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The Economics of Women's Entrepreneurship: Evidence from Building Skills in Uganda*

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Abstract

In contexts where women have few opportunities for wage work, entrepreneurship may be one of the only avenues for economic inclusion. However, women-owned businesses are often less profitable than their male-owned counterparts, and many microenterprises do not grow. Can removing skills-based barriers to productive entrepreneurship increase women's incomes and, if so, what happens when women become productive entrepreneurs? We randomize a program targeting ultra-poor women in Uganda that promotes business and entrepreneurship skills development. Removing these barriers generates large effects on business creation and increases profits by 105% relative to control. Treated women heavily re-invest their profits, spending only 23% on household consumption. As a result, we detect no effects on household welfare within our study period. However, we document significant, positive spillovers to other women and children in the community. Our results highlight the importance of skills-based constraints to productive entrepreneurship while pointing to remaining barriers to private sector development.

KEYWORDS: Entrepreneurship, Firm growth, Behavioral development economics.

JEL CODES: D13, D23, D91, J16, O12.

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1 Introduction

Women continue to face barriers to economic inclusion worldwide.[1] The global gender gap in labor force participation has remained around 30% for the past 30 years, and even when women participate they often earn less than men (International Labour Organization (2021)). While policies promoting equal employment opportunities and pay are common in high-income countries, low-income countries face a broad set of challenges that limit the impact of such policies.[2] In such contexts, promoting women's entrepreneurship may be one of the only avenues for economic inclusion and poverty alleviation. However, a growing body of evidence suggests that few micro-enterprises are productive: most do not grow into small and medium enterprises (SMEs) even after alleviating capital constraints and improving business skills (e.g., de Mel, McKenzie, and Woodruff (2014), Blattman, Fiala, and Martinez (2014), Quinn and Woodruff (2019), McKenzie (2020)). This is particularly true for women-owned enterprises, which are often less profitable than those run by men (Ashraf, Delfino, and Glaeser (2019), Gamberoni, Heath, and Nix (2016), Hardy and Kagy (2018)). Identifying and removing barriers to productive entrepreneurship for women holds the promise of expanding economic inclusion and alleviating poverty.

We present experimental evidence on a women's entrepreneurship program in Uganda that combines traditional business skills training with entrepreneurship skills and psychological empowerment. We answer two questions. Can removing skills-based barriers to productive entrepreneurship increase women's incomes? If so, what happens when women become productive entrepreneurs?

The program teaches skills in eight, 2–3 hour modules over six months. In addition, program coaches offer individual mentoring and invite successful program alumni to share their

[1] Bursztyn, Gonzalez, and Yanagizawa-Drott (2020) illustrate the importance of social norms around female labor force participation. Fafchamps, McKenzie, et al. (2014), Bernhardt et al. (2019), Delecourt and Ng (2020) document that women may face higher pressure to share income with their family or social networks, potentially reducing female labor supply as in Carranza et al. (2022). This may also explain why providing women with private savings accounts in Batista, Sequeira, and Vicente (forthcoming) is effective at reducing the gender profit gap for women entrepreneurs.

[2] Low rates of formal employment limit the impact of equal employment policies.

stories. The business practice components of the program are similar to many interventions that target low-literacy populations and aim to improve business practices through simple heuristics (e.g., Drexler, Fischer, and Schoar (2014) and Batista, Sequeira, and Vicente (forthcoming)). The program builds entrepreneurial skills through modules on identifying business opportunities that do not require large initial investments (as the program does not provide capital), performing market research, and searching for new market opportunities, similar in spirit to Campos et al. (2017). Complementing the training with mentoring sessions is meant to reinforce learned skills, provide encouragement, and offer individualized support.

We follow a sample of 940 women in five rural and peri-urban locations over 18–24 months, collecting baseline data before the intervention begins, midline data shortly after women graduate from the program, and endline data 12–18 months after graduation.[3] At baseline, women in our sample are poorer than the average rural Ugandan household. Roughly half of them own businesses already and only 12% are employed outside of self-employment.[4] We randomize women to take part in the program immediately or to wait until the conclusion of our study. We complement in-depth survey modules on business outcomes with weekly SMS surveys on revenues. Combined, these data provide empirical evidence on the program's effectiveness at generating higher incomes for women, the mechanisms underlying program effectiveness, and the decisions women make about the money they earn.

If skills are relevant constraints to productive female entrepreneurship, treated women will be more likely to become entrepreneurs than women in the control group and their businesses will be more productive. Furthermore, they should exhibit stronger business practices and entrepreneurial skills than women in the control group. Building on recent evidence on the potential role of psychological constraints for investment decisions and entrepreneurship, we also consider whether such training leads to psychological changes, providing another

[3]These differences in timing for the endline survey were caused by COVID-19 restrictions that prevented our enumerator team from traveling within Uganda.

[4]Given that these communities are rural, many businesses are in perishable goods, livestock, and energy, but we also observe service-based businesses like salons as well as restaurants, retail, and construction.

potential mechanism.[5]

Removing skills-based barriers allows more women to become entrepreneurs. Treated women are 15pp more likely to have an active business when graduating from the program than women in the control group and own 0.21 more businesses, on average, at endline. Removing these barriers also makes women entrepreneurs more productive: the program leads to a 105% increase in profits in the main business (off a control mean of USD 20/month) and a 95% increase in profits from other additional businesses (off a control mean of USD 5/month). Skills-based mechanisms appear to drive these changes, as we observe improved business tracking, price management, goal setting, and greater effort in terms of working hours at midline. We find limited evidence of psychological mechanisms, mainly through improvements in grit.

Having established program effectiveness, we examine how productive women entrepreneurs allocate their earnings. Treated women quickly reinvest profits to start additional business ventures. Examining dynamic treatment effects shows that women first invest in their main business, increasing the value of business assets by 123% compared to the control group at midline (off a control mean of USD 31 overall). By contrast, there are no effects on additional business creation at midline. The opposite is true at endline: treated women invest 125% more in other businesses at endline but no longer show any significant differences in investments in their main business relative to the control group.[6] Despite such high reinvestment, we estimate that 23% of women's profits go toward household expenditures. However, this translates into overall insignificant increases in total household expenditures relative to the control group, potentially due to reductions in other sources of support. In fact, treated women experience higher rates of food insecurity at midline, potentially indicating reductions in current consumption to finance investment.

Although we find no effects on household consumption within the period of our study,

[5]See for example Batista and Seither (2019) and McKenzie, Mohpal, and Yang (2022).

[6]We observe greater diversification among treated women, suggesting that women may be engaged in risk reduction. However, qualitative evidence suggests that another potential explanation could be social pressure from either household or community members.

increasing the number of productive women entrepreneurs generates positive spillovers for communities. We use network data for both children and women in our sample to construct a continuous measure of treatment that allows us to measure spillovers (Miguel and Kremer (2004)).[7] Boys who know more women in the treatment group at baseline have significantly higher leadership scores than those who know fewer treated women, providing some evidence for indirect intergenerational spillovers. We also find that women in the control group who do business with treated women at baseline are more likely to own businesses and generate higher profits than women in the control group with no baseline business ties to treated women. Positive spillovers are specific to business relationships: having family or friendship ties to treated women does not generate spillovers. These results suggest that our treatment effects underestimate the true impact of the program.

Our results contribute to our understanding of business and entrepreneurship training. Evidence on traditional business skills interventions reports effects that are small and typically short-term, both in terms of profits and implementing the skills learned in training (McKenzie and Woodruff (2014), Quinn and Woodruff (2019) and McKenzie (2020) provide overviews). Similarly, the literature on the returns to capital in developing countries among female-owned enterprises provides mixed results, suggesting that overcoming credit and liquidity constraints alone does not always foster business growth (Mel, McKenzie, and Woodruff (2014); Blattman, Fiala, and Martinez (2014)). Interventions that instead focus on entrepreneurial skills (Campos et al. (2017)) and tackle behavioral constraints (Batista and Seither (2019), Seither (2021), Dalton et al. (2021)) seem more promising. In line with this evidence, we find large effects on business outcomes from a program that does not provide capital but teaches traditional business skills alongside entrepreneurship skills.[8] Our

[7]Network data from children allow us to estimate the direct treatment effect of living with a treated woman and the indirect effect of each additional treated woman in the child's social network at baseline. This differentiates between effects on children driven by changes within households versus effects driven by changes in the broader community. Similar network data for the women in our sample allow us to test for spillovers to the control group.

[8]Unlike many studies in the McKenzie and Woodruff (2014) review, we did not design the content of the program we study: our implementing partner had been refining the curriculum for over a decade prior to the start of our study, which may partially explain why our results are larger than others in the literature.

results support the effectiveness of entrepreneurship skills training for women. We are also one of the few studies to include women who are not entrepreneurs at baseline, allowing us to understand how such barriers matter for both the extensive and intensive margins of entrepreneurship (Blattman, Fiala, and Martinez (2014) is a notable exception).

Our study provides novel evidence on the growth strategies of female micro-entrepreneurs and a potential explanation for why their businesses rarely grow into small and medium-sized enterprises (SMEs). Despite providing evidence on the positive impact of behavioral interventions, much of the current literature focuses on identifying constraints to firm performance but not re-investment and expansion strategies.[9] We provide evidence that individual firms' growth can stall if the dominant investment strategy is to invest in multiple businesses rather than growing a single business. Studies that focus on firms as the unit of analysis and those that only analyse impacts for one follow-up period cannot capture the dynamic treatment effects on profits and investments that we report.

Beyond entrepreneurship, our work contributes evidence supporting the design of anti-poverty programs. Recently, studies of comprehensive poverty reduction programs that provide intensive skills training, cash transfers, and social support have found positive impacts on a range of outcomes (Banerjee et al. (2015), Blattman, Green, et al. (2016), Bandiera, Burgess, Das, et al. (2017)). The program we study sheds light on the individual return to the skills-based components of such programs. For instance, one year after the programs end in Banerjee et al. (2015), microenterprise profits increase by 0.1 standard deviations. By comparison, 12–18 months after the program we study ends, profits have increased by 0.17 standard deviations. However, in line with Bandiera, Burgess, Deserranno, et al. (2022), we find no short- to medium-run impacts on consumption. Combined with the growing evidence on poverty reduction programs, our work highlights the potential importance of cash transfers not as a way to facilitate access to capital, but as a tool for consumption support and

[9] McKenzie (2017) finds positive evidence of a cash grant on business growth for winners of a business plan competition in Nigeria. While these businesses start similarly small, self-selection into a business plan competition suggests that these firm owners are significantly different from our sample and the population of firm owners commonly found in developing countries.

direct poverty reduction while households make productive investments.

Evidence of positive, community-level spillovers from women's entrepreneurship speak to role model and peer effects. Our results suggest that women entrepreneurs may be positive role models for children. Given the large, positive effects that Riley (2021) documents from children's role models, identifying such intergenerational spillovers is important for fully capturing the effects of programs like the one we study. Second, we document positive spillovers to women in the control group via business ties.[10] This stands in contrast to Field et al. (2016), who find positive peer effects from social ties. In line with the results by McKenzie and Puerto (2021) and contrasting those in Cai and Szeidl (2022), our results suggest that successful women entrepreneurs generate positive economic spillovers in their communities but that the skills taught in training do not percolate through social networks.

Our study has implications for the design of programs that aim to increase women's income through self-employment. We show that entrepreneurship trainings can help women become successful business owners. However, such programs face two key limitations. First, they cannot alleviate poverty in the short- to medium-run without providing additional resources like consumption support. Second, our results suggest that there are further community or market-level barriers to business expansion that programs targeted at individuals cannot address.

Our results highlight three features of women's entrepreneurship in low-income countries. First, women face skills-based constraints to productive entrepreneurship that a relatively light-touch program can address. Second, when women become entrepreneurs they choose to reinvest a substantial share of profits. While this has positive implications for women's control over resources, it may carry risks if investments leave women more vulnerable to

[10]The literature on social networks finds that both the size and composition of an individualâs network can have large effects on outcomes ranging from employment to technology adoption (e.g., Munshi (2003); Bandiera and Rasul (2006); Magruder (2010); Beaman and Magruder (2012); Beaman, Keleher, and Magruder (2018); Munshi and Rosenzweig (2016)), but women often benefit less from these social networks. For instance, Magruder (2010) finds that inter-generational network effects only increase employment rates for sons, and Beaman and Magruder (2012) show that women are less likely to get job referrals than equally qualified men.

transitory negative shocks. Third, many women prefer to start multiple micro-enterprises rather than concentrating investments in a single business despite high growth in profits. This suggests that remaining constraints in the business environment may prevent micro-enterprises from growing into SMEs, pointing to the need for additional programs to spur private sector development.

2 Background and Context

Based on the 2018 Living Standards and Measurement Survey (LSMS) in Uganda, 74% of rural women are employed in some form of productive activity (including paid work, self-employment, and unpaid work in family businesses). Thirteen percent of rural women engage in self-employment. On average, weekly consumption expenditures are UGX 31,500 (USD 8.51) and the median household size is four.

While our partner implements its programs throughout Uganda, the women in our sample reside in five communities in central Uganda. Our implementing partner selected all study locations based on conversations with community leaders, their evaluation of the economic needs of the communities, and their estimate of the population of women who might be interested in participating.[11] Of the five communities where we worked, four are rural and one is peri-urban.

On average, 52% of women in our sample report being regularly employed at baseline with estimates ranging from 43%–61% in different locations. Many of those women are working for at least part of their time in their own business: 38% – 60% of women who sign up have businesses at baseline depending on location, with median monthly profits of UGX 50,000 (USD 13.65). The most common types of businesses are those selling food products, both perishable and non-perishable, but over 5% of women also have businesses raising livestock, selling energy sources like charcoal, vending clothes, and selling drinks. Only around 12% of

[11] Allowing our partner to select the study locations precludes random site selection; however, we argue that it yields representative study sites given that the program we study and others like it are unlikely to work in communities that are uninterested or otherwise unable to participate.

women at baseline are employed in wage work. For context, median daily expenditures are UGX 2,050 (USD 0.53) per capita at baseline with a median household size of 4. Weekly household expenditures are UGX 23,700 (USD 6.41), indicating that the women in our sample tend to be poorer than the average rural household in Uganda.

3 Conceptual Framework

To fix ideas, consider a woman who chooses consumption and re-investments to maximize future income. In period t she controls some resources $y_t > 0$. Let c_t be the resources that she chooses to consume in the current period and assume that she cannot borrow so that $c_t \leq y_t$. Consumption yields instantaneous utility $u(c_t)$.

The woman invests whatever she chooses not to consume.[12] She chooses from a finite set of investments indexed by $m = 1, \ldots, M$. She knows that there are finite states of the world $s = 1, \ldots, S$ that may be realized in period $t + 1$ with subjective probability π_s. Let $r_{ms,t+1}$ be the return on investment m in state s in period $t + 1$. This sets up the usual portfolio optimization problem. In a simple two-period version of the problem, the woman solves

$$\max_{c,x_m} V = u(c) + \delta \sum_m \sum_s \pi_{ms} u(r_{ms} x_m) \text{ s.t. } y = c + \sum_m x_m. \tag{1}$$

We assume that an entrepreneurship training does not directly change preferences (i.e., no changes in $u(\cdot)$ or δ) or women's subjective beliefs about the probability of different states of the world π_s. Therefore, any change must operate through r_{ms}: women's subjective evaluations of the expected return on different investments. A subset of potential investments have returns that depend on a woman's levels of human capital and ability. Women evaluate the returns on such investments according to

$$r_{ms} = r(h_m, a_{ms}), \tag{2}$$

[12] We simply consider savings as one potential investment.

where h_m is the woman's level of human capital relevant for investment m and a_{ms} is the woman's subjective evaluation of her abilities related to investment m in state s.

We assume that $\frac{\partial r}{\partial h} > 0$: increasing human capital related to a specific activity will increase the returns to investing in that activity, as in a typical neoclassical production function where human capital increases the productivity of labor. We further assume that $\frac{\partial r}{\partial a} > 0$, so higher subjective evaluations of ability lead to a higher evaluation of the returns to related investments.

Entrepreneurship training can affect women through three possible channels. The most common form of training increases knowledge about better business practices such as accounting or inventory management. We denote this channel as improvements in business skills. Training can separately improve entrepreneurial skills by teaching women how to identify business opportunities, raise capital, and find innovative ways to compete with other businesses. The human capital component of our model captures both business and entrepreneurial skills. However, entrepreneurship training may also impact a woman by affecting her subjective evaluations of her abilities.

With this framework in mind, we can generate clear predictions about how women's economic decisions may change after participating in entrepreneurship training. First, if the program is effective, then women will be more likely to start businesses than women in the control group, both because they will have higher levels of human capital and because they will have higher evaluations of their abilities. Second, if the program actually leads to an increase in human capital, we should observe that treated women run more successful businesses than women in the control group. As we show in the next section, this framework closely matches our experimental setting.

