employment Status, and Benefits at 36 Months

Outcome	Grameen America Group	Control Group	Difference (Impact)	90% Confidence Interval Lower	90% Confidence Interval Upper	P-Value
Primary outcome						
Average net income in prior month[a] ($)	1,485	1,312	172	0	345	0.101
Secondary outcomes						
Operates own business and works for an employer (%)	39.4	28.5	10.9***	5.4	16.4	0.001
Operates own business and does not work for an employer (%)	46.8	45.7	1.0	-5.2	7.3	0.783
Does not operate own business and works for an employer (%)	9.6	19.4	-9.8***	-13.6	-6.0	0.000
Does not operate own business and does not work for an employer (%)	3.9	5.7	-1.8	-4.3	0.7	0.237
Average total number of hours worked per week at own business and for an employer	35.8	31.7	4.1***	1.6	6.5	0.007
Income						
Average net income in prior month was $1,800 or more (%)	36.0	29.8	6.3*	0.9	11.6	0.054
Average income from other income generating activities ($)	77	49	28	-13	70	0.260
Average total earnings for other household members in prior month[b] ($)	1,558	1,610	-52	-360	255	0.779
Average total household income in prior month ($)	3,303	3,147	157	-245	559	0.520
Average gross earnings in prior month ($)	2,608	2,042	566***	320	812	0.000
Benefits						
Has health insurance (%)	42.5	44.5	-2.0	-8.3	4.3	0.597
Respondent or their live-in partner or spouse has a retirement plan (%)	10.7	14.0	-3.3	-7.0	0.4	0.144
Household receives any public benefits[c] (%)	60.3	55.4	4.9	-1.2	11.0	0.186
Sample size	740	321				

SOURCE: MDRC calculations from responses to the Grameen America 36-month survey.

NOTES: Sample sizes may vary because of missing values.
Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.
Rounding may cause slight discrepancies in sums and differences.
[a]Net income includes earnings from respondent's business(es) (minus business expenses), wage employment, and income from other sources.
[b]Other household members include the respondent's spouse or partner and any other individuals who live with the respondent, including children under 19 and other non-family adults.
[c]Public benefits include food stamps/Supplemental Nutrition Assistance Program; welfare/cash assistance; unemployment insurance; Social Security Income; Social Security Disability Income; housing assistance; Medicaid/New Jersey Family Care; and Women, Infants, and Children benefits.

were Medicaid or New Jersey FamilyCare (49 percent), food stamps/SNAP (27 percent), and the Special Supplemental Nutrition Program for Women, Infants, and Children (16 percent). One household member may have been the beneficiary of some of these benefits. For example, sometimes children are eligible for Medicaid even if parents are not. As such, the reported public benefits may not have covered every person in the household.

Experiences of Material Hardship

The evaluation sought to understand whether the Grameen America program contributed to reducing the material hardship experienced by Grameen America group members relative to control group members—one of the main goals of the program. Previous findings based on the 18-month survey showed that Grameen America reduced several measures of material hardship.

Material hardship measures are often thought to be affected only after individuals increase their income. That is, once income is higher, individuals are able to pay for utility bills, rent, or a doctor's appointment when needed. In the case of the Grameen America program, however, other aspects of the program might contribute to reducing the material hardship program participants experienced. For instance, women may be able to set aside part of their loan for a rainy day (even though this is not Grameen America's policy), and thus have access to cash to meet their financial obligations. Similarly, if participants improve their credit scores by making regular payments on their loans, they may have access to a broader set of financial products, such as a credit card, that could help them cover any income gaps. Finally, women in the program may be able to rely on a broader system of social support, which can also help reduce material hardship.

Because, as mentioned, Grameen America did not have a statistically significant effect on net income at 18 months, the study team thought that one or more of these other program aspects were likely contributing to the material hardship reduction seen at that time. Would the reduction in material hardship hold over time? Would material hardship be further reduced if the effect on net income was stronger? Would changes in material hardship be linked to changes in the program's effects on credit scores or social support? (That last question is explored in the next chapter.)

At 36 months, women who responded to the survey were asked whether they had experienced any of several types of material hardship in the previous year, including those related to paying for housing, healthcare, and utilities. For example, women were asked whether they were ever unable to pay the full amount of their rent or mortgage, and whether they ever chose not to go to the doctor or the hospital because of the cost.

Forty percent of women in the Grameen America group reported experiencing any type of material hardship in the past year, compared with 47 percent of women in the control group. The 7 percentage point difference is statistically significant. Another way to measure material hardship is to count the *types* of hardships that each woman in the study experienced in the past year. (Women were asked whether they had experienced any of ten types of material hardship). Women in the Grameen America group reported experiencing fewer types of material hardship in the past year (a little less than one of the ten types, on average), compared with control group members (a little more than one of the ten types, on average). The estimated impact on the number of types of material hardship experienced is statistically significant (as shown in Table 4.2).[3]

Figure 4.2 breaks down the overall measures of material hardship and shows the percentage of women who experienced each *type* of material hardship. In contrast to the overall measures, Grameen America did not reduce most individual types of material hardship. For example, similar rates of women in the Grameen America group (27 percent) and women in the control group (29 percent) were ever not able to pay the full amount of their utility bills. The two types of material hardship that Grameen America did reduce by a statistically significant amount were both health-related—that is, not being able to fill a prescription and not being able to see a doctor. It is important to note that the types of material hardship asked about varied by degree of severity. For example, being evicted or being homeless could be considered severe types of material hardship. Similarly, the health-related material hardships, hardships that Grameen America reduced, can also be considered more severe hardships compared with having phone service disconnected.

It is possible that some of the reduction of material hardship might be related to an increase in net income, even though Grameen America's effect on net income did not reach the threshold of statistical significance. There might also be other mechanisms at play that drove down material hardship. It is helpful here to take a closer look at the ways in which some of the women interviewed in-depth managed their incomes, and how the Grameen America loans fit within their broader set of financial strategies.

Around the time that Mercedes joined Grameen America, for example (see more about her life in Box 4.4 and Figure 4.3), her household income included her husband's and son's wages combined with her earnings from her small business selling beauty products and occasionally caring for children in her home. When Mercedes received her first Grameen America loan of $1,300, she used part of it ($1,000) to buy inventory and set aside the rest ($300) to use as a rainy day fund. She said the larger inventory allowed her to increase her sales because she could offer clients a wider set of products. She could also increase her contribution to the household income as needed. This is an example of how increased earnings from a business and funds set aside from the loan could help reduce material hardship.

At times, however, the lines between business revenue, wages, and other household income can get blurry. Sometimes, for example, Mercedes bought some of the inventory from her cosmetics and beauty business for herself and the other members of her household to use. She did not factor that in when thinking of her business earnings.

These examples provide some insight into why the study found reductions in some measures of material hardship, even though there was not a statistically significant increase in net income. That is, reducing economic hardship might be related to having additional cash flow provided by the loans or from increased business revenues, giving the women in the Grameen America group a broader set of options to meet their financial obligations. Even if participants used all of their loans for business expenses, funds were fungible. The loan could substitute for other money that would have been spent the same way.

[3] The number of material hardships is a count of the number of types of material hardship experienced by each respondent, and not a count of the number of times a respondent experienced all of the types of material hardship. For example, respondents who said they were able to pay the full amount of their rent or mortgage in one month and respondents who said they were not able to pay the full amount of their rent or mortgage in nine months were both counted as having experienced one type of material hardship.

Table 4.2

Impacts on Material Hardship at 36 Months

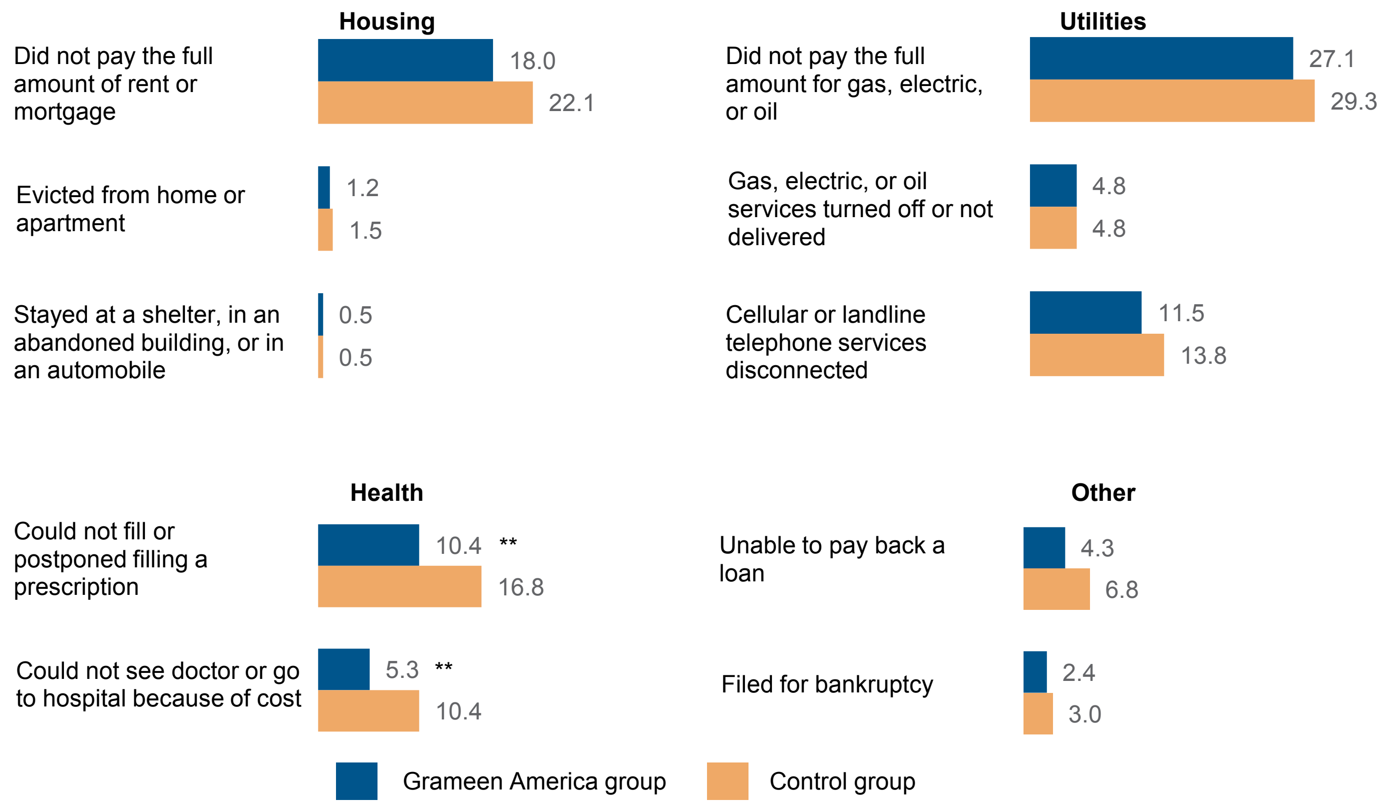
Outcome	Grameen America Group	Control Group	Difference (Impact)	90% Confidence Interval Lower	90% Confidence Interval Upper	P-Value
Primary outcome						
Types of material hardships experienced in the last 12 months (N)	0.9	1.1	-0.2**	-0.4	0.0	0.049
Secondary outcomes						
Experienced any material hardship in the last 12 months (%)	40.3	46.9	-6.6*	-12.6	-0.6	0.073
Experienced the following material hardships in the last 12 months (%)						
Did not pay the full amount of rent or mortgage	18.0	22.1	-4.1	-9.0	0.8	0.168
Evicted from home or apartment	1.2	1.5	-0.2	-1.7	1.2	0.780
Stayed at a shelter, in an abandoned building, or in an automobile	0.5	0.5	0.0	-0.7	0.7	0.954
Filed for bankruptcy	2.4	3.0	-0.6	-2.7	1.5	0.633
Did not pay the full amount for gas, electricity, or oil	27.1	29.3	-2.2	-7.2	2.7	0.454
Gas, electrical, or oil services turned off or not delivered	4.8	4.8	-0.1	-2.5	2.3	0.963
Cellular or landline telephone service disconnected	11.5	13.8	-2.4	-6.5	1.8	0.348
Could not fill or postponed filling a drug prescription	10.4	16.8	-6.4**	-10.8	-1.9	0.018
Could not see doctor or go to the hospital because of cost	5.3	10.0	-4.8**	-8.4	-1.2	0.028
Unable to pay back a loan	4.3	6.8	-2.5	-5.3	0.3	0.148
Household income changes a lot month to month (%)	13.2	13.3	-0.1	-4.2	4.0	0.963
Often runs out of money between paychecks or before the end of the month (%)	7.4	12.2	-4.8**	-8.4	-1.3	0.026
Sample size	740	321				

SOURCE: MDRC calculations from responses to the Grameen America 36-month survey.

NOTES: Sample sizes may vary because of missing values.
Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.
Rounding may cause slight discrepancies in sums and differences.

Figure 4.2

Impacts on Types of Material Hardship at 36 Months



SOURCE: MDRC calculations from responses to the Grameen America 36-month survey.

NOTES: Sample sizes may vary because of missing values.
Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Other factors may also have been at play, such as borrowers having a broader network of support from the women in their loan groups to call on in times of need, or from having access to additional financial options. The next two chapters explore some of these ideas.

Box 4.4

Mercedes

When Mercedes joined the Grameen America program, the mother of six was working from home. Her husband and one of their sons worked at local restaurants, and Mercedes supplemented the household income by caring for other families' children in her home, in addition to her own. She also sold Mary Kay cosmetics—a small enterprise she could literally carry in her purse. When she took the children to the park to play, she'd bring along her bag of cosmetics to sell to other parents there, and she handed out her business cards wherever she went. Still, Mercedes had a hard time maintaining steady sales; she often lacked the funds she needed to buy new inventory. Her sales fluctuated with the seasons and as a result, earnings fluctuated as well.

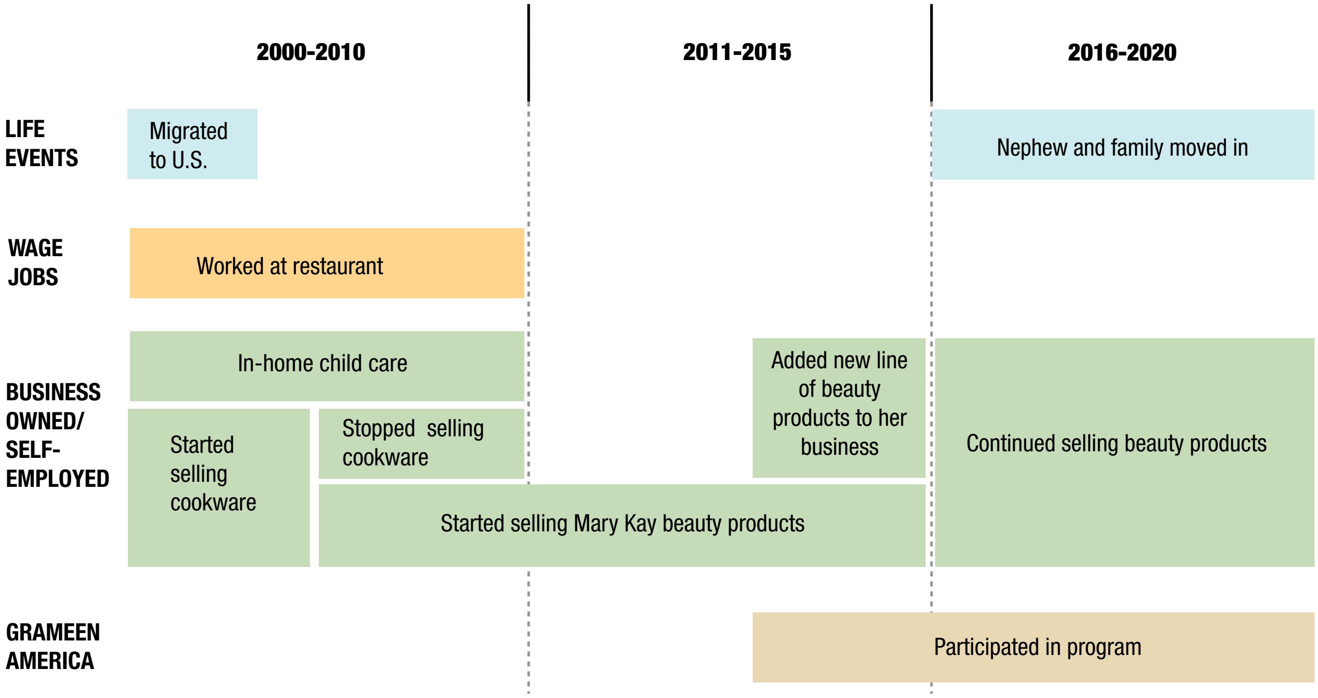
When she heard about Grameen America, Mercedes saw an opportunity to kickstart her business. Before signing up for the loan program, she made sure her husband was on board with her plan; he agreed to help her pay back her loan if she couldn't handle the payments herself. Out of her first loan of $1,300, Mercedes invested $1,000 in more Mary Kay inventory. She set aside the rest, in case she hit a rough patch. By the time she received her third loan, sales had started to increase. Now she could afford to buy new inventory every month. Before that, she'd only been able to restock every three months or so.

