

Entrepreneurship Programs in Developing Countries: A Meta Regression Analysis

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Abstract:

This paper synthesizes the impacts of different entrepreneurship programs to draw lessons on the effectiveness of different design and implementation arrangements. The analysis is based on a meta-regression using 37 impact evaluation studies that were in public domain by March 2012. We find wide variation in program effectiveness across different type of interventions depending on outcomes, type of beneficiaries, and country context. Overall, improving labor outcomes, including employment and earnings, seems more difficult than changing intermediate outcomes such as business knowledge and practice. When it comes to labor market activity, both vocational training and access to finance tend to have larger impacts than other interventions; for youth the largest effects come from providing access to credit. Business training can also contribute to increase earnings among youth and those with higher education in part by improving business performance.

Keywords: Meta Regression Analysis, Entrepreneurship programs, Microenterprise Development, Training, Financing, Counseling

JEL codes: O12, O16, J2

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1. Introduction

Fostering entrepreneurship and developing microenterprises is critical to expand employment and earning opportunities and to reduce poverty. Sound macroeconomic conditions and business environment including infrastructure, regulation, and legal environment have been typically emphasized to improve labor market opportunities. While these remain relevant, an increasing attention is being paid on the role of policies that aim to enhance productivity and reduce constraints among the self-employed in developing countries.² This is particularly pressing in countries where wage and salary employment is limited and the majority of jobs are created and operated in self-employment.³ The demographic pressure including youth bulge in many countries in Africa and South Asia adds an urgent need to create more jobs. Fostering self-employment and small-scale entrepreneurship can indeed ease the pressure while representing a source of wage and job creation.

In recognition of the importance of self-employment in job creation, interventions to promote entrepreneurship are increasingly being implemented around the developing world. Entrepreneurship promotion programs largely vary by objectives, target groups, and can combine several types of interventions depending on the constraints to entrepreneurial activities that each program aims to address. Frequently used interventions include training (technical and vocational skills, business and management skills, financial education, and life skills), financing support (loans and grants), counseling and other advisory services, mentoring, micro-franchising, enabling value chain inclusion, small business networks, support for technology transfer, business incubation and many others. Based on the evidence that some entrepreneurial traits and skills are strongly related to business set up and success,⁴ some interventions have focused on entrepreneurial education

² We use the terms “self-employed” and “entrepreneurs” interchangeably in the paper although we recognize that they are indeed a heterogeneous group: some are innovative entrepreneurs with high growth potential and ambitious (so called “gazelles”), while other are “subsistence entrepreneurs” who make up the vast majority of entrepreneurs (Newouse et al., 2012). The studies we analyze in the paper mostly focus on self-employment and small-scale entrepreneurship, including the “subsistence” entrepreneurs and “low end” entrepreneurs. This is often referred as microenterprise development.

³ See Haltiwanger et al. (2010) and Ayyagari et al. (2011).

⁴ For example, Ciavarella et al. (2004) using data from the United States find strong relationship between some attributes of personality (measured by the Big Five-conscientiousness, emotional stability, openness, agreeableness, and extroversion) and business survival. Crant (1996) also points to personality as a predictor of entrepreneurial intentions.

through school curricula,⁵ while others cover those who are already in labor market. Outcomes of interest range from labor market performance such as employment, business creation, hours of work, earnings, and profits and business performance to supply side changes such as improved technical and non-cognitive skills, business knowledge and practice, attitudes, aspirations and more active financial behavior (borrowing, saving). Target groups are also very diverse with different population groups facing different barriers to entrepreneurship and self-employment (women, youth, the poor, etc.). Programs may target those who can be potential entrepreneurs (unemployed, in-school students or graduates) to foster self-employment and new business creation or existing micro-entrepreneurs to increase their productivity. In the sample of studies we analyzed, existing micro-entrepreneurs are mostly the self-employed and small-scale entrepreneurs. Programs are also often tailored and modified according to the context of policy environment reflecting cultural factors (fear of failures or belief on gender roles), infrastructure (water and electricity), and legal and regulatory conditions (high entry barrier due to administrative hassles), among others, that can hinder individuals from starting and growing business.⁶

Although evidence on the effectiveness of entrepreneurship promotion programs is still scarce, findings from existing impact evaluations are widely heterogeneous. Early evaluations from Latin America's Jovenes program targeted to vulnerable youth suggested that vocational and life skills training combined with internship in private firms, could be potentially useful to improve employment and earnings although the effects in Dominican Republic were not as significant as those in Colombia (Attanasio et al, 2011; Card et al, 2007). More recent impact evaluation studies on training programs further add heterogeneity. Evaluations of skills training for vulnerable individuals in Malawi, Uganda, and Sierra Leone, for instance, found generally positive effects on psycho-social wellbeing, but mixed results in labor market outcomes (Cho et al. 2012; Blatterman et al, 2011; Casey et al, 2011, respectively). The complexity increases as the training programs combine other financial and advisory supports (Almeida and Galasso, 2009; Carneiro et al, 2009; Macours et al. 2011). And even the seemingly similar programs have heterogeneous results in different places (Karlán and Valdiva, 2011 in Peru; Berge 2011 in Tanzania; Bruhn and Zia, 2011 in Bosnia and Herzegovina). Likewise, the effects of financing through microcredits or grants also

⁵Organizations such as Kauffman Foundation and Junior Achievement, for example, focus on promoting entrepreneurship curricula as a part of primary and secondary education while a number of interventions including microcredit and training programs target those who are already in labor force.

⁶ Microfinance program, for instance, often target female entrepreneurs in order to address issues related to a cultural factor while relieving credit constraints.

widely vary across studies. A series of studies in Sri Lanka suggested that the returns to capital were large and grants significantly improved labor market (business) outcomes especially for women (De Mel et al. 2008a; 2008b; 2011). However, evaluations on the effects of expanding access to credits in Mongolia, Bosnia and Herzegovina, India, South Africa, Morocco, and the Philippines (Attansio et al. 2012; Augsburg et al. 2012; Banerjee et al. 2009; Karlan and Zinman, 2010; Crepon et al, 2011; Gine and Karlan, 2009) suggested that the access to credits did not automatically improve entrepreneurial activities.

In this article, we exploit the heterogeneity of results in the impact evaluation literature of entrepreneurship programs to shed light on the effectiveness of design and implementation features common across programs. We synthesize the impacts of different entrepreneurship programs and draw lessons on the effectiveness of alternative intervention arrangements using a meta-analysis. Meta-analysis is a statistical procedure of combining the estimated impacts of multiple studies in order to draw more insights and greater explanatory power in probing differential program effects.⁷ Since meta-analysis examines the extent to which different program and study characteristics—design and implementation features, data sets, and methods of analysis—affect estimated results, this is particularly useful to synthesize studies with variations in multiple aspects.

There has been useful synthetic research that employed this meta-analysis method in the field of labor market analysis. For example, Jarrell and Stanley (1990) and Stanley and Jarrell (1998) examined the magnitude of wage gaps between union-nonunion and male-female workers, respectively, using multiple studies that estimated the gap. A recent study, Card et al. (2010), conducted a meta-regression analysis to examine the effectiveness of various active labor market programs in OECD (Organisation for Economic Cooperation and Development) countries.⁸ In line with these studies, we use the meta-analysis method to disentangle the effects of the interventions with various differences across studies considered.

We find that the impacts of differential combinations of interventions vary depending on the outcomes of interest and target groups as well as the specific context. Overall, improving labor outcomes, including employment and earnings, seems more difficult than changing intermediate outcomes such as business knowledge and practice. When it comes to labor market activity, both vocational training and access to finance tend to have larger impacts than other interventions; for

⁷ See Stanley (2001).

⁸ This study covered classroom or on the job training, job search assistance, and wage subsidies, but did not include entrepreneurship programs.

youth the largest effects come from providing access to credit. Business training can also contribute to increase earnings among youth and those with higher education in part by improving business performance. Business training can also improve labor market activity among small enterprise owners and microcredit clients. Access to finance, however, does not appear effective to improve labor market activity when the beneficiaries are small business owners.

The meta-regression methodology has several caveats and limitations. First, it inherits methodological issues that are intrinsic in the original studies. For example, if the impact evaluation was not well powered against certain outcomes due to insufficient sample size, it will more likely yield insignificant impacts even when the true impact exists. Even if an overall impact is well examined for the general target group, heterogeneous impacts on sub-groups may suffer more from insufficient power.⁹ Similarly, insignificant results are less likely to be written up and reported in a study. Since we use in the meta-regression all significant and insignificant estimates in the study that are relevant in terms of outcome of interest (we report on average 25 estimated per study), we are automatically absorbing the methodological bias originally present in the study.

Second, implications on cost effectiveness could not be inferred here as the majority of studies failed to collect such information. Third, the analysis provides information about programs that seem to work but only limited insights as to “why” the program worked. For instance, the relationship between the program effects and duration of training can be identified, but the meta-analysis is silent why such relationship is manifested as quality of training varies across programs. Finally, the results of this meta-analysis really depend on the selected sample of 37 studies of diverse programs (from pilots to large scale programs) and may change if more impact evaluation studies are added.¹⁰ Therefore, findings and conclusions of this meta-analysis need to be interpreted with caution keeping these caveats in mind.

⁹ Card and Krueger (1995).