4 Experimental Design

4.1 Treatment

The program we study is called "Street Business School". It focuses on the three channels described in the conceptual framework by teaching entrepreneurial skills and business skills (good business practices). Beyond the potential psychological impact of skills-based training, Street Business School includes some content that is explicitly targeted at psychological empowerment.[13] After an orientation day for women who are interested in participating, coaches begin a series of modules as well as individualized coaching.

The first month focuses on teaching entrepreneurial skills and increasing women's beliefs in their abilities. Coaches schedule three different sessions lasting 2–3 hours each. The first is called "getting out of your comfort zone" and aims to show participants that they have untapped potential. The second is "identifying business opportunities", which focuses on helping participants identify potential business ideas that may be successful in their communities. The third is called "finding capital and starting small." The program does not provide capital, so this module is designed to help participants understand how to raise capital to start a business. It teaches that even small amounts of money may be enough to start growing an enterprise. In addition to these modules, coaches also try to meet with each participant individually to establish a mentoring relationship.

In the second month, the program schedules two modules on improved business practices. The first is bookkeeping and record keeping, where coaches teach simple techniques for tracking business. The second module is called "market research", and is designed to help participants think about how they can understand the local market before investing their time and resources to start a business.

The third month only has one module on skills: business planning. In this module, coaches show participants the steps to planning a business and emphasize the benefits of

[13] See Figure 1 for more detail on the curriculum.

developing a plan before trying to start a business. The third month is also when coaches complete the second individual coaching visit with each participant, ideally at her business if she has one. This visit focuses on individualized business advice and support.

While the first three months focus on starting and running a business, the last three months of the program focus on teaching skills for firm growth. Month four of the program has two modules. The first is "growing your customer base", which covers topics like actively pursuing customers, customer service, and offering promotions. The second module is "money management", which teaches the value of saving and budgeting and provides tools to help participants start separating and prioritizing personal versus business expenses. Month five is entirely given to implementation. Ideally, participants start or continue working on their business in this month using the skills they have learned. Month six involves the final coaching visit, where coaches assess the progress that each woman has made, help her troubleshoot any challenges, and think through ways to improve her business.

The program ends with a formal, public graduation ceremony to celebrate the achievements of the women who participated. Before the ceremony, women walk through the village in a celebration. At the ceremony, program coaches call women individually and award certificates for successfully completing the program.[14] The ceremony is an important component of the program designed to solidify any psychological gains.

The program does not provide participants with capital or any new, innovative technologies. As such, it aligns precisely with the channels in out conceptual framework. Any impacts must be driven by increases in human capital (business and entrepreneurship skills) or psychological empowerment.

4.2 Sampling Frame

Our implementation partner recruited participants in each of our five study locations over several days. Program coaches undertook the same type of mobilization they typically do,

[14]Women have to attend at least four of the eight modules to receive the certificate.

but over a slightly larger area to accommodate the sample required for the RCT. Coaches mobilize in a new community by speaking with community leaders and visiting households to inform them about the program. During these efforts coaches emphasize that the program does not provide any financial assistance but offers skills training and guidance on how to become a successful entrepreneur. Coaches then invite all women interested in the program to an orientation day at a central location. There are no restrictions on who can participate other than gender.

At the orientation days for the sites in the RCT, coaches did all of their usual orientation activities. Orientation aims to convince women to enroll in the program. Coaches explain the structure of the six months, the official graduation ceremony, and bring successful alumni to share their stories. Throughout the day, coaches lead the women in singing and dancing as well as chants of affirmations of female strength. In addition, the RCT project manager introduced the study and explained that by signing up to participate, the women would be randomly assigned to one of three groups. She emphasized that all groups would eventually get to participate in the program but that some would need to wait until the end of the study.

After the orientation meeting we enroll all interested women in the study by collecting their contact details, obtaining media consent, and taking pictures of all women. With these pictures, we print photo books to identify social network connections between women at baseline, midline, and endline within each location. The photo books also allow us to establish connections between sampled women and children in a location.

Our sampling strategy maintains the self-selection that typically occurs at the start of the program. While self-selection into the program has implications for the external validity of our results for the entire population of women in Uganda, we believe our results are externally valid for the subset of women interested in becoming entrepreneurs.[15]

In total, we enrolled 940 women in five different communities over the course of fifteen

[15]Recall that 38%–60% of women in our sample engage in self-employment compared to only 13% of rural women in the LSMS.

months (August 2018–October 2019). We worked in five communities to adequately power our study. Capacity constraints prevented us from working in more than one location at once, which is why we enroll the sample over time. While these logistical considerations were the primary motivators for our sampling frame, it enables us to effectively stratify on location, though the strata are not precisely equal in size. Our sample consists of 163 women in the first location, 220 in the second, 185 in the third, 217 in the fourth, and 155 in the fifth.

To build our sample of children, we survey all minors between the ages of 10 and 17 at baseline who either live with the respondent (regularly eat and sleep) in the same house or who are primarily supported by the respondent even if they attend school elsewhere, as boarding school is common in Uganda. 55% of the women in our sample have dependent children in this age range, with an average of 2.1. This leads to a total sample of 1,075 children of which 47% are boys and 53% are girls.

4.3 Timeline

We conducted three in-person surveys with each woman in our sample: once at baseline in the two weeks following orientation, once at midline in the 2–3 weeks following graduation, and once at endline 12–18 months after graduation. We interview children at baseline and endline. For any children in boarding school, we collect data during the first school holiday after the women's baseline or endline.

Figure 2 shows a complete timeline including all data collection, implementation of the program, and COVID-19 lockdowns. We only completed data collection in the first of our five locations prior to the first COVID-19 lockdown. For locations 2–4, the first lockdown fell after graduation but before the endline survey. The first lockdown delayed graduation in our fifth location. The timeline highlights two important considerations. First, we had originally intended to collect endline data 18 months after the baseline survey, but the COVID-19 lockdown pushed back our timeline. Therefore, our endline survey in all but the first location occurs around two years after baseline. Second, the delay in implementation for the fifth

location means that the endline survey occurs around one year after midline (the same spacing as in the first location), whereas locations 2–4 have the endline 18 months after midline.

4.4 Assignment to Treatment

We implemented a double blind, individual-level randomization at the end of the baseline survey. At the end of the survey, the enumerator asked each woman to draw a colored candy from a paper bag. Women received a matching colored paper with information about the time, date, and venue of the first training session. Whereas time and date were the same for all groups, the venue differed depending on treatment status. We did not reveal to participants which venue corresponded to each treatment until the first day of training when they were at the venue. We changed the color of the candies corresponding to each group in each new location and never revealed the correspondence to the enumerators.

Participants could be assigned to one of three groups. We randomly assigned two-thirds to receive the training immediately and one-third to wait until the end of the study. Within the randomized-in group, we vary whether mentoring takes place through home or business visits or at the training venue. We refer to the group with home or business visits as the "Intensive Mentoring" group, both because coaches actively seek out participants at their homes and businesses and because they aim to conduct three mentoring sessions. We refer to the group with mentoring at the training venue as "Opt-In Mentoring" because participants must proactively seek out mentoring, either by staying after the modules or coming to the training venue on specially designated days to meet with coaches.

The third group was the control group, who we invited to participate in the program at the conclusion of the study. While the control group did not receive any training or resources during the RCT, women in this group took part in a placebo activity during the very first day of the program where we invited them to a designated venue to get to know each other and ask questions of the research staff regarding when they would be eligible to participate

in the program. The placebo activity assisted with treatment compliance and allowed us to re-explain the process of randomization so that we addressed any concerns from women in the control group before the program was already underway.

Program coaches took careful attendance to ensure compliance with treatment, particularly during the first month. Monitoring from the coaches largely succeeded in limiting non-compliance, as 86.7% of participants report attending their assigned group at midline. Most non-compliance occurred between treatments: 11.7% of participants moved between the two treatment arms. Encouragingly, an identical number of participants moved from Intensive Mentoring to Opt-In Mentoring and vice versa, likely indicating that the non-compliance was not driven by concerns about program quality so much as convenience of the training location or the desire to go to the same training as other women in a participant's social network. 1.7% of participants in the control group entered one of the treatment arms. Our main results show average treatment effects based on the randomly assigned treatments, but instrumenting for each participant's actual group with their treatment assignment yields qualitatively similar results (see Appendix C).

We check for baseline balance between the three groups on the following dimensions: age, marital status, educational attainment, parental educational attainment, employment status, household size, number of minors, business ownership, and network size. We test for selective attrition along the same dimensions. The three groups are generally balanced (see Table A1). We observe a slight imbalance on education levels but this is in-line with what we would expect by chance given the number of covariates we test.

Attrition is correlated with some baseline covariates: women with lower levels of formal education are significantly less likely to drop out of the sample than those with higher levels of education, business owners are less likely to drop out than non-business owners, and women who are employed are more likely to drop out than those who are not, although the latter two only apply to the midline survey (see Table A2). There is no differential attrition by treatment status and no differential selection into responding to the SMS survey by treatment

status. We do find that women who are older, unmarried, and have larger social networks are more likely to respond to the SMS survey (see Table A3).

5 Empirical Strategy

5.1 Data

The surveys for women consist of five modules. The first covers household characteristics and socio-economic background. The second asks about household consumption decisions, including information on the overall contributions of household members to household income as well as expenditures in various consumption categories. The third measures business outcomes: established measures of sales and profits, business practices, investment decisions, and expectations about future business growth, profits, and variability. Fourth, we collect detailed data on psychometric indicators including locus of control, self-efficacy, grit, and various measures of expectations and aspirations for the future.[16]

Finally, we obtain detailed network data among the women in our sample using the photo books produced at baseline in each location. Photo books had 13–19 pages depending on the sample size in each location. Each page displayed pictures of 12 women's faces without any further identifying information. For each location we produced distinct photo books with randomly ordered photographs and pages to avoid ordering effects in constructing the network data. We then asked women to look at each page and indicate to the enumerator which women they knew. Identifying a woman triggered a set of questions confirming the identity of the other woman and eliciting information about the type and intensity of interactions.

The children's survey covers aspirations and forward-looking behavior, time use, time and risk preferences, selected psychometric measures, and gender attitudes. We obtain the relationship of children to our study participants using the same photo books described above.

We complement sales and profit data from our in-person surveys with high-frequency data

[16] Appendix A contains detailed descriptions of the variables and indices we use in our empirical analysis.

collected through SMS surveys. Starting the week after baseline surveys were completed, respondents received a weekly text message on a randomly selected day asking them to report total sales revenue from the previous day. We incentivized responses by offering participants UGS 1,000 (USD 0.30) in airtime. Each month, an enumerator supplemented the SMS surveys by calling each woman who had not responded to any SMS survey in the past month.

5.2 Estimation Strategy

Our design permits us to obtain intent to treat (ITT) effects of the program. For an outcome of interest in a given survey round, O_{it}, we estimate the following ANCOVA specification:

$$O_{it} = \alpha + \beta_1 Treat_{it} + \beta_2 Treat * Mentoring_{it} + \delta_1 X_i + \delta_2 O_{i0} + \epsilon_{it}. \quad (3)$$

β_1 gives the ITT effect of participating in the program. β_2 estimates the additional effect of receiving Intensive Mentoring at home or in the woman's business. Put otherwise, β_1 is the average treatment effect for the Opt-In Mentoring group and $\beta_1 + \beta_2$ is the average treatment effect for the Intensive Mentoring group. This strategy allows us to identify whether Intensive Mentoring leads to significantly different effects given that the training modules and the opportunity to be mentored are the same across both groups.

We control for a range of baseline covariates: age, marital status, household size, the number of minors living in a household, and location. O_{i0} is the outcome variable at baseline. We are interested in variation in treatment effects over time, so we estimate effects wave by wave rather than pooling data over both survey rounds.[17]

To estimate spillover effects on children, we combine our ITT estimating equation with the specification used in Fafchamps, Vaz, and Vicente (2020). This specification allows us

[17]Dynamics in treatment effects over time motivate our decision to use an ANCOVA specification rather than the two-way fixed effects specification that we originally pre-registered, which pooled data across rounds. Appendix C shows that effects are qualitatively similar using a range of specifications, including the originally specified two-way fixed effects specification.

to estimate (i) the direct effect (the effect of being targeted versus non-targeted) for each treatment and (ii) the indirect effect (the effect of additional treated women in a child's network). We estimate these effects using the following specification:

$$y_{it} = \alpha + \theta_1 Treat_{it} + \eta p \sum Treated_{ip0} + \delta p \sum g_{ip0} + \delta_1 X_i + \delta_2 O_{i0} + \epsilon_{it}$$

In this estimating equation, $Treat_{it}$ is equal to one if child i lives with a woman who has been randomly assigned to the treatment in period t. Therefore, θ_1 quantifies the direct intergenerational effect. η quantifies the indirect effect of being connected to an additional woman in a given treatment arm at baseline. $\delta p \sum g_{ip0}$ controls for the overall number of women in the study to whom a child is connected at baseline. We present results based on women who the child reports talking to at least once a month at baseline, but our results are similar using a variety of other network measures (e.g., identifying the woman at all, women who the child reports going to for advice). We control for gender, parental education, number of siblings, baseline school attendance and study time, work hours, and the lagged outcome variable. We use an analogous specification to study potential spillovers from the treatment on women in the control group. We use the number of baseline social and business ties with treated women to construct continuous measures of treatment exposure, similar to the approach in Miguel and Kremer (2004).

6 Effects On Women's Entrepreneurship

First, we consider whether removing skills-based and psychological barriers allows women to engage in productive entrepreneurship. We then examine potential mechanisms before turning to the effects of women's entrepreneurship on households and communities.

Column (1) of Table 1 shows that the program removes barriers to entrepreneurship on the extensive margin. Women who participate in the program are 14.9pp (26.3%) more likely to own a business than women in the control group at midline. The effect declines to 6.4pp

(10%) at endline as the rate of business ownership in the control group grows. However, column (2) shows that the program generates large and persistent impacts on the number of businesses owned. This implies that many treated women open multiple businesses. We analyze these growth strategies in further detail in subsection 7.1.

Columns (3)–(5) show that the program goes beyond encouraging women to start new businesses: it allows them to run more productive firms. We estimate effects separately for the main business a woman reports and all additional businesses she starts.[18] Column (3) shows that the training significantly increases sales in the main business by 155% at midline compared to the control group (around USD 16 over 3 days).[19] At endline, the effect retains its magnitude and significance but Intensive Mentoring leads to significantly lower sales. This suggests that Intensive Mentoring does not have the hypothesized positive effect on business outcomes that would stem from further improvements of skills or psychological constraints. In fact, main businesses among women in Intensive Mentoring are not statistically different from those of women in the control group in terms of endline sales revenues.

Effects on business profits show similar patterns: monthly profits in the main business are 221% (USD 41.50) higher at midline for women in Opt-In Mentoring than those in the control group, although the effect declines to 105% (USD 22) by endline. At both midline and endline, women in Intensive Mentoring have significantly lower profits than those in Opt-In Mentoring. We explore these differences further when we consider potential mechanisms. It is worth noting that declining treatment effects for the main business at endline are driven by increased sales and profits among women in the control group rather than lower sales and profits for women in the treatment groups. While part of the increase in revenues and profits is driven by higher rates of business ownership in the treatment groups, treatment effects conditional on business ownership remain economically meaningful

[18] When a woman has more than one business, we ask her to consider the main business as the one that is most profitable at the time of the survey.

[19] We compute percentage changes using the inverse hyperbolic sine transformation to account for a large number of zeros. Doing so allows us to include women without businesses and women who have businesses but made zero sales during the recall period. This preserves the balance from the randomization.

(see Table A4). Additionally, heterogeneous effects by baseline business ownership show no significantly different effects on revenues or profits for women with versus without business at baseline (see Table A5).[20]

SMS data allow us to examine treatment effects on revenues at a higher temporal frequency. Figure 3 shows dynamic effects by quarter of the experiment for each treatment group.[21] The results align closely with those in Table 1. Sales revenues increase more dramatically for women in Opt-In Mentoring than for those in Intensive Mentoring. The increase appears to start soon after graduation from the program (the third quarter). The higher-frequency effects also allow us to see when women in the control group begin to catch up: around one year after the end of the program.

The patterns for businesses other than the main business are strikingly different. As column (5) of Table 1 shows, the program does not lead to a significant increase in profits in other businesses at midline, but it does increase profits in other businesses by 95% at endline (USD 5). Furthermore, the mean of profits in other businesses is virtually the same at midline and endline for the control group, in contrast to the increasing means we see for our other business outcomes. Combined with the persistent effect on the number of businesses owned, this suggests that the program helps women quickly move beyond a single enterprise to operate multiple businesses.

6.1 Mechanisms

To understand why the training is successful in fostering productive entrepreneurship, we evaluate two sets of mechanisms. First, we consider business and entrepreneurial skills that are likely to enhance human capital. Second, we estimate treatment effects on psychological indicators that are likely to affect investment behavior and business outcomes.

