

Promoting Women's Economic Empowerment

What Works?

Mayra Buvinic
Rebecca Furst-Nichols



WORLD BANK GROUP

Development Economics Vice Presidency

Development Policy Department

November 2014

Abstract

A review of rigorous evaluations of interventions that seek to empower women economically shows that the same class of interventions has significantly different outcomes depending on the client. Capital alone, as a small cash loan or grant, is not sufficient to grow women-owned subsistence-level firms. However, it can work if it is delivered in-kind to more successful women microentrepreneurs, and it should boost the performance of women's larger-sized SMEs. Very poor women need a more intensive package of services than do less poor women to break out of subsistence production and grow their businesses. What works for young women does not necessarily work for adult women. Skills training, job search assistance, internships, and wage subsidies increase the employment levels of adult women but do not raise wages. However, similar interventions increase young

women's employability and earnings if social restrictions are not binding. Women who run subsistence-level firms face additional social constraints when compared to similar men, thus explaining the differences in the outcomes of some loans, grants, and training interventions that favor men. Social constraints may also play a role in explaining women's outcome gains that are short-lasting or emerge with a delay. The good news is that many of the additional constraints that women face can be overcome by simple, inexpensive adjustments in program design that lessen family and social pressures. These include providing capital in-kind or transacted through the privacy of a mobile phone and providing secure savings accounts to nudge women to keep the money in the business rather than to divert it to non-business uses.

This paper is a product of the Development Policy Department, Development Economics Vice Presidency. It is part of a larger effort by the World Bank to provide open access to its research and make a contribution to development policy discussions around the world. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at mayra.buvinic@gmail.com.

The Policy Research Working Paper Series disseminates the findings of work in progress to encourage the exchange of ideas about development issues. An objective of the series is to get the findings out quickly, even if the presentations are less than fully polished. The papers carry the names of the authors and should be cited accordingly. The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the views of the International Bank for Reconstruction and Development/World Bank and its affiliated organizations, or those of the Executive Directors of the World Bank or the governments they represent.

Promoting Women's Economic Empowerment: What Works?

Mayra Buvinic · Rebecca Furst-Nichols

JEL Codes: J16, J24, L25, L26, M53, O12

The observed disparity between the sexes in productivity and earnings is persistent and pervasive. The value added per worker is between 6 percent and 35 percent lower in female-owned than in male-owned firms; female-managed farms are 20 percent to 80 percent less productive than male-managed farms; in the workplace, females earn between 20 percent and 80 percent lower average wages than do males, depending on the country (World Bank 2012). This disparity is not because women are inferior entrepreneurs, farmers or wage workers; it is primarily the result of differences in the size of their businesses and farms, in the sectors in which they operate, and in human capital (health and education) and returns to this capital (World Bank 2012, 2013).

A wide range of policies and programs—from strengthening economic rights for women under the law to providing women with greater access to quality child care and financial literacy—can potentially spur women’s economic advancement and reduce gender gaps in economic performance. This article reviews the empirical evidence on the effectiveness of actions that have direct, near-term impacts on women’s economic outcomes while recognizing the importance of complementary investments in women’s human capital and inclusive policies and legal frameworks over the long term.

Short-term interventions that succeed in increasing women’s earnings are not to be underestimated. They benefit women and can have a transformative impact on society by fostering greater investments in child well-being, reduced household poverty, and enhanced aspirations for the next generation of girls and women (World Bank 2012).

The interventions covered in this review include providing women with access to capital (loans and grants) and with savings accounts, business management training, on-the-job and skills training, and job vouchers. These are all increasingly commonplace interventions that are

intended to boost the productivity and earnings of self-employed women, women farmers and women wage workers in developing countries. Table 1 summarizes the principal evaluation studies grouped by intervention type. As shown in the table, this review draws on credible evaluations of the effectiveness of different interventions—evidence that is rigorous enough to ensure that the observed outcome was the result of the intervention rather than of selection effects or placement biases. The article updates and benefits from thematic reviews of this evidence commissioned by the Women’s Roadmap Project.¹

The main question guiding the review is “what works” to increase women’s productivity and earnings as proxies for the more complex notion of economic empowerment. This question is followed by the question of “for whom,” hypothesizing that the evidence would show differential outcomes for poor or very poor versus non-poor women (defined by income levels, type of occupation, or the nature and size of firms or farms) and for young (between the ages of 15 and 24, or older in post-conflict settings) versus adult women (aged 25 to 64). The gender literature’s emphasis on documenting gender differences has often underplayed the equally important documentation of heterogeneity among women.

Methodological Issues

Interventions were assessed according to the strength of empirical evidence. They were judged as proven when the evidence was robust, with more than one credible evaluation yielding similar results across different settings or circumstances. Promising interventions were backed by positive findings from one credible study or its equivalent. Unproven interventions yielded no evidence of positive effects on productivity and earnings for the categories of women and settings evaluated.

Measuring changes in the productivity and earnings of individual women is straightforward conceptually but much less so practically, especially for women in low-income settings who farm or are self-employed and have highly variable earnings (Rosenzweig 2012; World Bank 2013). In response, many of the studies reviewed used a variety of intermediate outcomes for women working in self-employment and farming, including growth in women's physical and financial assets, improvements in the stability of women's earnings, evidence of business creation or start-ups, and increases in women's leisure time.

A majority of the evaluations reviewed rely on randomized control trials (RCTs) and naturally occurring experiments that yield rigorous evidence of cause-effect relationships but that are not usually very good at providing evidence on the "why," the channels or mechanisms that explain why the intervention had a particular effect. This review pays special attention to possible channels that mediate observed outcomes. It also examines the timing of outcomes, when they appear and how long-lasting they are, and the cost-effectiveness of interventions.

What the Evidence Says

Access to Capital: Loans and Grants

Poor and Very Poor Women. The experimental evidence (table 1) overall shows that a small infusion of capital alone, as a loan or a grant, is not enough to grow subsistence-level, female-owned firms. Poor women who run subsistence-level enterprises (with average monthly revenues of US \$80 to \$100 at market exchange rates, profits of approximately \$1 per day, and no paid employees) fail to benefit in terms of business profits or growth from micro loans or cash grants (of approximately \$100 to \$200 on average). This result was observed in Sri Lanka, where cash

grants were given (de Mel, McKenzie, and Woodruff 2008, 2009, 2012), and in India, Bosnia and Herzegovina, Mongolia, the Philippines, and Thailand, where the intervention was microloans (Duflo et al. 2013; Augsburg et al. 2012; Attanasio et al. 2011; Karlan and Zinman 2010; Coleman 2006).

In contrast, capital alone increased the business profits of male-owned microenterprises in both the Philippines and Sri Lanka – an effect that, in the case of Sri Lanka, was still evident five years after the cash was disbursed (Karlan and Appel 2011; de Mel, McKenzie, and Woodruff 2012).

The finding that micro loans or grants have a positive effect on the performance of male-owned firms, but not female-owned firms, may be because subsistence-level female firms operate in sectors that face more severe constraints to growth and because women face more pressures than men to spend some of the cash intended for the business for other purposes, or a combination of both.

Duvendack et al. (2011) argue that the lack of effect of microloans is because many women microloan clients are “necessity” entrepreneurs who turn to self-employment because there are no other jobs available and who would be better off in wage employment. De Mel, McKenzie, and Woodruff (2012) add that women face social and time constraints that limit the types of businesses they operate and the impact of capital alone on business profits and growth.

Alternatively, women working in subsistence-level enterprises may face pressures to use portions of their revenue for other expenses and transfers rather than for business investments. Pressures can have internal or external origins. According to Fafchamps et al. (2014), an internal, present-day orientation rather than external pressures to share the cash seems to guide women’s choices, whereas men show a future orientation or more self-control. Blattman, Fiala, and

Martinez (2013) also find young women to be more present-biased than young men, although this orientation did not prevent young Ugandan women from increasing their earnings in response to a large cash grant. An experiment in 26 rural communities in Western Kenya provides ex ante evidence for the external pressure hypothesis. Women invested less in a presumed business venture when investment income was visible compared to when it was hidden, and this tendency was more pronounced when close kin was present. This “kin tax” was applicable only to women; there was no effect for men (Jakiela and Ozier 2012).

Further supporting evidence for external pressures that influence women’s but not men’s diversion of capital from firm to family comes from recent randomized evaluations of combined training and loan provision in Uganda, savings in Chile, and ATM cards in Kenya. Family proximity in Uganda had significant negative effects on the business investment decisions of married women, whereas men benefited from this proximity (Fiala 2014). In Chile, the take-up of personal savings accounts was particularly high among microentrepreneurs (91 percent of whom were women) who were not heads of household and faced significant pressures to share resources with family or community (Kast and Pomeranz 2014). In Kenya, women with low household bargaining power did not use unsecured ATM cards for individual bank accounts, which reduced transaction costs because of fear they would not be able to resist their husbands’ pressure to obtain some of those savings (Schaner 2014).