¹⁰ There are quite a few studies in the pipeline that did not meet our March, 2012 criteria, but are advanced in presenting results (some of them are already in the public domain by the time this paper came out). Cho et al. (2012) examined the effects of vocational and business training through apprenticeship on vulnerable youth in Malawi, and found little impacts on business set up despite large positive impacts on intermediate outcomes such as business knowledge and psycho-social wellbeing; De Mel et al (2012) investigated the impacts of business training and grants on the set up and growth of female enterprises in Sri Lanka, and found that the training expedited business set up for potential entrepreneurs and the package of training and grants improved the performance of the existing enterprises; Karlan et al (2012) investigated the role of business and managerial skills improvement through business consulting in improving the performance of microenterprises in Ghana, and found little evidence of profit increases and the entrepreneurs revert back to their old practices after about a year; Abraham et al. (2011) investigated the access to savings on consumption smoothing and insurance against risks for micro-entrepreneurs in Chile and found positive impacts; Bandiera et al. (2012a) examine the effectiveness of the BRAC’s ultrapoor entrepreneurship training and coaching intervention

The next section of the article describes the procedure for constructing data and Section 3 discusses main features of entrepreneurship program in our sample studies. Section 4 presents a standardization and estimation strategy using meta-regressions, and discusses methodology. Section 5 then discusses the main findings of the meta-analysis. The main findings are summarized in Section 6.

2. Constructing Data Set for the Meta Analysis

2.1. Selection Criteria and Search Strategy

To comprehensively collect studies that are evaluating entrepreneurship programs, we apply the following selection criteria. First, interventions of study should focus on entrepreneurial activities of potential or current entrepreneurs. They should be targeted to address various external and individual constraints to entrepreneurship, such as skills, credits, information, cultural norm, and regulations.¹¹ Some programs solely promoting wage employment through training, for instance, are not considered here. Access to financial products including micro-insurance or savings, if they are not related to entrepreneurial activities, are excluded.¹²

Second, only impact evaluations studies that rigorously estimate the effects using a counterfactual based on experimental or quasi-experimental design are selected. Many programs whose evaluation is dependent on anecdotal evidence or tracer studies without appropriate comparison between treatment and control groups are not considered. Unfortunately, renowned programs such as Grameen Bank's microcredit program, large-scale programs that are being implemented in many countries such as Know About Business (KAB) by the International Labour Organization (ILO), and many programs by innovative non-governmental organizations (NGOs) including Accion International, Ashoka, and Youth Business International could not be considered. This suggests that programs having the practice of embedded and rigorous evaluation scheme as a

targeted to poor women in Bangladesh and found substantial increase in assets, savings and loans, and improved welfare. Similarly, Bandiera et al. (2012b) found that combining vocational training for business creation, information on risky behavior and health and providing a social place increase the likelihood of engaging in income generating activities by 35% for adolescent girls in Uganda.

¹¹ See Banerjee and Newman, (1993) for occupational choice model and its constraints.

¹² Among the programs to insure individuals against risks, they are included, for example, if they are to hedge the negative impacts of weather on their agri-business, but others are excluded if they are providing access to health insurance.

part of their intervention can greatly improve the knowledge on the effectiveness of the interventions.

Third, given that the main interest of this paper is to examine the effects of entrepreneurship interventions as a tool to reduce poverty and improve the livelihoods of individuals in developing countries, we focus only on the studies undertaken in developing countries over past ten years. Some well documented studies on developed countries are excluded here.¹³

Finally, manuscripts are included only when they are available in public domain as a working paper or published paper by the end of March 2012. Some ongoing programs, whose project description, impact evaluation design, and some preliminary results are available but draft paper is not, are excluded here for now. Adding these studies in the future can change the overall findings from our analysis.

Based on the above mentioned criteria, we first collected papers from the literature review in early studies. Examples include De Mel et al. (2008a, 2008c) and Karlan and Zinman (2011) for access to capital including microfinance, and Karlan and Valdiva (2011) and Attanasio et al. (2010) for training. We also used web based search function such as *Google Scholar* and *Ideas* to find recent working papers. In doing so, we relied on the major working paper domains such as the National Bureau of Economic Research, World Bank Policy Research Working Paper series, and IZA Working papers.

2.2. Coding and Sample Overview

Using the selected papers, we gather detailed information on outcomes of interest, and intervention and study characteristics. Intervention characteristics include intervention types (training or financing, for example), duration of intervention, location (country, urban/rural), and target group (youth, women, microcredit clients). Study characteristics include methodology (experimental versus quasi-experimental), sample size used in the study, and publication format (peer reviewed journals versus working papers). Other information we extract include whether the interventions are delivered by government, NGOs, international donor agencies, research team, or microfinance institutes and banks. When the core information was not obtained from the paper, we directly contacted authors to provide supplementary information.

¹³ Examples include Cole and Shastry (2009) on the United States and Oosterbeek et al. (2010) on the Netherlands.

And more importantly, we extract information on the effect of the program. The primary measures of the effect that are comparable across studies include: an indicator whether the program had a positive and significant effect and a ‘standardized effect size’ reflecting the size of effects on an outcome as a proportion of its standard deviation—whether be probability difference, percentage growth, or changes in levels. An indicator of positively significant effect measures the significance of an impact of a particular intervention whereas the standardized effect size measures the magnitude of impacts. We use both measures to conduct our meta-regression analysis as we will discuss more in detail in Section 4.

Most of the studies contribute multiple observations because they examine more than one outcome and different beneficiary groups (on average we collect 25 estimates per study). When the impact of a particular intervention on business practice is examined and the business practice is reflected in two measures—indicators of book keeping and separation of personal and business account, for example—both observations are counted for the outcomes of business practice. Whenever available, we record separate estimates for subgroups such as women and youth, which multiplies the number of observations. Also, when multiple specifications are used to estimate a particular outcome, we use a weighted average of the estimates using the number of observations as weights.

The final data set includes 37 impact evaluation studies and 1,116 estimates for six different types of outcomes.¹⁴ The number of estimates collected from each study is larger than other studies using developed countries given a broader set of outcomes of interest and diversity of programs considering the nature of labor markets in developing countries.¹⁵ The studies are from 25 countries across all six regions – AFR, EAP, ECA, LAC, SAR, and MENA.¹⁶ Most of the estimates are concentrated in LAC (28 percent), SAR (19 percent), and AFR (17 percent), and two thirds of the interventions come from low income or lower middle income countries (see Figure 1). Out of 37 studies, 16 are published in the peer reviewed journals while the remaining 21 studies are

¹⁴ See Appendix 1 for the complete list of studies that are used here.

¹⁵ For comparison, Card et al. (2012) collected 197 estimates from 97 studies focusing only on labor market outcomes. In our study, we broaden our estimates of interest to other outcomes in addition to labor market ones and collected 1,116 estimates from 37 studies out of which the number of estimates for labor market outcomes are about 530. On average, we collect 25 estimates per study.

¹⁶ The regional category follows the classification of the World Bank. AFR presents sub Saharan Africa, EAP- East Asia and Pacific, ECA- Eastern Europe and Central Asia, LAC- Latin America and Caribbean, SAR – South Asia, and MENA- Middle East and North Africa.

working papers. About three quarter of studies and 80 percent of estimates are from experimental intervention.

3. Descriptive Analysis

Table 1 presents a summary of the distribution of the main outcomes of interest. Most commonly measured outcomes are labor market income and profits (27.7 percent) followed by labor market activities (21.7 percent). Business startup or expansion, increased employment and hours of work, and reduced inactivity are coded as positive outcome for labor market activities. With respect to income and profits, a range of variables from individual salary to business profits and assets, and to household consumption that captures broad welfare are included. Given that most small businesses operate at household levels and individual earnings from self-employment are often indistinguishable from business profits, they are coded together as labor income. Business performance then includes measures to capture the size and revenue of the business such as sales, number of employed workers, and inventories. Business knowledge and practice includes record keeping, registration, and separation of individual and business accounts that could potentially affect business performance. Acquisitions of business loans, savings account, and insurance plans that could affect resource allocation of business fall into the category of financial behavior (savings/borrowing). Finally, attitudes toward risks, confidence and optimism, and time preference that may be related to entrepreneurial traits are coded as attitudes.

The interventions analyzed in the sample of our studies can be broadly classified in the following types: training, financing, counseling, and the combinations of them. Training is disaggregated into subcategory of vocational, business, financial training, and life skills training; financing support is also disaggregated into micro-credit, cash and in-kind grants, and access to financial products such as saving accounts and micro-insurance. Vocational training includes basic skills in selected occupations which would be essential for self-employment—electricians, mechanics, tailors, bakers, plumbers, and handy men, for example. The distinction between the business and financial training is not always clear. Business training teaches general practice and knowledge on business including book keeping, calculating profits, separating between personal and business account, and managing inventory; for example, whereas financial training is usually

more specific in managing profits, making inter-temporal decisions on investment and saving, and accounting. With respect to financing, (micro)credit concerns business or consumer loans,¹⁷ grants provide subsidies in the form of cash or in-kind and policies encouraging savings subsidize bank accounts opening costs. Counseling is never used as a “stand-alone” program but added to the main intervention. About 44 percent of estimates include training and 78 percent financial support (without training), and 23 percent combines counseling (see Table 2 and Table A3 in the appendix for the distribution of type of intervention by outcome groups). Figure 2 provides disaggregated distribution of each intervention. Microcredit programs are by far the most common intervention followed by business training program components.