[20] We furthermore report heterogeneous effects by baseline business ownership on mechanisms, reinvestment strategies, and household outcomes in Table A6, Table A7, and Table A8.

[21] We estimate these effects by aggregating weekly responses to SMS surveys on sales revenues in the main business to the quarterly level. For illustrative purposes, we show treatment effects for each sub-treatment group separately rather than estimating the overall treatment effect and additional treatment effect of Intensive Mentoring as above.

Table 2 shows results on business and entrepreneurship practices. We observe significant improvements in business tracking, price management, and goal setting at midline, along with a large and highly significant increase in working hours. However, as with many of our business outcome measures, effects do not persist until endline as control group means increase. Unlike many business outcomes, there are no significant differences between Intensive Mentoring and Opt-In Mentoring in business practices at midline or endline. This suggests that the two mentoring modalities are equally effective at improving business and entrepreneurship skills, so other factors must be responsible for differences in business outcomes.

As highlighted in the conceptual framework, the program we study may change women's mindsets either through the confidence that skills build or directly through some of the psychologically-targeted components of the program. We examine such psychological mechanisms by presenting results on a range of psychometric outcomes in Table 3. While we see no effect on generalized self-efficacy, we see significant, persistent impacts on grit (Column (2)).[22] Interestingly, the effects on grit are entirely driven by women in Opt-In mentoring. Women in Intensive Mentoring exhibit lower grit scores at both midline and endline.[23] These patterns suggest one potential mechanism that may be driving differences between the two groups: Opt-In Mentoring may encourage greater perseverance and independence than Intensive Mentoring.

Taken together, evidence on business outcomes, business and entrepreneurship practices, and psychological indicators suggests that removing skills-based and psychological barriers to entrepreneurship allows women to become productive entrepreneurs. It is clear that the program we study leads to large, significant, and persistent increases in business creation, sales revenues, and profits, and that the underlying mechanisms are consistent with our conceptual framework.

[22] These effects are even larger and statistically significant at the 5% level when controlling for treatment status compliance (see Table A14).

[23] While we cannot precisely estimate the positive treatment effect on grit when correcting for multiple hypotheses testing, the negative effect from receiving Intensive Mentoring persists.

6.2 Differences between mentoring groups

Given significant differences between mentoring modalities on both business outcomes and grit, we examine potential explanations. First, we provide descriptive evidence on program participation to understand what factors may drive differences in human capital accumulation and impacts on internal constraints. Women in both treatment groups attend five of the eight sessions, on average. 75.3% of women in Intensive Mentoring attend a mentoring session at their home or business. Of the women in Intensive Mentoring who attend at least one mentoring session, 21.7% attend one session, 35% attend two sessions, and 43.3% attend all three. By contrast, only 44.8% of women in Opt-In Mentoring attend at least one mentoring session. Of those who attend, the overwhelming majority (97%) attend only one session. Such stark differences in mentoring participation combined with differences in business performance indicate that the change in the format of the mentoring may have meaningfully changed participants' experiences with the program.

While average attendance is the same between groups, the different formats may be appealing to different types of participants. Table 4 compares baseline characteristics of women who attend at least seven out of the eight training modules in each group. Attendance in Opt-In Mentoring is high among women who are currently married and those who have never been married, as well as women with smaller social networks. Attendance in Intensive Mentoring is highest among widowed and divorced women and those with larger social networks. An analogous analysis for women who attend at least one mentoring session yields similar patterns (see Table A9). However, we find little heterogeneity in business outcomes based on marital status, suggesting that differences in selection into attendance and mentoring are not necessarily driving differences in business outcomes between the two groups (see Table A10).

The results on selection into attendance and mentoring suggest that different mentoring modalities significantly impact which women choose to invest time and effort in the program, but selection alone cannot explain why Intensive Mentoring does not outperform Opt-In Mentoring, and in some cases does significantly worse. To better understand differences between

mentoring formats, we draw on qualitative evidence from conversations our implementing partner held with participants after the completion of the study. An overwhelming majority of participants expressed a preference for Opt-In Mentoring. Stated reasons ranged from being unable to focus while caring for children or trying to run their business to discussions about increased scrutiny and social pressure from neighbors when they saw mentors visiting the women at their homes.

These conversations suggest that Opt-In Mentoring provides a greater sense of privacy and ability to focus than Intensive Mentoring. Scrutiny and social pressure may affect selection into attendance and mentoring but also have direct effects on business outcomes. For instance, women in Intensive Mentoring may choose to start businesses that are easier to hide, limiting their growth potential. Similarly, women in Intensive Mentoring may be deriving fewer benefits from the mentoring than women in Opt-In Mentoring if it is difficult for them to focus, leading to worse outcomes despite higher participation rates.

Our results on mentoring largely fall in line with a growing literature that finds few long-term effects from different types of mentoring programs, whether offered alone or in addition to other business training (Drexler, Fischer, and Schoar (2014), Valdivia (2015), Wyatt Brooks and Johnson (2018), Lafortune, Riutort, and Tessada (2018), McKenzie and Puerto (2021), Gine and Mansuri (2021)). Anderson et al. (2020) is an exception, as they find sustained increases in profits from matching firm owners in Uganda with external marketing experts, though their sample differs from ours substantially. While we similarly find few positive effects from Intensive Mentoring relative to Opt-In Mentoring, we contribute the novel finding that Intensive Mentoring can lead to significantly lower outcomes. This is potentially due to lower improvements in psychological empowerment or less privacy and ability to focus during Intensive Mentoring relative to Opt-In Mentoring. Our results on mentoring highlight ways to make entrepreneurship training with mentoring work well for women entrepreneurs.

7 Effects Of Women's Entrepreneurship

Having documented an increase in productive entrepreneurship among women, we now turn to understanding how women entrepreneurs allocate their earnings and what the implications are for households and communities.

7.1 Reinvestment and multiple businesses

First, we examine how much women save and re-invest their earnings. Table 5 shows effects on total savings, investments in the main business, and investments in all other businesses. Column (1) shows that the program may lead to increased savings at midline but shows no effects at endline, although our estimates are imprecise and our confidence intervals include economically meaningful values. However, the program leads to large increases in business investments. Column (2) shows that treated women have invested 122.7% (USD 40) more in the main business at midline than women in the control group. The effect on main businesses does not persist at endline: women in the control group begin investing more in their first business, while treated women instead start increasing investments in other businesses. Column (3) shows that the program leads to 125.1% (USD 10) higher investments in other businesses at endline. Our results indicate that women prefer to invest in multiple small businesses rather than growing a single enterprise.

Rapidly investing in other businesses may be the result of constraints in the business environment, but they could also reflect a risk-reduction strategy where women start multiple businesses as a way to diversify their income streams. To qualitatively examine this possibility, we plot the distribution of business types between the main business and other businesses in Figure 4. The first row of plots shows that the distribution of businesses is similar across treatment groups at baseline, as we would expect. Given that most study locations are rural, it is unsurprising that energy (primarily foraging for firewood and producing charcoal), perishable foods, and live animals are common business types. By midline, women

in both treatment groups are diversifying more than women in the control group, though it is still common to have at least one business in energy, perishables, or live animals, and many women have multiple such businesses.

At endline, when we observe the shift to investing in other businesses, two patterns stand out. First, having two businesses in energy, perishables, and live animals is still a common outcome for women in all three groups. Second, women in Opt-In Mentoring have diversified across business types substantially more than women in Intensive Mentoring or the control group. These patterns indicate that the program is effective at encouraging diversification but also suggest that different women entrepreneurs are pursuing distinct strategies. Some are investing in similar businesses, which may be a way to eventually grow the main business, while others are diversifying to different business types. The results on business investments demonstrate that women retain control over much of their earnings and that the program is effective at encouraging women to continue investing, although many women find it optimal to invest in multiple micro-enterprises.

7.2 Household Outcomes

While the first set of results suggests that the training does help women become productive entrepreneurs, reinvestment patterns imply that part of their income remains in a woman's businesses. Next, we examine to what extent a woman's business success translates into improved household outcomes.

We estimate whether the program leads to improvements in household outcomes by evaluating treatment effects for household expenditures, the marginal utility of expenditures (MUE) (Ligon (2020)), a binary indicator for whether the household observed food insecurity more than once over the six months before the survey, and remittances received by the household. Table 6 displays the results. Column (1) shows small, statistically insignificant effects of the treatment on daily household expenditures at both midline and endline. Though not displayed here, we find similarly small, insignificant results on measures of monthly and

annual expenditures. Similarly, we find no effects on the marginal utility of expenditure.

Column (3) shows that women in Opt-In Mentoring are 12.8pp more likely to have suffered at least one episode of food insecurity over the six months prior to the midline survey, though we see no effects at the endline survey. The same is not true for women in Intensive Mentoring, who never show significantly higher food insecurity than women in the control group. Column (4) shows that treated women report that their households have received 70.2% lower remittances at midline compared to households in the control group, approximately USD 5.70 per month.

The pattern of high business investments and no significant impacts on household outcomes suggests that women are reluctant to spend early business profits on consumption or that women's profits may displace contributions from other family members. To estimate how much of the increase in profits goes toward household consumption, we take a two-stage approach. Our first stage is the same ANCOVA estimate outlined in Equation 3, estimated on total profits from all businesses. Our second stage is

$$IHS(WomanExp_{it}) = \alpha + \eta IHS(\widehat{TotalProfits_{it}}) + \delta_1 X_{i0} + \delta_2 IHS(WomanExp_{i0}) + \epsilon_{it},$$

where $WomanExp_{it}$ is the woman's contribution to daily household expenses. The exclusion restriction is that treatment only affects a woman's contribution to household expenditures through an increase in profits.

Table 7 shows the results. At midline, women spend 23% of their increase in profits on household consumption. By endline, this reduces to 14%, which is no longer statistically significant. In levels, the increase in profit is around USD 20 per month. Our results indicate that at most USD 4–5 per month (USD 0.13–0.16 per day and USD 1 per capita per month for the median household) goes to household consumption as a result of participating in the program, well within the confidence interval on our treatment effect on daily consumption expenditures. For context, this increase in consumption expenditures is approximately of the

same magnitude as the decrease in remittances, suggesting one potential explanation for the overall null effect on household welfare.[24] While we are unable to detect such small effects, they are also economically small, indicating that women's entrepreneurship does not lead to poverty alleviation within the period of our study.[25]

Considering the results on households alongside those on investments, it appears that women become slightly less able to smooth across negative consumption shocks because their savings are invested in illiquid business assets or because they are unwilling to liquidate business assets to support consumption. Our results on savings and investment indicate that the program is effective at convincing women to keep business funds separate from household funds, allowing women to reinvest their profits in business activities but leading to no improvements in household welfare in the short- to medium-run.

7.3 Community-level Effects

Empowering women economically and psychologically may generate broad-based spillovers to children within households and communities, as well as for other community members. We use baseline data on social networks to understand these effects.

We measure impacts on children using data collected from children at baseline and end-line. Although household members do not benefit from increased women's entrepreneurship through impacts on consumption, children might benefit from the program in other ways.

First we analyse the direct effect of living with a woman in either treatment group. Our results, displayed in Figure 5, suggest that there are few direct effects. Living with a woman in the opt-in mentoring group leads to significantly lower expectations for girls, while living with a woman in Intensive Mentoring significantly raises girls' aspirations and lowers boys' discount rates, indicating that they are more patient. However, none of these naive effects

[24] This implies that while the direct household does not seem to benefit from increased income through productive entrepreneurship, the remittance senders may.

[25] Similar to Bandiera, Burgess, Deserranno, et al. (2022), who estimate the impact of micro-finance on subsistence agriculture and poverty alleviation in Uganda, we consider a time frame of 1.5-2 years after baseline. Our results confirm their findings that promoting structural transformation in this context do not lead to better household outcomes in the medium-run.

survives our multiple inference corrections: given the large number of outcomes we test, we cannot rule out that the naive effects we observe are due to chance.

We measure the indirect effect of having one additional treated woman in a child's social network at baseline using the number of treated women who the child speaks to at least once a month.[26] The figure on the right of Figure 5 displays indirect effects. Surprisingly, we only observe significant effects for boys: being exposed to more women in Intensive Mentoring leads to fewer leisure hours on non-school days, a more equal gender index, and a higher leadership index. Of these naive effects, only the increase in the leadership index survives our multiple inference corrections. The leadership index includes measures of speaking up in class, being a leader in school or in the community, and reverse-coded questions about whether the child's friends engage in fighting and gambling. While the increase in the leadership index reflects improvements across most of these questions, effects are particularly pronounced for whether and how often friends have gotten into fights.[27]

To understand community-level impacts of the program, we test for potential spillover effects between women within each location. We use social network data to construct a continuous measure of treatment exposure for different types of baseline network links. We estimate whether being connected with women in either of the two treatment groups at baseline affects business outcomes and potential mechanisms. We show these results for simple ANCOVA regressions that control for baseline outcomes and the general network size of each woman at baseline. Table 8 shows spillover effects of three different types of networks for control women only as well as the entire sample.

Our results suggest that women in the control group benefit from doing business with women in the Opt-In Mentoring treatment, who are more likely to own a business and report higher profits. Panels A and B of Table 8 show that there are no significant effects

[26] Our results look similar if we instead use the network of treated family members, treated women who the child can recognize at all, or treated women who the child goes to for advice.

[27] A 2021 report on the effects of COVID-19 school closures in Uganda documents a relatively high incidence of boys of secondary school age joining bad peer groups (https://uneb.ac.ug/wp-content/uploads/2022/02/EFFECTS-OF-COVID-NAPE-REPORT-web-upload.pdf).

when we consider all network links between women or when we consider friendship links. However, Panel C shows significant, positive spillovers from doing business with women in Opt-In Mentoring at baseline. The reported effects are substantial as each additional treated business partner increases the likelihood of still having a business at endline by 10pp.[28] Women in the control group who do business with women in Opt-In Mentoring also report 133% (USD 26) higher profits at endline compared to women in the control group who do not have any business partnerships with women in Opt-In Mentoring.

Our analysis further suggests that women in the treatment group pass on some of the psychological benefits of treatment to their peers. We find that women in the control group who are connected to women in Opt-In Mentoring show significantly higher psychological outcomes at endline than those who are not connected to women in Office Hours at baseline (see Table A11).

These results suggest that the benefits of the evaluated program go beyond the reported average treatment effects on treated women's business outcomes even in light of limited impact on household welfare. Women's firms appear to enhance economic opportunities for other small business owners and contribute to improved psychological outcomes. These positive spillovers imply that our benchmark analysis likely underestimates the true effect of the program because women in the control group benefit indirectly (consistent with our previous observation that many of our smaller treatment effects at endline appear to be driven by increases in control group means rather than reductions in means in the treatment group). Alleviating non-financial barriers to productive entrepreneurship for treated women seems to promote private sector development more broadly.

[28] Given that women reported business partnerships at baseline this suggests substantial effects on decreasing the likelihood of businesses closing for women in the control group.

8 Conclusion

Given that women in low-income countries have few opportunities for wage work, understanding whether and how to foster productive women's entrepreneurship is central to promoting economic inclusion and gender equity. Our paper shows that an entrepreneurship training that promotes business and entrepreneurship skills development is highly effective at promoting business ownership and increasing micro-enterprise profits and revenues. This is true both for women who participate in the program and women in the control group who do business with them. However, our paper highlights two key limitations of such programs.

First, despite positive results on business outcomes, practices, and investments, we observe no improvements in household welfare and poverty alleviation in the short to medium-run. We show that when there are incentives to fix capital in assets, households may experience no gain in welfare either because they reduce consumption to make productive investments or because they are less able to smooth across negative consumption shocks. Our results point to an alternative role for cash grants and loans for micro-enterprises. While such measures are often proposed as a way to facilitate access to capital, they may play equally important roles as consumption support when entrepreneurs undertake business investments.

Second, we cannot fully explain why women prefer to start new micro-enterprises rather than growing existing businesses. Qualitative evidence on preferred mentoring modalities suggests that scrutiny and social pressure may shape women's investment decisions, pointing to potential community-level constraints to firm growth. Descriptive evidence on business types shows that some women diversify while others invest in similar businesses, raising questions about what drives different investment strategies. Rapid diversification suggests that incomplete markets for risk make it difficult for women to grow micro-enterprises into SMEs. Alternatively, women may be using initial businesses as opportunities to build the capital required to start different, more profitable businesses in the future. If so, horizontal investments in multiple micro-enterprises may still be a viable path to income growth.

The limitations of the program we study point to the need for further work on women's

entrepreneurship. Longer-term studies can speak to whether programs like the one we study lead to poverty alleviation and, if so, how long it takes for gains in business profits to translate into meaningful increases in household consumption. Community- and market-level studies can identify strategies to promote private sector development that operate at a higher level than individual entrepreneurs. Such work has the potential to enhance gender equity while promoting economic growth.