By helping protect the privacy of individual choices, mobile money may provide women with sufficient autonomy and independence from social pressures to invest cash in the business rather than in the extended family, as Aker et al. (2011) found in a randomized evaluation of a cash transfer program delivered to poor women via mobile phones in Niger. Positive crop

outcomes were likely the result of the low cost of using the mobile phone to transfer cash and the greater privacy the mobile phone gave women to elect how to spend the transfer.

The evidence also suggests that capital delivered in-kind (e.g., purchase of livestock or inventory) rather than as cash works for women-owned microenterprises with firms that are above subsistence level in size—that is, those with higher initial profits than other female-owned firms. Large, lasting gains in profit for female-owned microenterprises in urban Ghana were achieved when an in-kind transfer of capital (i.e., purchase of inventory) nudged the recipient women to keep a future business orientation and not divert the money to more immediate uses (Fafchamps et al. 2014).

Non-Poor Women. Access to finance may be enough to increase the growth and earnings of women-owned small firms in the larger, formal small and medium-sized enterprise (SME) segment (with 5 to 19 employees per firm), although rigorous evidence on the impact of access to financial services for SMEs by the firm owner's sex is still lacking (partly because of the comparatively few women-owned SMEs compared with women-owned microenterprises). However, there is sufficient evidence that in developing economies, capital constraints are one of the main reasons for the suboptimal size of female-owned firms compared with male-owned ones (Klapper and Parker 2011; Sabarwal and Terrell 2008) and, more generally, are a binding constraint to the growth of all small firms in developing countries, both female- and male-owned firms (Ayyagari, Demirguc-Kunt, and Maksimovic 2012).

Young Women. A comparatively large infusion of capital in the form of an unconditional grant without training or other support increased the earnings of poor young adults (aged 16 to 35) in

conflict-affected northern Uganda. This effect, still visible four years later, was stronger for young women (who started from lower incomes) than for young men (Blattman, Fiala, and Martinez 2013). It may be that this powerful effect of a large cash windfall on young women's earnings would extend to adult women running subsistence enterprises, meaning that access to capital alone would grow these adult women's earnings provided that it was a large enough amount and women were given time to show results.

Timing of Effects. Panel household survey data for Bangladesh covering a twenty-year period support the notion that time influences the outcomes we observe. These data show a beneficial effect, greater for females than for males, of 20-year cumulative microcredit borrowing on household per capita income and the reduction of extreme poverty (Khandker and Samad 2014). The authors speculate that past credit may affect current credit, leading to more risk taking over time. This could be particularly relevant for women, who may be more risk averse than men. Similarly, a two-month grace period versus immediate repayment requirements for poor urban women borrowers in Kolkata, India significantly raised long-run (three-year) business profits by encouraging risk taking (Field et al. 2013).

Capital plus Training

Poor and Very Poor Women. Bandiera et al. (2013a) show that a large capital transfer (most often a cow or other livestock with an asset value of approximately \$140), intensive asset-specific training, and regular follow-up visits by an asset specialist and BRAC program officer during a two-year period had a significant, transformative impact on the occupational choices of very poor women in Bangladesh. These women changed occupational choices from casual day

labor to self-employment and increased earnings significantly. This positive effect was still evident four years later (Bandiera et al. 2013b). Although all of the women included were very poor, the effect was largest for women who had the highest initial relative earnings.

Two evaluations of very similar pilots for the ultra-poor in rural India, one in West Bengal and one in Andhra Pradesh, yield findings in line with those of Bangladesh, although the simultaneous implementation of a government program for agricultural wage workers confounded the results from the Andhra Pradesh pilot (Banerjee et al. 2011; Morduch, Ravi, and Bauchet 2012; Bandiera et al. 2013a). Bandiera et al. (2013a) reviewed the available evidence for cost-effectiveness and found, for the five studies that had data on costs (including their own), that returns from these capital- and skills-intensive ultra-poor interventions were cost effective when compared to yields from savings accounts.

The exceptions to these positive findings are randomized evaluations of ILO business training programs plus capital in Sri Lanka and Uganda. In urban Sri Lanka, the increased earnings of female business owners who received training and a US\$130 one-time grant dissipated after two years (de Mel, McKenzie, and Woodruff 2014). In semi-urban Uganda, the delivery of capital (approximately US\$200) plus training increased profits for male microentrepreneurs but not for female microentrepreneurs. For men, the training helped ensure that the short-term results of the loans observed at six months lasted over nine months. The lack of results for women was attributed to family pressures: married women were drained by family demands for cash, whereas married men employed family members, thus benefiting from close family ties. Women who were physically separated from their families benefited from the loan plus training combination (Fiala 2014).

Savings

Poor and Very Poor Women. The evidence on savings is less rich than that on loans and grants but more consistently shows positive economic outcomes for women. It also shows that women's demand for saving accounts is high. A review of nine randomized field experiments in countries covering different regions (with studies in Kenya, Philippines, Nepal and Guatemala reporting data disaggregated by sex) shows that savings are a promising way to improve rural women's productivity (Knowles 2013). In both Ghana and Rwanda, differences between men and women in the existence of savings accounts explained the largest proportion of the gender wage gap for entrepreneurs (Gamberoni, Heath, and Nix 2013). For Ghana, where panel data were available, savings accounts were especially important to increase the profits of the smallest, subsistence-level women entrepreneurs, shifting business performance from losses to profits.

The recent experimental evidence sheds light on reasons why savings may work especially well for women. In Western Kenya, women with access to savings accounts invested 45 percent more in their businesses and were less prone to sell business assets to address health emergencies (Dupas and Robinson 2009). These effects were sustained in a follow-up survey conducted three years later, showing that savings interventions can have lasting effects (Dupas and Robinson 2013).

In rural Mindanao, Philippines, the decision-making ability and control over assets of less empowered women with below-median reported household decision-making power increased as result of commitment savings, where deposits could only be withdrawn after a savings goal was reached; there was no similar effect for men (Ashraf, Karlan, and Yin 2006, 2010). These savings likely provided women with greater legal and psychological control over funds. Commitment savings were particularly attractive to women who reported a present bias. The

authors hypothesize that commitment savings are preferred by Filipino women who are responsible for household finances and recognize the temptation to spend or the risk of spousal control over funds.

In urban Chile, however, there was particularly high take up of free, liquid savings accounts by microentrepreneurs (91 percent of them female) who were more exposed to family pressures than others. Liquid savings reduced reliance on short-term debt, improved consumption smoothing in the face of economic shock (indicating an advantage of liquid over commitment savings) and still protected resources from being shared with others (Kast and Pomeranz 2014).

Women's demand for savings accounts is suggested by the data. In urban Ghana, more than half of women microentrepreneurs use a *susu* collector (a vehicle for informal mobile savings), even when they must pay for the service (Fafchamps et al. 2014). In Western Kenya, women make use of savings accounts through village cooperatives far more than men do (Dupas and Robinson 2009). In Guatemala, female microfinance borrowers are significantly more likely than their male counterparts to open a commercial savings account (Atkinson et al. 2010). In the Philippines, women are more likely to take up commitment savings, although the difference compared with men is not statistically significant (Ashraf, Karlan, and Yin 2006). In Nepal, a majority (84 percent) of females in 19 urban slums opened simple savings accounts when offered access (Prina 2013).

Business Training

Poor and Very Poor Women. Both microfinance organizations and banks usually offer business management training courses of varying length and quality as well as varying depth and breadth

of business topics covered, which complicates the task of measuring their impacts. A systematic analysis by Woodruff and McKenzie (2013) of 20 evaluations of business training interventions that included female trainees and a complementary review by Bandiera et al. (2013a) of field experiments that combine business training and capital transfers consider this training heterogeneity and conclude that business training improves business practices for women microenterprise owners but has few measurable effects on business survivorship or profits. Evaluations across a wide spectrum of countries, including Bosnia and Herzegovina (Augsburg et al. 2012), Pakistan (Gine and Mansuri 2014), Peru (Valdivia 2011), Sri Lanka (de Mel, McKenzie, and Woodruff 2012), and Tanzania (Oppedal Berge, Bjorvatn, and Tungodden 2011), support these conclusions.

The lack of positive training outcomes is not restricted to women but is more consistently observed for women than for men and is attributed to women's lower-quality businesses and more binding external constraints, including greater household duties and limited say in household decisions (Gine and Mansuri 2014; Oppedal Berge, Bjorvatn, and Tungodden 2011). In addition, attrition rates in business training programs are systematically higher for female than for male trainees, suggesting that these programs may not be designed to respond to the specific constraints women in business face (Valdivia 2013; Woodruff and McKenzie 2013).

Business training seems to have more of an impact on revenues and profits for business start-ups. Training helped women who were out of the labor force start enterprises more quickly in Sri Lanka. Getting these women to start businesses was easier than getting these businesses to grow (de Mel, McKenzie, and Woodruff 2014). Additionally, business training increases microloan repayment rates (Woodruff and McKenzie 2013).