Table 3 provides the distribution of key variables by region that are considered. Five mutually exclusive combinations of intervention present different patterns across regions: training and counseling are particularly present in LAC programs while the combination of training and financing is more commonly evaluated in AFR and SAR.¹⁸ The impacts on different beneficiaries come from the estimates by gender, education, age group, location (urban/rural), receipt of social assistance, being a microcredit client and ownership of business.¹⁹ In South Asia, the share of female estimates is quite high while estimates for youth are non-existent. Finally, the table shows that programs are often delivered by multiple agencies.

4. Standardization and Estimation Strategy

4.1. Standardization

As mentioned above, the effects of particular interventions that we measure differ across indicators and studies, and need to be standardized for comparability. One simple way of doing this is to focus on the sign and significance of the outcomes. As used in Card et al. (2012), ordinal indicators of positively significant, insignificant, and negatively significant effects can be compared across

¹⁷ We code “micro-credit” also those interventions that test specific design features of a microcredit programs. For instance, we code “microcredit” those studies that are looking at a particular design alternative from the original microcredit program. For example, when the “treatment” under evaluation is a change in the rule or structure of loan repayment, a bigger size loan or group liability versus individual liability.

¹⁸ Only few estimates exist that combine all of training, financing, and counseling and they are included in “Training+Financing.”

¹⁹ All population characteristics are coded to reflect beneficiary characteristics at baseline and are the same for both treatment and control groups.

different variables and studies. Given that there are relatively few observations with negatively significant effects (about 4 percent of the entire sample), we focus on the indicator of positively significant outcomes vis-à-vis non-positive outcomes.

The second measure to synthesize the findings across studies is to use a standardized effect size, thereby allowing diverse studies and outcomes to be directly comparable on the same dimensionless scale. The true effect size (θ) is the mean difference between the treatment and control groups as a proportion of the standard deviations:

$$(1) \quad \theta = \frac{\mu_T - \mu_C}{\sigma}$$

The simplest and most intuitive form of its measurement is based on mean differences in data called Cohen's g (Cohen, 1988), defined as

$$(2) \quad g = \frac{\bar{Y}_T - \bar{Y}_C}{s_p}$$

where \bar{Y}_T is the mean of the experimental group, \bar{Y}_C is the mean of the control group, and s_p is the pooled sample standard deviation using each group's numbers of observations (n_T for treatment and n_C for control group) and standard deviations (s_T for treatment and s_C for control group):

$$(3) \quad s_p = \sqrt{\frac{(n_T - 1)s_T^2 + (n_C - 1)s_C^2}{(n_T - 1) + (n_C - 1)}}$$

Although intuitively simple, Cohen's g is a biased estimator of the population effect size due to the pooling of standard deviations

$$(4) \quad \delta = \frac{\mu_e - \mu_c}{\sigma}$$

Thus using g produces estimates that are too large, especially with small samples. To correct the bias, we multiply g by a correction factor and use the following statistic known as Hedge's d (see DeCoster, 2004) and unbiased estimator of δ :

$$(5) \quad d = g \left(1 - \frac{3}{4(n_T + n_C) - 9} \right)$$

Note that d is the "effect size" of the intervention that we use throughout the paper.

4.2. Summary of Impacts of Interventions

Table 4 presents summary of the estimated impacts by outcome groups measured by significance and effect size.²⁰ At 10 percent statistical significance, about 29 percent of the estimates are positively significant while 68 percent is insignificant and 3 percent is negatively significant in labor market activities. Compared to the significance of the Active Labor Market Programs (ALMPs) in OECD countries summarized in Card et al. (2010a), where 39 percent is positively significant, 36 percent is insignificant, and 25 percent is negatively significant, the estimates in our study shows greater prevalence of insignificant outcomes. The effect size for labor market activities is 0.065 on average, but 0.192 among the positively significant estimates.²¹ This is slightly lower than the effect size (0.21) estimated for OECD programs in Card et al. (2010a) suggesting that improving labor market activities especially in self-employment may be more challenging to see large impacts in developing countries.

Standardized effect sizes enable comparisons across diverse studies with different outcome measures. Effect size substantially varies by intervention types, outcomes of interest, beneficiaries, providers, regions, and income levels (Table A2 in Appendix). Training combined with counseling or financing shows that they have larger effect size. In contrast, the combination of financing and counseling yields the lowest effect size even among the positively significant outcomes. With respect to the outcome categories, among the positively significant estimates, business practice shows the largest effect size whereas the effect size of labor market income and business performance is smallest. The results for financial behavior appear to widely vary where the effect size gap between positively significant and insignificant estimates is quite large. Youth and high education group, and multiple providers tend to have larger effect size as well as Africa region and low income countries. However, the summary statistics should be interpreted with caution because they take average over impacts estimated from different studies, population groups, and different dimensions of the programs.

5. Results of the Meta Regression Analysis

²⁰ See Table A2 in Appendix for average effect sizes by intervention types, population groups, providers, regions and country income levels.

²¹ A binary variable such as the probability of employment, for example, has a standard deviation of maximum 0.5. Hence the average 0.062 effect size corresponds to 12.4 percentage points increase when the average employment rate is 50 percent.

As discussed in the previous section there is considerable variation in effect sizes across outcome indicators, types of programs, and beneficiaries. Here we move on to a meta-regression framework to analyze how differences in the magnitude and significance of estimated impacts are associated with differences in the choice of outcomes variables, program design and implementation features, and country and study characteristics. The richness of our database allows us to include in the model specification many potential determinants of program success. At the program level covariates include the intervention type (whether it includes only training, only some form of financing or a combination of training and financing and counseling services) and the nature of service providers. We also consider the type of beneficiaries and country characteristics such as income level (low income, lower and upper middle income country groups) and region. At the study level we look at impact evaluation design, publication format, study sample size and the time interval between program completion and end-line data collection. Finally, we also control for the broader category of outcome measures.

5.1. Pooled Regressions

We start by analyzing how the likelihood of yielding positive and significant effects is associated with the potential determinants of program success such the choice of outcomes, the type of intervention, population groups, nature of service providers, study characteristics, regions and country income levels. Given the low share of negatively significant estimates in our sample (around 4 percent), we focus on the positively significant estimates only. The probability of observing significant positive outcomes are examined by a probit model.²² Table 5 presents a series of probit models to fit the likelihood of a significantly positive program estimate.²³ We examine the potential determinants of program effectiveness by looking at the main dimensions of program heterogeneity separately (first four columns) and simultaneously (5th column) controlling for region, country income, and study characteristics throughout all specifications.

²² We also estimate ordered probit models to explain the probability of observing a negative significant, insignificant and positive significant effects. However, when we compare the ordered probit model with two separate probit models, one fitting positive significant impacts and the other negative significant impacts, the model doesn't seem to be robust as coefficients differ in magnitude and have not the right sign for some variables. The test suggests us that the ordered probit is not the correct specification for our data. We attributed this to the low share of negative significant estimated effects in our sample.

²³ Given the large variation in the number of estimates coded per study (from 2 to 70), we weigh regressions by the inverse of the number of observations/estimates per study in all models to increase the relative weight of under-represented studies.

We find that business practice and labor market activity outcomes are more likely associated with positively significant impacts than labor income outcomes (omitted category) by 46.7 and 35.4 percentage points respectively (column 1). For business performance and labor income, the impacts seem to be less likely to be positively significant. This suggests that changing knowledge may be easier than changing behavior and labor market outcomes at least for the short term.²⁴ This finding may be different if the long term impacts were estimated as knowledge fades away and impacts on labor market outcomes are materialized.

The model in column 2 examines the probability of program success by intervention types.²⁵ We classify programs into ‘Training only’, ‘Training + Counseling’, ‘Financing only’, ‘Financing + Counseling’ and ‘Financing + Training’ (omitted group).²⁶ Results show that differences across interventions in the chances of success are not significant although the sign and magnitude suggests that training combined with counseling is more promising than others.

A clear pattern emerges when comparing program estimates by population groups (column 3). Program impacts estimated for youth and urban population are more likely to be positive and significant than estimates for the general population. To the contrary, programs targeted to microfinance clients are less likely to yield positive impacts. Differences in program results by gender, education, enterprise ownership and social assistance dependency are statistically insignificant. It is worth clarifying that the model includes dummy variables for the population group for which the effect has been estimated; it does not necessarily capture whether the program is targeted to that particular group.²⁷

Compared to the case of having multiple agencies involved in the program delivery (omitted category), programs delivered solely by banks or microfinance institutions are less likely to be associated with program success (columns 4).²⁸ NGOs are associated though weakly with better performance. This finding suggests that programs could work better when delivered by providers which have strong connection with the beneficiaries and are familiar with local contexts.

²⁴ End line surveys for our sample of impact evaluations take place, on average, 18 months after the completion of the program, and about three quarters of estimates are measured within two years.

²⁵ Note that we are using “program success” for having positively significant impacts at 10-percent level.

²⁶ See Appendix Table A3 for the distribution of estimates by type of interventions and outcomes of interest.

²⁷ For example the dummy variable “female” is equal to one either when the corresponding effect size has been estimated for the subsample of female or, by definition, when the program is targeted to women.

²⁸ When multiple agencies are involved, it is usually the cases where government agencies working with NGOs and researchers collaborating with government or NGOs.