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9 Tables

Table 1: Treatment Effects on Business Outcomes

	Business Creation		Main Business		Other Businesses
	(1) Own a Business	(2) No. Businesses	(3) Sales (IHS)	(4) Profits (IHS)	(5) Profits (IHS)
Panel A: Midline (6 months)					
Treat	0.149***	0.218***	1.550***	2.214***	0.533
	(0.038)	(0.065)	(0.461)	(0.490)	(0.389)
Treat x Mentoring	-0.021	-0.010	-0.717	-0.829*	0.295
	(0.036)	(0.064)	(0.444)	(0.474)	(0.416)
Observations	822	822	802	795	824
TxM p-value	0.001	0.001	0.070	0.005	0.041
MHT q-value Treat	0.010	0.010	0.010	0.010	0.158
MHT q-value TxM	0.772	0.861	0.248	0.248	0.772
Control Mean	0.566	0.832	37674.603	69415.538	18589.105
Adj. R^2	0.213	0.288	0.211	0.182	0.104
Panel B: Endline (18–24 Months)					
Treat	0.064	0.211***	1.451***	1.047**	0.951**
	(0.039)	(0.066)	(0.487)	(0.507)	(0.402)
Treat x Mentoring	-0.042	-0.095	-1.243***	-0.914*	-0.339
	(0.037)	(0.066)	(0.466)	(0.481)	(0.408)
Observations	828	827	814	810	829
TxM p-value	0.584	0.082	0.665	0.794	0.115
MHT q-value Treat	0.139	0.020	0.030	0.079	0.059
MHT q-value TxM	0.455	0.347	0.059	0.178	0.455
Control Mean	0.667	0.903	43628.016	76934.118	17832.946
Adj. R^2	0.098	0.172	0.118	0.081	0.054

Note: We windsorize all sales and profit measures at the 1st and 99th percentile. Coefficients are ANCOVA estimates that control for the outcome at baseline, the respondent's location, marital status, household size, number of children, and age. IHS indicates that we present results using an inverse hyperbolic sine transformation, where we record revenues and profits for women without a business as zero to preserve the balance from randomization. We report White robust standard errors in parentheses. Column (3) presents the reported sales for the 3 days prior the survey, columns (4) and (5) present the self-reported profits for the last month. MHT q-values are Romano-Wolf multiple hypothesis test q-values. TxM p-value shows the p-value corresponding to the total treatment effect of Intensive Mentoring. * $p < 0.10$, ** $p < 0.05$, ***, $p < 0.01$.

Table 2: Treatment Effects on Business Practices

	(1) Tracking	(2) Price Mgmt.	(3) Goal Setting	(4) Work Hours
Panel A: Midline (6 months)				
Treat	0.280*	0.407**	0.256*	11.414***
	(0.145)	(0.160)	(0.142)	(4.265)
Treat x Mentoring	0.035	-0.090	0.189	1.385
	(0.141)	(0.155)	(0.141)	(4.322)
Observations	434	422	364	379
TxM p-value	0.028	0.047	0.003	0.003
MHT q-value Treat	0.069	0.040	0.089	0.030
MHT q-value TxM	0.901	0.861	0.535	0.901
Control Mean	0.957	1.012	0.643	28.431
Adj. R^2	0.110	0.120	0.078	0.159
Panel B: Endline (18–24 Months)				
Treat	0.145	0.285	0.203	6.830
	(0.146)	(0.174)	(0.148)	(4.268)
Treat x Mentoring	-0.081	-0.150	0.079	-2.119
	(0.142)	(0.161)	(0.148)	(4.248)
Observations	431	415	358	389
TxM p-value	0.653	0.428	0.047	0.275
MHT q-value Treat	0.327	0.277	0.277	0.277
MHT q-value TxM	0.911	0.822	0.911	0.911
Control Mean	1.133	1.239	0.688	35.130
Adj. R^2	0.059	0.015	0.020	0.088

Note: Coefficients are ANCOVA estimates conditional on business ownership in the relevant survey round. Estimates control for the outcome at baseline, the respondent's location, marital status, household size, number of children, and age. Tracking combines multiple questions about record keeping for the business with a maximum value of 3. Price management combines multiple questions about setting prices, running promotions, comparing prices with competitors, and negotiating for better prices with suppliers with a maximum value of 4. Goal setting combines multiple questions about setting goals for the business over various time horizons with a maximum value of 3. Work hours is the number of hours the respondent typically works in her main business. We report White robust standard errors in parentheses. MHT q-values are Romano-Wolf multiple hypothesis test q-values. TxM p-value shows the p-value corresponding to the total treatment effect of Intensive Mentoring. * $p < 0.10$, ** $p < 0.05$, ***, $p < 0.01$.

Table 3: Treatment Effects on Psychometric Measures

			Locus of Control			Aspirations	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Self-Efficacy	Grit	Internal	PO	Chance	Income (IHS)	Social Status
Panel A: Midline (6 months)							
Treat	0.353	0.882*	0.022	0.015	0.279	-0.076	0.147*
	(0.562)	(0.484)	(0.216)	(0.405)	(0.340)	(0.194)	(0.087)
Treat x Mentoring	-0.290	-0.741	0.198	-0.187	0.046	-0.262	-0.196**
	(0.534)	(0.453)	(0.208)	(0.385)	(0.312)	(0.241)	(0.087)
Observations	819	820	819	819	820	654	809
TxM p-value	0.909	0.777	0.282	0.674	0.350	0.159	0.577
MHT q-value Treat	0.931	0.386	0.990	0.990	0.881	0.950	0.475
MHT q-value TxM	0.861	0.455	0.683	0.861	0.861	0.604	0.158
Control Mean	38.605	29.488	15.836	-12.914	-14.645	1.481,437	3.079
Adj. R^2	0.109	0.089	0.020	0.130	0.075	-0.012	0.086
Panel B: Endline (18–24 Months)							
Treat	0.554	0.876*	0.343	0.367	-0.215	-0.079	0.052
	(0.587)	(0.478)	(0.244)	(0.434)	(0.349)	(0.108)	(0.089)
Treat x Mentoring	-0.531	-1.364***	-0.352	-0.137	-0.042	-0.067	-0.044
	(0.557)	(0.441)	(0.227)	(0.405)	(0.337)	(0.097)	(0.084)
Observations	821	822	821	821	822	677	809
TxM p-value	0.969	0.303	0.973	0.594	0.457	0.180	0.932
MHT q-value Treat	0.762	0.317	0.505	0.762	0.772	0.317	0.772
MHT q-value TxM	0.871	0.020	0.554	0.950	0.950	0.950	0.950
Control Mean	39.289	30.094	15.801	-12.121	-14.191	1.577,983	2.992
Adj. R^2	0.119	0.102	0.029	0.045	0.042	0.053	0.027

Note: Coefficients are ANCOVA estimates that control for the outcome at baseline, the respondent's location, marital status, household size, number of children, and age. IHS indicates that we present results using an inverse hyperbolic sine transformation. We measure generalized self-efficacy following Schwarzer and Jerusalem (1995). Out measures of grit follow Duckworth, Peterson, et al. (2007) and Duckworth and Quinn (2009). We draw our locus of control measures from Levenson (1973) and our measure of subjective social status from Adler et al. (2000). PO is the deimension of the locus of control score. Higher values for internal locus of control, lower values for powerful others, and lower values for chance are associated with feelings of greater control over your own life. We report White robust standard errors in parentheses. MHT q-values are Romano-Wolf multiple hypothesis test q-values. TxM p-value shows the p-value corresponding to the total treatment effect of Intensive Mentoring. * $p < 0.10$, ** $p < 0.05$, ***, $p < 0.01$.

Table 4: Differences in Selection Into Attendance

Variable	(1) Opt-in Mentoring N	Mean/SE	(2) Intensive Mentoring N	Mean/SE	T-test Difference (1)-(2)
Single	95	0.095	107	0.019	0.076**
		(0.030)		(0.013)	
Married	95	0.663	107	0.495	0.168**
		(0.049)		(0.049)	
Divorced	95	0.179	107	0.318	-0.139**
		(0.040)		(0.045)	
Widowed	95	0.063	107	0.168	-0.105**
		(0.025)		(0.036)	
Primary Ed.	97	0.515	107	0.486	0.029
		(0.051)		(0.049)	
Secondary Ed.	97	0.412	107	0.449	-0.036
		(0.050)		(0.048)	
HH Size	97	4.649	107	4.467	0.182
		(0.317)		(0.231)	
Minors in HH	97	3.371	107	3.150	0.222
		(0.244)		(0.191)	
Age	95	38.674	99	40.606	-1.932
		(1.202)		(1.273)	
Own a Business	97	0.546	107	0.570	-0.024
		(0.051)		(0.048)	
Network Size	97	4.722	107	5.570	-0.848*
		(0.323)		(0.363)	
Employed	97	0.505	107	0.542	-0.037
		(0.051)		(0.048)	
Profits	94	71976.596	106	70933.962	1042.633
		(21730.347)		(14598.044)	
Grit	97	29.186	107	30.159	-0.973
		(0.600)		(0.508)	
Internal Locus of Control	97	16.124	107	15.813	0.311
		(0.195)		(0.237)	
Self-efficacy	97	39.340	107	39.009	0.331
		(0.682)		(0.682)	

Notes: Mean baseline covariates by treatment group for women who attend 7 or 8 modules. Single, married, divorced, and widowed are indicators equal to one if a woman holds that marital status. Primary and secondary education are indicators equal to one if the woman's highest level of education is primary school or secondary school, respectively. HH size is the number of people who regularly eat and sleep in a woman's household. Minors is the number of minors in the woman's household. Age is the woman's age in years. Own a business is an indicator equal to one if the woman owns a business. Network size is the number of women in the RCT in the woman's location who she knows. Employed is an indicator equal to one if the woman is employed. Profits are profits from the last month in the main business in Ugandan shillings. Grit, internal locus of control, and self-efficacy are psychometric indices. Standard errors are in parentheses. * $p < 0.10$, ** $p < 0.05$, ***, $p < 0.01$.

Table 5: Treatment Effects on Re-Investments

	(1) Savings (IHS)	(2) Business Assets (IHS)	(3) Investments in Other Businesses (IHS)
	Panel A: Midline (6 months)		
Treat	0.924*	1.227**	0.234
	(0.496)	(0.482)	(0.413)
Treat x Mentoring	0.244	-0.436	0.194
	(0.461)	(0.480)	(0.414)
Observations	800	824	824
TxM p-value	0.019	0.103	0.299
MHT q-value Treat	0.119	0.040	0.584
MHT q-value TxM	0.871	0.802	0.871
Control Mean	169641.434	120251.424	45166.537
Adj. R^2	0.109	0.162	0.115
	Panel B: Endline (18–24 Months)		
Treat	0.564	0.338	1.251***
	(0.496)	(0.505)	(0.420)
Treat x Mentoring	0.022	-0.247	-0.244
	(0.469)	(0.486)	(0.433)
Observations	809	829	829
TxM p-value	0.236	0.856	0.014
MHT q-value Treat	0.465	0.465	0.010
MHT q-value TxM	0.970	0.881	0.881
Control Mean	165480.937	127104.992	29836.047
Adj. R^2	0.090	0.115	0.062

Note: We windsorize all savings and investment measures at the 1st and 99th percentile. Coefficients are ANCOVA estimates that control for the outcome at baseline, the respondent's location, marital status, household size, number of children, and age. IHS indicates that we present results using an inverse hyperbolic sine transformation. Savings is the total amount held in all financial savings instruments. Business assets is the estimated monetary value of all assets held in the main business. Investments in other businesses is the total estimated monetary value of all investments in businesses other than the main business in the last 6 months. We report White robust standard errors in parentheses. MHT q-values are Romano-Wolf multiple hypothesis test q-values. TxM p-value shows the p-value corresponding to the total treatment effect of Intensive Mentoring. * $p < 0.10$, ** $p < 0.05$, ***, $p < 0.01$.

Table 6: Treatment Effects on Household Outcomes

	(1) Daily HH Expenditure (IHS)	(2) MUE	(3) Food Insecurity	(4) Remittances (IHS)
		Panel A: Midline (6 months)		
Treat	-0.018	0.087	0.128***	-0.702*
	(0.174)	(0.086)	(0.039)	(0.395)
Treat x Mentoring	0.191	-0.073	-0.111***	0.041
	(0.155)	(0.085)	(0.039)	(0.347)
Observations	819	730	820	800
TxM p-value	0.299	0.864	0.654	0.090
MHT q-value Treat	0.604	0.604	0.010	0.267
MHT q-value TxM	1.000	0.812	0.010	1.000
Control Mean	10,571	-0.027	0.270	31,173
Adj. R^2	0.181	0.054	0.103	0.186
		Panel B: Endline (18–24 Months)		
Treat	0.253	0.152	0.007	-0.574
	(0.170)	(0.095)	(0.040)	(0.432)
Treat x Mentoring	-0.026	-0.138	-0.019	0.240
	(0.156)	(0.093)	(0.038)	(0.410)
Observations	824	725	825	805
TxM p-value	0.250	0.878	0.774	0.423
MHT q-value Treat	0.376	0.376	0.871	0.386
MHT q-value TxM	0.366	0.366	0.871	0.871
Control Mean	10,032	-0.076	0.310	25,548
Adj. R^2	0.131	0.052	0.085	0.149

Note: We winsorize daily expenditures, MUE, and remittances at the 1st and 99th percentile. Coefficients are ANCOVA estimates that control for the outcome at baseline, the respondent's location, marital status, household size, number of children, and age. IHS indicates that we present results using an inverse hyperbolic sine transformation. We calculate the MUE using consumption expenditures over the past week on seventeen food items, following the methods outlined in Ligon (2020). Higher values of the MUE indicate higher marginal utilities of expenditure, indicating that households are worse off. Food insecurity is a binary variable equal to one if the woman reports not having enough food more than once over the six months before the survey. We report White robust standard errors in parentheses. MHT q-values are Romano-Wolf multiple hypothesis test q-values. TxM p-value shows the p-value corresponding to the total treatment effect of Intensive Mentoring. * $p < 0.10$, ** $p < 0.05$, ***, $p < 0.01$.

Table 7: Share of Profits Going to Household Spending

Dependent Variable: *Woman's Contributions to Household Spending (IHS)*		
	Midline	Endline
Profits (IHS)	0.228**	0.143
	(0.110)	(0.178)
Observations	782	794
1^{st} Stage F-Stat	54.774	18.016
Adj. R^2	0.288	0.182

Note: We windsorize profit and expenditure measures at the 1st and 99th percentile. Coefficients come from a two-stage least squares specification where each stage uses estimates that control for the outcome at baseline, the respondent's location, marital status, household size, number of children, and age. IHS indicates that we present results using an inverse hyperbolic sine transformation. We report White robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, ***, $p < 0.01$.

Table 8: Spillover Effects on Business Outcomes

	Control group only	
	(1) Own a Business	(2) Profits (IHS)
Panel A: Any Network Link		
Link - Intensive Mentoring	-0.023	-0.344
	(0.032)	(0.399)
Link - Opt-in Mentoring	0.029	0.574
	(0.031)	(0.385)
Observations	253	247
Control Mean	0.364	71363.636
Adj. R^2	0.133	0.094
Panel B: Friendship Link		
Link - Intensive Mentoring	-0.035	-0.269
	(0.031)	(0.393)
Link - Opt-in Mentoring	0.033	0.331
	(0.026)	(0.325)
Observations	253	247
Control Mean	0.667	79294.643
Adj. R^2	0.125	0.073
Panel C: Business Partners Link		
Link - Intensive Mentoring	-0.084	-0.600
	(0.057)	(0.729)
Link - Opt-in Mentoring	0.104**	1.335**
	(0.043)	(0.572)
Observations	253	247
Control Mean	0.612	72237.113
Adj. R^2	0.135	0.083

Note: We windsorize profit measures at the 1st and 99th percentile. Coefficients are ANCOVA estimates that control for the outcome at baseline, and overall network size at baseline. IHS indicates that we present results using an inverse hyperbolic sine transformation. We report White robust standard errors. * $p < 0.10$, ** $p < 0.05$, ***, $p < 0.01$.

10 Figures

Month 0	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
- Mobilization - Orientation (aspirations intervention)	- "Getting out of your comfort zone" - Identifying business opportunities - Finding capital and starting small - First mentoring	- Bookkeeping and record keeping - Market research	- Business planning - Second mentoring	- Growing your customer base - Money management	- No modules (implement business plans)	- Third mentoring - Graduation ceremony

Note: Each module is between 2–3 hours long and taught at a central training venue such as a school or church. Women participate in groups of 50–70.