Three years after entering the program, Mercedes' household had grown. One of her nephews and his family had migrated to the United States and had moved in with them. Her older children were now adults and were making regular contributions to the household income.

Mercedes's business had grown as well. By then, she had received her fifth Grameen America loan, for $3,000. She continued to sell Mary Kay cosmetics, but she sold other brands, too, and introduced new products, like perfume, to her customers. Now her inventory no longer fit in a purse. Shelves in her dining room brimmed with inventory. She wanted to branch out to other products, like purses. "That's what is needed, money to invest [in a business]," Mercedes said in an interview. "Otherwise ... you don't have merchandise to sell.... So if they [Grameen America] continue giving me a loan, I'll take it." Mercedes attributed the growth of her business to the Grameen America loans and for the foreseeable future, she intended to continue applying for new ones.

Figure 4.3

Mercedes



5 More than a Loan

In addition to offering borrowers a loan to invest in a business, the Grameen America model seeks to improve the economic well-being of women and their families by helping them build a credit history, by supporting savings, and by strengthening their social networks. Just over half of the women enrolled in the study came into it with no credit scores. Some, like Soledad, were trying to rebuild bad credit scores after incurring debt. How would a program like Grameen America help participants establish or improve their credit scores? Would access to small loans help them save money or build assets? And how might a stronger social network provide support in a time of need? This chapter focuses on these aspects of the program.

Building a Credit History

Grameen America reports repayment of its loans to two of the three major credit bureaus. This offers borrowers an opportunity to generate and strengthen their credit histories, which may in turn help them access mainstream credit and its associated lower effective interest rates.

A poor or nonexistent credit history may prevent individuals with low incomes from accessing the kinds of bank loans and credit cards that people with higher incomes often count on to get a mortgage, buy big-ticket items like automobiles and furniture, or use in times of an emergency. Having low or no credit scores also limits options for housing and in some states affects employment prospects, while a better credit score may help reduce or eliminate the need for deposits to qualify for a utility account or to sign up for cell phone service. No access to credit may also lead to reliance on pawn shops, rent-to-own stores, and other less favorable credit sources, potentially leading to greater debt burdens that can make escaping indebtedness more difficult.

Access to better sources of credit is not a panacea, however. Women who fail to repay their Grameen America loans in a timely manner may establish a weak credit score or further damage an already weak one. It remains an open question whether Grameen America borrowers do graduate into mainstream credit or gain the ability to borrow at lower interest rates than those who do not take out such loans.

For this report, the researchers had access to data from VantageScores—a type of credit score created by the three major credit bureaus. The data came from one of the major credit reporting agencies at 34 to 39 months after women entered the study. The data were used to determine the impact Grameen America had on building credit histories and improving credit scores.

VantageScores range from 300 to 850; higher credit scores indicate to lenders that a borrower is less risky. A report by the Federal Reserve found that VantageScores are highly correlated with the more commonly used FICO credit scores.[1] A VantageScore factors in recurring payments such as utilities and rent as well as typical loan products used to calculate FICO credit scores such as credit card and mortgage payments; the inclusion of these payments allowed individuals with less complete credit histories to be scored. Good credit scores can have a substantial impact on financial well-being.[2]

As expected, women in the Grameen America group were more likely than women in the control group to have a VantageScore roughly 34 to 39 months after study entry. As shown in Table 5.1, over 79 percent of Grameen America group members had a VantageScore, a statistically significant increase of nearly 17 percentage points over the control group rate.[3] Grameen America also increased the likelihood of having a "prime" VantageScore—a score in the highest range, between 650 and 850—by a statistically significant amount. Around 23 percent of Grameen America group members had a prime VantageScore compared with 13 percent of control group members.[4] These findings are encouraging, given that credit scores—and prime credit scores in particular—are linked to several positive financial outcomes, including access to formal credit, lower interest rates, and better employment opportunities. Alejandra's story in Chapter 3 offers an example of how having a credit score can benefit a Grameen America borrower. When Alejandra decided to move to a new neighborhood, she had already built a credit history, and this made it easier for her to sign a lease. She attributed this change to Grameen America.

Attributes in an individual's credit report include various characteristics of creditworthiness, such as loans and lines of credit, bankruptcies, and other public records. The Grameen America program increased the likelihood of having at least one credit account by a statistically significant amount. As shown in Table 5.1, 78 percent of the Grameen America group had at least one credit account, compared with 56 percent of the control group. This is not surprising, given that Grameen America reports repayment of its loans to credit agencies. In addition, 26 percent of Grameen America group members had at least one business credit account (Grameen America loans are considered business credit accounts), an increase

[1] Consumer Financial Protection Bureau (2012). For this study, VantageScores were collected instead of FICO scores because of resource constraints; FICO scores were too expensive to collect.

[2] DeNicola (2019).

[3] In fall 2017, there was a period when not all Grameen America loans were included in the credit report data. Once the issue was resolved, all missing loans and transactions were reported retroactively. The credit data files pulled for this report may not reflect the full credit history of all Grameen America group members, however, potentially weakening the impact estimates related to the Vantage-Scores. The effect on VantageScores was slightly smaller than the effect observed at 16 to 21 months after study entry. At that time, the same percentage of Grameen America group members had a VantageScore (79 percent) but fewer control group members had a VantageScore (59 percent). See Quiroz-Becerra, Schaberg, Holman, and Hendra (2020). This suggests that some control group members established credit histories through borrowing from a source other than Grameen America over time.

[4] This effect on prime VantageScores was slightly larger than the effect seen at 16 to 21 months after study entry. At that time, 22 percent of Grameen America group members and 13 percent of control group members had a prime VantageScore. See Quiroz-Becerra, Schaberg, Holman, and Hendra (2020). Given that it takes time to establish a higher credit score, it follows that the Grameen America program would have a larger effect on this outcome over a longer follow-up period.

Table 5.1

Impacts on Credit Score and Attributes at 34-39 Months After Random Assignment

Outcome	Grameen America Group	Control Group	Difference (Impact)	90% Confidence Interval Lower	90% Confidence Interval Upper	P-Value
Mediating outcomes						
Has a VantageScore[a] (%)	79.3	62.1	17.2***	13.7	20.7	0.000
Has a prime VantageScore[b] (%)	23.1	12.7	10.4***	6.9	13.9	0.000
Secondary outcomes						
Has at least one credit account (%)	78.3	56.0	22.4***	18.4	26.3	0.000
Has at least one open credit account (%)	63.2	40.8	22.4***	18.1	26.7	0.000
Has at least one business credit account[c] (%)	26.2	0.6	25.6***	22.3	29.0	0.000
Has at least one auto loan or lease credit account (%)	20.4	18.9	1.5	-2.6	5.6	0.545
Has at least one non-deferred student credit account (%)	8.5	9.4	-0.9	-3.6	1.8	0.576
Has at least one mortgage credit account (%)	1.5	2.3	-0.8	-2.7	1.0	0.460
Has at least one currently delinquent credit account (%)	10.2	8.5	1.7	-1.2	4.5	0.336
Has at least one currently derogatory credit account (%)	6.2	5.1	1.1	-1.1	3.3	0.404
Balance-to-credit ratio on open credit accounts	34.3	27.0	7.3***	4.0	10.6	0.000
Sample size	1,041	448				

SOURCE: MDRC calculations from credit report data from a major reporting agency.

NOTES: Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.
Rounding may cause slight discrepancies in sums and differences
[a]A VantageScore is a credit score developed by the three national reporting companies. VantageScores range from 300 to 850.
[b]A prime VantageScore is a score of 650 to 850.
[c]Grameen America loans are reported as business credit accounts.

of 26 percentage points over the control group average.[5] This credit attribute provides more evidence that the study had a large treatment differential—a large difference in the rate of participation in services,

[5] The rate of having a business credit account among the Grameen America group was lower than expected. This may be partially due to the period in fall 2017 when not all Grameen America loans were included in the credit report data. These loans were reported retroactively but may not be reflected in the credit report data used in this report.

including receiving a business loan, between the Grameen America group and the control group. It is particularly noteworthy that this effect persisted nearly three years after women entered the study, suggesting that many women continue to participate in the Grameen America program and receive loans for several years.

Table 5.1 also shows impacts on several other credit attributes. For example, Grameen America did not have a statistically significant effect on the likelihood of having any other types of loans—including mortgage and auto loans—or on the likelihood of having a delinquent or derogatory credit account. Credit accounts are considered delinquent or derogatory if a borrower fails to make payments; having accounts with such statuses can negatively affect an individual's credit score. Some researchers have questioned whether access to microcredit might lead to increased delinquencies, but there is no evidence that this is the case with the Grameen America program.

Savings

As discussed in Chapter 2, the Grameen America model requires borrowers to open a savings account and deposit a small amount—around $2.00—every week. Due to issues negotiating an agreement with a local bank to offer such accounts, the Union City branch of Grameen America, where the evaluation took place, did not require borrowers to open a savings account or make weekly savings contributions. It was not until 2017 that the Union City branch started asking borrowers to maintain funds in a savings account.[6] Despite the delay in implementing this aspect of the model, the Grameen America program could still have had an effect on savings if borrowers saved on their own at either a higher rate or a higher amount than control group members.

Grameen America increased the amount of nonretirement savings for women in the Grameen America group and their live-in spouses or partners relative to the amount saved by women in the control group and their live-in spouses or partners. As shown in Table 5.2, women in the Grameen America group reported having $2,076 in combined savings (including the woman and her partner) compared with $1,237 for women and their partners in the control group. The $839 (or 68 percent) increase in average savings amounts is statistically significant.[7]

Was this increase in savings due to few women in the Grameen America program saving a lot? Or to many women in the program saving moderate amounts? The research team conducted an exploratory analysis to try to answer this question by looking at the program's impact on various categories of savings. The findings showed that Grameen America increased savings at all levels included—between $1 and $1,000, between $1,001 and $3,000, and greater than $3,000 (Appendix Table C.1). This suggests that more women in the Grameen America group were saving some money than women in the control group

[6] In early 2018, Grameen America started asking borrowers in the Union City branch to save $10 a month. Unlike the program's standard savings model of $2 a week, facilitated at weekly meetings, the Union City participants were asked to contribute to their savings accounts on their own. Savings might be used to determine loan amounts in the future, as was typical in other Grameen America branches.

[7] An exploratory analysis looked at whether there were differences in the savings effects based on whether women entered the study before or after the savings component was implemented at the Union City branch. Going against expectations, the findings showed that the program produced a statistically significant increase in savings ($852) among women who entered the study before the savings component was introduced (see Appendix Table B.6). This suggests that the savings component of the Grameen America program was likely not the main driver of the savings effect, as might have been expected.

Table 5.2

Impacts on Saving and Debt at 36 Months

Outcome	Grameen America Group	Control Group	Difference (Impact)	90% Confidence Interval Lower	90% Confidence Interval Upper	P-Value
Secondary outcomes						
Average amount of nonretirement savings for respondent and their live-in partner or spouse ($)	2,076	1,237	839 ***	382	1,296	0.003
Average amount currently owed on loans and bills, excluding housing-related loans ($)	4,079	4,177	-97	-1,186	992	0.883
Currently owes money on: (%)						
A payday, pawn, installment, or auto title loan	5.3	2.0	3.2 **	1.0	5.5	0.018
A loan from friends/family	5.4	7.2	-1.8	-4.7	1.1	0.303
Sample size	740	321				

SOURCE: MDRC calculations from responses to the Grameen America 36-month survey.

NOTES: Sample sizes may vary because of missing values.
Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.
Rounding may cause slight discrepancies in sums and differences

at all levels of savings. Therefore, the likely driver of the savings effect was more women in the program being able to save at least some money.

Following the logic of the Grameen America theory of change, the most likely explanation for an increase in savings would be that the program increased the overall incomes of Grameen America group members (relative to those in the control group), and they were able to put more of their income into savings. As seen in Chapter 4, women in the Grameen America group had higher net incomes, on average, than women in the control group, even if the difference was not statistically significant. Thus, some of the effects on savings might be explained as the result of having higher incomes.[8] However, it is unclear what other elements of the program might have been driving this savings effect. One possible explanation is

[8] An exploratory analysis looked at who among the women in the Grameen America group saved the most. A logistic regression was run to test whether key characteristics of the women at the time they entered the study could predict who were the top savers (meaning they saved at least $2,000, the top quartile of savings) around three years after entering the study. The model included several characteristics that were regressed on a dichotomous high savings indicator (1 = saved at least $2,000; 0 = saved less than $2,000). The model is statistically significant (p-value < 0.1). The top savers were more likely to be younger, less likely to be working for an employer, less likely to be living apart from their partner or spouse, and more likely to have higher average monthly incomes (see Appendix Table C.2). These findings provide some potential hypotheses for why some women may have been able to save more. For example, women with higher incomes may have been able to save more because they had extra money left over after they met their monthly expenses. Women with higher education levels may have been able to obtain jobs with higher skill requirements, and therefore higher wages. This may mean they had higher incomes, again allowing them to save more.

that Grameen America loans were not being spent in their entirety once received; instead, some of the funds were being set aside for future use. The rules of Grameen America are clear on this: Borrowers must spend their loans on business-related expenses within two weeks of receiving the funds.[9] Center managers ask borrowers for receipts as proof of investment in a business. In practice, however, not everyone can invest the money within the allotted two weeks. Women who sell food, for instance, may not be able to immediately spend all of their funds on cooking supplies if they don't have enough orders to use them. During in-depth interviews, some women revealed that they routinely set aside some of their loan funds for future use. Soledad, for example, said she put the money from her loan into her personal account and used it as needed whenever she had orders for her home-cooked food. She said that having the funds available helped her business because it allowed her to sell more food. For Soledad and other women interviewed, having access to the Grameen America loans allowed them to use the money when they needed it to cover their business and other expenses, instead of having to rely on money from another source.

Using the loans in this way may help explain why women in the Grameen America group reported increased savings, despite not having higher incomes. Such liquidity could also explain why there were reductions in material hardship with increases in net income that were just below the threshold of statistical significance.

Debt

The Grameen America program could affect the amount of debt that borrowers have, either by increasing it or decreasing it. The program could increase the amount of debt if it leads borrowers to take out loans they would not have taken out in the absence of the program. If the program helps borrowers establish a credit history and a credit score, they may be eligible to take out different loan products or credit cards from other lenders, further increasing their debt load. In both cases, the increased debt levels may be considered positive outcomes, as long as the borrowers are able to pay back their loans and credit card bills and this gives them access to a broader set of options. Alternatively, the Grameen America program could reduce borrowers' debt load if their businesses bring in additional income that allows them to pay off any existing debts. This, too, could be considered a positive outcome.