Non-Poor Women. Woodruff and McKenzie (2013) suggest that quality business training on its own may work better for large versus small firms. In the case of large firms, a small percentage increase in profits may be enough to justify the costs of business training, especially if the impacts last, because the costs of training often increase less than proportionally with the size of firms undergoing training. Xu and Zia (2012) similarly suggest that business training has better results with women-owned SMEs when compared with women-owned microenterprises. They advise targeting motivated, self-selected women entrepreneurs to increase the impact of training programs.

Timing of Effects. Two- to three-day training programs are very common, though short courses are likely to have less impact than longer ones. Supporting the notion that high-quality training of reasonable duration can make a difference, a six-week, fully subsidized, high-quality basic business education for poor female microentrepreneurs in rural Mexico had noticeable effects, largely by improving accounting practices (Calderon, Cunha, and de Giorgi 2013). Similarly, a three-month intensive training delivered by specialized professionals increased business sales of women microentrepreneurs in Peru. Although in the short term only training plus customized technical assistance to the firm showed an effect on sales, women who received training without technical assistance were able to catch up and show increased sales approximately two years after the training was first offered. Women had adopted the recommended business practices and made business adjustments, albeit at a slower pace than those who also received technical assistance. The business training appeared to be cost effective, unlike the customized advice to the firm, which cost twice as much as the training but whose effects were no longer visible in the second year (Valdivia 2011, 2013).

Skills Training, On-the-Job Training and Job Vouchers

Poor Women. Evaluations of large-scale government programs in Latin America (three in Argentina and one in Mexico) that provided employment vouchers (around \$100-\$150 per month) that function as wage subsidies and/or skills training to the unemployed poor in times of economic hardship find high uptake by females and positive impacts on their employment, but less clear effects on their wages (Galasso, Ravallion, and Salvia 2004; Jalan and Ravallion 2003; Galasso and Ravallion 2004; Revenga, Riboud, and Tan 1994).

Evaluations of retraining and wage subsidy interventions in four transition economies (Poland, Romania, Russia, and Slovakia) yield mixed effects: positive effects for women's employment probabilities in Poland and Romania, no effects in Russia and mixed effects in Slovakia (Kluve, Lehmann, and Schmidt 1998; Benus et al. 2005; Lubyova and Ours 1999). Again, there is less support for the effect of these programs on wages.

Finally, a retraining program in China also has mixed findings: a negative impact on employment probability in one city and a positive impact in another city, with no differences between the sexes and no discernible effects on wages in either location (Bidani, Goh, and O'Leary 2002). The program was better implemented in the second city, which may explain the observed city difference in employment outcomes (Todd 2013).

Todd's (2013) review of the evaluation evidence argues that these programs helped workers find jobs more quickly, but at the expense of lower wages than workers may have obtained from a longer job search on their own. This analysis and a review on the same topic by Betcherman, Olivas, and Dar (2004) conclude that these large government programs tend to increase employment but not wages, and they raise the issue of possible negative 'spillover'

effects on the jobs and wages of people who do not participate as well as the possibility that publicly provided training could crowd out training provided by private sector firms.

Young Women. In contrast to the above findings, youth labor training programs in Latin America that provide classroom training, internships and stipends for child care have documented success in promoting young women's employment. Young women have flocked to these programs and have generally outperformed young men in obtaining results, as evidence has shown for programs in Peru (Nopo, Robles, and Saavedra 2007), Colombia (Attanasio, Kugler, and Meghir 2011), and Argentina (Galasso, Ravallion, and Salvia 2004). The exception is a youth employment program in the Dominican Republic, which had a stronger impact on young men's employment in formal sector jobs compared with young women's but did reduce teen pregnancies among female trainees and increase their social and personal competencies (Ibarrarán et al. 2012).

These programs' overall success is related to the soft skills they offer in addition to technical skills, the quality of on-the-job training, and the commitment of firms to hire trainees. 'Soft skills' are personality traits, motivations and preferences that are valued in the labor market, and recent evidence shows that they matter and should have an important place as part of job training programs (Heckman and Kautz 2012). The comparatively greater success of these programs among young women versus young men could be because of systematic gender differences in performance by female trainees, because of firms' preference for hiring female over male workers, or both (Katz 2013). However, young women's outperformance could result from the fact that in the control groups, young men have an easier time finding jobs, whereas young women stagnate.

Timing of Effects. Recent evidence from Liberia, Uganda, and India replicates the positive outcomes of well-designed skills training programs for young women that are sustained in follow up measures, even in contexts where wage work is scarce. In Liberia, a demand-driven skills training program increased young women's employment and earnings immediately and in a follow-up measure six months after the classroom training ended (Adoho et al. 2014). Gains were particularly large for young women using business skills learned in self-employment. In Uganda, life skills and vocational training plus adolescent girls clubs increased the earnings of adolescent girls and delayed marriage, reduced fertility and decreased risky health behaviors. The authors attribute the successful outcomes evident two years after the program to the combined effect of health and economic empowerment interventions (Bandiera et al. 2014). In India, a subsidized six-month long vocational training program in stitching and tailoring for young women residing in poor slums of New Delhi increased employment, self-employment and earnings substantially over controls. Positive effects were sustained 18 months after the training ended and were attributed to an increase in skills rather than an increase in self-confidence or the positive effect of having a training certificate (Maitra and Mani 2014). Analyses showed that the programs in Liberia, Uganda, and India were all cost effective.

In Jordan, however, the combination of vouchers and training increased the employment of young women graduates in typically female occupations in the short term, but this effect disappeared in a follow-up measure 14 months later when the vouchers had expired. The program was not able to overcome social constraints that prevent firms in Jordan from hiring young women. The soft skills training component, however, led to sustained improvement in life outlook and reduced depression in young women (Groh et al. 2012).

Skills training programs can suffer from high female attrition rates, similar to business training programs. High attrition may be more pronounced in programs that do not pair skills training with job internships, vouchers, or stipends. More than 40 percent of female trainees did not complete the six-month training program on stitching and tailoring in New Delhi; significant barriers included the distance to the training center and lack of available child care support (Maitra and Mani 2014). One-third of participants in a three-month long apprenticeship program for poor vulnerable youth (orphans or school dropouts) aged 15 to 24 in Malawi dropped out. Female participants dropped out much more often because of external constraints, whereas their male counterparts did so to take advantage of unrelated job opportunities. The training was more costly to women, who had less access to financing, used more of their personal savings, and were treated worse than men during the apprenticeship (Cho et al. 2013).

The target population in most of these studies is women and young women among the unemployed poor or first job seekers. Unfortunately, the studies do not disaggregate findings within different poverty levels or groups.

Discussion: What Does Work

Heterogeneity Affects Outcomes

It is clear from the review of the evidence that for whom (the client) matters when assessing what works to promote women's economic empowerment. Few evaluated interventions work for all women across different socioeconomic and age groups. The more rigorous evidence, which better describes the characteristics of beneficiaries, often shows that the same class of interventions has significantly different outcomes depending on the client or

beneficiary. This is the case with small infusions of capital, such as loans or grants, which work for the non-poor but not for the very poor if delivered as a stand-alone intervention. Capital alone, as a small loan or a grant, is not enough to grow women-owned subsistence-level firms. However, it can work if it is delivered in-kind (e.g., inventory) to more successful women microentrepreneurs with somewhat larger businesses, and it should boost the performance of women's larger sized firms in the SME sector regardless of the way it is delivered. Something similar occurs with business management training. Business training improves business practices but has few measurable effects on the growth of women-owned subsistence-level firms. Its impact may be improved by targeting women running larger-sized firms as well as by increasing the quality and duration of the training. To see effects, sufficient time should be allowed before outcomes are measured.

Further, the evidence shows that very poor women need a more intensive package of services than do less poor women (and poor men) to break out of subsistence production – on and off the farm, in agriculture and entrepreneurship – and to reap the benefits of higher productivity and earnings for themselves and their families. These interventions are expensive but can be cost effective. To move into profitable work, very poor women subsistence producers and entrepreneurs require a sufficiently large capital transfer paired with business training and follow-up technical visits. There is no silver bullet to grow the productivity of subsistence producers. This situation is particularly challenging because the delivery of bundled services is more expensive and requires more implementation capacity, and the very poor often reside in regions with few resources, frail institutions, and weak delivery systems.

What works for young women does not necessarily work for adult women. Skills training, job search assistance, internships, and wage subsidies introduced to cope with economic

shocks increase the employment levels of adult women but do not raise wages. However, similar skills training combined with on-the-job training or wage subsidies increase young women's employability and earnings if social restrictions against hiring young women are not binding. Different levels of constraints, labor market experience and opportunities between young and adult women are likely responsible for the noticeably better outcomes of these job programs among young women. Young women most likely face fewer social constraints than do their adult counterparts. They may also feel less pressure to take any job and may be more selective in training choices. Nevertheless, the better-performing programs with young women also offer a combination of services, including stipends or vouchers, which increase their costs, but these can still be cost effective.