Figure 1: Training Module Content

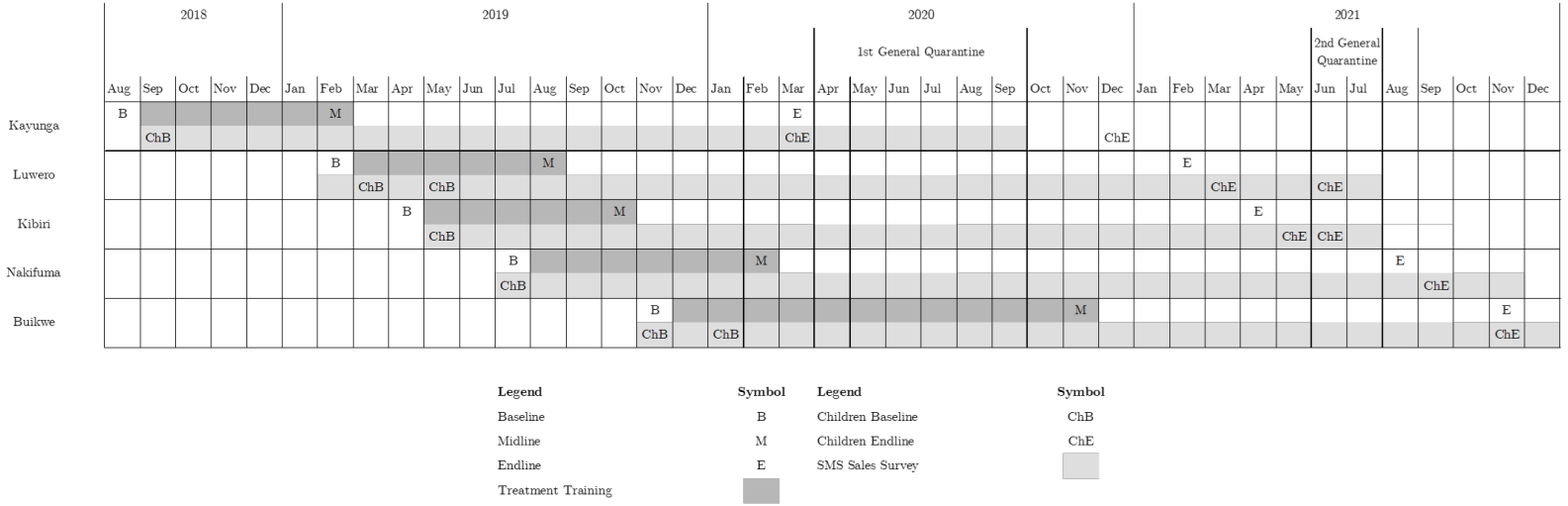
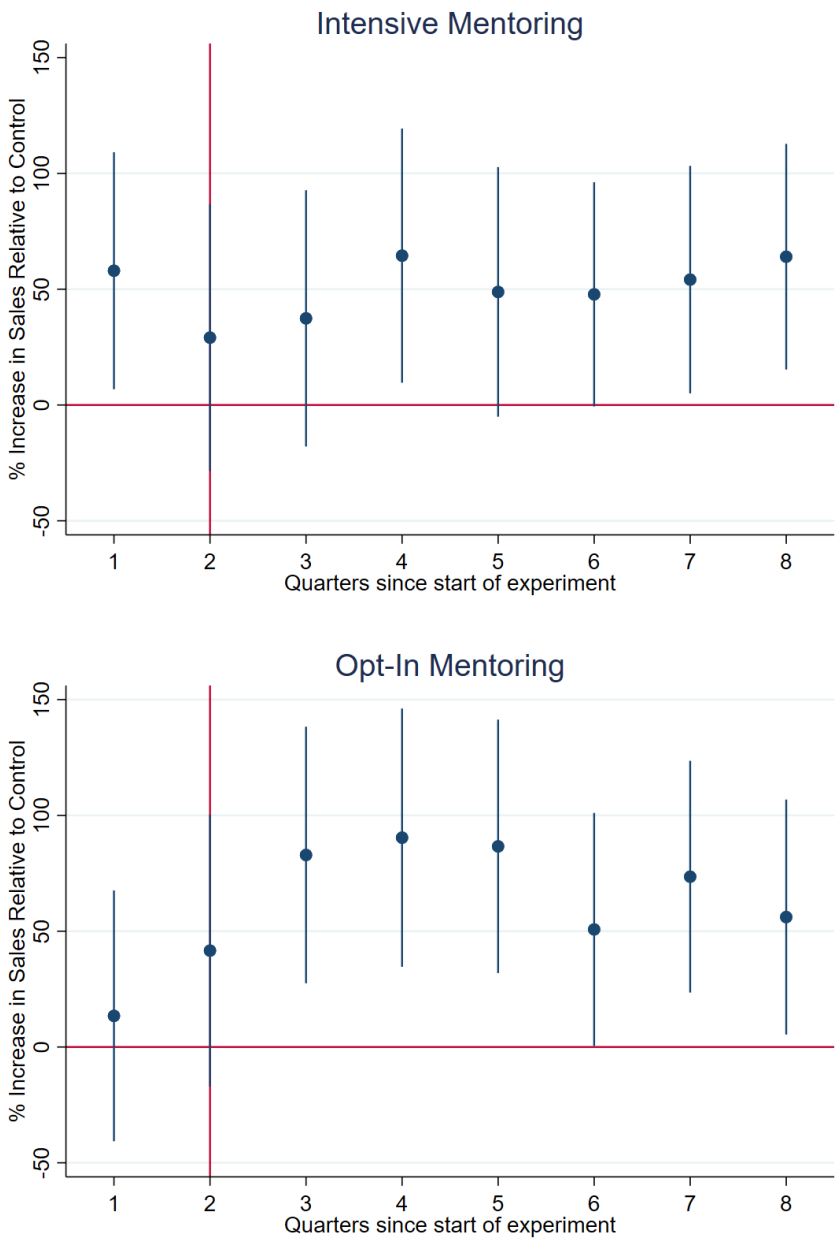
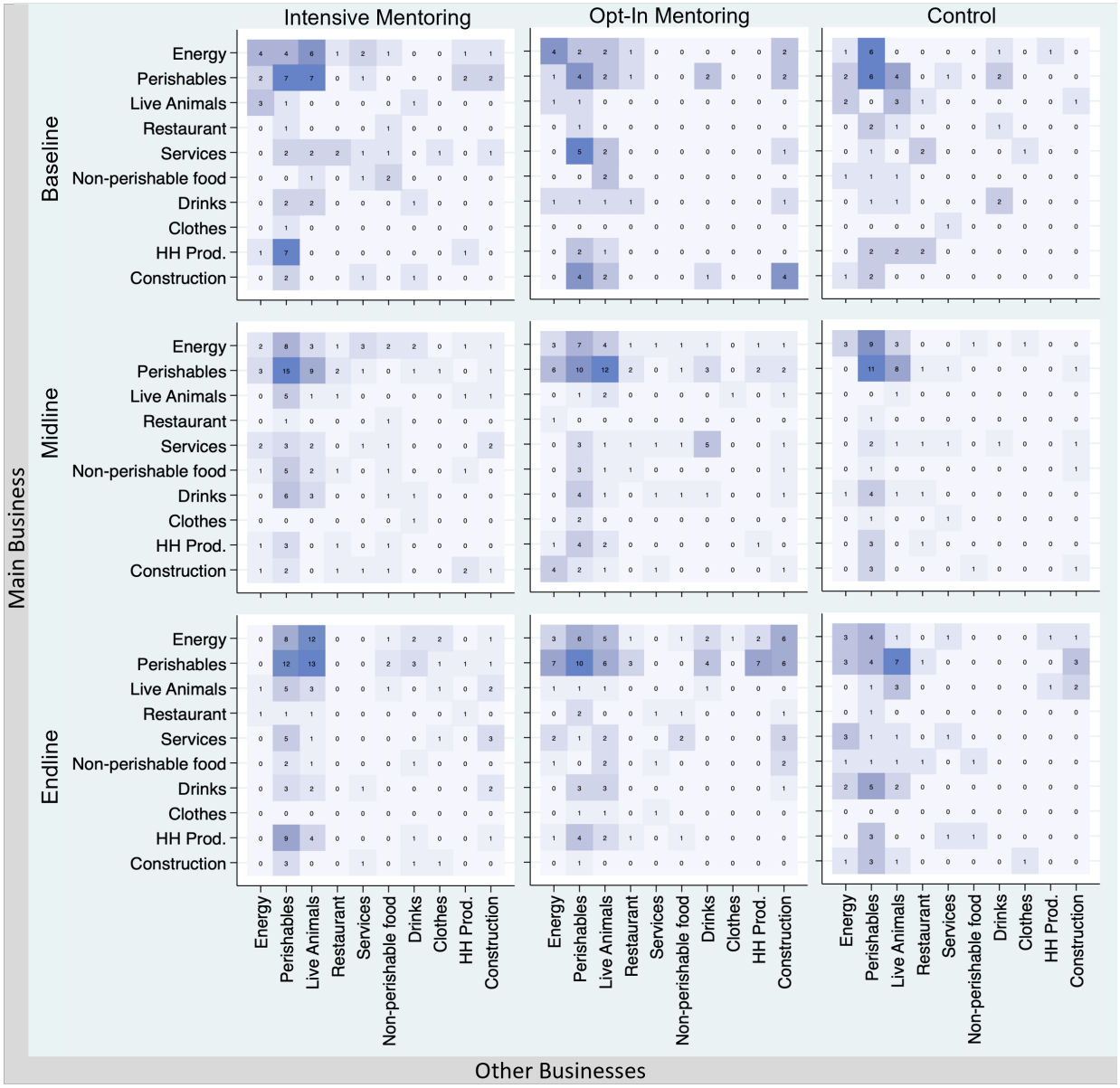


Figure 2: Project Timeline



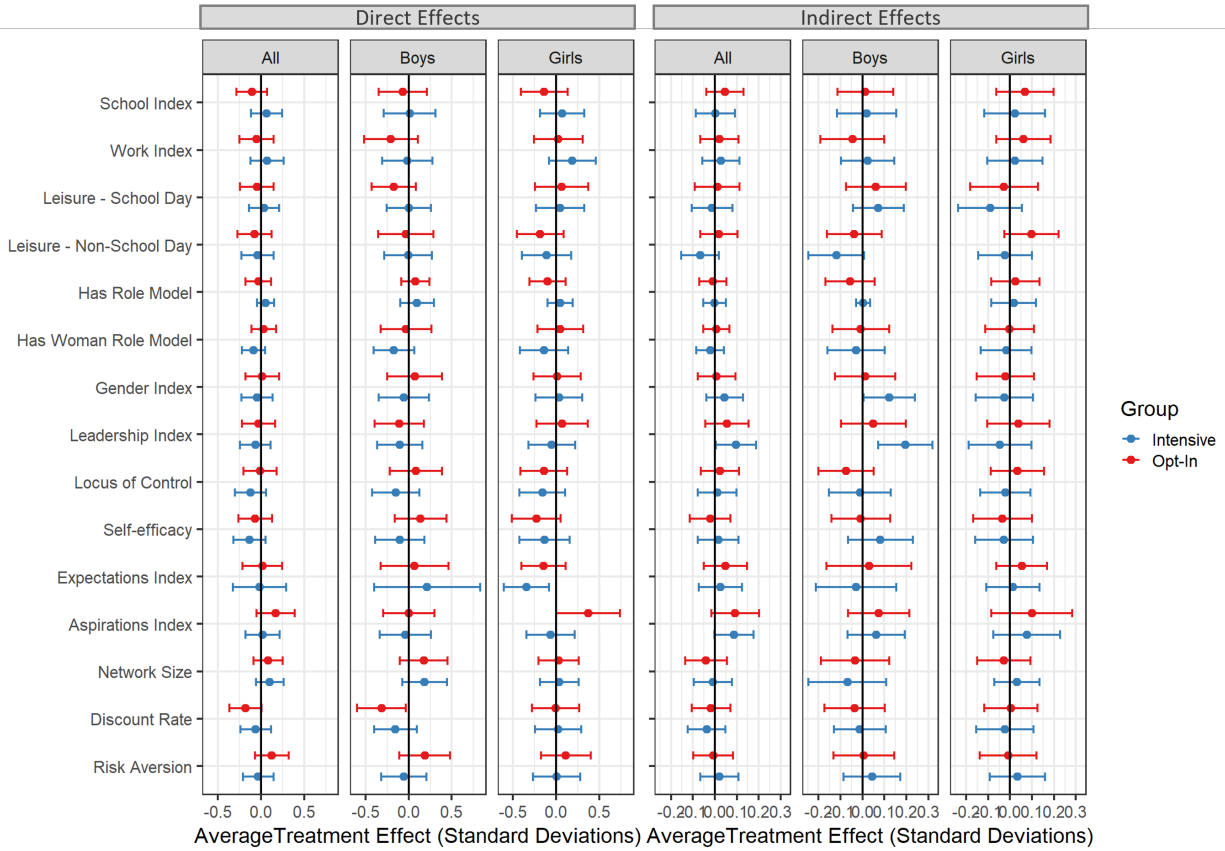
Note: Average treatment effects on sales revenues for each quarter of the experiment, estimated by aggregating responses to weekly SMS surveys. We include fixed effects for respondent location, event quarter, quarter of year, and year by quarter. The vertical red line denotes graduation from the program. The top panel shows effects for women in Intensive Mentoring and the bottom panel shows effects for women in Opt-In Mentoring. Blue bars show 90% confidence intervals calculated from standard errors clustered at the individual level.

Figure 3: Quarterly ATEs on Sales Revenues



Note: Heatplots showing the distribution of main business types (rows) and other business types (columns) by treatment group and survey round. The first row of plots shows the distribution at baseline, the second shows the distribution at midline, and the third one shows the distribution at endline. The first column shows the distribution of business types for women assigned to Intensive Mentoring, the second column those assigned to Opt-In Mentoring, and the third column shows the control group. Darker blue corresponds to more women having a particular combinations of main and other business types. Color scales reflect proportions within each heatplot.

Figure 4: Distribution of Business Types by Treatment Assignment and Survey Round



Note: Direct effects are average treatment effects of living with or being a dependent of a woman in Intensive Mentoring (blue) or Opt-In (red). Indirect effects are the average treatment effect of having one additional woman in a given treatment group who the child reports speaking to at least once a month at baseline, not including any treated women the child lives with. We only survey children who are 10–17 years old at baseline. The first column shows treatment effects pooling all children. The second and third columns show heterogeneous treatment effects for boys and girls. Bars show naive 95% confidence intervals. The only outcome that survives our multiple inference corrections is the increase in the leadership index for boys that results from being indirectly exposed to more women in Intensive Mentoring. We control for location, age, size of the child's social network at baseline, parental education levels, gender (in the pooled specification), and baseline number of siblings, days attending school, hours studying, and work in addition to controlling for baseline levels of the outcome in question. We describe all measures in detail in the appendix. We pre-specified all outcomes except for the discount rate and risk aversion, but we nonetheless include these in our multiple hypothesis adjustments.

Figure 5: Direct and Indirect Average Treatment Effects on Children

A Appendix A - Variable definitions

A.1 Covariates

- **Location**: Set of dummy variables that equal to one for the location in which the respondent was enrolled for the study.
- **Marital Status**: Set of dummy variables that indicate the marital status of the participant. Participants answer whether they are married, single, widowed or divorced. The categories are mutually exclusive, and we exclude the category "single" given that is the largest group.
- **Household Size**: Number of people who regularly eat and sleep in the respondent's household, taken directly from the survey.
- **Number of Children**: Number of dependents under 18 years old live with the respondent in her house, taken directly from the survey.
- **Age**: age of the respondent at baseline.

A.2 Business Outcomes

- **Own a business**: Binary variable equal to one if the respondent answers yes to the question, "Do you currently own a business or engage in self-employment in any way?", zero if the respondent answers no, and missing if the respondent does not know or chooses not to answer.
- **No. businesses**: Count of the number of businesses the respondent reports operating, including her main business and all other businesses.
- **Sales(IHS)**: Inverse hyperbolic sine transformation of the amount of revenue reported each day for the 5 best sold items in the respondent's business in the 3 days prior to the survey. We winsorize sales at the 1st and 99th percentile. When the respondent

has missing information for a day, we assign the observation a missing value. In case the respondent has no business, we replace with 0.

- **Profits(IHS) - Main Business**: Inverse hyperbolic sine transformation of the amount of profits earned in the main business of the participant in the last month. We winsorize profits at the 1st and 99th percentile. When the respondent has no business, we replace with 0, we use the the mid point of intervals whenever the respondent cannot provide a number, and missing if the respondent does not know or chooses not to answer.

- **Profits(IHS) - Other Businesses (OB)**: Inverse hyperbolic sine transformation of the amount of profits earned in other businesses owned by the participant in the last month. We winsorize profits at the 1st and 99th percentile. When the respondent has no business, we replace with 0, we use the the mid point of intervals whenever the respondent cannot provide a number, and missing if the respondent does not know or chooses not to answer.