The findings in Table 5.2 show that the Grameen America program did not have a statistically significant effect on the amount of debt the women in the study had. Around 36 months after they entered the study, women in the Grameen America group owed an average of $4,079 on loans and bills compared with an average of $4,177 owed by women in the control group. These amounts indicate how much the women in the study owed at the time, but do not indicate how much debt the women took out or the amount of debt they had already paid back. It is possible, for example, that women in the Grameen America group and women in the control group took out and paid back similar amounts of debt, leading them to owe similar amounts of debt. It is also possible, however, that women in the Grameen America group took out and were able to pay back more debt compared with their counterparts in the control group, again leading to both groups, ultimately, owing similar amounts. Thus, it is unclear whether the Grameen America

[9] The timing of loan investment was extended to two months in 2018.

program had an effect on the overall amount of debt women had within the 36 months after they entered the study, or whether the program had an effect on the women's ability to pay back that debt.[10]

The Grameen America program could also affect the types of debt borrowers have. As mentioned, without the availability of the Grameen America loan, individuals may have to access capital through other means, including borrowing money from friends or family members. That was the case for Alejandra, who had to rely on family at a time of financial stress for her household. Alternatively, women may take out loans from subprime lenders or rely heavily on credit cards to get through. Reductions in the use of subprime loans are often mentioned as a benefit of microlending programs, as participants have other sources of capital for their businesses or funds to cover expenses. There is evidence, however, that Grameen America increased the likelihood of using subprime loans—including payday, pawn shop, installment, and auto title loans—by a statistically significant amount. Around 5 percent of women in the Grameen America group and 2 percent of women in the control group currently owed money on a subprime loan. The rates of subprime loan use were low for both research groups (which may be related to the fact that some types of subprime loans, including payday and auto title loans, are banned in New Jersey).[11] Still, this effect is somewhat concerning, given that subprime loans typically have very high interest rates and may increase the debt levels of borrowers who are unable to pay them back on time. It is unclear what was driving this effect, especially since the program increased the likelihood of women in the Grameen America group having both a VantageScore and a prime VantageScore, both of which presumably would open up additional credit options.[12] Another possibility is that women experiencing different circumstances—or subsets of the sample—benefited differently from the program in terms of credit and debit.

Assets

Grameen America borrowers may use their loans to purchase consumer goods or intermediate goods (for example, ingredients or more products to sell), or they may use their loans to purchase capital goods—such as kitchen mixers or vehicles—that can expand their production capacity. Purchase of these assets or durable goods can indicate a particular standard of living.[13] Assets can also represent a store of wealth because they can be sold in time of financial crisis. Some assets can have a dual nature in that they can be used to grow or expand a business.

[10] There is some evidence from other outcomes in the study that may provide insight into this question. Chapter 3 showed that the Grameen America program increased the amount of debt taken out by women in the Grameen America group to start or expand a business compared with women in the control group. However, findings based on the credit score data (presented earlier in this chapter) show that the Grameen America program did not lead to increases in the likelihood of participants having certain types of debt, including mortgages and auto loans. It should also be noted that there are other sources of debt that did not show up in the credit data, such as debt from local moneylenders.

[11] New Jersey does not allow storefront payday lenders. However, individuals may be able to obtain subprime loans online. The Pew Charitable Trusts (2014).

[12] Impacts on credit, debt, and savings outcomes were not analyzed by subgroup. Only mediating outcomes were included in the subgroup analysis and the only mediating outcomes presented in this chapter are the outcomes related to VantageScores. The credit data used in this study were only available at the group level; therefore, it was not possible to run impacts on those outcomes by the subgroups defined by the characteristics of individual women in the study.

[13] Barnes, Gaile, and Kibombo (2001).

As part of the 36-month survey, women in the study were asked whether they had purchased any assets since they entered the study.[14] The assets asked about included major appliances (such as refrigerators and microwaves), minor appliances (such as blenders, smart phones, and sewing machines), vehicles (such as cars, motorcycles, and bicycles), and furnishings (such as sofas and office furniture).

As shown in Table 5.3, Grameen America did not have a statistically significant effect on the purchase of assets, either for general use or for business use. Around 82 percent of women in the Grameen America group and 79 percent of women in the control group purchased at least one asset. Lower rates of women in both groups purchased an asset for business use (36 and 30 percent, respectively). The most common type of asset purchased for general use and for business use was minor appliances. These findings suggest that it might take longer for a small business to grow and accumulate assets. As some of the cases presented in this report suggest, the businesses that women operated remained relatively small. It is also possible this lack of effect on purchasing assets was related to the limited effect seen on net income.

Remittances

Many immigrant workers send money and goods back to family members or others in their country of origin. These transferred funds are known as remittances. According to estimates from the World Bank, over $551 billion in remittances were sent to low- and middle-income countries in 2019.[15] Because many women in the Grameen America program are immigrants and may have family members still living in their home countries, the research team was interested in seeing whether the program had an effect on the likelihood of sending remittances, as well as on the amount of money sent. If the program was able to increase net income, the borrowers might be able to send additional funding abroad to their family members or friends.

As shown in Table 5.3, similar rates of women in the Grameen America group and the control group (56 percent and 54 percent, respectively) reported ever sending remittances abroad in the year prior to completing the 36-month survey. The women in both groups also sent comparable amounts of money per month, on average ($113 and $111, respectively). The lack of remittance-related impacts may relate to the modest impact on net income, or it may indicate that the women in the program chose to put their extra income toward other uses, including saving it or investing it in their businesses.

Social Connectedness

As noted in Chapter 2, Grameen America uses a group-based model that requires program participants to meet on a weekly basis to make their loan payments. Regular meetings may also facilitate the exchange of tips, strategies, and other information that can help participants succeed in their businesses.

As noted in Chapter 1, for this study, the five-member loan groups were randomly assigned to one of two research groups—the Grameen America group and the control group. In this way, the study maintained

[14] The Grameen America theory of change considers assets as longer-term outcomes. Thus, women were not asked whether they had purchased any assets in the 18-month survey.

[15] Ratha et al. (2019).

Table 5.3

Impacts on Assets and Remittances at 36 Months

Outcome	Grameen America Group	Control Group	Difference (Impact)	90% Confidence Interval Lower	90% Confidence Interval Upper	P-Value
Purchase of assets(%)						
Purchased an asset	82.4	78.8	3.6	-0.9	8.2	0.183
Purchased a major appliance	32.5	36.1	-3.5	-9.7	2.7	0.346
Purchased a minor appliance	70.8	69.3	1.5	-4.1	7.2	0.654
Purchased a vehicle	27.0	23.8	3.1	-1.9	8.2	0.305
Purchased furnishings	47.2	48.0	-0.8	-6.7	5.1	0.817
Purchase of assets for business use(%)						
Purchased an asset for business use	36.1	30.4	5.7	0.0	11.5	0.103
Purchased a major appliance for business use	6.5	4.2	2.3	-0.2	4.8	0.135
Purchased a minor appliance for business use	25.5	21.7	3.8	-1.3	8.9	0.224
Purchased a vehicle for business use	13.8	11.1	2.7	-1.0	6.4	0.225
Purchased furnishings for business use	9.3	7.5	1.8	-1.2	4.9	0.325
Remittances						
Sent a remittance abroad in the past 12 months (%)	56.1	53.5	2.7	-3.7	9.0	0.488
Average remittance payments sent aboard per month ($)	113	111	2	-51	56	0.942
Average remittance payment sent abroad per month is $200 or more (%)	18.0	13.6	4.4	-0.1	8.9	0.106
Sample size	740	321				

SOURCE: MDRC calculations from responses to the Grameen America 36-month survey.

NOTES: Sample sizes may vary because of missing values.
Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.
Rounding may cause slight discrepancies in sums and differences.

and tracked women in the original groups of five to understand the difference that the program had on social relationships. Women in the Grameen America group were required to meet with the other members of their loan groups—first during the five-day Continuous Group Training and later at the weekly center meetings. Given this regular contact, one would expect women in the Grameen America group to deepen their relationships with each other, compared with women in the control group, who knew other women in the study but ultimately weren't in official loan groups or required to meet each week.

Regular contact, however, could also lead to more opportunities for conflict. For example, it is possible that women who used the weekly meetings as an opportunity to sell their products could cause tensions or undermine friendships. Or, if a borrower was having trouble repaying her loan, that could hurt the chances of other loan group members getting additional loans, which could also undermine relationships.

To determine whether the program helped deepen relationships, the study analyzed the experiences of the women in the original loan groups. Table 5.4 shows that the women in the Grameen America group grew significantly closer to the other women in their original loan groups compared with the level of closeness reported by women in the control group. Almost 46 percent of women in the Grameen America group reported they had grown closer to the other members of their loan group, compared with 12 percent of women in the control group. The 34 percentage point increase is statistically significant. Having close relationships is important because these elements of social relationships constitute the basis of social support.

Mercedes, who had been in Grameen America for about five years, said: "We all help each other. So, I bring my lotions and clothing, too. Sometimes I sell shoes.... Some [women] even bring *empanaditas*, others bring whatever they make to sell.... At times, I have made new clients. I have my Mary Kay cards. I pass around my cards while I'm here [in the meeting]. Someone else gives me hers, and I pass around mine. And that's how it's done. So that the business is more productive." This type of exchange seems to have been common among Grameen America borrowers who were interviewed in-depth.

The study also examined whether Grameen America increased the likelihood of women having social support, and the findings were encouraging. Women in the Grameen America group were more likely than women in the control group to say they had someone they could depend on for financial needs. As shown in Table 5.4, about 82 percent of the women in the Grameen America group said they had someone from whom they could borrow $250 in case of an emergency, compared with nearly 72 percent of those in the control group. The impact is statistically significant. And even though the impact was not large (10 percentage points), this type of social support might make a material difference to a household. Being able to borrow from someone in their social network might mean that women could overcome cash flow shortages and thus experience less financial hardship.

The program did not have a statistically significant effect on the other measure of social support, however: About 79 percent of women in the Grameen America group said they had someone they could ask for a favor such as a ride, babysitting, or to borrow something small, compared with 77 percent of women in the control group.

Work-Life Balance, Well-Being, and Empowerment

The Grameen America program may help improve work-life balance and provide women in the program with greater flexibility to spend time with their families. Mercedes, for instance, was able to care for her children and sell beauty products and other goods. "I bring the kids to school, then I come back at 9:30 and I go out [to sell] ... it's a schedule that I set to be able to work. In the afternoon, I pick up the kids and I'm at home with them.... I'm not paying to have someone pick them up. I work and care for them. So, I like this because I'm not forced to have a fixed schedule." Research shows that street vending businesses,

Table 5.4

Impacts on Social Support, Well-Being, and Empowerment at 36 Months

Outcome	Grameen America Group	Control Group	Difference (Impact)	90% Confidence Interval Lower	90% Confidence Interval Upper	P-Value
Mediating outcomes						
Respondent has someone they could ask: (%)						
For a favor, like a ride, to babysit, or to borrow something small	79.2	77.0	2.3	-2.9	7.4	0.466
To borrow $250 from for a few weeks because of an emergency	82.0	72.4	9.6***	5.0	14.2	0.001
Secondary outcomes						
Life satisfaction[a] (N)	8.0	7.7	0.3**	0.1	0.6	0.030
Very satisfied with life[b] (%)	68.4	60.3	8.1**	1.6	14.6	0.041
Respondent involved in at least half of her household's financial decisions (%)	81.2	71.2	10.0***	4.8	15.2	0.002
Respondent can spend more time with her family now than she could when she entered the study[c] (%)	70.4	66.6	3.8	-2.4	10.0	0.316
Respondent's work keeps her from spending sufficient quality time with her family[c] (%)	40.7	36.4	4.2	-2.7	11.2	0.317
Respondent feels there is no time left at the end of the day to do the things she'd like to do at home[c] (%)	41.3	38.3	3.1	-2.6	8.8	0.377
Respondent's family misses out because of her work commitments[c] (%)	36.3	40.2	-4.0	-10.2	2.2	0.289
Has grown closer with other loan group members (%)	46.1	12.4	33.8***	28.2	39.3	0.000
Sample size	740	321				

SOURCE: MDRC calculations from responses to the Grameen America 36-month survey.

NOTES: Sample sizes may vary because of missing values.
Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.
Rounding may cause slight discrepancies in sums and differences
[a]Respondents were asked on a scale of 0 to 10, where 0 means "the worst possible life overall" and 10 means "the best possible life overall," how they would rate their life in the past 12 months.
[b]Responses of 8, 9, and 10 were counted as very satisfied with life.
[c]Respondents were asked how much they disagreed or agreed with these statements on a scale of 0 to 10, where 0 means "strongly disagree" and 10 means "strongly agree." Measures include responses of 8, 9, and 10.

for example, can give women flexibility to arrange their schedules and care for their children.[16] However, other studies have noted that by blurring the boundaries between workplace and home, street vending and other informal work might increase the burden on women.[17]

The Grameen America program did not have an effect on any of the measures of work-life balance roughly 36 months after study entry. For example, as shown in Table 5.4, the rates were similar for women in the Grameen America group and the control group who reported that they did not have time at the end of the day to do things they'd like to do (41 percent and 38 percent, respectively). Overall, the findings suggest that operating a business did not provide more time flexibility or help balance life and work.

Grameen America increased life satisfaction by a statistically significant amount. Around 68 percent of women in the Grameen America group reported being very satisfied with their lives, 8 percentage points more than women in the control group.[18] Outcomes such as life satisfaction are often thought to be affected only after individuals increase their income and strengthen social networks, which can reduce depression and dissatisfaction. In the case of the Grameen America program, however, this positive impact might have been related to other factors, such as experiencing fewer types of material hardship, or from the benefits of owning a business. For example, the women in the Grameen America group might have been more satisfied with their lives because, relative to the control group, they were better able to attend to their health and wellness (as discussed in Chapter 4). Similarly, the program, which contributes to an increased likelihood of owning a business, might have given women a sense of agency by allowing them to decide how to arrange their time, as Mercedes suggested above.

Many programs that offer microloans, including Grameen America, offer loans only to female entrepreneurs. The idea is that these loans will help women start businesses that generate income and grow over time, and by earning additional income and being able to contribute to their households' finances, they may gain a sense of agency and an increased role in their households' financial decision-making. Additionally, there is a close link between economic development and female empowerment. Several studies of microfinance programs, however, have found no effects on female empowerment.[19] While economic development is closely related to female empowerment, it may not be sufficient to increase women's ability to make financial decisions.[20] Other gender and household dynamics may prevent women from fully experiencing the potential benefits of earning additional income by operating a business.

There is some evidence that the Grameen America program increased women's ability to make household financial decisions. Of the women in the Grameen America group, 81 percent reported that they were involved in at least half of their household's financial decisions, compared with 71 percent of control group respondents. The increase is statistically significant. This finding is encouraging, given the correlation between women's empowerment and other outcomes, including overall well-being and children's welfare and health. It is unclear, however, whether the increase in women's financial decision-making led to improved outcomes for their households and children.[21]

[16] Muñoz (2013).

[17] Park (2005).

[18] Survey respondents were asked how they would rate their lives on a scale of 0 to 10, where 0 meant "the worst possible life overall" and 10 meant "the best possible life overall." Responses between 8 and 10 were counted as "very satisfied with life."

[19] Banerjee, Duflo, Glennerster, and Kinnan (2015); Crépon, Devoto, Duflo, and Pariente (2011).

[20] Duflo (2012).

[21] Duflo (2012).

6 Exploring Variation in the Economic Impacts

The previous chapters discussed the impact that Grameen America had on several economic-related outcomes through 36 months of follow-up, including an increase in earnings from a business, reductions in material hardship, and an increase in nonretirement savings. The program also led to a positive increase in total net income, although this increase was just below the threshold for statistical significance. These effects were generally consistent with the effects seen in the previous round of follow-up research, conducted around 18 months after study entry.

One difference of note, however, is that while the findings around net income appear to be somewhat stronger at 36 months than at 18 months, the material hardship effects appear to be somewhat weaker. These patterns of impacts left several open questions: How uniformly were women in different circumstances affected by the program? How did borrowers' use of their businesses and wage-based employment to generate income change over time? Why was the difference in net income more substantial at 36 months than at 18 months, but the effects on material hardship at 36 months were weaker?

This chapter attempts to answer those questions. It presents several exploratory analyses that the research team conducted to better understand the variation in impacts among women in different circumstances and over time.[1] While none of the analyses included here provide a definitive explanation for why the impacts varied as they did, the chapter proposes several hypotheses that can be further investigated in future studies.

How Uniform Were the Impacts on Women in Different Circumstances?