Interventions proven to increase young women's economic opportunities are especially attractive given the large potential benefits for those just entering the labor market, including potentially delaying early childbearing.

Women Face Additional Constraints

It is also clear that pre-existing gender differentials and inequalities influence the outcome of interventions. Women running subsistence-level firms face additional social constraints to improving their productivity and earnings when compared to similar men, thus explaining differences in the outcomes of some (loan and grant) interventions favoring men. Growing evidence strongly suggests that women running subsistence-level firms face external pressures to divest some of the windfall cash from loans or grants to relatives or household expenses. Thus, both in-kind capital and capital transacted through the privacy of a mobile phone

have better outcomes because they nudge women to keep the money invested in the business. Men do not appear to face these same pressures.

This same mechanism (i.e., external pressures) seems to account for the finding that savings accounts are a good vehicle for increasing women's business earnings. Saving might elicit a greater sense of personal ownership among women compared with cash from a loan or a grant, which would make them less likely to divert savings intended for a business investment to household expenditures or to relatives. Further, savings may be especially beneficial to more risk-averse women, who may not be as comfortable as less risk-averse women with the repayment and interest requirements of a loan. In addition, the evidence shows that savings may particularly benefit both the smallest, subsistence-level women entrepreneurs and women with little household decision-making power, which makes savings an intervention that can apply to women across the board, regardless of their poverty condition and the social restrictions they face.

Women's comparative disadvantage is also evident in the evaluations of training programs. The low uptake and high attrition rates in many of the business and skills training programs reviewed suggest that attendance costs (both time and money) are higher for women, who face more social constraints to participation, than for men. High attrition rates affect these programs' effectiveness and cost effectiveness as well as the validity of program evaluations (by reducing sample size and, therefore, the power of statistical tests). All indications are that many of these programs are not designed with women clients' constraints in mind.

Clever Design Adjustments are Available

The good news is that many of women's additional constraints can be overcome by simple, inexpensive adjustments in program design. This review has highlighted simple, clever design features that help women overcome family and social pressures as well as the mobility constraints that impede women from growing their earnings in poorer and/or more socially conservative settings. A telling example is to provide capital in-kind (e.g., by purchasing inventory or a physical asset) rather than in cash to nudge women to keep the money in the business rather than to divert it for household use or pass it on to relatives.

Many of these design features give women a measure of autonomy in an otherwise restricted environment where they are not free to make work-related choices or travel alone. Perhaps most notable among them is the use of mobile money services to conduct financial transactions in private, receive reminders to save and obtain information on prices and jobs in real time without having to travel long distances. Financial services delivered through mobile phones can be less costly and may be more effective than other delivery mechanisms in increasing women's business investments. However, security must be built into financial products that use new technologies to reduce transaction costs. Unsecured accounts may not be attractive to women who may fear capture by more powerful husbands or relatives. Secure accounts and commitment savings may be preferred by women with family pressures or self-control problems. However, because savings liquidity may be useful to cope with economic or other shocks, the design of savings should strive to balance both the security and liquidity of accounts, and, in some cases, women may find uses for both types of accounts. Minor design adjustments in business and skills training programs and in class schedules and locations could go a long way toward increasing women's uptake, retention, and training effectiveness. More generally, minor adjustments to the design of financial services and business and skills training

to better accommodate the needs and demands of women clients could improve performance and outcomes considerably.

Market research could usefully test savings and loan products and training offerings demanded by different categories of women clients (by occupation and income levels, for instance), contributing to the design of products that are more appropriately tailored to women entrepreneurs and farmers.

Female Autonomy Helps

Interventions seem to work best when women micro and small producers and entrepreneurs have economic independence or autonomy and few social restrictions. Female autonomy means that women have physical mobility and can make independent choices, both of which are requirements to succeed in business. Autonomy allows women to seek and benefit from productive services and resources directly, increasing the likelihood that they will be able to switch from low- to high-value production. Autonomy is either measured directly or is indicated by the fact that women are unmarried, divorced or widowed heads of household or sole income-earners and, therefore, do not have a male partner who can control their choices. Sole-income earners were a significant proportion of the ultra-poor women in Bangladesh who transformed their occupations as result of the capital and training provided by BRAC. Female headship was a characteristic trait of women farmers in Malawi and urban entrepreneurs in Uganda who successfully crossed over from lower-value to high-value production, (Dimova and Gang 2013; Campos et al. 2013).

An alternative explanation of the above evidence is that these women entrepreneurs and farmers do not necessarily lack autonomy, but they access fewer productive services because

their provision has traditionally been biased toward male clients, especially when there is an adult male present in the household.

Autonomy or its absence seems to be much less of a concern for adult and young women in wage employment, however. This may be partly because women have higher status and are more independent in countries where the wage sector is more prominent and employs more women. However, it may also be that wage employment in itself provides women with a measure of autonomy from the family, at least within the confines of the workplace.

Time Can Influence Observed Outcomes

Project impacts are not all necessarily linear or monotonic, and evaluation timetables may not allow sufficient time for results to occur or to understand if effects are long-lasting or disappear with time.

Evaluations that include repeated measures sometimes show positive employment and income effects for women that disappear with time, as in the case of the combination of training and a cash grant to Sri Lankan female business owners and vocational training and job vouchers to Jordanian young women. Other times, they show effects that emerge with a delay, as in the case of two decades of microenterprise lending in Bangladesh and business training for microentrepreneurs in Peru. Gender norms seem to play a role in influencing outcomes over time. Social restrictions specific to women can override project gains. However, project gains can also help to change gender norms, causing positive outcomes to emerge with a delay as, for instance, when interventions drive changes in men's initial resistance to women working outside the home or in women's own avoidance of business risks.

Rigorous evaluations increasingly include repeated measures to assess the lasting impact of programs. This practice is to be encouraged, especially with the type of short-term economic empowerment interventions for women that are the focus of this article.

Knowledge Gaps

There is very little knowledge on the characteristics and determinants of the success of working women—successful entrepreneurs and farmers who have “crossed over” to high-value production, young women who have successfully transitioned from school to good jobs in the labor market, and wage workers who have moved up to higher-paid jobs in factories or firms or into non-traditionally female occupations. This gap in knowledge is not surprising because there are comparatively few women to study. However, a systematic study of the trajectories of success among working women across sectors should yield valuable information for program and policy design.

The results of this research could be useful to help identify the profiles of those women entrepreneurs, farmers or wage workers with the firms or farms that are most primed for growth or most ready to succeed in non-traditional occupations. The ability of programs to recruit and select adult and young women who are most ready to succeed in the sector would significantly increase their effectiveness.

This review of the evidence has been limited, by definition, to literature that has been evaluated and published. Evaluations that yield no significant findings are seldom published, so this review contains less information than it should on lessons from failed programs. More importantly, it does not cover promising innovations for which there are no good evaluation data.

Potentially effective interventions that are in need of evaluation data include job information for young women, firm certification programs for wage workers, and non-traditionally female skills training for women wage workers and entrepreneurs. Further evaluation is also needed for business associations and networks for entrepreneurs as well as mentors and role models for young women. Both of the latter programs are well known and frequently implemented, but we found little rigorous information on their impact on women's productivity and earnings in developing countries. There is only one rigorous study of SEWA bank clients in India, which suggests that the presence of peers positively influences women's business behavior and changes aspirations, especially among those exposed to more restrictive social norms (Field et al. 2014). These results suggest that business networks and mentors are useful and potentially transformative, but more data are needed about their workings and their labor market impacts.

Finally, as this review has shown, there is a growing body of rigorous evidence on what works to empower women economically, but there is very little evidence on the financial and economic costs and benefits and even less evidence on the sustainability of interventions, both in terms of the lasting impacts of programs and the institutional and political dimensions of sustainability. The gaps in knowledge are large and cut across the reviewed interventions.

Notes

Mayra Buvinic (corresponding author) is Senior Fellow at the United Nations Foundation; email address: mayra.buvinic@gmail.com. Rebecca Furst-Nichols is Program Officer, United Nations Foundation; email address: rfurst-nichols@unfoundation.org. This work was supported by a generous grant from the ExxonMobil Foundation to the United Nations Foundation. The authors are indebted to Noa Gimmelli, ExxonMobil Foundation, and Emily Courey Pryor, United Nations Foundation, for their steadfast support

¹ A Roadmap for Promoting Women's Economic Empowerment, a collaboration between the United Nations Foundation and the ExxonMobil Foundation, can be accessed at www.womeneconroadmap.org.