Column 5 presents a model including all four dimensions of covariates analyzed in columns 1-4 as well as basic study and country characteristics. The finding that the intermediate outcomes are more associated with program success than the final outcome is actually reinforced in this full model with greater chances of success among business practice outcomes. Consistently with the simpler models, youth, high education, and urban beneficiaries seem to benefit most from programs supporting entrepreneurship, while micro-credit clients experience smaller impacts compared to the general population. Results on the effectiveness along different types of providers in the full model are similar to the simple model. In addition, when controlling for all other characteristics, private sector appears to make a difference in improving programs.

Although not presented in the table, basic characteristics including region, country typology, and study features are also associated with program success. In fact, experimental results are generally more robust than quasi-experimental and larger samples are more likely to detect the precise impact (large t statistics) than smaller samples. Interestingly, whether the study has been published in a journal is statistically insignificant in explaining program success, suggesting that little publication bias is observed in our sample of studies. Programs seem to work better in the longer term: outcomes measured 18 months after program completion are more likely to be significant than outcomes measured few months after program completion (the period between the completion of the program and end line survey is positively related to finding positively significant impacts).

In general, there are not statistical differences in the effectiveness of programs across country income groups, while coefficients of regional dummies suggest that results of programs implemented in African and South Asian countries tend to be more significant than those in other regions. However, we have to be cautious and not infer causal conclusions on the regional variation of impacts, given the small number of studies per region and the potential omitted variables related to program and study characteristics that may explain this result.

Next, we analyze determinants of program effectiveness by also looking at the magnitude of estimated program impacts and test whether coefficients from the probit model are proportional in magnitude and significance to those from linear models. We use linear regression models to fit standardized effect sizes. Table 6 compares the probit model for the event of a positive and significant effect and the Ordinary Least Squares (OLS) and random effects (RE) model for effect sizes. The first and second columns replicate column 5 in Table 5 at the 10-percent and 5-percent

significance level, respectively. Column 3 presents the OLS regression and in column 4 presents RE model to introduce unobserved variations within and between studies. Finally, column 5 estimates RE model regression only for those with positively significant impacts.

Table 6 shows the robustness of results by presenting consistent findings across different models. Coefficients from probit models are proportional to those from linear RE model although significance slightly differs across specifications. For instance, when using effect sizes as dependent variable instead of the significance indicator, no significant differences emerge among intervention types. Among the different population groups, youth and higher educated beneficiaries still seem to benefit significantly larger impacts, while the result on social assistance fade away in the linear model for effect sizes. The sets of coefficients under the two models are highly correlated (Figure 3), suggesting a great consistency between the determinants of program success measured by effect significance and effect size magnitude. Given the wide variation in outcome measures and modeling strategies, we will rely on a simple model based on the significance of results for pooled regressions. When the analysis comes to disaggregated regressions with more homogeneous outcome measures, however, we will report results on effect size and focus on the linear regression model with random effects as our main model of meta-regression analysis.

5.2. Delving Deeper into Training and Financing Programs Separately

The nature of intervention may be completely different even among the seemingly correlated programs. For instance, short business training added to microcredit clients would be different from microcredit intervention itself because the former addresses lack of knowledge while the latter does lack of credits. In order to delve deeper into programs concerning similar issues, we further disaggregate programs and analyze separately for training and financing programs.

Table 7 presents results from a probit model for positively significant outcome restricting the sample to estimates of programs with at least one training component. The three main training components include vocational, business, and financial training.²⁹ Among these, business training

²⁹ Different types of training and combinations of interventions are used for different outcomes of interest (see Appendix Table A3). Vocational training such as in Jovenes programs and Uganda NUSAF are used almost exclusively to improve labor market activities and incomes unless combined with financing. Business and financial training tend to aim to improve business practices and knowledge as well as business performance. When business training is combined with counseling it addresses labor market activities to set up a new business, but financial training combined with counseling tends to focus more on business practice and knowledge, and performance.

is most common and often provided with vocational or financial training.³⁰ Life skills training is combined with vocational and business training to foster soft skills complementing technical skills as a part of counseling.³¹ Counseling services are also often added for further guidance and may vary ranging from job search or business set up assistance, to business consulting, and to psycho-social advising. Of course, financing support is frequently combined with training and provided as a package.

The duration of training widely varies. In general, vocational training programs have longer span (about five to six months) as they cover skills training for certain occupations, while business training shows the shortest duration. Although the duration is an important dimension of characterizing the training program, it is not always comparable across studies. Some training lasts for longer period with short hours of session (one-hour training at weekly meeting for microcredit clients for 22 weeks in Karlan and Valdiva, 2010), others last similar length with more intensity (six-to-eight hour training at weekly meeting for six months), and still others consist of a very short session (two-to-four hour meeting per week for six weeks; a total classroom time is 48 hours – coded 1.2 weeks).

The first column of Table 7 includes dummies for the different training components and their combinations with counseling and financial services, the second and third columns add the outcomes of interest and type of beneficiaries respectively, and the fourth model includes all covariates. Like in the previous specifications, we include study and country characteristics in all specifications, and use types of outcomes and beneficiaries as additional explanatory variables. In all specifications, the combination of business and financial training is used for the omitted category. When types of beneficiaries are not included (columns 1-2), vocational training seems to have the best chance of program success especially when combined with financing components. However, this finding fades away as types of beneficiaries are added (columns 3-4), suggesting that the youth group is accounting for most of the significance of vocational training programs. Also, providing general business training seems more effective than more specific and technical financial training when controlling for type of beneficiaries.³² It seems that vocational training can be further

³⁰ The combination of life skills and financial training is not observed.

³¹ Note that life skills training is never combined with financing such as microcredit or transfers, although counseling and advising is often added to financing.

³² This implication is consistent with the finding from Drexler et al. (2011) that simplified version of training works better than full technical training.

improved by combining with counseling, but the contribution of counseling to business or financial training is weak or negative.

Duration of training programs when considered with the quadratic form shows that the relationship between the likelihood of success and duration of programs is U-shaped. The optimal length of training may vary by the outcomes of interest and programs' objectives. Given that the duration of the program may not capture the intensity or quality of training, caution is needed to interpret the results. Finally, the effects of training generally tend to fade out as the period between completion of intervention and endline survey becomes longer.

Table 8 presents results for financing programs with the same model except for the type of interventions. We disaggregate estimates from financing programs into microcredit and grants as “stand-alone” programs, grants combined with training, microcredit combined with training, and financing (either microcredit or grants) combined with counseling.³³ The impacts of financing programs seem less heterogeneous than those of training intervention. Microcredit either combined with training or stand-alone yields larger effects compared to other financing support. The time interval between intervention and end-line survey is much longer for financing than training, and unlike training, longer interval is more associated with higher chances of success, suggesting that it takes time for the use of loan to emerge as changed outcomes.

5.3. Regressions on Sub-Sample by Outcome Groups

Pooling all estimates doesn't allow us to examine which are the determinants of program success for each particular outcome of interest, if the determinants of success differ by the outcomes. A particular intervention may be more frequently used and relevant for one outcome than the other, and its effectiveness can also vary by the outcome measures.³⁴ Moreover, the effects of covariates on the effect size may be specific to the outcome of interest. For instance, youth may benefit more from interventions in improving labor market outcomes than changing saving behavior. Separately

³³ Given that only four observations from one study combine microcredit with counseling (information session) without training (De Mel et al, 2011), we merge microcredit and grants when combined with counseling.

³⁴ Recall the distribution of intervention type by outcome classification (Table A3 in Appendix). Vocational training is commonly used to improve labor market activities and income but rarely for business outcomes unless combined with financing. Business and financial training tends to focus more on financial behavior and business outcomes, but often are addressed to labor market activities combined with counseling. While microfinance is widely used to improve all the outcomes considered here, it is more directed to labor market outcomes when combined with counseling.

examining the sample according to the six outcome groups reduces heterogeneity across outcomes types and provides information specific on the outcome of interest.³⁵

The rest of section discusses the effectiveness of programs separately for different outcomes. A few findings are worth mentioning. For nearly all outcomes, youth seems to be highly associated with program success, suggesting a great need to provide targeted intervention for them. Impacts on women are particularly large only for attitudes, indicating these types of intervention are useful for female empowerment but may not be sufficient to address various barriers faced by women. Increases in earnings especially among youth and those with higher education seem to be due in part to improving business performance.

5.2.1. Labor Market Outcomes

Table 9 presents the results from random effects models of effect sizes estimated on the labor market activities and income in Panel A and B respectively. In each panel, the first row shows the overall effects of the following interventions relevant for labor market outcomes: business training (including financial training), vocational training, and financing (grants and microcredit) regardless of provision of counseling service (regression results of the corresponding RE model are presented in Table A4 in Appendix). The subsequent rows present the heterogeneous impacts of each intervention along the type of beneficiaries and country typology³⁶ (not shown in the table). The table presents the coefficients of the interaction terms between intervention and population groups, showing the incremental effects of each intervention in improving labor market activities for each beneficiaries group.

Overall, vocational training and financing are found to be more effective to improve labor market activities compared to business training. In particular, for female and youth, the goal of

³⁵ However, it has to be noted that some heterogeneity in outcome still remains within outcome groups as even similar outcomes may be measured differently in different studies (this is where the random effects model assumption rests) or sometimes different outcomes are mapped to the same outcome group. For example, the “business performance” includes diverse variables such as sales and capital stock, while the “labor market income” is more homogeneous including personal earning and profits for existing micro-entrepreneurs.