The Grameen America evaluation enrolled a heterogeneous population of women who came into the study with varying experiences and household characteristics. The case studies presented in the report provide a glimpse into that heterogeneity. It is possible that the Grameen America

[1] These analyses were not prespecified in the evaluation's analysis plan.

program had different impacts on women in different circumstances. In-depth interviews with program participants, as well as the pattern of impacts for all the women in the study, suggest that this is the case.

To help understand whom the Grameen America program benefited—and whom it benefited most—the research team performed an additional set of analyses. These analyses split all of the women in the study—those in the Grameen America group and those in the control group—into subgroups based on characteristics of interest to the study. Then, the research team estimated the impacts of the Grameen America program on several outcomes within each of the subgroups and compared the impacts across the subgroups.[2] This type of subgroup analysis can also be informative for future program targeting and adaptations.[3]

The analysis split the women in the study into the following subgroups:

- Had a new or existing business. Previous studies suggest that individuals with existing businesses are more likely to benefit from a microlending program compared with those who are just launching a business.[4] Was this the case for Grameen America as well? And if so, why? Did women who came into the program with businesses stay in the program longer? If this is the case, it has important implications for recruiting and enrolling women into the program.
- Operated a direct-selling/multilevel marketing (MLM) business. Studies have shown that the vast majority of individuals who run direct-selling/MLM businesses lose money.[5] Therefore the Grameen America program may have had smaller (or even negative) impacts among women who operated or planned to operate a direct-selling/MLM business compared with women who operated or planned to operate other types of businesses.
- Income level. There is some evidence that microlending has larger impacts on households with lower incomes.[6] Households with higher incomes may gain little from the addition of a small amount of business income compared with households with lower incomes, for whom a business may represent an opportunity to improve earnings. The subgroup analysis compared women whose weekly household income was less than $400 with women whose household income was $400 or more.[7]

[2] All of the subgroup analyses are considered exploratory because the study did not have sufficient statistical power to detect likely impact differentials across subgroups. A study's power is, in part, related to the number of individuals in the sample. Because of that, in this study, only large differences in impacts across subgroups could be detected, and the study may conclude that there was not an effect on an outcome for a group of people where there was actually an effect. See the Grameen America publicly registered analysis plan for more details. The analysis plan also provides more theoretical justification for the subgroups. (Hendra, Nuñez, and Schaberg, 2018.)

[3] It should be noted that calculating impacts for multiple subgroups does increase the risk that a study will conclude there is an effect on an outcome for a certain group of people when there is not actually an effect. This risk is known as the problem of "multiple comparisons bias" and is discussed more in Appendix A.

[4] Angelucci, Karlan, and Zinman (2013); Crépon, Devoto, Duflo, and Pariente (2011).

[5] Keep and Vander Nat (2014).

[6] Karlan and Zinman (2007).

[7] The Grameen America analysis plan prespecified that the income subgroup would be based on having above or below the median income for the sample at baseline. The median income was around $400.

In order to try to isolate the moderating effects of social networks, the analysis also divided the women into two subgroups based on the characteristics of the five-member loan groups they were in:

- Strength of group ties or familiarity among members of each loan group at study entry. Group-lending models such as Grameen America rely on participants to vet their fellow borrowers and to ensure repayment through social pressure or by helping other members financially. These ties might also provide a system of support in times of need. Thus, it is possible that the individual outcomes of borrowers depended, in part, on the strength of ties within their loan group.

- The number of different types of businesses loan group members operated or intended to operate. When economic conditions change, some industries and business sectors may be particularly affected. Sectors may also be more or less affected by seasonality. Borrowers in the same loan group who operated businesses in the same industry might have seen their sales move up or down in tandem. Low business diversity might have meant that all participants suffered losses simultaneously and thus were unable to help each other with repayment or in other ways.

The findings of the subgroup analyses focus on total net income and types of material hardship (the study's primary outcomes) and on business operation, average earnings from a business, and social support (the study's mediating outcomes). Box 6.1 further explores outcomes associated with reductions in material hardship. There were several findings of note:

- With a few exceptions, the Grameen America program's effects did not differ across subgroups, signaling that the program was effective for the diversity of women it served. (See Appendix Tables B.1 to B.5.) For example, Grameen America increased the likelihood of operating a business among all of the subgroups examined; these impacts were statistically significant among all subgroups except for the subgroup of women who were more familiar with the other members of their loan group at study entry. Moreover, the differences in the impacts across the subgroups were not statistically significant.[8] This suggests that the program may have equally benefited women in different circumstances.

- There were impacts on net monthly income for a few of the subgroups, although the differences in impacts across subgroups were not statistically significant. For example, among women who entered the study already operating a business, Grameen America increased net income by a statistically significant amount (see Appendix Table B.2). Among women who entered the study not operating a business, the difference in net income was negative and not statistically significant.

- Subgroups that experienced larger reductions in material hardship, such as women who came into Grameen America with lower incomes or who were not operating a direct-selling/multilevel marketing business (MLM), also experienced weaker relative

[8] As noted earlier, the study was not powered to detect likely impact differentials across subgroups. This may be another reason why the differences in impacts were not statistically significant.

Box 6.1

What Other Outcomes Were Associated with the Reductions in Material Hardship?

Chapters 4 and 5 present several hypotheses for what may have driven the reductions in material hardship among women the Grameen America group. This box examines some of these hypotheses and tries to assess the underlying relationships between the material hardship outcomes and other outcomes among women in the Grameen America group.

A nonexperimental analysis (that is, an analysis that makes comparisons that do not necessarily show the impact of Grameen America but still help to understand the results) assessed whether women in different circumstances at study entry—based on their net income level, amount of savings, level of social support, and amount of loans taken out—experienced more or less material hardship.* Each panel in the table below splits the women into three groups based on low, medium, and high levels of these outcomes, and then shows the average number of material hardships experienced in the last 12 months by the women in each group, as well as the percentage of women in each group who experienced any material hardship. For example, the first panel splits the women into three groups based on their total net monthly income: those with a net income of $400 or less, those with a net income between $401 and $1,999, and those with a net income of at least $2,000. The findings in the table present more supporting evidence for the hypotheses presented in Chapter 4 on what might be driving the material hardship reductions:

- *Additional cash flow provided by the Grameen America loan or from having a higher income may have given the women a broader set of options to meet their financial obligations*. Thirty-three percent of women with the highest incomes experienced any material hardship in the last year, compared with 41 percent of women with medium income and 48 percent of women with the lowest income. A similar pattern is seen based on the amount of loans women took out from Grameen America (as measured by the program tracking data): The women who took out the most in loans had the lowest levels of material hardship, on average. In normal credit markets this might merely reflect that those with larger incomes can command larger loans. In Grameen America, however, loan sizes are not conditioned on borrower income. This makes the result more intriguing as an additional possible indicator that the loans may have served as an additional "income source" that helped women cover their regular and unexpected expenses, thereby reducing material hardship.

- *Having access to additional financial resources such as savings could provide a sort of safety net.* Women with higher levels of nonretirement savings experienced less material hardship, on average, than women with lower levels of savings or no savings. Twenty-one percent of women with savings of at least $2,000 experienced any type of material hardship compared with 46 percent of women with any savings less than $2,000 and 59 percent of women with no savings.

- *Having a broader network of support from the other women in their loan group or loan centers may have given women someone to rely on in times of need.* Among women who had someone they could ask a favor of or someone they could borrow $250 from in an emergency, 37 percent experienced any material hardship. This is lower than the rate of material hardship experienced among women who did not have someone they could ask for help (56 percent).

Overall, these findings support the idea that many aspects of the Grameen America program contributed to reducing material hardship. No one outcome appears to have been the sole driver of the reductions. While the differences were not necessarily due to the Grameen America program, they do provide an explanation for how Grameen America's impact on savings might relate to Grameen America's impact on material hardship.

(continued)

* Ideally this analysis would also have examined the role of impacts on credit, given that the Grameen America program had a large impact on credit scores, which could have also had an impact on material hardship. Data use restrictions, however, made it impossible to conduct individual-level analyses using the credit data.

Box 6.1 (continued)

Outcome	$400 or less	$401-1,999	$2,000 or more
	Amount of Net Monthly Income		
Number of material hardships experienced	1.03	0.90	0.66
Experienced any material hardship (%)	48.2	40.9	33.0
Sample size	194	324	216
	Amount of Nonretirement Savings		
	$0	**Less than $2,000**	**$2,000 or more**
Number of material hardships	1.50	0.93	0.32
Experienced any material hardship (%)	58.9	46.4	21.0
Sample size	193	281	200
	Number of Social Supports[a]		
	None	**One**	**Both**
Number of material hardships experienced	1.75	0.94	0.71
Experienced any material hardship (%)	55.8	44.1	37.1
Sample size	77	128	526
	Amount Taken Out in Grameen America Loans		
	$500-2,999	**$3,000-13,999**	**$14,000 or more**
Number of material hardships experienced	0.97	0.88	0.59
Experienced any material hardship (%)	41.7	41.0	33.5
Sample size	157	340	179

SOURCES: MDRC calculations from responses to the Grameen America 36-month survey and program-tracking data provided by Grameen America.

NOTES: Sample sizes may vary due to missing values.
[a]Social supports include having someone to borrow $250 from in case of an emergency and having someone to ask for a favor like for a ride, to babysit, or to borrow something small.

impacts on total net monthly income. This provides some very preliminary evidence suggesting that increases in income might not be the main channel (or at least the only channel) for reductions in material hardship. As was the case in the 18-month report, there was no impact on the number of material hardships reported among women who were either already operating or intending to operate a direct-selling/MLM business.

- The difference in impacts on monthly business earnings was statistically significant across subgroups based on whether women were operating a business when they entered the study. (See Appendix Table B.2.) Grameen America increased earnings among women who were already operating a business when they entered the study by $213. Among women who were not operating a business, however, it appears that Grameen America reduced earnings, though the reduction of $155 is not statistically significant. A similar pattern was observed in the effects on total net income, although the difference in impacts across subgroups is not statistically significant.

- A similar pattern was noted for the subgroups based on the diversity of business types in each loan group. Grameen America increased earnings among loan groups with more types of businesses (four or more) but did not have a statistically significant effect among those with less than four business types. This could be due to women not having to complete with other members of their loan group for customers in their communities, or to women being able to sell their products or services to other members of their loan group who operated different types of businesses.

- There was some interesting variation in impacts on the measures of social support, specifically on having someone to ask for a small favor. For example, there were positive impacts on this measure among women with higher household incomes but not among women with lower household incomes; the reasons are unclear. Perhaps more intuitively, there was a positive impact among women in loan groups with more diverse business types but not among women in loan groups with fewer business types. As mentioned above, better outcomes were expected among the former subgroup because a diversity of business types would make it less likely that group members would be competing with one another for business.

How Did Borrowers' Use of Self- and Wage-Based Employment to Generate Income Change Over Time?

The implementation analysis—including the case studies—highlighted that the women in the Grameen America program often moved in and out of self- and wage-based employment over time depending on their current circumstances. This section explores this dynamic between self- and wage-based employment further by looking at the most common employment trajectories women in the Grameen America group took as the study progressed.

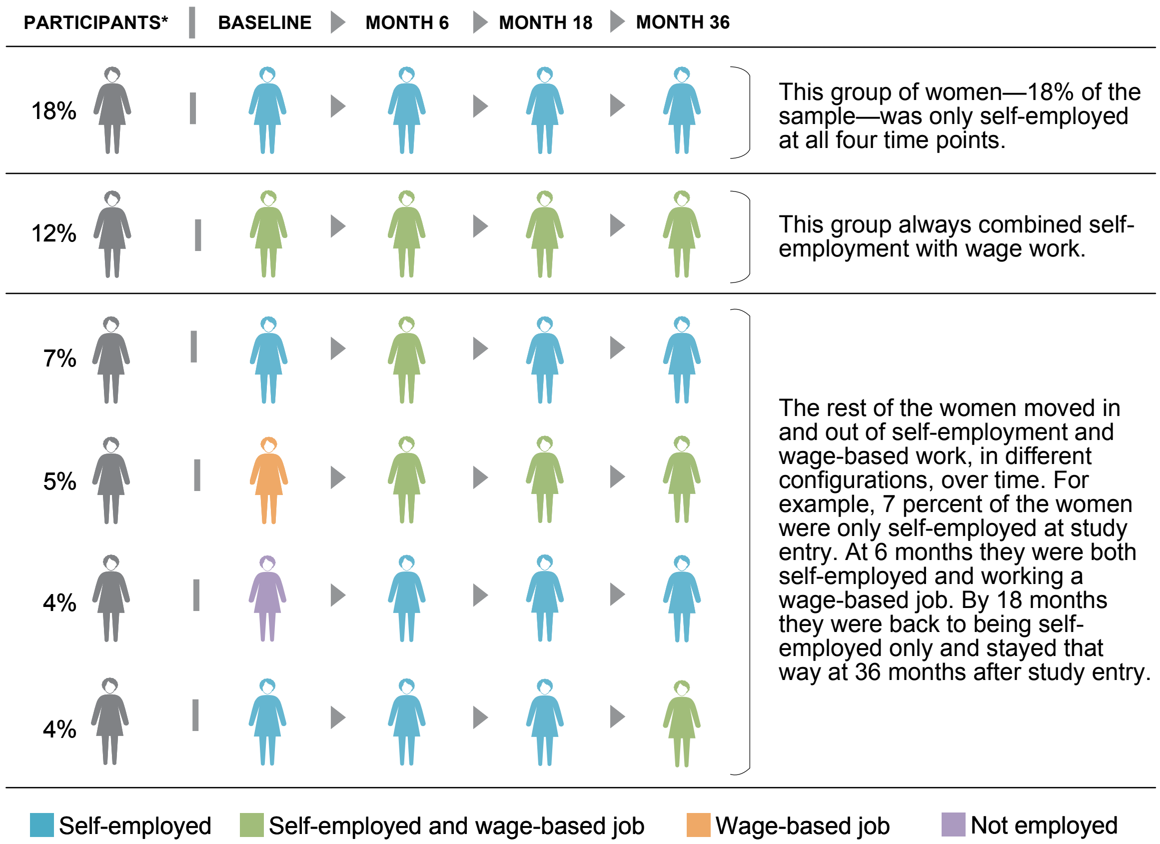
The women in the study were asked whether they were currently operating a business and working a wage-based job at four points in time: when they entered the study, and then around 6, 18, and 36 months after they entered. Figure 6.1 highlights some of the employment trajectories among women in the Grameen America group. The most common trajectory consisted of women who were always operating at least one business and did not have wage-based work. That is, 18 percent of women in the Grameen America group were only self-employed at each of the four time points documented by the study. The second largest trajectory consisted of women who combined self-employment and wage work (12 percent). At each of the four time points documented by the study, these women were operating at least one business while also working a wage-based job. About 70 percent of the women moved in and

Figure 6.1

Self- and Wage-Employment Trajectories from Baseline to Month 36, Among Grameen America Group Respondents

The women in the Grameen America group were asked in surveys at the time they entered the study and then at around 6, 18, and 36 months after study entry whether they were currently operating a business and working for an employer.

Findings from the implementation analysis showed that Grameen America borrowers often combined multiple sources of income to make ends meet and moved in and out of self- and wage-employment over time based on their current circumstances.



NOTE: *Percentages do not add up to 100 because only the most common combinations/employment trajectories are shown.

Only the 611 women in the Grameen America group who responded to the 6-, 18-, and 36-month surveys are included in this analysis.

out of self-employment and wage-based work, in different configurations, over time, hinting at the range of circumstances that Grameen America borrowers might experience that lead them to move in and out of self- and wage-employment.

The analysis highlights the changing role that operating a business might play in the economic lives of borrowers. The case studies presented throughout the report illustrate this point as well. For example, at certain points in their lives, both Soledad and Alejandra relied on their businesses as their main sources of income and invested time and effort to expand those enterprises. When the women's circumstances changed, however, their businesses served primarily as a way to supplement the income from wage-based jobs or other sources.

It is also possible that some women in the Grameen America program worked wage-based jobs that were low-paying or temporary, and a small business might be viewed as a way to fill any gaps in income. This is noteworthy because while the evaluation focused on seeing whether Grameen America had an effect on operating a business and on earnings from a business, some borrowers might not be seeking to expand their businesses or to significantly increase their earnings from those businesses. The effects on those outcomes may also reflect the role that a borrower assigns to her business and how the business fits within a wider portfolio of financial strategies.