References

- Adoho, F., S. Chakravarty, D. T. Korkoyah, Jr., M. Lundberg, and A. Tasneem. 2014. “The Impact of and Adolescent Girls Employment Program: The EPAG Project in Liberia.” Policy Research Working Paper 6832. World Bank, Policy Research Department, Washington, DC.
- Aker, J., R. Boumnijel, A. McClelland, and N. Tierney. 2011. “Zap It to Me: The Short-Term Impacts of a Mobile Cash Transfer Program.” CGD Working Paper 268. Center for Global Development, Washington, DC.
- Attanasio, O., B. Augsburg, R. De Haas, E. Fitzsimons, and H. Harmgart. 2011. “Group Lending or Individual Lending? Evidence from a Randomized Field Experiment in Mongolia.” Working Paper 136. European Bank for Reconstruction and Development, London, UK.
- Attanasio, O., A. Kugler, and C. Meghir. 2011. “Training Disadvantaged Youth in Latin America: Evidence from a Randomized Trial.” *American Economic Journal: Applied Economics* 3 (3) : 188–220.
- Ashraf, N., D. Karlan, and W. Yin. 2006. “Female Empowerment in the Philippines.” Center Discussion Paper 949. Economic Growth Center, Yale University, New Haven, CT.
- . 2010. “Female Empowerment in the Philippines.” *World Development* 38 (3) : 333–44.
- Atkinson, J., A. de Janvry, C. McIntosh, and E. Sadoulet. 2010. “Creating Incentives to Save Among Microfinance Borrowers: A Behavioral Experiment from Guatemala.” Processed. University of California, San Diego, California.
- Augsburg, B., R. de Haas, H. Harmgart, and C. Meghir. 2012. “Microfinance, Poverty and Education.” Working Paper 18538. National Bureau of Economic Research, Cambridge, MA.
- Ayyagari, M., A. Demircuc-Kunt, and V. Maksimovic. 2012. “Financing of Firms in Developing Countries: Lessons from Research.” Policy Research Working Paper 6036. World Bank, Policy Research Department, Washington, DC.
- Bandiera, O., N. Buehren, R. Burgess, M. Goldstein, S. Gulesci, I. Rasul, and M. Sulaiman. 2014. “Women’s Empowerment in Action: Evidence from a Randomized Control Trial in Africa.” International Growth Center Working Paper. London, England.
- Bandiera, O., R. Burgess, S. Gulesci, I. Rasul, and M. Sulaiman. 2013a. “Capital, Skills and the Economic Lives of the Poor: Recent Evidence from Field Experiments.” *A Roadmap for*

Promoting Women's Economic Empowerment. Available at: www.womeneconroadmap.org. Accessed November 2013.

Bandiera, O., R. Burgess, N. Das, S. Gulesci, I. Rasul, and M. Sulaiman. 2013b. "Can Basic Entrepreneurship Transform the Economic Lives of the Poor?" IZA Discussion Papers 7386. Institute for the Study of Labor, Bonn, Germany.

Banerjee, A., and E. Duflo. 2011. *Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty*. New York: PublicAffairs.

Banerjee, A., E. Duflo, R. Chattopadhyay, and J. Shapiro. 2011. "Targeting the Hard-Core Poor: An Impact Assessment." Innovations for Poverty Action, New Haven, CT.

Benus, J., R. Catrinel Brinza, C. Cuica, I. Denisova, and M. Kartseva. 2005. "Retraining Programs in Russia and Romania: Impact Evaluation Study." CEFIR Research Papers, Moscow, Russia.

Betcherman, G., K. Olivas, and A. Dar. 2004. "Impacts of Active Labor Market Programs: New Evidence from Evaluations with Particular Attention to Developing and Transition Countries." World Bank Social Protection Discussion Papers 402. World Bank, Washington, DC.

Bidani, B., C. Goh, and C. J. O'Leary. 2002. "Has Training Helped Employ Xiagang in China? A Tale from Two Cities." *Journal of Chinese Economic and Business Studies* 7 (1) : 77–94.

Blattman, C., N. Fiala, and S. Martinez. 2014. "Generating Skilled Self-Employment in Developing Countries: Experimental Evidence from Uganda." *Quarterly Journal of Economics* forthcoming.

Calderon, G., J. Cunha, and G. de Giorgi. 2013. "Business Literacy and Development: Evidence from a Randomized Controlled Trial in Rural Mexico." Working Paper 19740. National Bureau of Economic Research, Cambridge, MA.

Campos, F., M. Goldstein, L. McGorman, A. M. Munoz Boudet, and O. Pimhidzai. 2013. "Breaking the Metal Ceiling: Female Entrepreneurs Who Succeed in Male-Dominated Sectors in Uganda." *A Roadmap for Promoting Women's Economic Empowerment*. Available at: www.womeneconroadmap.org. Accessed November 2013.

Cho, Y., D. Kalomba, A. Mushfiq Mobarak, and V. Orozco. 2013. "Gender Differences in the Effects of Vocational Training: Constraints on Women and Drop-Out Behavior." Policy Research Working Paper 6545. World Bank, Policy Research Department, Washington, DC.

Coleman, B. 2006. "Microfinance in Northeast Thailand: Who Benefits and How Much?" *World Development* 34 (9) : 1612–38.

de Mel, S., D. McKenzie, and C. Woodruff. 2008. "Returns to Capital in Microenterprises: Evidence from a Field Experiment." *Quarterly Journal of Economics* 123 (4) : 1329–72.

—. 2009. "Are Women More Credit Constrained? Experimental Evidence on Gender and Microenterprise Returns." *American Economic Journal: Applied Economics* 1 (3) : 1–32.

—. 2012. "One-Time Transfers of Cash or Capital have Long-Lasting Effects on Microenterprises in Sri Lanka." *Science* 335 (6071) : 962–6.

—. 2014. "Business Training and Female Enterprise Start-Up, Growth, and Dynamics: Experimental Evidence from Sri Lanka." *Journal of Development Economics* 106 : 199–210.

Dimova, R., and I. Gang. 2013. "Good and Efficient? Women's Voice in Agriculture." *A Roadmap for Promoting Women's Economic Empowerment*. Available at: www.womeneconroadmap.org. Accessed November 2013.

Duflo, E., A. Banerjee, R. Glennerster, and C. Kinnan. 2013. "The Miracle of Microfinance? Evidence from a Randomized Evaluation." Working Paper 18950. National Bureau of Economic Research, Cambridge, MA.

Duvendack, M., R. Palmer-Jones, J. Copestake, L. Hooper, Y. Loke, and N. Rao. 2011. "What is the Evidence of the Impact of Microfinance on the Well-Being of Poor People?" EPPI-Centre, Social Science Research Unit, Institute of Education, University of London.

Dupas, P., and J. Robinson. 2009. "Savings Constraints and Microenterprise Development: Evidence from a Field Experiment in Kenya." NBER Working Papers 14693. National Bureau of Economic Research, Cambridge, MA.

—. 2013. "Savings Constraints and Microenterprise Development: Evidence from a Field Experiment in Kenya." *American Economic Journal: Applied Economics* 5 (1) : 163–92.

Fafchamps, M., D. McKenzie, S. Quinn, and C. Woodruff. 2014. "Microenterprise Growth and the Flypaper Effect: Evidence from a Randomized Experiment in Ghana." *Journal of Development Economics* 106 : 211–26.

Fiala, N. 2014. “Stimulating Microenterprise Growth: Results from a Loans, Grants and Training Experiment in Uganda.” Working Paper. German Institute for Economic Research, Berlin, Germany.

Field, E., S. Jayachandran, R. Pande, and N. Rigol. 2014. “Friends at Work: Can Peer Support Stimulate Female Entrepreneurship?” Working Paper. Harvard Kennedy School, Cambridge, MA.

Galasso, E., and M. Ravallion. 2004. “Social Protection in a Crisis: Argentina’s *Plan Jefes y Jefas*.” *The World Bank Economic Review* 18 (3) : 367–99.

Galasso, E., M. Ravallion, and A. Salvia. 2004. “Assisting the Transition from Workfare to Work: A Randomized Experiment.” *Industrial and Labor Relations Review* 58 (1) : 128–42.

Gamberoni, E., R. Heath, and E. Nix. 2013. “Subsistence, Transformational and Something in Between.” *A Roadmap for Promoting Women’s Economic Empowerment*. Available at: www.womeneconroadmap.org. Accessed November 2013.

Gine, X., and G. Mansuri. 2014. “Money or Ideas? A Field Experiment on Constraints to Entrepreneurship in Rural Pakistan.” Policy Research Working Paper 6959. World Bank, Policy Research Department, Washington, DC.

Groh, M., N. Krishnan, D. McKenzie, and T. Vishwanath. 2012. “Soft Skills or Hard Cash? The Impact of Training and Wage Subsidy Programs on Female Youth Employment in Jordan.” Policy Research Working Paper 6141. World Bank, Policy Research Department, Washington, DC.

Heckman, J., and T. Kautz. 2012. “Hard Evidence on Soft Skills.” *Labour Economics* 19 (4) : 451–64.

Ibarrarán, P., L. Ripani, B. Taboada, J. M. Villa, and B. García. 2012. “Life Skills, Employability and Training for Disadvantaged Youth: Evidence from a Randomized Evaluation Design.” IZA Discussion Papers 6617. Institute for the Study of Labor, Bonn, Germany.