³⁶ The typology of countries is adopted from the 2013 World Development Report on Jobs. Youth bulging countries include Bosnia and Herzegovina, Colombia, Dominican Republic, Indonesia, South Africa, and Tunisia; Urbanizing countries include Bangladesh, Bosnia and Herzegovina, Guatemala, Ghana, India, Indonesia, Malawi, and Pakistan; Formalizing countries include many Latin American countries, such as Argentina, Chile, Colombia, El Salvador, Peru, Nicaragua, and Mexico; Philippines; Sri Lanka; and Tunisia; Agrarian countries include Bangladesh, India, Kenya, Malawi, Pakistan, Sri Lanka, Tanzania, and Uganda; and Fragile states include Bosnia and Herzegovina in our study. Note that the typology of countries is not mutually exclusive.

increasing labor market activities can be better achieved by providing access to credits rather than training. To the contrary, for business owners, gaining access to finance does less in increasing their activities than receiving business training. The difference in effectiveness across programs is quite substantial among urban beneficiaries, with vocational training being most effective but business training least useful in improving labor market activities. This suggests that lack of technical skills is a more binding constraint than limited knowledge on business in starting a business in urban areas.

Country types characterizing important features in labor markets add to understanding of the context of the implemented programs (not shown here). In youth bulge countries where absorbing a large stock of young workers in labor markets is a policy objective, vocational training seems more promising than other intervention although program success is generally challenging in these countries. In formalizing countries where labor market is transitioning toward more formal and organized sectors, business training can be more associated with increasing activities and business setup and expansion than other intervention.

Panel B presents results of heterogeneity analysis on labor market income. Unlike labor market activities, there are no significant differences across intervention types in terms of improving labor earning and profits. Programs that were found least effective in promoting activities often turn out to have larger impacts on earnings. For instance, business training seems to have greater impacts especially for youth and high education group in increasing their income, although it was not the case for labor market activities. Likewise, access to finance significantly increases labor income of social assistance beneficiaries. Overall, effect size in labor income is larger for high education and urban individuals.

5.2.2. Business and Behavioral Outcomes

We now move onto business outcomes such as business knowledge and practice, and business performance which are important intermediate outcomes that may lead to successful business and increased income (Table 10).³⁷ Considering the distribution of intervention, we disaggregate programs as follows: a combination of training and financing, training only, a combination of training and counseling, and financing only. Panel A suggests that business and financial training alone can be quite effective in improving business knowledge and practice. This is particularly true

³⁷ Full regression results of the corresponding RE model are presented in Table A5 in Appendix.

for microenterprise owners and microcredit clients. For women, however, training does little but financing matters in changing their business practice.

With respect to business performance, financing seems to be most relevant and effective intervention (see first row of Panel B in Table 9). As business performance is mostly measured by sales, inventories, number of paid employees, and business expenses, access to finance has probably a greater role in improving business performance. It is notable that training alone is strongly associated with business performance of youth and high education individuals, suggesting that more efficient use of resources can be effectively promoted through training for these groups. To the contrary, training, unless combined with financing, is not very effective for microcredit clients for whom lack of business knowledge may not be a binding constraint to successful business performance.

Finally, we investigate the relative effectiveness of interventions for financial behavior (borrowing and saving) and attitudes (although not shown in table). With a small number of observations, we focus only on business training versus financing (mostly microcredit) and type of beneficiaries. Although not shown here, it is worth noting that programs are significantly effective for youth in promoting their saving and borrowing activities, while the impacts on higher educated people are lower. Meanwhile, attitudes are most successfully improved among females and social assistance beneficiaries.

6. Conclusion and Discussion

Entrepreneurship programs will continue to constitute an important policy tool in the developing world as long as self employment exists as a critical alternative for the rationed wage employment. A fundamental question to address is which interventions and combinations of programs are more effective in enabling the poor to operate their own business. Which types of skills (business, technical, “soft skills”) and capital (cash, in kind, credits) are more relevant? We began this study by asking “which type of intervention is more effective for whom and for which outcomes?” In order to answer this, we collected information on program effects from rigorously evaluated studies around developing countries and compiled a large and rich data set with program details. We examined the impact of interventions promoting entrepreneurial activities on a variety of outcomes such as labor market activities and income, as well as business practice and performance. We also

examined attitudes and financial behavior outcomes. Given the specificity of each program, we considered the design and implementation features of each program, the context and policy environment of each country, and finally, study characteristics potentially affecting the estimates of outcomes.

Our meta-analysis suggested a number of important implications. Combinations of different intervention types matter for different beneficiaries under different context. With respect to training programs, it seems that vocational training can be further improved by combining training with counseling or financing. However, business training tends to work better as a stand-alone program. In terms of financing, microcredit, especially when combined with training, tends to work better than other arrangements.

Investigating the effects of programs separately by outcome groups, we find that both vocational training and access to finance appear to have larger impacts on labor market activity outcomes than other interventions. For youth and female the largest effects come from providing access to credit, suggesting that access to credit may have been the largest constraint to start an income generating labor market activity. Business training can also contribute to increased earnings among youth and those with higher education in part by improving business performance. Overall, involving the private sector such as NGOs for the delivery of programs appears to be more closely associated with improved effects of programs. Hence, providing a customized combination of programs for targeted groups through organizations that are well connected and familiar with beneficiaries seems to be a promising approach to expand earning opportunities through self-employment.

Our results have important policy implications. First, programs promoting self-employment opportunities and small scale entrepreneurship can lead to increases in labor market outcomes with important welfare gains. Second, providing relevant combinations of skills, capital, and counseling support based on target group's main constraints is important to achieve better results. Third, among widely heterogeneous effects it is noteworthy that the impacts on both labor market and business outcomes are significantly higher for youth and more educated beneficiaries. This is especially relevant in many parts of the developing world that are facing the 'youth bulge' and the need to provide meaningful opportunities to their young populations.

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Table 1. Distribution and Definitions of the Outcomes of Interest

Outcomes of interest	Definitions	Frequency
1. Labor market activities		242 [21.7%]
Business set up and expansion	Binary indicator of business setup or expansion	
Employment (self employment)	Binary indicator of employment status or employment rates	
Hours of work	(Weekly) Hours of work in labor market or business	
Unemployment	Binary indicator of unemployment status	
Business closing	Binary indicator of business closing	
2. Labor market income		309 [27.7%]
Household income	Changes in household income	
Household assets	Changes in household assets	
Profits (from household business)	(Monthly) profits from business	
Earnings	Salary and payment for labor	
Consumptions	Household expenditure/consumption on durable/non-durable goods	
3. Financial behavior		126 [11.3%]
Having a loan (formal, informal)	Binary indicator of having a (formal/informal) loan	
Having an insurance or savings	Binary indicator of having insurance scheme or saving	
Amount of loan/saving changed	Indicator of increase in the amount of loan/savings	
4. Business knowledge and practice		155 [13.9%]
Business knowledge	General business knowledge including the abilities to calculate profits, manage stocks, and make investment	
Innovation	Binary indicator of adopting new technology or developing new product	
Access to network	Binary indicator of having an access to the network of individuals with businesses or market	
Accounting practice	Binary indicator of book and record keeping, and separation of individual and business accounts.	
5. Business performance		184 [16.5%]
Business expenses	Changes in the amount of business expenses (inventory, salary, etc)	
Sales from the business	Changes in the sales	
Number of employees	Changes in the number of (paid/unpaid) employees	
Capital and investment	Changes in stocks, investment, and inventories	
6. Attitudes		100 [9.0%]
Attitude toward business	Attitude toward entrepreneurial activities and traits	
Confidence and optimism	Changes in confidence or positivity toward labor market prospect and future	
Risk and time preference	Risk taking attitude and discount rate of future benefits	
Decision making and reservation wage	Changes in decision making process and reservation wage	

Notes: The frequency indicates the number of observations of each outcome category. The proportions of each category are specified in the brackets.

Table 2. Distribution and Definitions of the Interventions of Interest

Outcomes of Interventions	Definitions	Frequency
1. Training		458 [41.0%]
Vocational training	(In-class or apprenticeship) training on various professions	
Lifeskills training	Usually in-class training for problem solving and critical thinking	
Business training	General knowledge on business management including customer relations, inventory and financial management, and marketing	
Financial training	Specific knowledge on accounting and inter-temporal decision making on investment	
2. Financing		742 [66.5%]
Cash grant	Cash transfer for business	
In-kind grant	Transfer in the form of tools, goods, and equipment	
Microcredit	Loan for business for future repayment	
Savings	Access to saving arrangement	
3. Counseling		238 [21.3%]
Mentoring in business	Follow up advice in the process of business operation	
Arrangements for on-the-job advice	Guidance provided on-the-job	

Notes: Counseling is added to either training or financing, it is never a stand-alone intervention. In many cases, training and financing are provided in combination. The "frequency" column specifies the number and proportion of observations that estimate the effect of each intervention. Due to the combinations of interventions, the proportions do not sum up to 100%.