A.3 Business Practices Outcomes

- **Tracking**: Score that can take values between 0 and 3. The tacking score depends on the number of "yes" responses to the questions: (1) have a system for keeping track of their business activities, (2) keep track of which customers buy from them on credit and (3) keep track of how much inventory they have. Set to missing if the respondent does not answer any of the three questions.

- **Price Management**: Score that can take values between 0 and 4. The price management score depends on the number of "yes" responses to the questions: (1) compared alternative suppliers for their business in the past 6 months, (2) visited a competitor to see what products they were offering in the last 6 months, (3) tried to negotiate a lower price with their supplier in the last 6 months, and (4) offered special prices to attract more clients in the last 6 months. Set to missing if the respondent does not

answer any of the four questions.

- **Goal Setting**: Score that can take values between 0 and 3. The goal setting score depends on the number of "yes" responses to the questions: (1) have a goal for how much profit they want to make in the next month, (2) have a goal for how much profit they want to make in the next year, and (3) know how much they can spend in business expenses in the next year. Set to missing if the respondent does not answer any of the three questions.

- **Work Hours**: Number of hours per week the respondent is personally taking care of her business.

A.4 Psychometric Outcomes

- **Self-Efficacy**: Score that can take values between 10 and 50. The self-efficacy score depends on the sum of the questions: (1) I can always manage to solve difficult problems if I try hard enough, (2) if someone opposes me, I can find the means and ways to get what I want, (3) it is easy for me to stick to my aims and accomplish my goals, (4) I am confident that I could deal efficiently with unexpected events, (5) thanks to my resourcefulness, I know how to handle unforeseen situations, (6) I can solve most problems if I invest the necessary effort, (7) I can remain calm when facing difficulties because I can rely on my coping abilities, (8) When I am confronted with a problem, I can usually find several solutions, (9) if I am in trouble, I can usually think of a solution, and (10) I can usually handle whatever comes my way. All questions are on a scale of 1–5 where one is "not at all like me" and five is "completely like me." Higher responses correspond to higher levels of self-efficacy. We have no missing responses for these questions.

- **Grit**: Score that can take values between 8 and 40. The grit score depends on the sum of the questions: (1) I stay interested in my goals, even if they take a long time (months

or years) to complete, (2) I think about my work even in my dreams and daydreams, (3) I work very hard. I keep working when others stop to take a break, (4) setbacks don't discourage me. I don't give up easily, (5) every day, I try to do one thing better than I did the day before, (6) I am constantly asking other people for feedback about how I can improve, (7) I'm never fully satisfied with my performance, and (8) I finish whatever I begin. All questions are on a scale of 1–5 where one is "not at all like me" and five is "completely like me." Higher responses correspond to higher levels of grit. We have no missing responses for these questions.

- **Locus of Control - Internal**: Score that can take values between 4 and 20. The internality score depends on the sum of the questions: (1) when I make plans, I am almost certain to make them work, (2) I am usually able to protect my personal interests, (3) when I get what I want, it's usually because I worked hard for it, and (4) my life is determined by my own actions. All questions are on a scale of 1–5 where one is "disagree a lot" and five is "agree a lot". Higher responses indicate greater levels of agreement with statements indicating high levels of internality. We have no missing responses for these questions.

- **Locus of Control - PO**: Score that can take values between 5 and 25. The powerful others score depends on the sum of the questions: (1) I feel like what happens in my life is mostly determined by powerful people, (2) my life is chiefly controlled by powerful others, (3) people like myself have very little chance of protecting our personal interests when they conflict with those of strong pressure groups, (4) getting what I want requires pleasing those people above me, and (5) in order to have my plans work, I make sure that they fit in with the desires of people who have power over me. All questions are on a scale of 1–5 where one is "disagree a lot" and five is "agree a lot". Higher responses indicate greater levels of agreement with statements indicating high levels of belief that powerful others are controlling the respondent's life, so we multiply all variables by -1 so that higher scores indicate a more internalized locus of control. We have no missing

responses for these questions.

- **Locus of Control - Chance**: Score that can take values between 5 and 25. The chance score depends on the sum of the questions: (1) to a great extent my life is controlled by accidental happenings, (2) often there is no chance of protecting my personal interests from bad luck happenings, (3) when I get what I want, it's usually because I'm lucky, (4) I have often found that what is going to happen will happen, and (5) it's not always wise for me to plan too far ahead because many things turn out to be a matter of good or bad fortune. All questions are on a scale of 1–5 where one is "disagree a lot" and five is "agree a lot". Higher responses indicate greater levels of agreement with statements indicating that many things in life are due to chance, so we multiply all variables by -1 so that higher scores then indicate a more internalized/self-driven locus of control. We add up the five questions to generate a chance score for each participant. We have no missing responses for these questions.

- **Income (IHS)**: Inverse hyperbolic sine transformation of the difference between (1) what income do you want to have per month in 10 years? and (2) what income do you currently have per month? We winsorize profits at the 1st and 99th percentile.

- **Social Status**: Difference between (1) what level of social status do you want to have in 10 years? and (2) what level of social status do you have today?

A.5 Household Outcomes

- **Daily HH Expenditure(IHS)**: Inverse hyperbolic sine transformation of the sum of all the daily contributions to household expenses for all the adults in the respondent's household. We winsorize daily expenses at the 1st and 99th percentile. If answered in a monthly amount, we convert to a daily total.

- **MUE**: The marginal utility of expenditures calculated using consumption expenditures over the past week on seventeen food items, following the methods outlined in Ligon

(2020).

- **Food Insecurity**: Binary variable equal to one if the respondent answers a lot of times (at least 5 or 6) or some times (2 to 4 times) to the question, "During the last 6 months, how many times, if any, did you experience not having enough food to eat?", zero if the respondent answers only once or never, and missing if the respondent does not know or chooses not to answer.

- **Remittances(IHS)**: Inverse hyperbolic sine transformation of the amount of money or goods that the household received from family members or friends during the last month. We winsorize sales at the 1st and 99th percentile. If answered in a daily amount, it was aggregated by month. In case the respondent has no received money or good from them, we replace with 0.

A.6 Child Outcomes

- **School Index**: index of schooling behavior using the Anderson (2008) method, formulated from questions about days per week attending school, two measures of hours per day studying, and hours spent at school.

- **Leadership Index**: index of leadership using the Anderson (2008) method, formulated with questions about speaking up in class, being a leader in school, being a leader in the community, peer engagement in violence and gambling (reversing signs for the latter two).

A.7 Savings and Investment Outcomes

- **Savings(IHS)**: Inverse hyperbolic sine transformation of the total and daily amount the respondent has saved. We winsorize sales at the 1st and 99th percentile. We provide intervals to probe total and daily savings amounts. For daily, if the respondent chooses

one of these intervals, we take the midpoint and multiply by 30.5 to estimate a monthly savings amount. When the respondent report no saving, we replace with 0.

- **Business Assets(IHS)**: Inverse hyperbolic sine transformation of the total value of all assets that a woman's business owns. We winsorize sales at the 1st and 99th percentile.
- **Investments in Other Businesses(IHS)**: Inverse hyperbolic sine transformation of the amount that a woman invested in her business during the last six months, either to purchase additional assets or to increase her capital stock. We winsorize sales at the 1st and 99th percentile.

B Appendix B - Supporting Tables and Figures

Table A1: Balance Table

Variable	(1) Control N	(1) Control Mean/SD	(2) Intensive Mentoring N	(2) Intensive Mentoring Mean/SD	(3) Opt-in Mentoring N	(3) Opt-in Mentoring Mean/SD	(4) F-test p-value
Age	281	37.911	328	37.537	311	38.061	0.861
		(13.006)		(12.471)		(11.955)	
Married	284	0.620	339	0.622	314	0.682	0.192
		(0.486)		(0.485)		(0.467)	
Divorced	284	0.180	339	0.201	314	0.169	0.565
		(0.385)		(0.401)		(0.375)	
Single	284	0.085	339	0.071	314	0.070	0.754
		(0.279)		(0.257)		(0.256)	
Widowed	284	0.116	339	0.106	314	0.080	0.300
		(0.321)		(0.309)		(0.271)	
Primary Ed.	285	0.449	339	0.478	316	0.528	0.141
		(0.498)		(0.500)		(0.500)	
Secondary Ed.	285	0.414	339	0.428	316	0.370	0.301
		(0.493)		(0.495)		(0.484)	
Father Primary Ed.	285	0.242	339	0.260	316	0.297	0.288
		(0.429)		(0.439)		(0.458)	
Father Secondary Ed.	285	0.168	339	0.142	316	0.127	0.340
		(0.375)		(0.349)		(0.333)	
Mother Primary Ed.	285	0.344	339	0.310	316	0.345	0.556
		(0.476)		(0.463)		(0.476)	
Mother Secondary Ed.	285	0.126	339	0.088	316	0.111	0.307
		(0.333)		(0.284)		(0.314)	
Employed	284	0.535	339	0.496	315	0.540	0.463
		(0.500)		(0.501)		(0.499)	
HH Size	285	4.225	339	4.230	316	4.408	0.603
		(2.488)		(2.620)		(2.675)	
Minors in HH	285	2.926	339	2.991	316	3.174	0.321
		(2.101)		(2.099)		(2.132)	
Own a Business	285	0.551	339	0.490	315	0.521	0.313
		(0.498)		(0.501)		(0.500)	
Network Size	285	4.554	339	4.873	316	4.911	0.388
		(3.539)		(3.273)		(3.608)	

Notes: Mean baseline covariates by treatment group. Standard deviations are in parentheses. Column 4 reports p-values associated with F-tests of joint equality between the three groups.

Table A2: Attrition

	(1) At Exit	(2) At Endline
Intensive Mentoring	0.020	0.006
	(0.025)	(0.023)
Opt-in Mentoring	-0.012	0.001
	(0.024)	(0.024)
Age	-0.001	-0.003***
	(0.001)	(0.001)
Married	0.046	0.007
	(0.032)	(0.029)
Divorced or separated	0.003	0.008
	(0.032)	(0.031)
Single or never married	0.055	0.087
	(0.053)	(0.057)
Primary Ed.	-0.089**	-0.066*
	(0.041)	(0.040)
Secondary Ed.	-0.085**	-0.107***
	(0.042)	(0.040)
Father Primary Ed.	-0.015	0.008
	(0.026)	(0.025)
Father Secondary Ed.	0.006	0.009
	(0.033)	(0.031)
Mother Primary Ed.	-0.004	0.034
	(0.025)	(0.023)
Mother Secondary Ed.	-0.026	0.009
	(0.035)	(0.033)
Employed	0.058**	0.033
	(0.026)	(0.024)
HH Size	0.006	0.004
	(0.010)	(0.008)
Minors in HH	-0.014	-0.011
	(0.012)	(0.009)
Own a Business	-0.074***	-0.028
	(0.025)	(0.023)
Network Size	-0.004	-0.002
	(0.002)	(0.002)
Observations	914	914

Note: For the marital status, the omitted dummy is the Widowed status. * $p < 0.10$, ** $p < 0.05$, ***, $p < 0.01$.

Table A3: SMS Attrition

	(1)
Intensive Mentoring	0.008
	(0.675)
Opt-in Mentoring	-0.165
	(0.698)
Age	0.054**
	(0.027)
Married	-0.163
	(1.020)
Divorced or separated	0.958
	(1.076)
Single or never married	2.960**
	(1.498)
Primary Ed.	-0.235
	(0.934)
Secondary Ed.	1.050
	(0.961)
Father Primary Ed.	-0.444
	(0.725)
Father Secondary Ed.	-0.511
	(0.852)
Mother Primary Ed.	1.325*
	(0.681)
Mother Secondary Ed.	0.277
	(0.924)
Employed	-0.109
	(0.670)
HH Size	-0.015
	(0.248)
Minors in HH	0.473
	(0.300)
Own a Business	0.502
	(0.670)
Network Size	0.195***
	(0.075)
Observations	917

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A4: Conditional Treatment Effects on Business Outcomes

	Main Business	
	(1) Sales (IHS)	(2) Profits (IHS)
Panel A: Midline (6 months)		
Treat	0.631	0.898*
	(0.547)	(0.457)
Treat x Mentoring	-0.603	-0.620
	(0.479)	(0.410)
Observations	535	525
TxM p-value	0.961	0.577
Control Mean	67,333	125,347
Adj. R^2	0.121	0.030
Panel B: Endline (18–24 Months)		
Treat	1.463***	0.404
	(0.522)	(0.406)
Treat x Mentoring	-1.238**	-0.568
	(0.490)	(0.390)
Observations	563	560
TxM p-value	0.686	0.703
Control Mean	65,570	116,084
Adj. R^2	0.113	0.025

Note: We windsorize all sales and profit measures at the 1st and 99th percentile. Coefficients are ANCOVA estimates that control for the outcome at baseline, the respondent's location, marital status, household size, number of children, and age. IHS indicates that we present results using an inverse hyperbolic sine transformation, where we record revenues and profits for women without a business as zero to preserve the balance from randomization. We report White robust standard errors in parentheses. Column (1) presents the reported sales for the 3 days prior the survey. Column (2) present the self-reported profits for the last month. TxM p-value shows the p-value corresponding to the total treatment effect of Intensive Mentoring. * $p < 0.10$, ** $p < 0.05$, ***, $p < 0.01$.

Table A5: Treatment Effects on Business Outcomes by Baseline Business Ownership

	Business Creation		Main Business		Other Businesses
	(1)	(2)	(3)	(4)	(5)
	Own a Business	No. Businesses	Sales (IHS)	Profits (IHS)	Profits (IHS)
Panel A: Midline (6 months)					
Treat	0.206***	0.299***	1.204*	2.559***	1.351***
	(0.062)	(0.084)	(0.684)	(0.745)	(0.423)
Treat x Mentoring	-0.074	-0.069	-0.942	-1.480**	-0.415
	(0.061)	(0.089)	(0.664)	(0.741)	(0.481)
Baseline Business (BB)	0.405***	0.240**	0.043	0.932	2.503***
	(0.058)	(0.103)	(0.778)	(0.971)	(0.474)
Treat x BB	-0.105	-0.149	0.687	-0.731	-1.541**
	(0.077)	(0.124)	(0.916)	(0.966)	(0.726)
Treat x Mentoring x BB	0.099	0.127	0.439	1.362	1.515*
	(0.071)	(0.126)	(0.880)	(0.933)	(0.787)
Observations	822	822	802	794	823
TxM p-value	0.031	0.006	0.693	0.137	0.016
Treat x BB p-value	0.029	0.111	0.002	0.004	0.749
TxM x BB p-value	0.000	0.000	0.045	0.000	0.002
Control Mean	0.566	0.832	37,675	37,675	18,589
Adj. R^2	0.214	0.291	0.211	0.184	0.144
Panel B: Endline (18–24 Months)					
Treat	0.094	0.192*	1.397*	1.101	0.504
	(0.064)	(0.099)	(0.733)	(0.785)	(0.500)
Treat x Mentoring	-0.064	-0.109	-1.416**	-1.060	-0.356
	(0.060)	(0.093)	(0.693)	(0.732)	(0.500)
Baseline Business (BB)	0.290***	0.118	0.619	0.893	0.907*
	(0.059)	(0.117)	(0.837)	(1.060)	(0.545)
Treat x BB	-0.056	0.037	0.141	-0.162	0.863
	(0.079)	(0.135)	(0.978)	(1.021)	(0.794)
Treat x Mentoring x BB	0.041	0.040	0.360	0.371	0.118
	(0.075)	(0.131)	(0.936)	(0.961)	(0.806)
Observations	828	827	814	809	828
TxM p-value	0.639	0.380	0.979	0.958	0.750
Treat x BB p-value	0.414	0.012	0.018	0.151	0.025
TxM x BB p-value	0.500	0.082	0.132	0.413	0.210
Control Mean	0.667	0.903	43,628	76,934	17,833
Adj. R^2	0.096	0.173	0.117	0.079	0.077

Note: We windsorize all sales and profit measures at the 1st and 99th percentile. Coefficients are ANCOVA estimates that control for the outcome at baseline, the respondent's location, marital status, household size, number of children, and age. IHS indicates that we present results using an inverse hyperbolic sine transformation. We report robust standard errors in parentheses. TxM p-value shows the p-value corresponding to the total treatment effect of Intensive Mentoring and to the null hypothesis that it is equal to 0. Treat x BB p-value corresponds to the null hypothesis Treat + Treat x BB = 0. TxM x BB p-value corresponds to the null hypothesis Treat + Treat x Mentoring + Treat x BB + Treat x Mentoring x BB = 0. * $p < 0.10$, ** $p < 0.05$, ***, $p < 0.01$.