Jakiela, P., and O. Ozier. 2012. “Does Africa Need a Rotten Kin Theorem? Experimental Evidence from Village Economies.” Policy Research Working Paper 6085. World Bank, Policy Research Department, Washington, DC.

Jalan, J., and M. Ravallion. 2003. “Estimating the Benefit Incidence of an Anti-Poverty Program using Propensity Score Matching.” *Journal of Business and Economic Statistics* 21 (1) : 19–30.

Karlan, D., and J. Appel. 2011. *More than Good Intentions: How a New Economics is Helping to Solve Global Poverty*. New York: Dutton.

Karlan, D., and J. Zinman. 2010. "Expanding Credit Access: Using Randomized Supply Decisions to Estimate the Impacts." *Review of Financial Studies* 23 (1) : 433–64.

Kast, F., and D. Pomeranz. 2014. "Saving More to Borrow Less: Experimental Evidence from Access to Formal Savings Accounts in Chile." NBER Working Paper No. 20239. National Bureau of Economic Research, Cambridge, MA.

Katz, E. 2013. "Identifying Research Gaps and Priorities for Women's Economic Empowerment: Gender and Youth Employment." *A Roadmap for Promoting Women's Economic Empowerment*. Available at: www.womeneconroadmap.org. Accessed November 2013.

Klapper, L., and S. Parker. 2011. "Gender and the Business Environment for New Firm Creation." *World Bank Research Observer* 26 (2) : 237–57.

Kluge, J., H. Lehmann, and C. Schmidt. 1998. "Active Labor Market Policies in Poland: Human Capital Enhancement, Stigmatization or Benefit Churning." *Journal of Comparative Economics* 27 (1) : 61–89.

Knowles, J. 2013. "Increasing the Productivity and Earnings of Rural Women: What Works?" *A Roadmap for Promoting Women's Economic Empowerment*. Available at: www.womeneconroadmap.org. Accessed November 2013.

Khandker, S., and H. Samad. 2014. "Dynamic Effects of Microcredit in Bangladesh." Policy Research Working Paper 6821. World Bank, Policy Research Department, Washington, DC.

Lubyova, M., and J. C. Van Ours. 1999. "Effects of Active Labor Market Programs on the Transition Rate from Unemployment into Regular Jobs in the Slovak Republic." *Journal of Comparative Economics* 27 (1) : 90–112.

Maitra, P., and S. Mani. 2014. "Learning and Earning: Evidence from a Randomized Evaluation in India." GCC Working Paper Series, GCC 14-05. Grand Challenges Canada, Philadelphia, PA.

Morduch, J., S. Ravi, and J. Bauchet. 2012. "Failure vs. Displacement: Why an Innovative Anti-Poverty Program Showed No Net Impact." Discussion Paper Series 32. PRIMCED, Tokyo, Japan.

- Nopo, H., M. Robles, and J. Saavedra. 2007. "Occupational Training to Reduce Gender Segregation: The Impacts of ProJoven." Working Paper 623. Inter-American Development Bank, Washington, DC.
- Oppedal Berge, L., K. Bjorvatn, and B. Tungodden. 2011. "Human and Financial Capital for Microenterprise Development: Evidence from a Field and Lab Experiment." CMI Working Papers 1. Chr. Michelsen Institute, Bergen, Norway.
- Prina, S. 2013. "Banking the Poor via Savings Accounts: Evidence from a Field Experiment." Innovations for Poverty Action, New Haven, CT.
- Revenge, A., M. Riboud, and H. Tan. 1994. "The Impact of Mexico's Retraining Program on Employment and Wages." *The World Bank Economic Review* 8 (2) : 247-77.
- Rosenzweig, M. 2012. "Thinking Small: Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty: Review Essay." *Journal of Economic Literature* 50 (1) : 115-27.
- Sabarwal, S., and K. Terrell. 2008. "Does Gender Matter for Firm Performance? Evidence from Eastern Europe and Central Asia." Policy Research Working Paper 4705. World Bank, Policy Research Department, Washington, DC.
- Schaner, S. 2014. "The Cost of Convenience? Transaction Costs, Bargaining Power, and Savings Account Use in Kenya." Innovations for Poverty Action, New Haven, CT.
- Todd, P. 2013. "How to Improve Women's Employability and Quality of Work in Developing and Transition Economies." *A Roadmap for Promoting Women's Economic Empowerment*. Available at: www.womeneconroadmap.org. Accessed November 2013.
- Valdivia, M.. 2011. "Training or Technical Assistance? A Field Experiment to Learn What Works to Increase Managerial Capital for Female Microentrepreneurs." Processed. World Bank, Washington, DC.
- Valdivia, M. 2013. "Business Training Plus for Female Entrepreneurship? Evidence from a Field Experiment in Peru." GRADE Working Paper, Lima, Peru.
- Woodruff, C., and D. McKenzie. 2013. "Improving the Productivity and Earnings of Women-Owned and/or Managed Enterprises in Developing Countries: What Works?" *A Roadmap for Promoting Women's Economic Empowerment*. Available at: www.womeneconroadmap.org. Accessed November 2013.

World Bank. 2012. *World Development Report 2012: Gender Equality and Development*. World Bank, Washington, DC.

World Bank. 2013. *World Development Report 2013: Jobs*. World Bank, Washington, DC.

Xu, L., and B. Zia. 2012. "Financial Literacy around the World: An Overview of the Evidence with Practical Suggestions for the Way Forward." Policy Research Working Paper 6107. World Bank, Policy Research Department, Washington, DC.

Table 1. Principal Evaluation Studies by Intervention Type

Study	Features	Sample	Intervention	Findings
Access to Capital: Loans and Grants				
Aker et al. (2011)	Mobile cash transfer in rural Niger	Recipient households in 96 villages	Use of mobile phones to distribute unconditional cash transfers in targeted villages	<ul style="list-style-type: none"> -Mobiles saved time and transport costs. -Purchased on average .86 more types of food and non-food items. -Had more non-durable assets. -Grew .36 more types of crops and more female-produced cash crops.
Attanasio et al. (2011)	Group and individual lending in rural Mongolia	1,148 adult women from 40 communities	Opening of microfinance branches and comparing group liability loans, individual loans or having no branch	<ul style="list-style-type: none"> -Business ownership increased, but profits and income did not. -Higher educated increased business activity in services, whereas lower educated did so in agriculture. -Loans did not benefit poorest among marginal clients. -Without much human capital, it is difficult to put loans to good use.
Augsburg et al. (2012)	Microfinance and education in Bosnia and Herzegovina	995 poor women who were originally rejected by microfinance institution	Microfinance loans	<ul style="list-style-type: none"> -Borrowers started and expanded their small businesses. -Women increased earnings. -Young women showed greater present bias than young men.
Blattman, Fiala, and Martinez (2013)	Skilled self-employment in rural Uganda	265 groups of average 22 members each, aged 16 to 35	Large, unconditional cash grant in groups (equivalent of \$382/member)	<ul style="list-style-type: none"> -After four years, business assets increased by 57%, work hours by 17%, and earnings by 38% compared to controls. -Half practiced a skilled trade. -Many formalized enterprises and hired labor. -Young women's average incomes were 73% higher than controls compared with young men's, which were 29% higher, though women started poorer. -Women's work and earnings stagnated without the program.
Coleman (2006)	Microfinance in rural northeast Thailand	445 households, mostly small-scale farmers	Credit Some savings, which may be used to provide loans	<ul style="list-style-type: none"> -Positive returns to capital for men's businesses; mixed impact on women's businesses. -Women invest very little of smaller grants in business but as much, if not more, than men of the larger grant. -Women do not experience permanent increases in business income from grants, whereas men do.

de Mel, McKenzie, and Woodruff (2008)	Returns to capital in urban Sri Lanka	385 microentrepreneurs (50% women)	Grants of \$100 and \$200 in cash or in-kind	-No significant impact on earnings for women, whereas impacts are large and significant for men. -Returns vary with entrepreneurial ability and household wealth but not with risk aversion or uncertainty.
de Mel, McKenzie, and Woodruff (2009)	Gender, credit constraints, and microenterprise returns in peri-urban Sri Lanka	405 low-capital microentrepreneurs (50% women)	Grants of \$100 and \$200 in cash or in-kind	-No significant impact on earnings for enterprises owned by women. -Treatment impacts significant for larger, male-owned enterprises.
de Mel, McKenzie, and Woodruff (2012)	Long-term effects of one-time capital transfers to microenterprises in urban Sri Lanka	408 microentrepreneurs (50% women)	Grants of \$100 or \$200 in cash or in-kind; five year follow-up measure	-Ten percentage point higher survival rates and \$8-\$12 higher monthly profits for male-owned businesses. -No short- or long-term impact of capital on female-owned businesses.
Duflo et al. (2013)	Microfinance in urban India	52 slums selected to open a branch of a microfinance institution that lends only to women	Microloans only, majority group loans	-Consumption no different and average businesses no more profitable, although an increase in profits at high end. -Men showed more future orientation or self-control. -Women had present-day orientation and external pressures to share their cash.
Fafchamps et al. (2014)	Microenterprise growth in urban Ghana	800 microentrepreneurs	Cash or in-kind grants to microenterprises	-For women in subsistence enterprise, no gain in profits from either treatment. -For women with larger businesses, in-kind grants increase profits, whereas cash grants do not. -For men, cash also has lower impact, but differences between cash and in-kind grants are less robust than for women.
Jakiela and Ozier (2012)	Familial connections (kin) and investment in rural Kenya	2,145 participants in 26 communities	Game where subjects could vary amount to be invested in presumed business; conditions varied degree of privacy of investment choice	-Women invest 22.1% less when investment income is observable than when it is hidden. - Effect is pronounced when relatives are present (equivalent of 4% "kin tax"). - No similar tendency to hide income among men.