Why Was the Difference in Net Income More Substantial at 36 Months Than at 18 Months? And Why Were the Material Hardship Impacts Somewhat Weaker?

As discussed in previous chapters, Grameen America's effect on net income grew stronger between the 18- and 36-month points. At 18 months, the program had no effect on net income (there was a small, 3 percent reduction in income at that time), while at 36 months, the program led to a positive and close to statistically significant impact on net income (a 13 percent increase). This is in contrast to the somewhat weaker effects seen on material hardship at 36 months compared with 18 months. While the program led to statistically significant reductions in material hardship in both time periods, many of the material hardship reductions shrunk or were no longer statistically significant at 36 months. The research team conducted an analysis to try to better understand what led to these changes over time.

Net income

Mathematically, it is clear why the difference in net income was more substantial at 36 months than at 18 months. At 18 months, it appears that the increase in earnings from a business was almost perfectly offset by the decrease in earnings from a wage-based job.[9] At 36 months, however, the reduction in earnings from a wage-based job dissipated, while the increase in earnings from a business remained stable. This led to a smaller difference in net income across the research groups in that time period.

The wage-based and self-employment effects follow a similar pattern. Women in the Grameen America group increased their engagement in wage-based employment between the 18- and 36-month study periods. Thus, at 36 months, women in the Grameen America group were as likely to engage in wage-based employment as women in the control group. However, even though there was still a statistically significant increase in self-employment at 36 months, fewer women in the Grameen America group

9 See Figure 4.1 in Quiroz- Becerra, Schaberg, Holman, and Hendra (2020).

were still operating a business at that time (compared with the percentage of women operating a business at 18 months).[10]

It is unclear what was driving these changes in employment patterns, and therefore earnings, over time. One possibility is that women were putting their business on hold (either temporarily or permanently) and instead focusing on wage employment. This could be because they were able to earn more from working a wage-based job or experienced some other type of benefit, such as income stability or work-related benefits.

A nonexperimental analysis explored this question more closely and compared the average incomes of women in the Grameen America group with different employment statuses at 18 months and at 36 months. Table 6.1 shows the average net income in both time periods among women who were only operating a business, among those who were only working a wage-based job, and among those who were doing both (due to small sample sizes, outcomes are not shown among women who were not employed at all).

Earnings and income levels increased from 18 to 36 months among women in all three employment statuses, as expected. (Increases in income over time are often seen in randomized controlled trials, since applying for a program like Grameen America can be an indicator of financial need.) In both time periods, women who had a business and a wage-based job had the highest net incomes, on average. This aligns with the finding from the implementation analysis that found that many women relied on income from multiple sources to support themselves and their households. Further, among women who were only engaged in one type of work, those who were only working a wage-based job had an average net income almost twice as high as the average net income of women who were only self-employed.[11]

Do these findings mean that most women in the Grameen America group could not rely on their businesses alone to generate enough income for their households? Or that working a wage-based job often paid more than what the women could earn from their businesses?

The evidence seems to suggest that the answer to both of these questions is: Yes. Findings from the implementation analysis showed that most businesses operated by the women were small and focused primarily on providing goods and services to family, friends, and acquaintances. Additionally, some women might be mainly seeking to supplement their household income and thus were not spending enough time in the business for it to grow substantially. As such, it is possible that these types of businesses may not have been able to generate enough income to sustain a household. And this could be the reason why some women transitioned from self- to wage-employment between 18 and 36 months, and therefore, why the difference in net income was larger in the later time period.

[10] Similar numbers of women combined wage-based work and a business in both time periods. At 36 months, however, more women were solely working a wage-based job than at 18 months.

[11] Women who only worked a wage-based job owed substantially more in bills and loans at 36 months compared with women in other employment arrangements and what they owed at 18 months (not shown in table). This may be because women who took out loans for their businesses had another "income source" and may have been able to pay certain bills on time using these funds, even if in the long run they did not make more money. The women who only worked a wage-based job had higher net incomes than those who were self-employed, but they did not have another income source to fall back on, making them more likely to accrue debt from any bills they are unable to pay.

Table 6.1

Income and Material Hardship Outcomes, by Employment Status at 18 and 36 Months, Among Women in the Grameen America Group

Outcome	Wage-Employment Only	Self-Employment Only	Wage- and Self-Employment
18-month outcomes			
Average total net income in prior month ($)	1,812	813	1,833
Number of material hardships experienced in the last 12 months	1.3	1.0	1.0
Sample size	39	438	307
36-month outcomes			
Average total net income in prior month ($)	1,964	933	2,127
Number of material hardships experienced in the last 12 months	0.9	0.8	0.9
Sample size	70	345	283

SOURCES: MDRC calculations from responses to the Grameen America 18-month and 36-month surveys.

NOTE: Outcomes are not shown among women who were not employed at all due to small sample sizes.

Material hardship

The research team conducted a similar analysis looking at material hardship outcomes. Table 6.1 shows the average number of material hardships experienced by women in the Grameen America group in the three different employment statuses.

The findings show that overall, the material hardship levels were lower at 36 months than at 18 months for women in all of the employment statuses. While at first glance this appears to confirm a strong relationship between net income and material hardship (because as noted earlier, income levels increased from 18 to 36 months for all women), the picture is more complicated.

In general, at 18 months, women who combined wage- and self-employment and those who were only self-employed had lower levels of material hardship than women who only worked a wage-based job. This suggests that the reductions in material hardship at that time were at least somewhat related to operating a business. At 36 months, however, the levels of material hardship were fairly similar across the groups, suggesting that another factor, such as increased savings or social support, may have been at play.

7 What Has Been Learned from Evaluating Grameen America?

The evaluation of Grameen America suggests that the program offers more than just a loan to invest in a small business.

The evaluation provides strong evidence that the program contributed to reducing material hardship. Women in the Grameen America group experienced fewer types of material hardship, on average, compared with women in the control group. This was evident in analyses of all three follow-up surveys completed at 6, 18, and 36 months after study entry. The program also produced positive but modest impacts on monthly net income for women in the Grameen America group compared with the control group. Though the evidence is not as definitive, the increase seems related to higher average earnings from a business: Three years after study entry, the average monthly earnings from a business for women in the Grameen America group were higher than those for women in the control group. The program did not seem to have an effect on wage-based employment. That is, earnings from wage-based employment were comparable for women in the Grameen America group and women in the control group.

The evaluation suggests that the relationship between wage-based work, business ownership, material hardship, and savings is complex for women in the Grameen America program, many of whom live precarious financial lives. Overall, the evidence suggests that there are various aspects of the program that likely contributed to reducing material hardship. Increasing income (even if not by a statistically significant amount) might increase cash flow and allow participants to meet financial obligations, thus reducing material hardship. Evidence from the subgroup analysis, however, suggests that reductions in material hardship did not solely derive from the modest increases in net income, and that impacts on income and material hardship were not closely aligned across subgroups.

Additionally, the Grameen America program increased nonretirement saving, which may have reduced material hardship, giving women funds to draw on in times of need. The program also contributed to strengthening relationships among members of loan groups and broadening social support systems. These outcomes might also contribute to lessening material hardship.

No single outcome appears to have been the sole driver of the reductions in material hardship. This suggests that the original theory of change, as illustrated in Figure 2.1, may need some rethinking. There were notable shifts over time in how women combined self-employment and wage-based employment to get by, for example. And it seems clear from the subgroup analysis and other nonexperimental analyses discussed throughout the report that net income was not the only driver of improvements in material hardship and savings. Instead, a richer picture emerges in which income from the loans provided the liquidity that women needed to pay bills and put some money aside to help weather future crises. Social support from members of a loan group also seemed to at least correlate with material well-being. Further research is needed to understand these cash flow dynamics.

Other positive outcomes associated with participating in the Grameen America program include the increase in the likelihood of having a VantageScore and a Prime VantageScore. Both of these outcomes may have given program participants a broader set of financial options. Grameen America's impact on credit scores may also have played a role, though as mentioned earlier, these data were not available at the individual level.

The evaluation did not yield evidence that suggests that the Grameen America program contributed to increasing personal or business assets. Also, the program did not have an impact on remittances.

One question the evaluation did not tackle is the possibility of displacement. Displacement refers to the possibility that any gains in income from self-employment may have come at the cost of reduced self-employment income for individuals not in the evaluation. Market saturation could also have displaced the business activity of others outside the study. Understanding the extent to which displacement was occurring requires a complex research design that was beyond the scope of this study.

Evaluating an Evolving Organization and Program

This evaluation took place over the course of nine years. During that time, Grameen America as an organization grew, evolved, and adapted. For instance, it went from primarily using paper-based record-keeping to using digital technology to disburse loans and receive payments. The organization also grew in size and reach. To date, Grameen America has served over 142,500 borrowers across the country.

As data collection for the evaluation ended in early 2020, COVID-19 was beginning to spread throughout the United States. News and academic reports indicate that Latinx immigrants were among the populations hardest hit by the pandemic.[1] Unemployment rates in these communities soared and people struggled to pay their bills, buy groceries, and cover medical costs.[2] In response, Grameen America adopted a series of changes to ease the challenges their borrowers were facing. One initial step was to move

[1] The United States Census defines Latino (masculine) or Latina (feminine) as any person of "Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin." In recent years, research literature and other publications have started using "Latinx" as a broader, gender-neutral reference to this population. See Carnevale and Fasules (2017); Nichols (2017).

[2] Pew Research Center, 2021.

weekly center meetings from in-person to virtual meetings.[3] The program also facilitated remote loan disbursement and repayment using direct deposit and debit cards or electronic transfer via an automated clearinghouse (ACH).

To ease the financial distress that many borrowers were experiencing, the program charged zero percent interest on all loans from April to June of 2020, when many cities closed down. The program also added a number of loan repayment options to give borrowers more flexibility. For instance, borrowers were allowed to cut in half their current weekly loan payments if requested. Also, if a borrower was ill, in quarantine, or caring for a sick family member, Grameen America allowed her to suspend payments for several weeks. The program also allowed members to get credit for attending meetings even if they could not make a loan payment for any reason, such as if their businesses were shuttered during lockdowns.

This report cannot address the experiences of Grameen America borrowers during the pandemic, as data collection ended prior to the COVID-19 outbreak. The evaluation, however, shows that the program offered borrowers a wider set of options and affected several outcomes (such as increased savings, access to credit, and social support) that likely led to increased resilience during the pandemic. Further research on this topic is necessary to learn how the outcomes documented in this evaluation supported women during the major health and economic crisis caused by COVID-19.

Overall, the evidence makes it clear that it was not just income or just the loan that led to Grameen America's positive effects. By supporting more opportunities to combine work and businesses, by strengthening peer networks, and by providing some extra liquidity, the program helped borrowers become more financially resilient and able to face economic challenges in new ways. While these are encouraging findings, microlending programs such as Grameen America have limits in terms of their reach and their ability to provide the kinds of supports needed to help people with very low incomes find pathways to economic advancement, less material hardship, and increased well-being.

While this is the last impact report focused on the Grameen America program, the research team is planning a future report that will examine the benefits and costs of the Grameen America program. In addition, a follow-up study may take a deep look at the financial lives of a number of Grameen America participants and their households over a period of time, to better understand the dynamics of household cash flows. In this way, the team hopes to address some of the open questions raised by this report and to inform future interventions aimed at supporting populations with very low incomes.

[3] Early during the pandemic, the program used dial-in phone meetings and then switched to Zoom meetings to accommodate borrowers.

APPENDIX A

Collection and Analysis Approaches for Grameen America Evaluation Quantitative Data

How Many Women in the Study Responded to the Survey?

MDRC contracted with Decision Information Resources (DIR) to design and administer the 36-month survey. MDRC has worked with DIR on surveys for other studies, including evaluations of career advancement initiatives for individuals and households with low incomes. DIR staff members used their computer-assisted telephone interviewing call center and database system to conduct all interviews. Per the agreement with MDRC, DIR sought to interview at least 70 percent of both Grameen America group members and control group members, while maintaining a less than 3 percent differential in response rates between research groups. As shown in Appendix Table A.1, DIR met the response rate goals for both research groups and met the goal for the response rate differential.

To What Extent Were Survey Respondents Representative of the Full Sample?

The survey nonresponse analysis presented in this appendix examines whether the survey-based outcomes presented in the main report (which cover only 36-month survey respondents) can be generalized to the full research sample. To answer this question, three main analyses were performed:

1. **Comparison of Respondents and Nonrespondents**

   - Because the full Grameen America evaluation sample—both Grameen America group members and control group members—was contacted for the survey, respondents were expected to have characteristics similar to nonrespondents. Appendix Table A.2 compares select baseline characteristics between 36-month survey respondents and the full sample (which includes 36-month survey respondents). The numbers between the two columns were very similar, suggesting that respondents had similar characteristics to nonrespondents.

   - A logistic regression was also run to test whether key baseline characteristics could predict whether an individual was a respondent to the 36-month survey. Separate regressions were run by random assignment cohort. (See "Random Assignment Ratio" section, below, for more information on the random assignment cohorts.) A regression was not run among the first random assignment cohort due to the small sample size of that cohort. The models included several characteristics that were regressed on a dichotomous survey response indicator (1 = survey respondent; 0 = nonrespondent).

   - Appendix Table A.3 shows that 36-month survey respondents in the second random assignment cohort (those randomly assigned with an 80/20 ratio) differ compared with nonrespondents in that cohort across the measured baseline characteristics; the logistic regression model is statistically significant (p-value = 0.008). The results show that respondents were more likely than nonrespondents to be older, to have a higher number of children living in their households, and to have a credit card at baseline.

- Appendix Table A.3 also shows that among individuals in the third random assignment cohort (those randomly assigned with a 65/35 ratio), 36-month survey respondents differ compared with nonrespondents across the measured baseline characteristics; the logistic regression model is statistically significant (p-value = 0.005). The results show that respondents were more likely than nonrespondents to be older, to have a higher number of children living in their households, to have a higher level of familiarity with other loan group members, and to have operated or intended to operate a higher number of business types at baseline.

2. **Comparison of Grameen America and Control Group Respondents**

- Because of random assignment, Grameen America group members were expected to be similar to control group members, and thus, respondents should also be similar across research groups. MDRC conducted an analysis to check for statistically significant differences in select baseline characteristics across research groups among 36-month survey respondents. Only one statistically significant difference in baseline characteristics across research groups was found (Appendix Table A.4). The p-value for this characteristic among the full sample was right above the threshold for statistical significance (p-value = 0.100).

- A logistic regression analysis was also conducted to test whether key baseline characteristics could predict whether a respondent to the 36-month survey was in the Grameen America group. Separate regressions were run by random assignment cohort. (A regression was not run among the first random assignment cohort due to the small sample size of that cohort.) The models included several characteristics that were regressed on a dichotomous Grameen America group indicator (1 = Grameen America group; 0 = control group).

- Appendix Table A.5 shows that among survey respondents in the second random assignment cohort (80/20 ratio), Grameen America group members were similar to control group members across the measured baseline characteristics; the logistic regression is not statistically significant (p-value = 0.339).

- Appendix Table A.5 also shows that among respondents in the third random assignment cohort (65/35 ratio), Grameen America group members differed in comparison with control members across the measured baseline characteristics; the logistic regression model is statistically significant (p-value < 0.001). The results show that Grameen America group respondents were more likely than control group respondents to have a higher number of children living with the respondent, to have a bank account at baseline, to currently or intend to operate a multi-level marketing business, to be in loan groups that had higher levels of familiarity among members, and to be in loan groups that have more types of businesses. Control group respondents were more likely to speak English well in comparison with Grameen America group respondents.

3. **Grameen America 36-Month Survey Weighted Impacts**

- Appendix Table A.6 shows impacts on the study's primary and mediating outcomes weighted by the likelihood of survey response. The weights were used as a sensitivity check to see if there were any issues with the representativeness of who responded to the survey.

- Weights were calculated separately for each random assignment cohort to account for differences in the random assignment ratios and characteristics of sample members. The sample size of the first random assignment cohort (50/50 ratio) was too small to estimate weights, so the weight for each individual in that cohort was set to 1. Weights for the other two cohorts were calculated by first, running a logistic regression within each cohort to obtain the predictive probability that each individual responded to the survey. The models included several characteristics that were regressed on a dichotomous survey response indicator (1 = survey respondent; 0 = nonrespondent). The mean predictive probability for each cohort was calculated and then divided by each individual's predictive probability to obtain the survey weight for each sample member.