Table A6: Treatment Effects on Psychometric Measures by Baseline Business Ownership

			Locus of Control			Aspirations	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Self-Efficacy	Grit	Internal	PO	Chance	Income (IHS)	Social Status
Panel A: Midline (6 months)							
Treat	-0.031	2.044***	-0.038	-1.016*	-0.101	-0.203	0.150
	(0.912)	(0.729)	(0.340)	(0.609)	(0.468)	(0.234)	(0.134)
Treat x Mentoring	-0.275	-1.035	0.218	0.046	0.047	-0.596*	-0.136
	(0.814)	(0.704)	(0.323)	(0.576)	(0.445)	(0.359)	(0.128)
Baseline Business (BB)	0.827	2.070***	0.340	-0.198	0.086	-0.236	-0.021
	(0.839)	(0.738)	(0.303)	(0.603)	(0.506)	(0.262)	(0.122)
Treat x BB	0.807	-2.107**	0.133	1.933**	0.725	0.223	-0.006
	(1.158)	(0.969)	(0.439)	(0.813)	(0.672)	(0.383)	(0.171)
Treat x Mentoring x BB	-0.047	0.549	-0.038	-0.437	0.015	0.652	-0.116
	(1.096)	(0.935)	(0.421)	(0.773)	(0.626)	(0.446)	(0.170)
Observations	819	820	819	819	820	654	809
TxM p-value	0.717	0.160	0.574	0.108	0.908	0.022	0.915
Treat x BB p-value	0.267	0.921	0.732	0.087	0.197	0.948	0.196
TxM x BB p-value	0.907	0.034	0.648	0.218	0.578	0.146	0.493
Control Mean	38.605	29.488	15.836	-12.914	-14.645	1.481,437	3.079
Adj. R^2	0.116	0.096	0.024	0.143	0.079	-0.009	0.084
Panel B: Endline (18–24 Months)							
Treat	-0.569	0.364	0.418	-0.507	-0.718	-0.200	-0.148
	(0.920)	(0.749)	(0.333)	(0.665)	(0.523)	(0.151)	(0.130)
Treat x Mentoring	-0.552	-1.352**	-0.701**	-0.038	0.582	-0.069	0.016
	(0.869)	(0.679)	(0.333)	(0.612)	(0.485)	(0.129)	(0.124)
Baseline Business (BB)	0.311	0.497	0.098	-0.251	0.260	0.084	-0.359***
	(0.887)	(0.730)	(0.358)	(0.638)	(0.513)	(0.169)	(0.135)
Treat x BB	2.175*	1.001	-0.137	1.635*	0.951	0.234	0.378**
	(1.160)	(0.955)	(0.475)	(0.868)	(0.688)	(0.212)	(0.178)
Treat x Mentoring x BB	0.100	0.016	0.680	-0.143	-1.175*	0.022	-0.117
	(1.100)	(0.874)	(0.460)	(0.824)	(0.669)	(0.190)	(0.167)
Observations	821	822	821	821	822	677	809
TxM p-value	0.219	0.186	0.436	0.390	0.800	0.076	0.288
Treat x BB p-value	0.027	0.023	0.417	0.045	0.611	0.822	0.058
TxM x BB p-value	0.261	0.242	0.156	0.315	0.400	0.359	0.476
Control Mean	39.289	30.094	15.801	-12.121	-14.191	1.577,983	2.992
Adj. R^2	0.137	0.110	0.030	0.053	0.046	0.063	0.034

Note: Coefficients are ANCOVA estimates that control for the outcome at baseline, the respondent's location, marital status, household size, number of children, and age. IHS indicates that we present results using an inverse hyperbolic sine transformation. We measure generalized self-efficacy following Schwarzer and Jerusalem (1995). Out measures of grit follow Duckworth, Peterson, et al. (2007) and Duckworth and Quinn (2009). We draw our locus of control measures from Levenson (1973) and our measure of subjective social status from Adler et al. (2000). We report White robust standard errors in parentheses. TxM p-value shows the p-value corresponding to the total treatment effect of Intensive Mentoring and to the null hypothesis that it is equal to 0. Treat x BB p-value corresponds to the null hypothesis Treat + Treat x BB = 0. TxM x BB p-value corresponds to the null hypothesis Treat + Treat x Mentoring + Treat x BB + Treat x Mentoring x BB = 0. * $p < 0.10$, ** $p < 0.05$, ***, $p < 0.01$.

Table A7: Treatment Effects on Re-Investments by Baseline Business Ownership

	(1) Savings (IHS)	(2) Business Assets (IHS)	(3) Investments in Other Businesses (IHS)
	Panel A: Midline (6 months)		
Treat	1.206	1.886***	0.857**
	(0.755)	(0.655)	(0.429)
Treat x Mentoring	0.155	-0.946	0.121
	(0.704)	(0.669)	(0.486)
Baseline Business (BB)	0.987	1.018	2.715***
	(0.756)	(0.757)	(0.530)
Treat x BB	-0.484	-1.262	-1.143
	(0.984)	(0.943)	(0.761)
Treat x Mentoring x BB	0.182	1.010	0.258
	(0.915)	(0.940)	(0.796)
Observations	800	823	823
TxM p-value	0.075	0.148	0.024
Treat x BB p-value	0.263	0.365	0.653
TxM x BB p-value	0.098	0.028	0.082
Control Mean	169,641	120,251	45,167
Adj. R^2	0.110	0.163	0.152
	Panel B: Endline (18–24 Months)		
Treat	1.262*	0.692	0.682
	(0.733)	(0.702)	(0.511)
Treat x Mentoring	0.118	-0.706	0.117
	(0.696)	(0.679)	(0.525)
Baseline Business (BB)	1.400*	0.003	1.203**
	(0.738)	(0.829)	(0.556)
Treat x BB	-1.294	-0.731	1.109
	(0.996)	(1.009)	(0.830)
Treat x Mentoring x BB	-0.189	0.939	-0.633
	(0.949)	(0.963)	(0.850)
Observations	809	828	828
TxM p-value	0.063	0.984	0.094
Treat x BB p-value	0.962	0.958	0.005
TxM x BB p-value	0.243	0.699	0.062
Control Mean	165,481	127,105	29,836
Adj. R^2	0.091	0.113	0.089

Note: We windsorize all savings and investment measures at the 1st and 99th percentile. Coefficients are ANCOVA estimates that control for the outcome at baseline, the respondent's location, marital status, household size, number of children, and age. IHS indicates that we present results using an inverse hyperbolic sine transformation. Savings is the total amount held in all financial savings instruments. Business assets is the estimated monetary value of all assets held in the main business. Investments in other businesses is the total estimated monetary value of all investments in businesses other than the main business. We report White robust standard errors in parentheses. TxM p-value shows the p-value corresponding to the total treatment effect of Intensive Mentoring and to the null hypothesis that it is equal to 0. Treat x BB p-value corresponds to the null hypothesis Treat + Treat x BB = 0. TxM x BB p-value corresponds to the null hypothesis Treat + Treat x Mentoring + Treat x BB + Treat x Mentoring x BB = 0. * $p < 0.10$, ** $p < 0.05$, ***, $p < 0.01$.

Table A8: Treatment Effects on Household Outcomes by Baseline Business Ownership

	(1) Daily HH Expenditure (IHS)	(2) MUE	(3) Food Insecurity	(4) Remittances (IHS)
Panel A: Midline (6 months)				
Treat	0.114	0.027	0.066	-1.047*
	(0.272)	(0.145)	(0.058)	(0.606)
Treat x Mentoring	0.148	-0.070	-0.063	-0.033
	(0.260)	(0.131)	(0.057)	(0.490)
Baseline Business (BB)	0.219	-0.028	-0.124**	-1.056*
	(0.257)	(0.123)	(0.054)	(0.633)
Treat x BB	-0.243	0.107	0.110	0.620
	(0.339)	(0.180)	(0.078)	(0.812)
Treat x Mentoring x BB	0.082	-0.002	-0.089	0.124
	(0.324)	(0.172)	(0.077)	(0.686)
Observations	818	729	820	799
TxM p-value	0.370	0.751	0.960	0.069
Treat x BB p-value	0.555	0.207	0.001	0.421
TxM x BB p-value	0.763	0.882	0.593	0.235
Control Mean	10,571	-0.027	0.270	31,173
Adj. R^2	0.179	0.050	0.109	0.188
Panel B: Endline (18–24 Months)				
Treat	0.172	0.210	-0.050	-0.715
	(0.276)	(0.146)	(0.059)	(0.638)
Treat x Mentoring	0.015	-0.150	0.004	0.336
	(0.246)	(0.133)	(0.055)	(0.581)
Baseline Business (BB)	0.019	-0.057	-0.118**	-0.612
	(0.297)	(0.137)	(0.057)	(0.633)
Treat x BB	0.149	-0.111	0.107	0.250
	(0.341)	(0.194)	(0.079)	(0.858)
Treat x Mentoring x BB	-0.073	0.023	-0.045	-0.205
	(0.317)	(0.185)	(0.077)	(0.802)
Observations	823	724	825	804
TxM p-value	0.548	0.661	0.425	0.535
Treat x BB p-value	0.119	0.435	0.288	0.424
TxM x BB p-value	0.666	0.510	0.804	0.662
Control Mean	10,032	-0.076	0.310	25,548
Adj. R^2	0.128	0.052	0.088	0.148

Note: We winsorize daily expenditures, MUE, and remittances at the 1st and 99th percentile. Coefficients are ANCOVA estimates that control for the outcome at baseline, the respondent's location, marital status, household size, number of children, and age. IHS indicates that we present results using an inverse hyperbolic sine transformation. We calculate the MUE using consumption expenditures over the past week on seventeen food items, following the methods outlined in Ligon (2020). Food insecurity is a binary variable equal to one if the woman reports not having enough food more than once over the six months before the survey. We report White robust standard errors in parentheses. TxM p-value shows the p-value corresponding to the total treatment effect of Intensive Mentoring and to the null hypothesis that it is equal to 0. Treat x BB p-value corresponds to the null hypothesis Treat + Treat x BB = 0. TxM x BB p-value corresponds to the null hypothesis Treat + Treat x Mentoring + Treat x BB + Treat x Mentoring x BB = 0. * $p < 0.10$, ** $p < 0.05$, ***, $p < 0.01$.

Table A9: Differences in Selection Into Mentoring

Variable	(1) Opt-in Mentoring N	Mean/SE	(2) Intensive Mentoring N	Mean/SE	T-test Difference (1)-(2)
Single	128	0.070	226	0.049	0.022
		(0.023)		(0.014)	
Married	128	0.680	226	0.606	0.073
		(0.041)		(0.033)	
Divorced	128	0.180	226	0.212	-0.033
		(0.034)		(0.027)	
Widowed	128	0.070	226	0.133	-0.062*
		(0.023)		(0.023)	
Primary Ed.	130	0.523	226	0.500	0.023
		(0.044)		(0.033)	
Secondary Ed.	130	0.415	226	0.438	-0.023
		(0.043)		(0.033)	
HH Size	130	4.531	226	4.535	-0.005
		(0.237)		(0.167)	
Minors in HH	130	3.277	226	3.252	0.025
		(0.194)		(0.134)	
Age	129	38.434	218	38.358	0.076
		(1.073)		(0.815)	
Own a Business	130	0.477	226	0.540	-0.063
		(0.044)		(0.033)	
Network Size	130	4.608	226	5.310	-0.702*
		(0.280)		(0.238)	
Employed	129	0.496	226	0.531	-0.035
		(0.044)		(0.033)	
Profits	128	69064.063	222	64944.595	4119.468
		(25019.870)		(10464.398)	
Grit	130	29.908	225	29.653	0.254
		(0.505)		(0.350)	
Internal Locus of Control	129	15.984	225	15.742	0.242
		(0.197)		(0.167)	
Self-efficacy	129	39.070	225	38.382	0.688
		(0.608)		(0.479)	

Notes: Mean baseline covariates by treatment group for women who attend at least one mentoring session. Single, married, divorced, and widowed are indicators equal to one if a woman holds that marital status. Primary and secondary education are indicators equal to one if the woman's highest level of education is primary school or secondary school, respectively. HH size is the number of people who regularly eat and sleep in a woman's household. Minors is the number of minors in the woman's household. Age is the woman's age in years. Own a business is an indicator equal to one if the woman owns a business. Network size is the number of women in the RCT in the woman's location who she knows. Employed is an indicator equal to one if the woman is employed. Profits are profits from the last month in the main business in Ugandan shillings. Grit, internal locus of control, and self-efficacy are psychometric indices. Standard errors are in parentheses. * $p < 0.10$, ** $p < 0.05$, ***, $p < 0.01$.

Table A10: Treatment Effects on Business Outcomes by Baseline Marital Status

	Business Creation		Main Business		Other Businesses
	(1)	(2)	(3)	(4)	(5)
	Own a Business	No. Businesses	Sales (IHS)	Profits (IHS)	Profits (IHS)
Panel A: Midline (6 months)					
Treat	0.185**	0.380***	2.552***	3.004***	0.826
	(0.073)	(0.132)	(0.881)	(0.956)	(0.806)
Treat x Mentoring	0.028	-0.073	-1.783**	-0.053	-0.156
	(0.065)	(0.131)	(0.852)	(0.892)	(0.842)
Treat x Single/Married	-0.053	-0.228	-1.392	-1.147	-0.400
	(0.086)	(0.152)	(1.050)	(1.122)	(0.918)
Treat x Mentoring x Single/Married	-0.069	0.086	1.489	-1.099	0.628
	(0.077)	(0.150)	(0.994)	(1.050)	(0.959)
Observations	822	822	802	795	824
TxM p-value	0.001	0.005	0.365	0.001	0.385
Control Mean	0.566	0.832	37674.603	69415.538	18589.105
Adj. R^2	0.213	0.288	0.212	0.185	0.102
Panel B: Endline (18–24 Months)					
Treat	0.033	0.178	1.475	0.774	1.545*
	(0.071)	(0.128)	(0.939)	(0.966)	(0.835)
Treat x Mentoring	-0.055	-0.054	-1.577*	-0.887	-0.661
	(0.070)	(0.129)	(0.889)	(0.920)	(0.822)
Treat x Single/Married	0.044	0.044	-0.023	0.384	-0.830
	(0.086)	(0.151)	(1.109)	(1.146)	(0.967)
Treat x Mentoring x Single/Married	0.019	-0.057	0.468	-0.034	0.442
	(0.083)	(0.151)	(1.041)	(1.087)	(0.941)
Observations	828	827	814	810	829
TxM p-value	0.750	0.337	0.906	0.903	0.233
Control Mean	0.667	0.903	43628.016	76934.118	17832.946
Adj. R^2	0.096	0.170	0.116	0.079	0.052

Note: We windsorize all sales and profit measures at the 1st and 99th percentile. Coefficients are ANCOVA estimates that control for the outcome at baseline, the respondent's location, marital status, household size, number of children, and age. IHS indicates that we present results using an inverse hyperbolic sine transformation. We report White robust standard errors in parentheses. TxM p-value shows the p-value corresponding to the total treatment effect of Intensive Mentoring. * $p < 0.10$, ** $p < 0.05$, ***, $p < 0.01$.

Table A11: Spillover Effects on Potential Mechanisms

Panel A: Spillovers in Psychometrics

	Control group only	
	(1) Self-Efficacy	(2) Grit
Link - Intensive Mentoring	-0.059	0.341
	(0.692)	(0.487)
Link - Opt-in Mentoring	1.229*	1.089*
	(0.680)	(0.614)
Observations	251	251
Control Mean	38.732	29.443
Adj. R^2	0.095	0.112

Panel B: Spillovers in Business Practices

	Control group only	
	(1) Price Mgmt.	(2) Work Hours
Link - Intensive Mentoring	-0.115	-6.422
	(0.198)	(4.629)
Link - Opt-in Mentoring	0.316	6.920
	(0.199)	(4.744)
Observations	126	122
Control Mean	1.073	31.588
Adj. R^2	0.039	0.134

Note: We windsorize profit measures at the 1st and 99th percentile. Coefficients are ANCOVA estimates that control for the outcome at baseline, and overall network size at baseline. IHS indicates that we present results using an inverse hyperbolic sine transformation. We report White robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, ***, $p < 0.01$.