Karlan and Zinman (2010)	Credit access in urban South Africa	Poor men and women wage workers who would have otherwise been rejected for loans	Individual credit with median loan size of \$127	<ul style="list-style-type: none"> -Positive impact of access to credit on clients' retention of jobs (loans likely helped clients smooth or avoid shocks that prevent them from getting to work). -Positive impact of access to credit on household incomes. -Loans increased household food consumption. -No significant difference in impact of credit assigned to men and women.
Khandker and Samad (2014)	Microcredit in rural Bangladesh	2,600 households in 87 villages (14.7% attrition rate over total years)	20 year panel survey measuring impact of cumulative microcredit borrowing	<ul style="list-style-type: none"> -Increased household non-land assets (by 0.25%). -Increased income and expenditure. -Increased labor supply of men (by 0.33%) and women (by 0.46%). -Reduced extreme poverty, especially for female borrowers, by 5 percentage points.
Capital plus Training				
Bandiera et al. (2013b)	Basic entrepreneurship in rural Bangladesh	1,400 communities of ultra-poor women across 40 regions	Large capital transfer (value about \$140), intensive asset-specific training, and regular follow up technical visits	<ul style="list-style-type: none"> -After two years, very poor women changed occupational choices from casual day labor to self-employment and increased earnings by 34%. -Effect was largest for women who had highest relative earnings at the start. -After four years, women's earnings were up 38% relative to baseline, whereas controls remained unchanged. Reduction in casual wage labor was twice that of the second-year data. -Hours spent in self-employment were lower after four years, likely due to increased efficiency in livestock rearing activities because earnings per hour were 15% higher than at baseline.
Bandiera et al. (2014)	Women's empowerment in rural and urban Uganda	4,888 adolescent girls in 100 treatment communities	Vocational and life skills training	<ul style="list-style-type: none"> -Significant improvements in entrepreneurial skills. -72% increase in likelihood of engaging in self-employment. -Gains in employment did not come at expense of school enrollment. -26% lower fertility rates in treatment and 6.9 percentage points less likely to be married after two years.

Banerjee et al. (2011)	Targeting the hard-core poor in rural India	1,000 households	Large asset transfer with intensive training on managing the asset	-After 18 months, average monthly per capita earnings of households who received the asset increased by 21%. -15% increase in household consumption. -Positive impacts on household assets and emotional well-being.
de Mel, McKenzie, and Woodruff (2014)	Business training and cash grants to microenterprises in urban Sri Lanka	624 women subsistence level business owners and 628 women potential business owners	ILO business training plus cash grant of \$130 conditional on training completion	- Training changes women's business practices but has no impact on business profits, sales, or capital stock. -Grant plus training increases business profitability in the first eight months, but impact dissipates in the second year. -For potential startups, business training speeds entry (without changing longer-term ownership rates) and increases profitability.
Fiala (2014)	Loans, grants and training in semi-urban Uganda	1,550 microentrepreneurs	Random selection to receive loans, cash grants, business skills training or a combination	-Six and nine months after intervention, men with access to loans with training had 54% greater profits. -Loans only had some impact, but this disappeared at nine months. -No impact of unconditional grants. -No effects for women from any of the interventions. -Married women with family living nearby performed worse than those in the control group, whereas men benefitted from close family proximity.
Morduch, Ravi, and Bauchet (2012)	Anti-poverty program in rural India	3,485 ultra-poor women	Large asset transfer with intensive training on managing the asset	-Three years after the program, households with assets spent significantly less time in subsistence agricultural wage labor relative to controls. -Households spent more time in self-employment, where earnings were greater. -Simultaneous implementation of a government program increased monthly incomes of agricultural wage workers, confounding identification of the effect of the pilot. -Monthly earnings increased by 66% over three years for both treatment and controls.
Savings				
Ashraf, Karlan, and Yin. (2006, 2010)	Female empowerment in the rural Philippines	4,000 adult women microfinance clients	Individual commitment savings	-Significant increase in average savings (of 81% over a year) compared to controls -Present-biased women were 15.8 percentage points more likely to take commitment savings. -Less empowered women showed largest gain in decision making ability through savings

Atkinson et al. (2010)	Incentives to save among microfinance borrowers in Guatemala	1,375 borrowers from 20 microfinance branches of Guatemala's largest public sector bank	Introduction of new commercial savings products to existing borrowers, with no financial incentives or penalties	<ul style="list-style-type: none"> -Prompting for savings at the time of loan payments doubles savings, whereas suggesting a savings deposit equal to 10% of the loan repayment causes savings to double again. -Women are significantly more likely to take up the offer of a savings account. -Women are more likely to take up commitment savings. -Women's accumulated net savings are significantly lower than men's overall.
Dupas and Robinson (2009, 2013)	Savings constraints in rural Kenya	185 microentrepreneurs	Individual commitment savings with interest-free account and high withdrawal fees	<ul style="list-style-type: none"> -Positive impact of savings on business investment among women (45% increase). -Increase in women's private expenditures (37% to 40% higher). -Some impact on making women less vulnerable to health shocks; women were less prone to sell businesses to address health emergencies. -No effect for men. -Positive effects of the savings sustained in a follow-up survey three years later. -Women made use of savings accounts far more than men did.
Kast and Pomeranz (2014)	Access to formal savings in urban Chile	3,500 low-income microfinance institution clients (90% women)	Providing free and easy access to a formal savings account	<ul style="list-style-type: none"> -Savings and credit are used as substitute inputs for consumption smoothing. Reducing barriers to savings reduces reliance on debt. -When cost of savings was reduced, demand for short-term credit decreases and overall consumption smoothing increases. -Consumption cutbacks associated with a negative income shock reduced by 44%. -Substantial improvements in subjective well-being. -Take-up is high among participants who are not head of the household, who have conflicts with partners over money, and who are expected to loan to social network.

Prina (2013)	Savings accounts in urban Nepal	1,118 female household heads aged 18-55	Access to a fully liquid bank account with no opening, maintenance, or withdrawal fees	<ul style="list-style-type: none"> -After one year, access to savings accounts increased monetary assets by more than 50%. -Total assets (monetary and non-monetary) increased by 16%. -Positive effect on monetary assets was strongest for poorer households and those not linked to formal banking institutions prior to the intervention. -Lower transaction costs due to proximity to the bank and lack of fees may have improved take-up and usage. -Saving in accounts rather than cash reduces temptation to spend immediately.
Schaner (2014)	Transaction costs, bargaining power, and savings account use in rural Kenya	1,114 newly opened bank accounts owned by 749 married couples	Provision of ATM cards free of charge, when without ATM cards, bank accounts had \$.78 withdrawal fee	<ul style="list-style-type: none"> -Provision of ATM cards significantly increased overall account use among men and married couples' joint accounts. Rates of long-run account use increased by 70% (4.7 percentage points). -ATM cards had no impact on female-owned individual accounts. -Both men and women with low levels of bargaining power responded negatively to ATM, whereas both men and women with high levels of bargaining power responded positively (controlled for time inconsistency and financial literacy). ATM cards significantly increased the share of individuals reporting that both spouses make joint spending and savings decisions.
Business Training				
Calderon, Cunha, and de Giorgi (2013)	Business literacy in rural Mexico	875 female entrepreneurs (724 in follow-up) of small firms in poor state in Mexico; majority of sample with below secondary education	6 weeks of business literacy classes with two four-hour meetings per week; total of 48 hours	<ul style="list-style-type: none"> -24% increase in profits and 20% increase in revenues, largely through improved accounting practices. -50% of non-attributing businesses had closed by the time of second follow-up survey 28 months after training.