- The results of the weighted analysis are extremely similar to the unweighted impacts for the most part. There are statistically significant impacts on most of the same outcomes, and the strength of those impacts are very similar. The one measure in which there is no longer a statistically significant impact after applying the weights is average monthly business earnings in the prior month. The difference is still positive, although somewhat smaller than in the unweighted impacts. In general, the results provide assurance that there were not likely any serious issues with the representativeness of the survey sample.

Estimating the Effects of Grameen America

Before estimating the effects of the Grameen America program, MDRC conducted an analysis planning process and registered an analysis plan in the American Economic Association's registry for randomized controlled trials.[1] All the analytic decisions discussed in this section were prespecified during that planning process and are included in the analysis plan. Prespecification is a key means of safeguarding a statistical study from drawing false conclusions. By prespecifying, analysts are limited in their ability to "search for impacts" when they may not be present.

[1] See Hendra, Nuñez, and Schaberg (2018).

Random Assignment Ratio

The Grameen America evaluation used a cascading random assignment ratio because of the nature of Grameen America's recruitment process. Nearly all recruitment for the program occurs through recommendations and referrals by existing members. Individuals who ended up in the control group were unlikely to refer their friends or family members.

Initially, a 50/50 random assignment ratio was used. With this ratio, however, only half of the groups that entered the study were potential referral sources for additional groups. This slowed recruitment to an unsustainable point. The evaluation team decided to change the random assignment ratio to 80/20 and eventually to 65/35. The de facto "average" random assignment ratio is 70/30. The table below shows the enrollment dates for each random assignment cohort, along with the number of sample members and 36-month survey respondents who were randomly assigned in each cohort.

Covariates

Covariate selection for the Grameen America evaluation was based on both theory and modeling. All covariates are based on pre-random assignment characteristics. Both individual-level and loan group-level covariates were included to increase statistical precision.

The following is a list of the baseline characteristics that MDRC used as covariates in the regression models for survey-based outcomes at the individual level:

- Age
- Number of children living with sample member
- Currently operating own business
- Currently working for an employer
- Highest level of education attainment was at most a high school diploma or GED certification
- Had a bank account
- Had a credit card
- Average level of familiarity with other loan group members
- Average monthly income contributed by other household members
- Currently operating or intends to operate a direct-selling/multilevel marketing business
- Never ran out of money in the past three months
- Lives apart from partner or spouse
- Speaks English well

- Average monthly income from own business
- Average total monthly total income

Loan group-level covariates were created by taking the mean of their equivalent individual-level covariates within loan groups. Loan group-level covariates used in the regression models included:

- Average familiarity among loan group members
- Average monthly income
- Percentage of loan group members operating their own business
- Number of loan purposes

For outcomes based on the credit data, the loan group-level covariates and two individual-level covariates based on the credit data were used. (The credit data files MDRC received from the credit agency were de-identified at the individual level, making it impossible to include individual-level covariates from the baseline data.) The individual-level covariates based on the credit data were has a VantageScore, and has a prime VantageScore.

Outliers

To improve precision, when estimating program effects on the key continuous outcomes (those that would be most affected by outliers, such as dollar-value measures), extreme values were identified as outliers and for some measures, outliers were top-coded, recoded using a substitute measure, or both. Appendix Table A.8 compares the impacts on income, savings, debt, and earnings measures by the level of exclusion of outlier values.

The first row under each measure shows the impact with all values included. The second row shows the impacts with extreme outliers removed or top-coded (these are the impacts presented in the main report). Not all measures shown in the table had extreme outliers, and for those measures, the impacts are the same in the first two rows. Some of the details on changes made to outlier values are included in the notes in Appendix Table A.8. The third row shows the impact after excluding the top 1 percent of values (or in the case of measures that had negative values, the top 1 percent and bottom 1 percent). The table shows that the findings in this report were robust to outliers in most cases.

Missing Data

Outcomes. Sample members with missing values for dependent variables (outcomes) were excluded from the impact estimates. Appendix Table A.9 shows the percentage of sample members with missing values on key outcomes from the 36-month survey. (There were no missing values for the credit data.) Note that the rates of missingness were higher for average total earnings for the entire household in the prior month, average total earnings from other household members in the prior month, and average amount of nonretirement savings for the respondent and her live-in partner or spouse compared with the other outcomes. However, the rates of missingness for those outcomes were similar across research groups.

The rates of missingness for total earnings for the entire household in the prior month and total earnings from other household members were higher because they were both composite measures. Total earnings for other household members were calculated as the sum of earnings from the respondent's spouse or live-in partner and earnings from any other household members (that were not a spouse or live-in partner). If either of those two measures was missing, then the composite measure was also missing. Total earnings for the entire household were calculated as total respondent earnings, total earnings of other household members, and income from any public assistance programs. If any of those outcomes was missing, then the composite measure was also missing.

Covariates. All individual level covariates in the regression models for estimating program impacts had missing values for some sample members. Among the full research sample, the proportion of missing responses for these measures ranged from less than 1 percent (for age) to 11 percent (for if a respondent never runs out of money at the end of the month). In response, missing values for individual level covariates were imputed using the full sample's mean, and dummy variables were added to the model for any covariates with more than 1 percent missingness. This resulted in missing indicators for four of the covariates (currently working for an employer, familiarity with other loan group members, never runs out of money at the end of the month, and average monthly total income).

The individual level measures used to create the group-level covariates all had missing values for some sample members. In response, the group-level covariates were calculated in two ways depending on the number of individuals in the group with a missing value for that measure. If only one or two members of the group were missing that measure, the group-level covariate was calculated by taking the mean value of the measure for all loan group members with non-missing values. If more than two members of the group were missing that measure, the group-level covariate was imputed using the full sample's mean. Loan group-level missing flags were created if their individual level equivalents had more than 1 percent missingness. Loan group-level missing flags were included for average group familiarity and the average monthly income of the loan group.

Comparison of Covariate-Adjusted versus Unadjusted Impacts

To test the sensitivity of the regression adjustment, MDRC compared the covariate-adjusted and -unadjusted research group means and differences (impacts) for primary and mediating outcome measures (see Appendix Table A.10). As shown, the adjusted and unadjusted estimates were very similar. These findings help increase confidence that the random assignment process resulted in the creation of research groups with similar characteristics and that the effort to field the Grameen America 36-month survey did not bias the results.

Standard Errors and Effect Sizes

Appendix Table A.11 displays more detailed statistical data on MDRC's impact estimates of the primary and mediating outcomes. These details are included to provide more information on the uncertainty associated with specific impact estimates; they may be useful to meta-analysts who are interested in including the Grameen America findings. For each measure, the first column shows the standard error. The second column displays the effect size in absolute values. For each measure, the effect size was calculated by dividing the impact estimate by the standard deviation for the full sample. Effect sizes standardize impact estimates for comparison with impact estimates from other studies.

For example, for the mediating outcome of average monthly business earnings, the standard error is 73.84. The standard error reflects the statistical uncertainty associated with this estimate, factoring in the sample size, the standard deviation, and the unit of measurement. The other element—the effect size (0.05)—indicates that is this a small-size impact based on statistical literature on effect sizes.[2]

Assessment of Possible Effects of Multiple Comparisons

In recent years, the issue of multiple test bias has become more prominent in both the academic literature and the field of program evaluation more generally. The basic issue is well known and not new. Every time one estimates an impact on an outcome, there is a precisely defined probability (conventionally 10 percent in such studies as Grameen America) of concluding that a program has had a true impact when the observed difference is simply due to chance. Since researchers typically examine many outcomes, the probability that at least one estimate will be statistically significant simply by chance can get very high.

A two-part strategy was used in this evaluation to deal with the potential for spurious correlations emerging from analysis of multiple outcome measures:

- The first was to distinguish between primary and secondary outcomes of interest and specifying single measures and units for each outcome (for example, monthly net income). The two primary outcomes in the evaluation were average net income in the prior month and number of types of material hardship experienced in the past 12 months.
- The second was to use the Benjamini-Hochberg procedure to adjust for multiple comparisons of the primary outcomes across domains. The Benjamini-Hochberg-adjusted p-values are shown in Box 4.1 in Chapter 4 and are discussed in the main report. It should be noted that the study was not powered for multiple comparisons.

[2] See Hill, Bloom, Black, and Lipsey (2007); Cohen (1988).

Appendix Table A.1

36-Month Survey Response Rates

Outcome	Grameen America Group	Control Group	Full Sample
Fielded sample (N)	1,044	448	1,492
Respondent sample (N)	740	321	1,061
Response rate (%)	70.9	71.7	71.1

SOURCE: MDRC calculations from Grameen America baseline data and responses to the 36-Month survey.

Appendix Table A.2

Selected Baseline Characteristics of Research Sample Members by Response to the 36-Month Survey

	Mean	
Outcome	**36-Month Survey Respondents**	**Full Sample**
Grameen America group (%)	69.7	70.0
Average age (years)	41	41
Hispanic or Latina (%)	99.0	98.5
Not born in the United States (%)	92.2	91.0
Moved to the United States in the past 5 years since study enrollment, among those born in another country (%)	*18.5*	*20.4*
Speaks English well (%)	24.6	26.6
No more education than high school, GED, or less education (%)	66.9	66.4
Lives with spouse or partner (%)	44.7	42.0
Parent of at least one child living in household (%)	67.2	65.3
Currently working for an employer (%)	47.8	50.0
Currently operating own business (%)	74.6	72.6
Average annual participant income[a] ($)	18,666	18,655
Average annual household income[b] ($)	22,962	22,990
Often or sometimes ran out of money in the past 3 months[c] (%)	64.8	65.3
Knows all group members well or very well (%)	39.0	37.8
Sample size	1,061	1,492

SOURCE: MDRC calculations from the Grameen America Baseline Information form.

NOTES: Sample sizes may vary because of missing values.
GED = General Educational Development certificate.
Italics indicate the metric is not among the full sample shown in the table.
[a]This measure is the sum of total earnings from self-employment and total earnings from a job. For the first 195 individuals randomly assigned, this also includes income from other types of work.
[b]This measure is the sum of total earnings from self-employment, total earnings from a job, and family member contributions to income.
[c]Data not available for first 195 participants randomly assigned.

Appendix Table A.3

Estimated Regression Coefficients for the Probability of Responding to the 36-Month Survey, by Random Assignment Cohort

	80-20 RA Ratio Cohort	65-35 RA Ratio Cohort
Characteristic	**Parameter Estimate**	**Parameter Estimate**
Individual-level covariates		
Grameen America group	-0.213	-0.222
Age	0.019*	0.013**
Number of children living with sample member	0.182**	0.235***
Currently operating own business	0.552	0.184
Currently working for an employer	-0.455	-0.009
Highest level of education attainment at most a high school diploma or GED	-0.261	0.133
Has a bank account	0.259	0.200
Has a credit card	0.573*	0.265
Average level of familiarity with other loan group members	-0.018	-0.042
Currently operating or intends to operate a multi-level marketing business	0.327	0.059
Never ran out of money in the past 3 months	-0.236	0.203
Lives apart from partner or spouse	0.483	-0.039
Speaks English well	-0.366	-0.215
Average monthly sample member income from own business	0.000	0.000
Average total monthly sample member income	0.000	0.000
Average monthly income contributed by other household members	0.000	0.000
Group-level covariates		
Average level of familiarity among all loan group members	0.123	0.202*
Average monthly income of all loan group members	0.000	0.000
Percentage of loan group members currently operating own business	0.539	-0.396
Number of business types loan group members operate or intend to operate	0.058	0.154**
Model statistics		
R-squared	0.094	0.047
Chi-square statistic	46.519***	47.961***
P-value of chi-square statistic	0.006***	0.004***
Sample size	473	994

SOURCE: MDRC calculations from the Grameen America baseline information form.

NOTES: RA = random assignment; GED = General Educational Development certificate.

A chi-square test was applied to differences between outcomes for 36-month survey respondents and non-respondents. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

A regression was not run for the cohort with a 50/50 random assignment ratio due to a small sample size for that cohort.

Appendix Table A.4

Selected Baseline Characteristics of All Sample Members and 36-Month Survey Respondents, by Research Group

	36-Month Survey Respondents				All Study Participants			
Characteristic (%)	**Grameen America Group**	**Control Group**	**Difference**	**P-Value**	**Grameen America Group**	**Control Group**	**Difference**	**P-Value**
Average age (years)	41	42	0	0.763	41	41	-1	0.591
Hispanic or Latina (%)	99.6	98.0	1.6**	0.031	98.9	97.6	1.3	0.186
Not born in the United States (%)	93.2	91.3	2.0	0.323	92.0	90.4	1.6	0.361
Moved to the United States in the past 5 years since study enrollment, among those born in another country (%)	*18.9*	*15.5*	*3.3*		*20.6*	*18.8*	*1.8*	
Speaks English well (%)	23.3	27.0	-3.7	0.226	26.1	26.1	0.0	0.996
No more education than high school, GED, or less education (%)	67.0	66.0	1.1	0.791	65.7	68.3	-2.7	0.446
Lives with spouse or partner (%)	43.7	48.6	-4.9	0.154	41.2	44.5	-3.3	0.304
Parent of at least one child living in household (%)	67.4	66.3	1.2	0.777	64.7	65.4	-0.7	0.845
Currently working for an employer (%)	48.1	46.8	1.3	0.759	50.1	49.2	0.9	0.810
Currently operating own business (%)	75.1	71.4	3.7	0.426	72.8	69.6	3.2	0.440
Average annual participant income[a] ($)	18,491	18,202	288	0.776	18,401	18,288	113	0.900
Average annual household income[b] ($)	22,693	22,614	80	0.940	22,653	22,691	-38	0.967
Often or sometimes ran out of money in the past 3 months (%)	0.2	0.2	0.0	0.100	0.2	0.2	0.0*	0.062
Knows all group members well or very well (%)	0.4	0.4	0.1	0.164	0.4	0.4	0.1	0.187
Sample size	740	321			1,044	448		

SOURCE: MDRC calculations from the Grameen America Baseline Information form.

NOTES: Sample sizes may vary because of missing values.
GED = General Educational Development certificate.
Italics indicate the metric is not among the full sample shown in the table.
[a]This measure is the sum of total earnings from self-employment and total earnings from a job. For the first 195 individuals randomly assigned, this also includes income from other types of work.
[b]This measure is the sum of total earnings from self-employment, total earnings from a job, and family member contributions to income.

Appendix Table A.5

Estimated Regression Coefficients for the Probability of Being a Grameen America Group Respondent to the 36-Month Survey, by Random Assignment Cohort

	80-20 Ratio Cohort	65-35 Ratio Cohort
Characteristic	Parameter Estimate	Parameter Estimate
Individual level covariates		
Age	-0.019	0.002
Number of children living with sample member	-0.124	0.126*
Currently operating own business	0.227	0.027
Currently working for an employer	-0.342	0.435
Highest level of education attainment at most a high school diploma or GED	0.527	-0.079
Has a bank account	0.511	0.493**
Has a credit card	-0.060	-0.031
Average level of familiarity with other loan group members	0.150	-0.009
Currently operating or intends to operate a multi-level marketing business	-0.175	0.400**
Never ran out of money in the past 3 months	0.427	0.247
Lives apart from partner or spouse	0.283	0.461
Speaks English well	0.052	-0.429**
Average monthly sample member income from own business	0.000	0.000
Average total monthly sample member income	0.000	0.000
Average monthly income contributed by other household members	0.000	0.000
Group-level covariates		
Average level of familiarity among all loan group members	-0.127	0.387***
Average monthly income of all loan group members	0.000	0.000
Percentage of loan group members currently operating own business	0.726	0.284
Number of business types loan group members operate or intend to operate	0.216*	0.217***
Model statistics		
R-squared	0.082	0.100
Chi-square statistic	29.006	74.419***
P-value of chi-square statistic	0.180	0.000***
Sample size	337	708

SOURCE: MDRC calculations from the Grameen America baseline information form.