Table 3. Sample Characteristics by Region

	All sample	AFR	EAP	ECA	LAC	MENA	SAR
Total number of estimates	1,116	185	119	180	318	96	218
Type of intervention (%)							
Training only	22.3%	21.6%	6.7%	21.1%	37.7%	-	19.7%
Training+Counseling	11.2%	-	-	-	20.8%	61.5%	-
Financing only	50.1%	58.4%	93.3%	78.9%	9.1%	38.5%	60.6%
Financing+Counseling	8.9%	-	-	-	29.9%	-	1.8%
Training+Financing	6.3%	16.8%	-	-	-	-	17.9%
Outcome Groups (%)							
LM Activity	21.7%	10.3%	20.2%	36.7%	29.2%	31.3%	4.6%
LM Income	27.7%	22.7%	35.3%	21.7%	31.8%	19.8%	30.3%
Financial Behavior	11.5%	20.5%	29.4%	10.0%	2.8%	4.2%	11.0%
Business Knowledge and Practice	13.9%	10.8%	-	11.1%	16.4%	16.7%	21.6%
Business Performance	16.5%	20.0%	10.1%	16.7%	16.7%	11.5%	18.8%
Attitudes	9.0%	15.7%	6.7%	3.9%	3.1%	16.7%	13.8%
Population Groups (%)							
Female	26.3%	27.0%	74.8%	6.7%	15.7%	11.5%	37.2%
Youth	14.6%	11.4%	-	27.8%	10.4%	61.5%	-
High Education	16.8%	8.6%	21.8%	20.0%	12.9%	61.5%	4.1%
SA beneficiaries	14.3%	11.4%	-	-	43.7%	-	-
Entrepreneurs	34.6%	50.3%	26.1%	26.7%	45.3%	8.3%	28.4%
Microcredit clients	27.3%	24.3%	3.4%	21.1%	34.9%	-	49.1%
Urban	43.9%	76.8%	17.6%	21.1%	52.5%	61.5%	28.9%
Providers (%)							
Government agencies	21.4%	11.9%	-	-	49.1%	61.5%	0.9%
NGOs and community organizers	35.2%	15.7%	79.0%	-	56.9%	-	40.8%
Universities/researchers	20.7%	38.9%	17.6%	-	2.2%	61.5%	33.0%
MFIs or banks	56.5%	49.7%	100.0%	100.0%	34.9%	38.5%	41.7%

Notes: Type of interventions and outcomes include mutually exclusive categories while the type of beneficiaries and providers of the programs are not defined in a mutually exclusive way. The categories of beneficiaries can overlap and the programs are often delivered by multiple agencies.

Table 4. Summary of Estimated Impacts by Outcome

Outcomes	LM Activity	LM Income	Financial Behavior	Business Practice	Business Performance	Attitudes	Total
<i>Significance at 10%</i>							
negative	2.5%	3.2%	9.5%	5.2%	4.3%	3.0%	4.2%
insignificant	68.2%	72.8%	67.5%	54.8%	71.2%	63.0%	67.6%
positive	29.3%	23.9%	23.0%	40.0%	24.5%	34.0%	28.2%
<i>Significance at 5%</i>							
negative	1.7%	2.3%	7.9%	1.9%	2.7%	2.0%	2.8%
insignificant	76.0%	78.0%	74.6%	66.5%	80.4%	73.0%	75.5%
positive	22.3%	19.7%	17.5%	31.6%	16.8%	25.0%	21.7%
<i>Effect Size</i>							
Overall average	0.065	0.036	0.034	0.106	0.044	0.090	0.058
Average among positively significant at 10%	0.181	0.136	0.204	0.254	0.154	0.180	0.183
Average among positively significant at 5%	0.192	0.147	0.224	0.283	0.173	0.200	0.200

Table 5. Probit Model Regressions for Positively Significant Impacts

	Dependent Variable=Indicator of Positively Significant Impact at 10%				
	(1)	(2)	(3)	(4)	(5)
	ME/SE	ME/SE	ME/SE	ME/SE	ME/SE
LM activities	0.354** (0.171)				0.228 (0.173)
Business practice	0.467** (0.185)				0.756*** (0.217)
Business performance	-0.024 (0.169)				0.143 (0.192)
Financial behavior	0.009 (0.165)				0.302 (0.185)
Attitudes	0.111 (0.160)				0.283 (0.197)
Training only		-0.042 (0.298)			0.343 (0.367)
Training+counseling		0.336 (0.451)			-0.419 (0.437)
Financing only		-0.094 (0.283)			0.182 (0.400)
Financing+counseling		-0.357 (0.366)			0.329 (0.348)
Female			-0.102 (0.199)		-0.176 (0.239)
Youth			0.567*** (0.126)		0.676*** (0.202)
High education			0.177 (0.115)		0.270** (0.130)
Microenterprise owners			-0.044 (0.106)		-0.123 (0.155)
Social assistance beneficiaries			0.210 (0.222)		0.253 (0.384)
Microfinance clients			-0.507*** (0.136)		-1.161*** (0.306)
Urban			0.294** (0.119)		0.392* (0.221)
Government only				-0.256 (0.359)	-0.092 (0.224)
NGOs only				0.057 (0.300)	-0.158 (0.279)
Universities only				-0.439 (0.286)	-0.146 (0.269)
MFI or banks only				-0.425** (0.213)	-0.372* (0.225)
Private sector delivery				-0.054 (0.241)	0.467* (0.283)
Number of observations	1,097	1,097	1,097	1,097	1,097
Adjusted R2	0.099	0.091	0.124	0.097	0.155

note: *** p<0.01, ** p<0.05, * p<0.1

Marginal effects (ME) are reported. Standard errors (SE) are clustered by study id and reported in parenthesis. Regressions are weighted by the inverse of the number of estimates per study in the database.

All specifications include study characteristics (period between the completion of intervention and estimation, journal publication, experimental design, and the square root of number of observations), region, and income dummies which are not reported here. Column (1) specifies only with outcomes of interest, (2) with the types of intervention, (3) with the type of beneficiaries, (4) with the type of delivering agencies, and (5) with all of above. Omitte categories include labor income (type of outcomes), Training+Financing (type of intervention), and multiple providers (program providers).

Table 6. Comparisons of Different Models

	Probit (10%)	Probit (5%)	OLS	Random Effects	Random Effects
	(1)	(2)	(3)	(4)	(5)
	me/se	me/se	coef/se	coef/se	coef/se
LM activities	0.228 (0.173)	0.190 (0.156)	-0.007 (0.021)	0.004 (0.020)	-0.025 (0.022)
Business practice	0.756*** (0.217)	0.556* (0.284)	0.074** (0.037)	0.082** (0.040)	0.087* (0.045)
Business performance	0.143 (0.192)	-0.012 (0.222)	0.002 (0.019)	0.012 (0.022)	0.013 (0.020)
Financial behavior	0.302 (0.185)	0.146 (0.200)	-0.007 (0.019)	-0.002 (0.020)	0.006 (0.014)
Attitude and traits	0.283 (0.197)	0.073 (0.228)	0.020 (0.022)	0.035 (0.024)	0.002 (0.022)
Training only	0.343 (0.367)	0.523 (0.380)	0.033 (0.028)	0.029 (0.022)	0.022 (0.027)
Training+counseling	-0.419 (0.437)	-0.095 (0.445)	0.053 (0.043)	0.016 (0.033)	0.073 (0.073)
Financing only	0.182 (0.400)	0.474 (0.453)	0.025 (0.033)	0.037 (0.026)	0.051 (0.041)
Financing+counseling	0.329 (0.348)	-0.007 (0.390)	0.003 (0.034)	0.021 (0.036)	0.036 (0.055)
Female	-0.176 (0.239)	-0.251 (0.279)	0.002 (0.019)	-0.001 (0.017)	-0.048** (0.019)
Youth	0.676*** (0.202)	0.721*** (0.234)	0.051** (0.022)	0.070*** (0.017)	0.018 (0.029)
High education	0.270** (0.130)	0.218 (0.235)	0.039*** (0.013)	0.028** (0.012)	0.026 (0.024)
Microenterprise owners	-0.123 (0.155)	-0.090 (0.149)	-0.000 (0.014)	-0.007 (0.012)	0.007 (0.017)
Social assistance beneficiaries	0.253 (0.384)	0.514 (0.474)	0.022 (0.043)	-0.047 (0.042)	0.055 (0.068)
Urban	-1.161*** (0.306)	-0.707** (0.328)	-0.041** (0.021)	-0.042* (0.022)	0.006 (0.037)
Microfinance clients	0.392* (0.221)	0.598** (0.234)	-0.019 (0.022)	-0.023 (0.019)	0.053 (0.034)
Government only	-0.092 (0.224)	-1.047*** (0.208)	-0.019 (0.030)	-0.000 (0.029)	0.051 (0.065)
NGOs only	-0.158 (0.279)	0.184 (0.316)	-0.016 (0.021)	-0.034* (0.019)	0.014 (0.033)
Universities only	-0.146 (0.269)	-0.191 (0.279)	-0.006 (0.035)	-0.049 (0.033)	-0.008 (0.034)
MFI or banks only	-0.372* (0.225)	-0.117 (0.212)	-0.004 (0.033)	-0.023 (0.029)	0.019 (0.026)
Private sector delivery	0.467* (0.283)	-0.106 (0.309)	0.017 (0.028)	-0.005 (0.027)	0.018 (0.042)
Number of observations	1,097	1,097	1,097	1,097	308
Adjusted R2	0.155	0.166	0.155		

note: *** p<0.01, ** p<0.05, * p<0.1

Dependent variable in columns 1(2) is a dummy for positive significance of estimates at 10% (5%). Dependent variable in column 3-5 is the estimated effect size.

Standard errors are clustered by study id and reported in parenthesis. Regressions in columns 1-3 are weighted by the inverse of the number of estimates per study in the database. Last column restricts the sample to positive and significant (at 10%) estimates only.