Gine and Mansuri (2014)	Constraints to entrepreneurship in rural Pakistan	4,100 microfinance clients in groups	Eight full-time days of business training and a lottery to access business loans of USD \$1,700 (7 times average loan size)	<ul style="list-style-type: none"> -Improved business knowledge of both male and female entrepreneurs, but little effect on business outcomes for women (some effects for men). -Only impact for women is improved business knowledge. -Reduced business failure rates, improved business practices, and increased household expenditures by \$40/year, but effects concentrated with male clients.
Field et al. (2014)	Peer support and entrepreneurship in urban India	636 customers age 18-50 of India's largest women's bank (SEWA)	Two days of business counseling and assistance in identifying a medium-term financial goal, with a random subsample invited to attend training with a friend	<ul style="list-style-type: none"> -Women who attended training alone used loans for home repair, whereas those invited with a friend used loans for business purposes. -After four months, those who came with a friend reported differences in business behavior (higher volume of business and more stated plans to increase revenues), whereas those who came alone experience no change. -Those invited with a friend report significantly higher household income and expenditures and were less likely to be housewives. -Impacts of peer training on business loans and labor supply are concentrated among women in social castes/religions with more restrictive social norms.
Oppedal Berge, Bjorvatn, and Tungodden (2011)	Human and financial capital for microenterprise development in Tanzania	644 microfinance clients	Business training and a lottery to access business loans	<ul style="list-style-type: none"> -Improved business knowledge of both male and female entrepreneurs, but increased profits of male-owned firms only. -Lack of positive outcomes for women was attributed to their more binding external constraints (i.e., their greater household duties and limited say in household decisions) and their presumed reluctance to compete.
Valdivia (2011)	Training or technical assistance in urban Peru	1,983 female microentrepreneurs	36 3-hour business training sessions over 12 weeks; half additionally offered individualized technical assistance	<ul style="list-style-type: none"> -The combination of training and tailored business advice resulted in an average 19% increase in business sales. -The sales of women who were exposed only to business training did not grow significantly compared to controls. -Having an expert visit the firm to offer customized advice cost twice as much as the training alone.

Valdivia (2013)	Business training plus in urban Peru	1600 female microentrepreneurs	Same as above – follow-up 2 year measures after training and TA	<ul style="list-style-type: none"> -Training plus tailored TA reported increased sales 7 to 10 months after the intervention. -Those that received training only ‘catch up’ 12 to 15 months later and increase business sales of more than 15% approximately 2 years after end training, especially larger firms. -Take up rate slightly above 50%. Travel time and child care needs affected retention. -Extra cost of TA not cost effective
Skills Training, On-the-Job Training and Job Vouchers				
Adoho et al. (2014)	Adolescent girls’ employment program in urban Liberia	1,989 young women aged 16-27 with basic literacy and numeracy skills, not enrolled in school, and residing in or near Monrovia	Livelihood and life skills training and assistance with job placement	<ul style="list-style-type: none"> -Increased employment by 47% and earnings by 80%. -Positive effects on empowerment measures, including access to money, self-confidence, and anxiety about future. -No net impact on fertility or sexual behavior. -Cost-benefit analysis: Budget cost of EPAG business development training is equivalent to three years' increased income.
Attanasio, Kugler, and Meghir (2011)	Vocational training in urban Colombia	Unemployed young people placed in lowest two deciles of income distribution	3 months in-classroom training and 3 months of on-the-job training; trainees receive daily stipend, including extra for child care	<ul style="list-style-type: none"> -11% increase in likelihood to be in paid employment. -Wage and salary earnings increase by 18%. -Controlling for training institution fixed effects and pre-treatment characteristics: -Trainees work an average of 1.1 more days/month and 2.5 more hours/week than women in the control group.
Benus et al. (2005)	Retraining programs in Russia and Romania	Registered unemployed adults with income less than 50% of minimum wage, employed 6 of last 12 months or recent graduate; 45% with university degree	Training and unemployment benefits, including a public service component, where local government and other eligible organizations propose public projects and hire ALMP participants to work on them	<ul style="list-style-type: none"> -Statistically significant effects on the likelihood of employment, the likelihood of being employed at least once, and wage levels. -Middle-aged had largest impacts. -Retraining increases the probability of employment and decreases the wage for females. -Program not beneficial for highly educated.

Bidani, Goh, and O'Leary (2002)	Job training in urban China	Adults	Retraining and job search assistance administered by local labor bureaus to promote labor market entry of people laid off by state-owned enterprises	<ul style="list-style-type: none"> -Positive impact on employment probability in Wuhan. -No effect on earning in Shenyang. -Negative effect on employment probability in Shenyang.
Cho et al. (2013)	Constraints on women for vocational training in urban Malawi	759 poor vulnerable youth (orphans or school dropouts) aged 15 to 24	Three-month vocational and entrepreneurship program	<ul style="list-style-type: none"> -Training outcomes were better for male trainees. -Women faced greater obstacles in undertaking and taking advantage of the training. -One-third of participants dropped out. Whereas males dropped out to take advantage of unrelated job opportunities, females dropped out more due to external constraints. -Training more costly to women, who had less access to financing and used more personal savings and were treated worse than men during apprenticeship.
Galasso and Ravallion (2004)	Social protection in urban Argentina	Heads of households with dependents who became unemployed as a result of Argentina's economic crisis in 2003	Participants worked 20 hours per week at a private company and in exchange received direct income support	<ul style="list-style-type: none"> -26% of participants would have been unemployed and 23% would have been inactive without program. -Study found substantial leakage to ineligible, but the program was still well targeted at the poor.
Galasso et al. (2001)	From workfare to work in urban Argentina	Adult beneficiaries of temporary employment programs	Skill training and/or vouchers for workfare participants to give to prospective employers (18 month wage subsidy)	<ul style="list-style-type: none"> -Voucher reduced probability of unemployment (despite fact that few firms made use of the voucher). -Private sector employment was 15% for voucher recipients compared to 9% for controls. -Women and younger workers had largest impacts.

Groh et al. (2012)	Training and wage subsidies for female youth in Jordan	Young women college graduates	Awarded voucher to pay employer subsidy equivalent to minimum wage for up to 6 months, if graduate is hired; invited to attend 45 hours of employability skills training designed to provide them with soft skills	-Job voucher led to a 40 percentage point increase in employment in short run, but most employment was not formal. -Average effect was smaller and no longer statistically significant 14 months after the voucher period ended. -Soft skills component led to sustained improvement in life outlook and reduced depression.
Ibarraran et al. (2012)	Life skills, employability and training for youth in the Dominican Republic	Men and women 16-29 years old from lower socioeconomic strata, and those meeting educational and skill requirements of participating firms	Vocational classroom and on-the-job training; soft skills	-7%-12% increase in employment for women only. -3-7 hours per week increase in weekly hours worked for women only. -Especially successful in countries with established private vocational training industry, significant wage employment, and high female mobility.
Jalan and Ravallion (2003)	Anti-poverty program in urban Argentina	Workers affiliated with a successful project and not receiving unemployment benefits from another program	Up to six month 'socially useful projects' submitted by local governments and non-governmental organizations	-Average gain in household income for participants was \$103 dollars, with greater gains for younger people.
Kluge, Lehmann, and Schmidt (1998)	Active labor market policies in Poland	Unemployed workers offered program at their local labor office	Three forms of training: publicly financed training and retraining, wage subsidies for workers in private or public firms, and public works; 2-3 month courses with unemployment benefits	-Training/program increases average employment probability for women and men over both short and medium term. -Non-training ALMP did not have a positive benefit.

Lubyova and Ours (1999)	Active labor market programs in the Slovak Republic	Adult unemployed workers	Two ALMP programs providing retraining and counseling services, and wage subsidies at either socially purposeful jobs (up to 2 years) or publicly useful jobs (up to 6 months at public works-type job)	<ul style="list-style-type: none"> -Workers who enter ALMP have a 150% increase in the exit rate into a regular job. -Benefits of retraining were only observed for socially purposeful jobs.
Maitra and Mani (2014)	Learning and earning in urban India	Young women aged 18-39, average age 22	Six-month vocational training program in stitching and training for young women	<ul style="list-style-type: none"> -Employment increased by six percentage points. -Self-employment increased by four percentage points. -Earnings increased by 150% monthly. -Positive effects sustained 18 months after completion of training and were attributed to an increase in skills rather than in self-confidence or having a training certificate. -More than 40% of trainees did not complete six-month course due to distance to training center and lack of available child care support. -Cost-benefit analysis suggests that program is highly cost effective. -Using a second round of follow-up data 18 months after the program, all effects are sustained in medium term.
Nopo, Robles, and Saavedra (2007)	Gender and racial discrimination in hiring in urban Peru	Technicians and professionals from middle and lower classes in Lima; 80% with above high-school education	Classroom training and internships lasting three months focused on training females for traditionally male occupations; stipend, doubled for child care	<ul style="list-style-type: none"> -Positive employment impacts for women of 6% at 12 months and 15% at 18 months. -Negative impacts for men. -After 18 months, beneficiary females generate 93% more labor income than their control counterparts. -Decrease in measures of occupational segregation.

Revenge, Riboud, and Tan (1994)	Retraining in urban Mexico	Youth and adults. Offered to 250,000 registered unemployed people age 20-55, selected on basis of eligibility index.	Short-term vocational education training	-Program trainees found jobs more quickly. -Impacts mainly for trainees older than 25 with work experience. -Cost effective for women over 25 but not for younger women.
---------------------------------	----------------------------	--	--	--