NOTES: GED = General Educational Development certificate.
A chi-square test was applied to differences between outcomes for Grameen America group and control group respondents. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.
A regression was not run for the cohort with a 50/50 random assignment ratio due to a small sample size for that cohort.

Appendix Table A.6

Impacts on Primary and Mediating Outcomes, Weighted by Likelihood of Survey Response

Outcome (%)	Grameen America Group	Control Group	Difference (Impact)		90% Confidence Interval Lower	90% Confidence Interval Upper
Primary outcomes						
Average net income in prior month ($)	1,479	1,337	142		-38	323
Types of material hardship experienced in the last 12 months (N)	0.9	1.1	-0.2	*	-0.4	0.0
Mediating outcomes						
Currently operates own business(es) (%)	86.8	74.8	12.0	***	7.3	16.6
Average month earnings from own business(es) ($)	478	394	85		-46	215
Respondent has someone she could ask: (%)						
For a favor like a ride, to babysit, or to borrow something small	79.3	76.7	2.6		-2.7	8.0
To borrow $250 from for a few weeks because of an emergency	82.1	72.3	9.7	***	4.9	14.6
Sample size	740	321				

SOURCE: MDRC calculations from responses to the Grameen America 36-month survey.

NOTES: Sample sizes may vary because of missing values.
Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.
Rounding may cause slight discrepancies in sums and differences.

Appendix Table A.7

Enrollment Dates, by Random Assignment Cohort, and Sample Members and Survey Respondents Randomly Assigned in Each Cohort

Random Assignment Ratio	Enrollment Dates	Number of Individuals	Number of 36-Month Survey Respondents
50/50	March 18, 2014 – June 2, 2014	25	16
80/20	June 6, 2014 – June 2, 2015	473	337
65/35	June 6, 2015 – March 2, 2017	994	798

Appendix Table A.8

Comparison of Impacts on Income, Savings, Debt, and Earnings by Level of Exclusion of Outlier Values

Outcome	Sample Size	Grameen America Group	Control Group	Different (Impact)
Primary outcome ($)				
Average total net income in prior month[a]				
All responses	1,053	2,158	1,768	390
Extreme outliers removed or capped	1,053	1,485	1,312	172
Top and bottom 1 percent excluded	1,033	1,461	1,380	81
Mediating outcome ($)				
Average monthly earnings from own business(es)				
All responses	1,041	483	356	127*
Extreme outliers removed or capped	1,041	483	356	127*
Top and bottom 1 percent excluded	1,021	433	371	62
Other outcomes ($)				
Average monthly revenue from own business(es)				
All responses	1,047	1,641	1,086	555***
Extreme outliers removed or capped	1,047	1,641	1,086	555***
Top 1 percent excluded	1,037	1,507	1,034	473***
Average monthly expenses from own business(es)				
All responses	1,048	1,156	731	425***
Extreme outliers removed or capped	1,048	1,156	731	425***
Top 1 percent excluded	1,038	1,047	676	370***
Average monthly earnings at current job(s)[b]				
All responses	1,047	1,470	1,392	77
Extreme outliers removed or capped	1,047	876	897	-21
Top 1 percent excluded	1,037	865	857	8
Average amount taken out in loans to start or expand a business				
All responses	992	4,756	378	4,378***
Extreme outliers removed or capped	992	4,756	378	4,378***
Top 1 percent excluded	983	4,151	350	3,801***
Average income from other income generating activities				
All responses	1,059	77	49	28
Extreme outliers removed or capped	1,059	77	49	28
Top 1 percent excluded	1,037	39	39	0

(continued)

Appendix Table A.8 (continued)

Outcome	Sample Size	Grameen America Group	Control Group	Different (Impact)
Average total earnings for other household members in prior month[c]				
All responses	838	1,683	1,960	-278
Extreme outliers removed or capped	838	1,558	1,610	-52
Top 1 percent excluded	826	1,455	1,483	-28
Average total earnings for the entire household in prior month[d]				
All responses	808	4,296	3,739	557
Extreme outliers removed or capped	808	3,303	3,147	157
Top and bottom 1 percent excluded	792	3,476	3,266	211
Average amount of nonretirement savings for respondent and her live-in partner or spouse				
All responses	960	2,076	1,237	839***
Extreme outliers removed or capped	960	2,076	1,237	839***
Top 1 percent excluded	950	1,635	1,040	595***
Average amount currently owed on loans and bills				
All responses	1,021	4,079	4,177	-97
Extreme outliers removed or capped	1,021	4,079	4,177	-97
Top 1 percent excluded	1,009	3,504	3,197	307
Average remittances sent abroad in the past month				
All responses	997	113	111	2
Extreme outliers removed or capped	997	113	111	2
Top 1 percent excluded	987	90	71	19

SOURCE: MDRC calculations from responses to the Grameen America 36-month survey.

NOTES: Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

The impacts presented in the tables in the main body of the report are the impacts with extreme outliers removed or capped. No extreme outliers were identified or removed from measures except as indicated.

Rounding may cause slight discrepancies in sums and differences

[a]This outcome is a measure composed of earnings from respondents' own businesses, their current jobs, and their other income generating activities. Of these measures, earnings from respondents' current jobs had outliers that were recoded. This is further explained in footnote c.

[b]Respondents reported their wages and hours worked per week. Hourly wage outliers were identified as anyone in the 95 percentile of response ($80 per hour) and whose hourly wage multiplied by her hours worked was inconsistent with her reported weekly wage. These responses were recoded by dividing her weekly wage by her hours worked to obtain a more accurate hourly wage. This scheme was also used for anyone who reported a weekly wage and hours worked in one week but didn't report an hourly wage.

[c]This outcome is a composite measure composed of earnings from the respondent's spouse or live-in partner and earnings from any other household members (who were not the spouse or live-in partner). To control for outliers, both intermediate measures were capped at earnings of $9,999.95.

[d]This outcome is a composite measure composed of average total respondent income, average total earnings for other household members, and household income from public benefit programs.

Appendix Table A.9

Percentage Missing on Key Outcomes

Outcome (%)	Grameen America Group	Control Group
Primary outcomes		
Average total net income in prior month	0.8	0.6
Types of material hardship experienced in the last 12 months	1.1	0.9
Mediating outcomes		
Currently operates own business(es)	0.7	0.9
Average monthly earnings from own business(es)	2.3	0.9
Respondent has someone she could ask:		
For a favor like a ride, to babysit, or to borrow something small	0.1	0.0
To borrow $250 from for a few weeks because of an emergency	1.1	0.9
Other outcomes		
Average total earnings for the entire household in prior month	22.4	27.1
Average total earnings for other household members in prior month	20.1	23.1
Currently works for an employer	0.0	0.0
Average amount of nonretirement savings for respondent and their live-in partner or spouse	8.9	10.9
Average remittances sent abroad in the prior month	5.0	3.7
Took out at least one loan from Grameen America	0.9	1.6
Life satisfaction	0.8	0.0
Sample size	740	321

SOURCE: MDRC calculations from responses to the Grameen America 36-month survey.

Appendix Table A.10

Comparison of Adjusted versus Unadjusted Impacts, Primary and Mediating Outcomes

	Adjusted			Unadjusted		
Outcome	Grameen America Group	Control Group	Difference (Impact)	Grameen America Group	Control Group	Difference (Impact)
Primary outcomes						
Average total net income in prior month ($)	1,485	1,312	172	1,458	1,307	151
Types of material hardship experienced in the last 12 months (N)	0.9	1.1	-0.2**	0.9	1.1	-0.2**
Mediating outcomes						
Currently operates own business(es) (%)	86.5	74.8	11.7***	86.3	75.6	10.6***
Average monthly earnings from own business(es) ($)	483	356	127*	480	327	153**
Respondent has someone she could ask: (%)						
For a favor like a ride, to babysit, or to borrow something small	79.2	77.0	2.3	79.6	76.6	3.0
To borrow $250 from for a few weeks because of an emergency	82.0	72.4	9.6***	82.1	71.9	10.2***
Sample size	740	321		740	321	

SOURCE: MDRC calculations from responses to the Grameen America 36-month survey.

NOTES: Sample sizes may vary because of missing values.
Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.
Rounding may cause slight discrepancies in sums and differences.

Appendix Table A.11

Standard Errors and Effect Sizes for Key Outcomes

Outcome	Standard Error	Effect Size
<u>**Primary outcomes**</u>		
Average total net income in prior month ($)	104.75	0.05
Types of material hardship experienced in the last 12 months (N)	0.11	-0.06
<u>**Mediating outcomes**</u>		
Currently operates own business(es) (%)	0.03	0.13
Average monthly earnings from own business(es) ($)	73.84	0.05
Respondent has someone she could ask: (%)		
For a favor, like a ride, to babysit, or to borrow something small	0.03	0.02
To borrow $250 from for a few weeks because of an emergency	0.03	0.11

SOURCE: MDRC calculations from responses to the Grameen America 36-month survey.

NOTES: Sample sizes may vary because of missing values.
Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

APPENDIX B

Impacts on Primary and Mediating Outcomes Defined by Subgroups

Appendix Table B.1

Impacts on Subgroups Defined by Direct-Selling/Multilevel Marketing Business Status

	Did Not Have or Intend to Start a Direct-Selling Multilevel Marketing Business				Had or Intended to Start a Direct-Selling Multilevel Marketing Business				
Outcome	Grameen America Group	Control Group	Difference (Impact)	P-Value	Grameen America Group	Control Group	Difference (Impact)	P-Value	Sig.
Primary outcomes									
Average total net income in prior month ($)	1,616	1,490	126	0.410	1,239	937	302**	0.036	
Types of material hardship experienced in the last 12 months (N)	0.8	1.1	-0.3**	0.036	1.0	1.0	-0.1	0.804	
Mediating outcomes									
Currently operates own business(es) (%)	84.0	73.0	10.9***	0.001	91.4	77.6	13.8***	0.006	
Average monthly earnings from own business(es) ($)	517	453	64	0.549	420	161	260**	0.026	
Respondent has someone she could ask: (%)									
For a favor like a ride, to babysit, or to borrow something small	78.5	73.3	5.2	0.214	80.8	82.8	-2.0	0.670	
To borrow $250 from for a few weeks because of an emergency	82.9	71.8	11.1***	0.003	80.3	71.9	8.4*	0.091	
Other outcomes									
Currently operates a direct-selling/multilevel marketing business (%)	21.1	11.4	9.6***	0.005	66.5	52.6	13.9**	0.041	
Sample size	469	232			270	89			

SOURCE: MDRC calculations from responses to the Grameen America 36-month survey.

NOTES: Sample sizes may vary because of missing values.
Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.
Differences across subgroups were tested for statistical significance. Statistical significance levels (Sig.) are indicated as follows: ††† = 1 percent; †† = 5 percent; †= 10 percent.

Appendix Table B.2

Impacts on Subgroups Defined by Self-Employment Status

	Not Operating Own Business				Operating Own Business				
Outcome	Grameen America Group	Control Group	Difference (Impact)	P-Value	Grameen America Group	Control Group	Difference (Impact)	P-Value	Sig.
Primary outcomes									
Average total net income in prior month ($)	1,376	1,529	-153	0.513	1,511	1,242	269**	0.023	
Types of material hardship experienced in the last 12 months (N)	1.1	1.4	-0.3	0.141	0.8	1.0	-0.2	0.155	
Mediating outcomes									
Currently operates own business(es) (%)	75.3	61.0	14.4**	0.038	90.0	80.1	9.9***	0.002	
Average monthly earnings from own business(es) ($)	158	313	-155	0.323	582	369	213***	0.010	††
Respondent has someone she could ask: (%)									
For a favor like a ride,to babysit, or to borrow something small	74.5	70.9	3.6	0.628	81.0	79.1	1.9	0.606	
To borrow $250 from for a few weeks because of an emergency	77.2	70.6	6.6	0.232	83.3	73.8	9.6***	0.007	
Sample size	184	85			555	236			

SOURCE: MDRC calculations from responses to the Grameen America 36-month survey.

NOTES: Sample sizes may vary because of missing values.
Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.
Differences across subgroups were tested for statistical significance. Statistical significance levels (Sig.) are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

Appendix Table B.3

Impacts on Subgroups Defined by Household Income Level

Outcome	Household Income Less than $400				Household Income $400 or More				
	Grameen America Group	Control Group	Difference (Impact)	P-Value	Grameen America Group	Control Group	Difference (Impact)	P-Value	Sig.
Primary outcomes									
Average total net income in prior month ($)	1,075	1,067	8	0.954	1,828	1,705	123	0.434	
Types of material hardship experienced in the last 12 months (N)	1.0	1.3	-0.3**	0.038	0.8	0.9	-0.1	0.403	
Mediating outcomes									
Currently operates own business(es) (%)	84.2	74.2	10.0**	0.030	88.8	75.7	13.1***	0.001	
Average monthly earnings from own business(es) ($)	288	265	23	0.801	623	455	168	0.134	
Respondent has someone she could ask: (%)									
For a favor like a ride,to babysit, or to borrow something small	75.0	79.9	-4.8	0.284	84.4	75.7	8.6**	0.029	††
To borrow $250 from for a few weeks because of an emergency	78.0	72.3	5.7	0.126	85.3	72.9	12.4***	0.005	
Sample size	350	153			341	162			

SOURCE: MDRC calculations from responses to the Grameen America 36-month survey.

NOTES: Sample sizes may vary because of missing values.
Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.
Differences across subgroups were tested for statistical significance. Statistical significance levels (Sig.) are indicated as follows: ††† = 1 percent; †† = 5 percent; †= 10 percent.

Appendix Table B.4

Impacts on Subgroups Defined by Level of Familiarity Among Members of Loan Group

Outcome	Below Median Group Familiarity: Grameen America Group	Control Group	Difference (Impact)	P-Value	Above Median Group Familiarity: Grameen America Group	Control Group	Difference (Impact)	P-Value	Sig.
Primary outcomes									
Average total net income in prior month ($)	1,469	1,419	50	0.685	1,459	1,248	211	0.162	
Types of material hardship experienced in the last 12 months (N)	0.9	1.1	-0.2	0.209	0.9	1.1	-0.2	0.114	
Mediating outcomes									
Currently operates own business(es) (%)	86.4	71.8	14.6***	0.000	85.9	79.1	6.8	0.112	
Average monthly earnings from own business(es) ($)	502	380	122	0.239	459	382	77	0.473	
Respondent has someone she could ask: (%)									
For a favor like a ride,to babysit, or to borrow something small	82.2	76.3	5.9	0.139	77.5	77.7	-0.2	0.964	
To borrow $250 from for a few weeks because of an emergency	83.0	70.8	12.2***	0.000	81.4	72.9	8.5**	0.043	
Sample size	329	186			411	135			

SOURCE: MDRC calculations from responses to the Grameen America 36-month survey.

NOTES: Sample sizes may vary because of missing values.
Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.
Differences across subgroups were tested for statistical significance. Statistical significance levels (Sig.) are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

Appendix Table B.5

Impacts on Subgroups Defined by Number of Business Types Loan Group Members Operated or Intended to Operate

	Less than Four Business Types Within Loan Group				Four or More Business Types Within Loan Group				
Outcome	Grameen America Group	Control Group	Difference (Impact)	P-Value	Grameen America Group	Control Group	Difference (Impact)	P-Value	Sig.
Primary outcomes									
Average total net income in prior month ($)	1,397	1,220	176	0.248	1,603	1,407	196	0.222	
Types of material hardship experienced in the last 12 months (N)	0.8	1.0	-0.2	0.205	0.9	1.1	-0.2	0.235	
Mediating outcomes									
Currently operates own business(es) (%)	86.0	77.7	8.3**	0.016	86.9	71.7	15.1***	0.002	
Average monthly earnings from own business(es) ($)	414	398	16	0.885	584	300	285***	0.006	†
Respondent has someone she could ask: (%)									
For a favor like a ride,to babysit, or to borrow something small	77.8	80.5	-2.6	0.538	81.2	72.3	9.0*	0.057	†
To borrow $250 from for a few weeks because of an emergency	81.1	74.9	6.2	0.125	82.2	68.6	13.6***	0.000	
Sample size	430	190			310	131			

SOURCE: MDRC calculations from responses to the Grameen America 36-month survey.

NOTES: Sample sizes may vary because of missing values.
Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.
Differences across subgroups were tested for statistical significance. Statistical significance levels (Sig.) are indicated as follows: ††† = 1 percent; †† = 5 percent; †= 10 percent.