All specifications include study characteristics (period between the completion of intervention and estimation, journal publication, experimental design, and the square root of number of observations), region and income dummies, which are not reported here.

Table 7. Probit Model Regressions for Positively Significant Impacts: Training

Dependent Variable=Indicator of Positively Significant Impact at 10%				
	(1)	(2)	(3)	(4)
	coef/se	coef/se	coef/se	coe/se
Vocational + business training	-0.768 (0.560)	-0.512 (0.474)	-4.605** (2.296)	-4.414 (3.508)
Vocational training+Counseling	0.959** (0.460)	1.563*** (0.546)	2.129 (1.634)	0.571 (1.630)
Vocational training+Financing	2.065** (0.874)	2.360*** (0.872)	3.081* (1.646)	2.787 (1.763)
Business training+Financing	-1.068*** (0.312)	-1.238*** (0.352)	-0.918 (0.698)	-0.856 (0.772)
Business training+Counseling	0.220 (0.195)	0.471* (0.255)	1.561 (1.063)	-0.205 (1.175)
Business training only	0.000 (0.347)	-0.157 (0.412)	0.302* (0.169)	0.449*** (0.151)
Financial training+Counseling	-1.167*** (0.301)	-1.224*** (0.256)	-0.891* (0.483)	-0.938* (0.489)
Duration of training	-0.233* (0.123)	-0.283** (0.119)	-0.537*** (0.156)	-0.357* (0.202)
Duration squared	0.007* (0.004)	0.008** (0.003)	0.018*** (0.005)	0.014* (0.007)
Months since completion/100	-8.161*** (2.195)	-7.706*** (2.240)	-8.554 (5.708)	-9.393 (6.427)
Outcomes of interest	No	Yes	No	Yes
Type of beneficiaries	No	No	Yes	Yes
Number of observations	439	439	439	439
Adjusted R squared	0.155	0.202	0.207	0.245

note: *** p<0.01, ** p<0.05, * p<0.1

Standard errors are clustered by study id.

The omitted category of training is "Business + financial training combined".

All specifications include dummies for study characteristics (journal publication, experimental design, and the square root of study sample), regions (Africa, Latin America, South Asia only), and country income classification which are not reported here.

Table 8. Probit Model Regressions for Positively Significant Impacts: Financing

Dependent Variable=Indicator of Positively Significant Impact at 10%				
	(1)	(2)	(3)	(4)
	coef/se	coef/se	coef/se	coef/se
Grant only	0.286 (0.188)	0.204 (0.156)	0.223 (0.163)	0.099 (0.161)
Microcredit only	0.778*** (0.287)	0.713** (0.291)	0.535** (0.211)	0.411* (0.235)
Grant + Training	1.354** (0.632)	1.309** (0.604)	-0.082 (0.560)	-0.016 (0.554)
Microcredit + Training	0.648* (0.353)	0.693** (0.310)	0.832** (0.361)	0.777** (0.323)
Months since completion/100	1.364** (0.575)	1.283** (0.518)	1.269** (0.510)	1.083** (0.546)
Outcomes of interest	No	Yes	No	Yes
Type of beneficiaries	No	No	Yes	Yes
Number of observations	734	734	734	734
Adjusted R squared	0.124	0.136	0.170	0.180

note: *** p<0.01, ** p<0.05, * p<0.1

Standard errors are clustered by study id.

The omitted category of financing is "Microcredit/grants +Counseling ".

All specifications include dummies for study characteristics (period between the completion of intervention and estimation, journal publication, experimental design, and the square root of study sample), regions (Africa, Latin America, South Asia only), and country income classification which are not reported here.

Table 9. Random Effect Regression Model for Labor Market Outcomes

A. LMActivity	<u>Interacted with</u>		
	Business Training	Vocational Training	Financing
1. Overall	Omitted category	0.122*** (0.027)	0.152*** (0.041)
2. Type of beneficiaries			
Female	-0.069*** (0.006)	0.010 (0.061)	0.022** (0.011)
Youth	-0.426*** (0.072)	0.005 (0.005)	0.066*** (0.015)
High Education	-0.394*** (0.074)	-	-0.002 (0.007)
SA beneficiaries	-	0.100 (0.140)	0.129 (0.138)
Entrepreneurs	0.377*** (0.073)	-	-0.016*** (0.004)
Microcredit clients	0.140** (0.065)	-	-
Urban	-0.289*** (0.064)	0.164*** (0.029)	0.010*** (0.004)
B. LMIncome	<u>Interacted with</u>		
	Business Training	Vocational Training	Financing
1. Overall	Omitted category	-0.041 (0.039)	0.003 (0.017)
2. Type of beneficiaries			
Female	-0.054* (0.029)	-0.014 (0.055)	-0.018 (0.031)
Youth	0.164*** (0.034)	0.019 (0.036)	-0.011 (0.011)
High Education	0.260*** (0.063)	-	0.029** (0.012)
SA beneficiaries	-	-0.018 (0.041)	0.091* (0.048)
Entrepreneurs	-0.015 (0.051)	-	-0.010 (0.018)
Microcredit clients	-0.008 (0.024)	-	-
Urban	0.034	0.076	0.041*

note: *** p<0.01, ** p<0.05, * p<0.1

Standard errors are clustered by study id.

All specifications include study characteristics (period between the completion of intervention and estimation, journal publication, experimental design, and the square root of number of observations), region and income dummies, which are not reported here.

Table 10. Random Effect Regression Model for Business Outcomes

A. Business practice	<u>Interacted with</u>			
	Training+financing	Training (business and financial)	Training+counseling	Financing
1. Overall	Omitted category	0.067* (0.038)	-0.079** (0.040)	-0.012 (0.013)
2. Type of beneficiaries				
Female	-0.257*** (0.000)	-0.122** (0.059)	-	0.335*** (0.000)
Youth	0.134 (0.085)	-	-	-
High Education	-	-0.024 (0.030)	0.507** (0.229)	-
SA beneficiaries	-	-	-	-
Entrepreneurs	-1.133** (0.525)	0.075* (0.041)	-	-
Microcredit clients	0.531** (0.231)	0.057 (0.093)	-	-0.060 (0.445)
Urban	-0.106 (0.107)	1.102** (0.549)	-0.274** (0.134)	-
B. Business performance	<u>Interacted with</u>			
	Training+financing	Training (business and financial)	Training+counseling	Financing
1. Overall	Omitted category	0.066** (0.028)	0.122*** (0.031)	0.140*** (0.032)
2. Type of beneficiaries				
Female	-0.140*** (0.000)	0.008 (0.024)	-	-0.041 (0.049)
Youth	0.043 (0.037)	0.157*** (0.027)	-	-
High Education	-	0.067*** (0.008)	-	-0.046* (0.026)
SA beneficiaries	-0.105 (0.076)	-	-	-
Entrepreneurs	0.032 (0.065)	0.085* (0.047)	-	-0.031* (0.017)
Microcredit clients	0.104* (0.055)	-0.082*** (0.030)	0.021 (0.055)	0.104* (0.055)
Urban	0.004 (0.037)	-0.067* (0.038)	0.075* (0.043)	-0.091*** (0.028)

note: *** p<0.01, ** p<0.05, * p<0.1

Standard errors are clustered by study id.

All specifications include study characteristics (period between the completion of intervention and estimation, journal publication, experimental design, and the square root of number of observations), region and income dummies, which are not reported here.