C Appendix C - Robustness

Table A12: Treatment Effects on Business Outcomes - Other Specifications

	Midline (6 months)				Endline (18–24 Months)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Own a Business								
Treat	0.165***	0.139***	0.196***	0.173***	0.062	0.061	0.075	0.093*
	(0.041)	(0.041)	(0.046)	(0.046)	(0.039)	(0.040)	(0.048)	(0.048)
Treat x Mentoring	-0.024	-0.023	-0.028	-0.041	-0.035	-0.047	-0.026	-0.086
	(0.037)	(0.038)	(0.042)	(0.057)	(0.037)	(0.038)	(0.047)	(0.060)
Observations	846	823	1690	818	851	829	1700	822
No. Businesses								
Treat	0.247***	0.194***	0.283***	0.249***	0.194***	0.207***	0.187**	0.251***
	(0.072)	(0.073)	(0.069)	(0.079)	(0.070)	(0.071)	(0.077)	(0.083)
Treat x Mentoring	0.001	0.028	-0.068	-0.026	-0.065	-0.075	-0.105	-0.168
	(0.070)	(0.069)	(0.071)	(0.102)	(0.069)	(0.070)	(0.075)	(0.107)
Observations	846	823	1690	818	850	828	1698	821
Sales (IHS)								
Treat	1.760***	1.595***	1.744***	1.736***	1.521***	1.531***	1.486***	1.826***
	(0.489)	(0.509)	(0.523)	(0.568)	(0.495)	(0.517)	(0.556)	(0.611)
Treat x Mentoring	-0.627	-0.790	-0.496	-0.971	-1.056**	-1.291***	-0.982*	-1.792**
	(0.471)	(0.494)	(0.485)	(0.727)	(0.472)	(0.493)	(0.539)	(0.756)
Observations	837	814	1648	797	845	823	1670	808
Profits (IHS) - Main Business								
Treat	2.228***	2.026***	2.786***	2.645***	0.931*	0.988*	1.191*	1.300**
	(0.507)	(0.527)	(0.561)	(0.604)	(0.502)	(0.515)	(0.615)	(0.628)
Treat x Mentoring	-0.692	-0.784	-0.988*	-1.243	-0.585	-0.856*	-0.849	-1.407*
	(0.478)	(0.505)	(0.539)	(0.774)	(0.476)	(0.495)	(0.578)	(0.784)
Observations	831	808	1634	791	845	823	1662	804
Profits (IHS) - Other Businesses (OB)								
Treat	0.308	0.298	0.948**	0.310	0.780**	0.874**	1.092**	1.017**
	(0.392)	(0.408)	(0.427)	(0.489)	(0.393)	(0.406)	(0.477)	(0.501)
Treat x Mentoring	0.587	0.613	-0.474	0.655	-0.162	-0.171	-1.134**	-0.575
	(0.403)	(0.423)	(0.466)	(0.664)	(0.398)	(0.411)	(0.480)	(0.658)
Observations	847	824	1694	820	851	829	1702	823
Controls		✓		✓		✓		✓
FE			✓				✓	

Note: Columns (1), (2), (5) and (6) present the results of the OLS specification, columns (3) and (7) present the results of the two-way fixed effects specification, and columns (4) and (8) present results from the ANCOVA IV specification where we instrument for actual treatment with assigned treatment to account for imperfect compliance. We windsorize all sales and profit measures at the 1st and 99th percentile. Coefficients in columns (2), (4), (6), and (8) control for the respondent's location, marital status, household size, number of children, and age. IHS indicates that we present results using an inverse hyperbolic sine transformation. We report standard errors clustered at the individual level in parentheses in columns (3) and (7) and White robust standard errors in all other columns. * $p < 0.10$, ** $p < 0.05$, ***, $p < 0.01$.

Table A13: Treatment Effects on Business Practices - Other Specifications

	Midline (6 months)				Endline (18–24 Months)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Tracking								
Treat	0.375***	0.365***	0.342***	0.178	0.213**	0.240**	0.141	0.212
	(0.106)	(0.109)	(0.110)	(0.171)	(0.106)	(0.110)	(0.124)	(0.179)
Treat x Mentoring	-0.111	-0.101	-0.008	0.185	-0.130	-0.145	-0.031	-0.213
	(0.103)	(0.105)	(0.110)	(0.217)	(0.102)	(0.106)	(0.120)	(0.216)
Observations	842	819	1676	429	848	826	1690	428
Price Mgmt.								
Treat	0.402***	0.370***	0.360***	0.401**	0.286**	0.255**	0.193	0.377*
	(0.116)	(0.118)	(0.124)	(0.195)	(0.120)	(0.126)	(0.139)	(0.212)
Treat x Mentoring	-0.062	-0.079	-0.079	-0.075	-0.181	-0.159	-0.164	-0.302
	(0.114)	(0.118)	(0.125)	(0.242)	(0.114)	(0.120)	(0.133)	(0.242)
Observations	832	809	1642	417	838	816	1656	410
Goal Setting								
Treat	0.250***	0.226**	0.261**	0.052	0.161*	0.144	0.188	0.139
	(0.089)	(0.092)	(0.101)	(0.163)	(0.094)	(0.098)	(0.120)	(0.178)
Treat x Mentoring	0.044	0.069	0.068	0.311	-0.033	-0.009	0.005	0.049
	(0.090)	(0.091)	(0.102)	(0.223)	(0.092)	(0.096)	(0.112)	(0.209)
Observations	792	771	1500	358	779	762	1478	354
Work Hours								
Treat	12.261***	10.751***	12.759***	8.675*	6.429**	6.269*	5.604	4.918
	(3.128)	(3.238)	(3.338)	(4.903)	(3.132)	(3.247)	(3.743)	(5.063)
Treat x Mentoring	-5.008*	-4.680	-2.931	3.980	-3.232	-3.768	-1.549	-4.769
	(3.010)	(3.195)	(3.163)	(6.282)	(3.052)	(3.179)	(3.663)	(6.156)
Observations	811	791	1544	374	833	812	1588	386
Controls		✓		✓		✓		✓
FE			✓				✓	

Note: Columns (1), (2), (5) and (6) present the results of the OLS specification, columns (3) and (7) present the results of the two-way fixed effects specification, and columns (4) and (8) present results from the ANCOVA IV specification where we instrument for actual treatment with assigned treatment to account for imperfect compliance. We windsorize all sales and profit measures at the 1st and 99th percentile. Coefficients in columns (2), (4), (6), and (8) control for the respondent's location, marital status, household size, number of children, and age. IHS indicates that we present results using an inverse hyperbolic sine transformation. We report standard errors clustered at the individual level in parentheses in columns (3) and (7) and White robust standard errors in all other columns. * $p < 0.10$, ** $p < 0.05$, ***, $p < 0.01$.

Table A14: Treatment Effects on Psychometric Measures - Other Specifications Part I.

	Midline (6 months)				Endline (18–24 Months)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Self-Efficacy								
Treat	0.663	0.621	-0.087	0.629	0.551	0.838	-0.293	0.741
	(0.580)	(0.583)	(0.687)	(0.685)	(0.595)	(0.611)	(0.706)	(0.745)
Treat x Mentoring	-0.666	-0.620	0.103	-0.556	-0.461	-0.858	0.233	-0.813
	(0.554)	(0.560)	(0.658)	(0.859)	(0.582)	(0.594)	(0.650)	(0.895)
Observations	846	823	1684	815	847	825	1686	815
Grit								
Treat	0.877*	0.936*	0.829	1.298**	0.809*	0.983**	0.517	1.320**
	(0.494)	(0.503)	(0.558)	(0.575)	(0.485)	(0.493)	(0.558)	(0.605)
Treat x Mentoring	-0.699	-0.804*	-0.496	-1.244*	-1.300***	-1.471***	-1.028*	-2.048***
	(0.454)	(0.468)	(0.535)	(0.743)	(0.450)	(0.457)	(0.533)	(0.705)
Observations	846	823	1686	816	847	825	1688	816
Locus of Control - Internal								
Treat	0.054	0.034	0.148	0.051	0.262	0.330	0.351	0.577*
	(0.211)	(0.215)	(0.283)	(0.261)	(0.239)	(0.248)	(0.283)	(0.297)
Treat x Mentoring	0.174	0.156	0.348	0.105	-0.227	-0.401*	-0.011	-0.609*
	(0.205)	(0.209)	(0.271)	(0.327)	(0.226)	(0.232)	(0.272)	(0.365)
Observations	846	823	1684	815	847	825	1686	815
Locus of Control - PO								
Treat	-0.282	-0.163	0.432	-0.115	0.184	0.350	0.721	0.139
	(0.422)	(0.431)	(0.472)	(0.487)	(0.429)	(0.444)	(0.530)	(0.536)
Treat x Mentoring	-0.127	-0.254	-0.059	0.005	-0.155	-0.216	-0.033	0.084
	(0.400)	(0.408)	(0.458)	(0.626)	(0.402)	(0.406)	(0.523)	(0.644)
Observations	846	823	1684	815	847	825	1686	815
Locus of Control - Chance								
Treat	0.258	0.211	0.475	0.134	-0.209	-0.180	-0.234	-0.477
	(0.343)	(0.350)	(0.407)	(0.409)	(0.345)	(0.357)	(0.425)	(0.427)
Treat x Mentoring	0.070	0.120	-0.326	0.420	0.052	-0.020	-0.255	0.152
	(0.316)	(0.321)	(0.382)	(0.505)	(0.330)	(0.341)	(0.412)	(0.527)
Observations	846	823	1686	816	847	825	1688	816
Controls		✓		✓		✓		✓
FE			✓				✓	

Note: Columns (1), (2), (5) and (6) present the results of the OLS specification, columns (3) and (7) present the results of the two-way fixed effects specification, and columns (4) and (8) present results from the ANCOVA IV specification where we instrument for actual treatment with assigned treatment to account for imperfect compliance. We windsorize all sales and profit measures at the 1st and 99th percentile. Coefficients in columns (2), (4), (6), and (8) control for the respondent's location, marital status, household size, number of children, and age. IHS indicates that we present results using an inverse hyperbolic sine transformation. We report standard errors clustered at the individual level in parentheses in columns (3) and (7) and White robust standard errors in all other columns. * $p < 0.10$, ** $p < 0.05$, ***, $p < 0.01$.

Table A15: Treatment Effects on Psychometric Measures - Other Specifications Part II.

	Midline (6 months)				Endline (18–24 Months)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Aspirations - Income (IHS)								
Treat	-0.023	-0.105	0.067	-0.125	-0.175*	-0.156	-0.109	-0.125
	(0.168)	(0.174)	(0.301)	(0.268)	(0.100)	(0.100)	(0.245)	(0.138)
Treat x Mentoring	-0.196	-0.195	-0.435	-0.411	0.006	-0.022	-0.001	-0.055
	(0.191)	(0.211)	(0.293)	(0.424)	(0.089)	(0.091)	(0.216)	(0.166)
Observations	763	742	1340	649	795	779	1378	672
Aspirations - Social Status								
Treat	0.113	0.141	0.184	0.202*	0.057	0.062	0.167	0.041
	(0.085)	(0.087)	(0.113)	(0.106)	(0.088)	(0.089)	(0.119)	(0.110)
Treat x Mentoring	-0.255***	-0.224**	-0.101	-0.312**	-0.093	-0.062	0.042	-0.069
	(0.085)	(0.087)	(0.110)	(0.137)	(0.081)	(0.084)	(0.119)	(0.134)
Observations	839	816	1664	805	837	816	1660	802
Controls		✓		✓		✓		✓
FE			✓				✓	

Note: Columns (1), (2), (5) and (6) present the results of the OLS specification, columns (3) and (7) present the results of the two-way fixed effects specification, and columns (4) and (8) present results from the ANCOVA IV specification where we instrument for actual treatment with assigned treatment to account for imperfect compliance. We windsorize all sales and profit measures at the 1st and 99th percentile. Coefficients in columns (2), (4), (6), and (8) control for the respondent's location, marital status, household size, number of children, and age. IHS indicates that we present results using an inverse hyperbolic sine transformation. We report standard errors clustered at the individual level in parentheses in columns (3) and (7) and White robust standard errors in all other columns. * $p < 0.10$, ** $p < 0.05$, ***, $p < 0.01$.

Table A16: Treatment Effects on Re-Investments - Other Specifications

	Midline (6 months)				Endline (18–24 Months)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Savings (IHS)								
Treat	0.942*	0.933*	0.929	0.773	0.774	0.751	0.360	0.680
	(0.507)	(0.522)	(0.602)	(0.604)	(0.507)	(0.516)	(0.632)	(0.610)
Treat x Mentoring	0.334	0.248	0.255	0.525	0.215	0.121	-0.143	-0.149
	(0.460)	(0.485)	(0.567)	(0.726)	(0.469)	(0.485)	(0.581)	(0.758)
Observations	835	812	1648	795	840	820	1660	802
Business Assets (IHS)								
Treat	1.346***	1.176**	1.475***	1.370**	0.452	0.269	0.624	0.511
	(0.506)	(0.522)	(0.549)	(0.587)	(0.514)	(0.533)	(0.591)	(0.631)
Treat x Mentoring	-0.626	-0.600	-0.353	-0.610	-0.377	-0.343	-0.170	-0.539
	(0.489)	(0.511)	(0.538)	(0.766)	(0.491)	(0.514)	(0.553)	(0.779)
Observations	847	824	1694	820	851	829	1702	823
Investments in Other Businesses (IHS)								
Treat	0.176	0.040	0.744	0.117	1.159***	1.181***	1.479***	1.534***
	(0.418)	(0.430)	(0.455)	(0.509)	(0.417)	(0.422)	(0.502)	(0.520)
Treat x Mentoring	0.342	0.407	-0.377	0.524	-0.220	-0.137	-0.837*	-0.685
	(0.413)	(0.423)	(0.475)	(0.654)	(0.427)	(0.435)	(0.508)	(0.705)
Observations	847	824	1694	820	851	829	1702	823
Controls		✓		✓		✓		✓
FE			✓				✓	

Note: Columns (1), (2), (5) and (6) present the results of the OLS specification, columns (3) and (7) present the results of the two-way fixed effects specification, and columns (4) and (8) present results from the ANCOVA IV specification where we instrument for actual treatment with assigned treatment to account for imperfect compliance. We windsorize all sales and profit measures at the 1st and 99th percentile. Coefficients in columns (2), (4), (6), and (8) control for the respondent's location, marital status, household size, number of children, and age. IHS indicates that we present results using an inverse hyperbolic sine transformation. We report standard errors clustered at the individual level in parentheses in columns (3) and (7) and White robust standard errors in all other columns. * $p < 0.10$, ** $p < 0.05$, ***, $p < 0.01$.

Table A17: Treatment Effects on Household Outcomes - Other Specifications

	Midline (6 months)				Endline (18–24 Months)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Daily HH Expenditure (IHS)								
Treat	0.131	0.070	-0.286	-0.041	0.263	0.303*	-0.149	0.192
	(0.179)	(0.174)	(0.218)	(0.211)	(0.181)	(0.175)	(0.234)	(0.196)
Treat x Mentoring	0.071	0.115	0.465**	0.186	-0.037	-0.050	0.271	0.119
	(0.160)	(0.161)	(0.193)	(0.255)	(0.165)	(0.156)	(0.221)	(0.239)
Observations	844	821	1684	815	849	827	1692	818
MUE								
Treat	0.122	0.137	0.001	0.118	0.220**	0.192**	0.126	0.234*
	(0.083)	(0.087)	(0.104)	(0.103)	(0.091)	(0.094)	(0.113)	(0.121)
Treat x Mentoring	-0.064	-0.088	-0.092	-0.112	-0.152*	-0.148	-0.124	-0.270*
	(0.081)	(0.085)	(0.101)	(0.141)	(0.090)	(0.094)	(0.107)	(0.157)
Observations	786	763	1504	726	783	761	1492	718
Food Insecurity								
Treat	0.115***	0.133***	0.094*	0.164***	0.035	0.009	0.012	0.018
	(0.040)	(0.041)	(0.048)	(0.048)	(0.040)	(0.040)	(0.053)	(0.049)
Treat x Mentoring	-0.081**	-0.102**	-0.137***	-0.185***	-0.040	-0.018	-0.063	-0.042
	(0.039)	(0.040)	(0.048)	(0.061)	(0.039)	(0.038)	(0.052)	(0.062)
Observations	845	823	1684	816	850	828	1694	819
Remittances (IHS)								
Treat	-0.957**	-0.846**	-0.124	-1.044**	-0.628	-0.668	0.420	-0.812
	(0.417)	(0.390)	(0.525)	(0.436)	(0.449)	(0.428)	(0.566)	(0.524)
Treat x Mentoring	0.133	0.138	-0.463	0.300	0.018	0.230	-0.637	0.283
	(0.376)	(0.349)	(0.458)	(0.527)	(0.414)	(0.406)	(0.519)	(0.649)
Observations	836	814	1644	795	840	818	1654	799
Controls		✓		✓		✓		✓
FE			✓				✓	

Note: Columns (1), (2), (5) and (6) present the results of the OLS specification, columns (3) and (7) present the results of the two-way fixed effects specification, and columns (4) and (8) present results from the ANCOVA IV specification where we instrument for actual treatment with assigned treatment to account for imperfect compliance. We windsorize all sales and profit measures at the 1st and 99th percentile. Coefficients in columns (2), (4), (6), and (8) control for the respondent's location, marital status, household size, number of children, and age. IHS indicates that we present results using an inverse hyperbolic sine transformation. We report standard errors clustered at the individual level in parentheses in columns (3) and (7) and White robust standard errors in all other columns. * $p < 0.10$, ** $p < 0.05$, ***, $p < 0.01$.