Appendix Table B.6

Impacts on Subgroup Defined by Random Assignment Date Relative to When Savings Component Was Introduced

	RA'd Before Savings Component Introduced				RA'd After Savings Component Introduced				
Outcome	Grameen America Group	Control Group	Difference (Impact)	P-Value	Grameen America Group	Control Group	Difference (Impact)	P-Value	Sig.
Primary outcomes									
Average total net income in prior month ($)	1,455	1,331	124	0.275	1,485	1,563	-78	0.799	
Types of material hardship experienced in the last 12 months (N)	0.8	1.1	-0.3***	0.007	1.1	0.7	0.3	0.276	†
Mediating outcomes									
Currently operates own business(es) (%)	86.1	73.6	12.5***	0.000	87.7	70.6	17.1**	0.031	
Average monthly earnings from own business(es) ($)	479	320	159**	0.049	486	681	-195	0.452	
Respondent has someone she could ask: (%)									
For a favor like a ride, to babysit, or to borrow something small	80.0	78.0	2.0	0.488	75.3	73.5	1.8	0.843	
To borrow $250 from for a few weeks because of an emergency	82.5	73.3	9.2***	0.001	78.1	72.7	5.4	0.552	
Other outcomes									
Average amount of nonretirement for respondent and her live-in partner or spouse ($)	2,080	1,228	852**	0.033	1,987	1,575	411	0.576	
Sample size (total = 1,055)	663	285			73	34			

SOURCE: MDRC calculations from responses to the Grameen America 36-month survey.

NOTES: Sample sizes may vary because of missing values.
RA = Random Assignment.
Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.
Differences across subgroups were tested for statistical significance. Statistical significance levels (Sig.) are indicated as follows: ††† = 1 percent; †† = 5 percent; †= 10 percent.
The savings component was introduced at the Grameen America Union City branch in 2017.
Impacts were not run by cohort, as in the other impact tables, due to the overlap between when savings was introduced and the random assignment cohorts.

APPENDIX C

Supplementary Tables on Chapter 5: Exploratory Analyses on Savings Effects

Appendix Table C.1

Impacts on Level of Nonretirement Savings at 36 Months

Outcome (%)	Grameen America Group	Control Group	Difference (Impact)	90% Confidence Interval: Lower	90% Confidence Interval: Upper	P-Value
Amount of nonretirement savings for respondent and her spouse or live-in partner						
$0	28.4	51.2	-22.9***	-28.0	-17.7	0.000
$1-1,000	37.3	25.9	11.5***	5.8	17.1	0.001
$1,001-3,000	16.9	10.9	6.0**	1.8	10.2	0.019
More than $3,000	17.4	12.0	5.4**	1.4	9.5	0.028
Sample size	740	321				

SOURCE: MDRC calculations from responses to the Grameen America 36-month survey.

NOTE: Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Appendix Table C.2

Estimated Regression Coefficients for the Probability of Having at least $2,000 in Nonretirement Savings

Characteristic	Women with at Least $2,000 in Savings Parameter Estimate
Individual-level covariates	
Age	-0.016*
Number of children living with sample member	-0.093
Currently operating own business	-0.061
Currently working for an employer	-0.723**
Highest level of education attainment a high school diploma or GED	-0.267
Has a bank account	-0.011
Has a credit card	0.057
Average level of familiarity with other loan group members	-0.024
Currently operating or intends to operate a multi-level marketing business	-0.130
Never ran out of money in the past 3 months	0.121
Lives apart from partner or spouse	-0.492*
Speaks English well	-0.262
Average monthly sample member income from own business	0.000
Average total monthly sample member income	0.000**
Average monthly income contributed by other household members	0.000
Group-level covariates	
Average level of familiarity among all loan group members	0.034
Average monthly income of all loan group members	0.000
Percentage of loan group members currently operating own business	-0.303
Number of business types loan group members operate or intend to operate	0.000
Model statistics	
R-squared	0.052
Chi-square statistic	36.275*
P-value of chi-square statistic	0.052*
Sample size	1,061

SOURCE: MDRC calculations from the Grameen America baseline information form.

NOTES: RA = random assignment; GED = General Educational Development certificate.
A chi-square test was applied to differences between outcomes for women with savings of at least $2,000 and women with less than $2,000 in savings. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

REFERENCES

Alpert, Bill. 2012. "Where Beauty Is Skin Deep." *Barron's* (May 14), pages 25–26.

Angelucci, Manuela, Dean Karlan, and Jonathan Zinman. 2013. "Win Some Lose Some? Evidence from a Randomized Microcredit Program Placement Experiment by Compartamos Banco." Working Paper 19119. Cambridge, MA: National Bureau of Economic Research.

Banerjee, Abhijit, Esther Duflo, Rachel Glennerster, and Cynthia Kinnan. 2015. "The Miracle of Microfinance? Evidence from a Randomized Evaluation." *American Economic Journal: Applied Economics* 7, 1: 22–53.

Banerjee, Abhijit, Dean Karlan, and Jonathan Zinman. 2015. "Six Randomized Evaluations of Microcredit: Introduction and Further Steps." *American Economic Journal: Applied Economics* 7, 1: 1–21.

Barnes, Carolyn, Gary Gaile, and Richard Kibombo. 2001. "The Impact of Three Microfinance Programs in Uganda." Kampala, Uganda: Assessing the Impact of Microenterprise Services Project/Makerere Institute of Social Research.

Bauchet, Jonathan, Cristobal Marshall, Laura Starita, Jeanette Thomas, and Anna Yalouris. 2011. *Latest Findings from Randomized Evaluations of Microfinance*. Washington, DC: Consultative Group to Assist the Poor/The World Bank.

Beck, Thorsten. 2015. *Microfinance: A Critical Literature Survey*. IEG Working Group Paper No. 4. Washington, DC: World Bank Group.

Bourdieu, Pierre, and John G. Richardson. 1986. "The Forms of Capital." Pages 241-297 in J. Richardson (ed.), *Handbook of Theory and Research for the Sociology of Education*. New York: Greenwood.

Carnevale, Anthony P., and Megan L. Fasules. 2017. *Latino Education and Economic Progress: Running Faster but Still Behind*. Washington, DC: Center on Education and the Workforce, McCourt School of Public Policy, Georgetown University.

Center for Responsible Lending. 2015. "The State of Lending in America and Its Impact on U.S. Households." Website: https://www.responsiblelending.org/the-state-of-lending.

Cohen, Jacob. 1988. *Statistical Power Analysis for the Behavioral Sciences*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Coleman, Brett E. 1999. "The Impact of Group Lending in Northeast Thailand." *Journal of Development Economics* 60, 1: 105–144.

Collins, Daryl, Jonathan Morduch, Stuart Rutherford, and Orlanda Ruthven. 2009. *Portfolios of the Poor: How the World's Poor Live on $2 a Day*. Princeton, NJ: Princeton University Press

Consumer Financial Protection Bureau. 2012. *Analysis of Differences Between Consumer- and Creditor-Purchased Credit Scores*. Washington, DC: Consumer Financial Protection Bureau.

Crépon, Bruno, Florencia Devoto, Esther Duflo, and William Pariente. 2011. "Impact of Microcredit in Rural Areas of Morocco: Evidence from a Randomized Evaluation." Working paper. Cambridge, MA: Massachusetts Institute of Technology.

Croft, Robin, Lindsay Cutts, and Patricia Mould. 2000. "Shifting the Risk: 'Buyback' Protection in Network Marketing Schemes." *Journal of Consumer Policy* 23, 2: 177–191.

Cull, Robert, and Jonathan Morduch. 2017. "Microfinance and Economic Development." Pages 550–572 in Thorsten Beck and Ross Levine (eds.), *Handbook of Finance and Development*. Cheltenham, PA: Edward Elgar Publishing.

DeNicola, Louis. 2019. "Everything You Need to Know About the VantageScore 4.0 Credit Scoring Model." Credit Karma. Website: https://www.creditkarma.com/advice/i/new-vantagescore-4-0-explained/.

Duflo, Esther. 2012. "Women Empowerment and Economic Development." *Journal of Economic Literature* 50, 4: 1051–1079.

Edin, Kathryn, and Laura Lein. 1997. *Making Ends Meet: How Single Mothers Survive Welfare and Low-Wage Work*. New York: Russell Sage Foundation.

Federal Trade Commission, 2018. *Business Guidance Concerning Multi-Level Marketing*. Website: https://www.ftc.gov/tips-advice/business-center/guidance/business-guidance-concerning-multi-level-marketing.

Grameen America. 2021. "Our Impact." Website: https://www.grameenamerica.org/impact.

Guy, Cynthia A., Fred Doolittle, and Barbara Fink. 1991. *Self-Employment for Welfare Recipients: Implementation of the SEID Program*. New York: MDRC.

Halpern-Meekin, Sarah, Kathryn Edin, Laura Tach, and Jennifer Sykes. 2015. *It's Not Like I'm Poor: How Working Families Make Ends Meet in a Post-Welfare World*. Oakland, CA: University of California Press.

Hendra, Richard, Stephen Nuñez, and Kelsey Schaberg. 2018. "The Small Loan Study." AEA RCT Registry. Website: https://doi.org/10.1257/rct.2756-6.0.

Hill, Carolyn J., Howard S. Bloom, Alison Rebeck Black, and Mark W. Lipsey. 2007. *Empirical Benchmarks for Interpreting Effect Sizes in Research*. New York: MDRC.

Karlan, Dean. 2015. "New Data Reveals Which Approach to Helping the Poor Actually Works." *The Great Debate* (blog), *Reuters*, June 17. https://www.reuters.com/article/idUS391400181320150617.

Karlan, Dean, and Nathanael Goldberg. 2011. "Microfinance Evaluation Strategies: Notes on Methodology and Findings." Pages 17–58 in in Beatriz Armendáriz and Marc Labie (eds.), *The Handbook of Microfinance*. Hackensack, NJ: World Scientific.

Karlan, Dean and Jonathan Zinman. 2007. "Expanding Credit Access: Using Randomized Supply Decisions to Estimate the Impacts." Working Paper No. 108. Washington, DC: Center for Global Development.

Keep, William W., and Peter J. Vander Nat. 2014. “Multilevel Marketing and Pyramid Schemes in the United States.” *Journal of Historical Research in Marketing* 6, 2: 188–210.

McMorrow, Stacey, Genevieve M. Kenney, and Dana Goin. 2014. “Determinants of Receipt of Recommended Preventive Services: Implications for the Affordable Care Act.” *American Journal of Public Health* 104, 12: 2392–2399.

Muncy, James A. 2004. “Ethical Issues in Multilevel Marketing: Is It a Legitimate Business or Just Another Pyramid Scheme?” *Marketing Education Review* 14, 3: 47–53.

Muñoz, Lorena. 2013. “From Street Child Care to Drive-Throughs: Latinas Reconfigure and Negotiate Street Vending Spaces in Los Angeles.” Pages 133-143 in Nilda Flores-González, Anna Romina Guevarra, Maura Toro-Morn and Grace Chang (eds.), *Immigrant Women Workers in the Neoliberal Age*. Urbana, IL: University of Illinois Press.

Nichols, Andrew H. 2017. *A Look at Latino Student Success: Identifying Top- and Bottom-Performing Institutions*. Washington, DC: The Education Trust.

Olken, Benjamin A. 2015. “Promises and Perils of Pre-Analysis Plans.” *The Journal of Economic Perspectives* 29, 3: 61–80.

Park, Lisa Sun-Hee. 2005. *Consuming Citizenship: Children of Asian Immigrant Entrepreneurs*. Stanford, CA: Stanford University Press.

Pew Charitable Trusts. 2014. “State Payday Loan Regulation and Usage Rates.” Website: https://www.pewtrusts.org/en/research-and-analysis/data-visualizations/2014/state-payday-loan-regulation-and-usage-rates.

Pew Research Center. 2021. “ For U.S. Latinos, COVID-19 Has Taken a Personal and Financial Toll.” Website: https://www.pewresearch.org/race-ethnicity/2021/07/15/for-u-s-latinos-covid-19-has-taken-a-personal-and-financial-toll/.

Putnam, Robert D., Robert Leonardi, and Raffaella Y. Nanetti. 1994. *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton, NJ: Princeton University Press.

Quiroz-Beccera, Victoria, Kelsey Schaberg, Daron Holman, Richard Hendra. 2020. *Putting Microfinance to the Test: 18-Month Impacts of the Grameen America Program*. New York: MDRC.

Ratha, Dilip, Supriyo De, Eung Ju Kim, Sonia Plaza, Ganesh Sehsan, and Nadege Desiree Yameogo. 2019. “Data release: Remittances to low- and middle- income countries on track to reach $551 billion in 2019 and $597 billion by 2021.” *World Bank Blogs, People Move,* October 16. https://blogs.worldbank.org/peoplemove/data-release-remittances-low-and-middle-income-countries-track-reach-551-billion-2019.

Reed, Larry. 2015. *Mapping Pathways out of Poverty: The State of the Microcredit Summit Campaign Report, 2015*. Washington, DC: Microcredit Summit Campaign.

Schaberg, Kelsey. 2019. *Overcoming Operational Challenges in a Random Assignment Design: Lessons from the Grameen America Evaluation*. New York: MDRC.

Schaberg, Kelsey, Victoria Quiroz-Becerra, Toni Castro-Cosio, Stephen Nuñez, and Richard Hendra. 2019. *Microfinance in the United States: Early Impacts of the Grameen America Program*. New York: MDRC.

Sherraden, Margaret Sherrard, Cynthia K. Sanders, and Michael Sherraden. 2004. *Kitchen Capitalism: Microenterprise in Low-Income Households*. Albany, NY: State University of New York Press.

Small, Mario L. 2009. *Unanticipated Gains: Origins of Network Inequality in Everyday Life*. Oxford: Oxford University Press.

Earlier MDRC Publications on Grameen America

Kelsey Schaberg, M. Victoria Quiroz-Becerra, Toni Castro-Cosio, Stephen Nuñez, and Richard Hendra. 2019. Microfinance in the United States: Early Impacts of the Grameen America Program.

Kelsey Schaberg. 2019. Overcoming Operational Challenges in a Random Assignment Design: Lessons from the Grameen America Evaluation.

Kelsey Schaberg. 2019. Choosing a Research Design: Lessons from the Grameen America Formative Evaluation.

M. Victoria Quiroz Becerra, Kelsey Schaberg, Daron Holman, Richard Hendra. 2020. Putting Microfinance to the Test: 18-Month Impacts of the Grameen America Program.

About MDRC

MDRC is a nonprofit, nonpartisan social and education policy research organization dedicated to learning what works to improve the well-being of low-income people. Through its research and the active communication of its findings, MDRC seeks to enhance the effectiveness of social and education policies and programs.

Founded in 1974 and located in New York; Oakland, California; Washington, DC; and Los Angeles, MDRC is best known for mounting rigorous, large-scale, real-world tests of new and existing policies and programs. Its projects are a mix of demonstrations (field tests of promising new program approaches) and evaluations of ongoing government and community initiatives. MDRC's staff members bring an unusual combination of research and organizational experience to their work, providing expertise on the latest in qualitative and quantitative methods and on program design, development, implementation, and management. MDRC seeks to learn not just whether a program is effective but also how and why the program's effects occur. In addition, it tries to place each project's findings in the broader context of related research — in order to build knowledge about what works across the social and education policy fields. MDRC's findings, lessons, and best practices are shared with a broad audience in the policy and practitioner community as well as with the general public and the media.

Over the years, MDRC has brought its unique approach to an ever-growing range of policy areas and target populations. Once known primarily for evaluations of state welfare-to-work programs, today MDRC is also studying public school reforms, employment programs for ex-prisoners, and programs to help low-income students succeed in college. MDRC's projects are organized into five areas:

- Promoting Family Well-Being and Children's Development
- Improving Public Education
- Raising Academic Achievement and Persistence in College
- Supporting Low-Wage Workers and Communities
- Overcoming Barriers to Employment

Working in almost every state, all of the nation's largest cities, and Canada and the United Kingdom, MDRC conducts its projects in partnership with national, state, and local governments, public school systems, community organizations, and numerous private philanthropies.