Figure 1. Distribution of Estimates: Region and Income

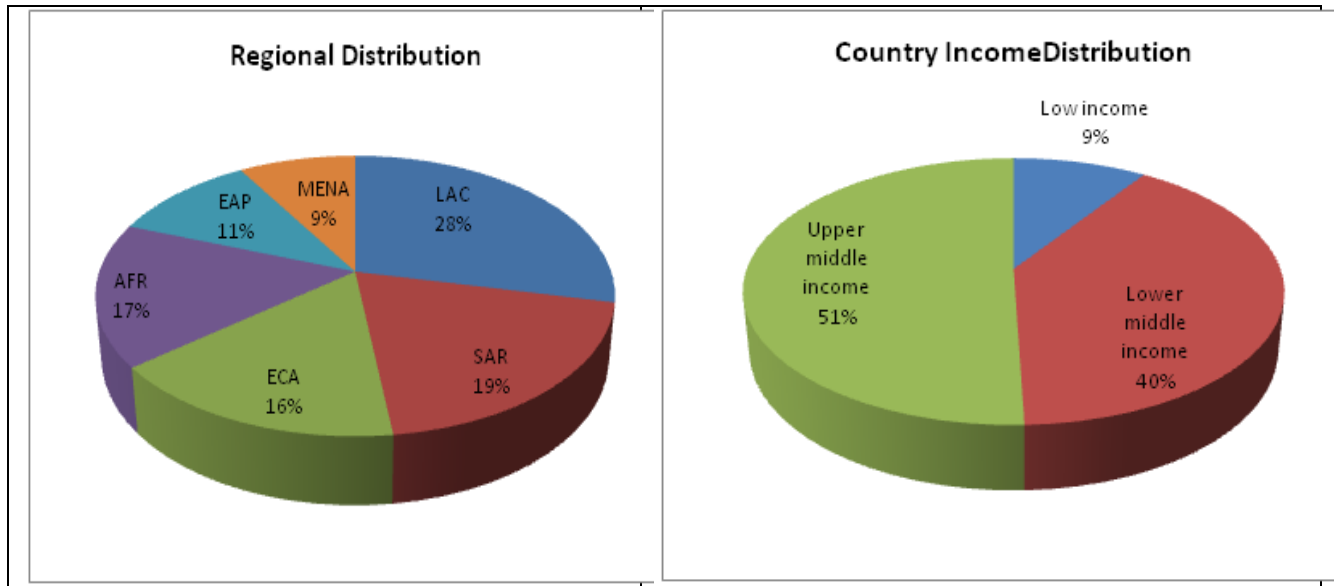


Figure 2. Proportion of Estimates by Intervention Component

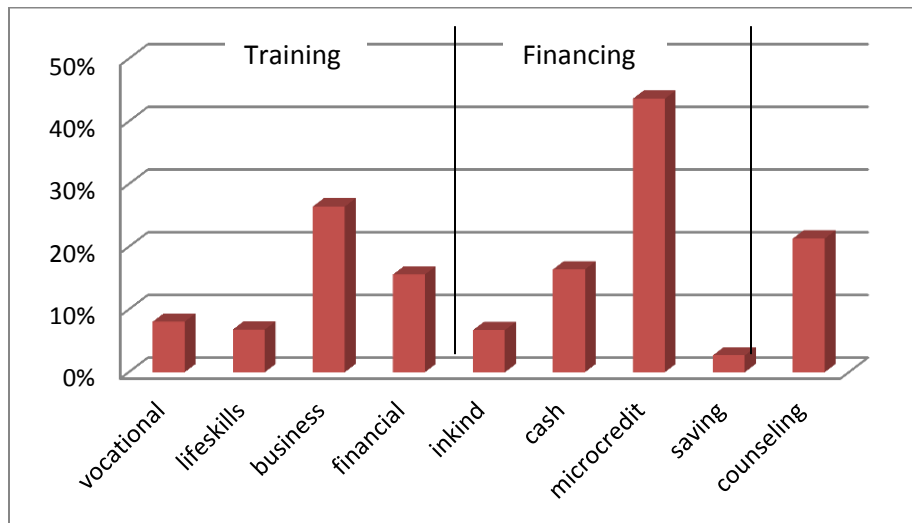
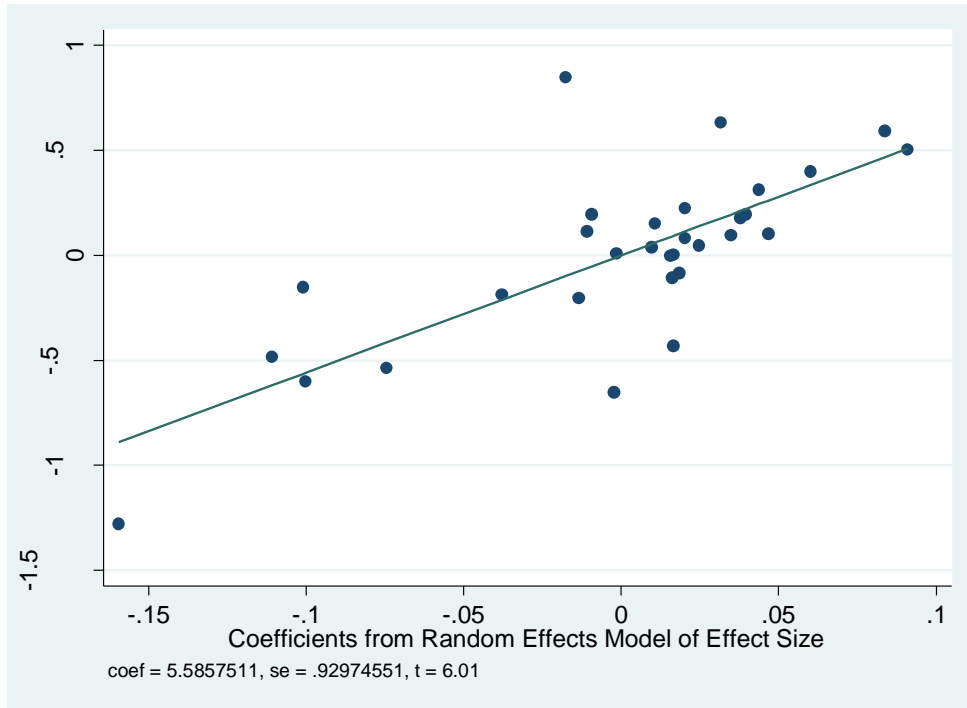


Figure 3. Comparison of Probit and Random Effects Models.



Appendix

Table A1. Studies Used for Meta-Analysis and Main Results

Study id	Group	country	Income	region	Year	Interval (months)	Main intervention	Outcomes
Almeida and Galasso. (2009)	SA beneficiaries	Argentina	Upper middle income	LAC	2005	13	in-kind grants and technical assistance for graduation of Jefes program	LM activities: - LM income: 0
Attanasio et al. (2011)	Youth	Colombia	Upper middle income	LAC	2006	14	3 month vocational training, 3 months on the job training	Female LM outcomes: + Male LM outcomes: 0
Attanasio et al. (2012)	Rural microfinance clients	Mongolia	Lower middle income	EAP	2009	2	Microcredit (group vs. individual lending)	Profit: + (group lending) Business setup: + LM income: 0
Augsburg et al. (2012)	Marginally rejected loan applicants	Bosnia and Herzegovina	Upper middle income	ECA	2010	15	Expansion of access to loan	LM activities: + Consumption: 0 saving:-
Banerjee and Duflo. (2008)	SMEs	India	Lower middle income	South Asia	2002	24	Policy change that increases an influx of credit on SME's	Profit, sales:0
Banerjee et al. (2010)	Women	India	Lower middle income	South Asia	2008	22	Expansion of microfinance institute	Business setup, profits: +
Bali Swain and Varghese. (2011)	Microfinance clients	India	Lower middle income	South Asia	2003	36	Comparing different delivery modes of training for microfinance clients: Model 1 (bank-formed and financed group), Model 2(NGO formed but bank financed), Model 3(NGO formed and financed).	Income: 0 Assets: + NGO linkage model +
Berge et al. (2011)	Microfinance clients	Tanzania	Low income	Africa	2009	7	Impacts of business training and grants (cash) among PRIDE (microfinance) clients.	Knowledge:+ Sales:+ Profits: + (male)
Bjorvatn and Tungodden. (2010)	Microfinance clients	Tanzania	Low income	Africa	2009	7	Business training among microcredit clients, microenterprise owners.	Knowledge:+
Blattman et al. (2011)	Youth	Uganda	Low income	Africa	2011	13	Vocational training and tools/materials for self employment.	LM activities :+ Profits: +
Brune et al. (2011)	Small holder farmers	Malawi	Low income	Africa	2010	17	Access to bank account: ordinary vs. commitment group	Profit: 0 Sales, income: + (only for commitment group)
Bruhn et al. (2011)	Young entrepreneurs	Bosnia and Herzegovina	Upper middle income	ECA	2010	7	Business and financial training	Profit, sales, new business practice: 0
Carneiro et al. (2009)	SA beneficiaries	Chile	Upper middle income	LAC	2007	48	Chile Solidario, providing psychosocial support as well as transfers.	LM activities, income: 0 Optimism: +
Calderon et al. (2011)	Female entrepreneurs	Mexico	Upper middle income	LAC	2010	10	Basic business training	Profits, revenues, number of clients served: +
Card et al. (2011)	Youth	Dominican Republic	Upper middle income	LAC	2005	11	Vocational training+internship	LM activities: 0 Earnings when working: +

Table A1. (Continued)

Study id	Group	country	Income	region	Year	Interval (months)	Main intervention	Outcomes
Card et al. (2011)	Youth	Dominican Republic	Upper middle income	LAC	2005	11	Vocational training+internship	LM activities: 0 Earnings when working: +
Cole et al. (2010)	Unbanked households	Indonesia	Lower middle income	EAP	2010	26	Financial literacy training, subsidies (small, medium, high) contingent upon bank account	Bank account:+ savings: 0 (higher effects of incentives than training)
Crepon et al. (2011)	Rural households	Morocco	Lower middle income	MENA	2009	22	Expansion of MFI (and access to credit)	Business setup: 0 Income, sales: +
De Mel et al. (2008a)	Microenterprise owners	Sri Lanka	Lower middle income	South Asia	2008	39	Cash/in-kind transfer	Profits: + (male)
De Mel et al. (2008b)	Microenterprise owners	Sri Lanka	Lower middle income	South Asia	2007	26	Small or large cash, or in-kind equipment	Profits, capital stock: + (male)
De Mel et al. (2011)	Microenterprise owners	Sri Lanka	Lower middle income	South Asia	2010	73	Provision of information on loans, prodedures of getting the loan (applications, requirements of guarantors,etc).	Take up of loan: +, Profits: 0
Drexler et al. (2011)	Microenterprise owners	Dominican Republic	Upper middle income	LAC	2008	13	Compare the impacts of full version of financial training, simplified version of training, and on-site visits for counseling.	Business practice : + (simplified version), income: 0
Dupas and Robinson. (2009)	Market vendors (women) and bicycle-taxi drivers (men)	Kenya	Low income	Africa	2009	42	Access to non-interest bearing bank account Significant effects on women (vendors) but no impacts on men (bike-taxi drivers)	saving, investment, expenditure: + revenue, hours worked: 0
Fafchamps et al. (2011)	Microenterprise owners	Ghana	Lower middle income	Africa	2010	13	Cash grant or in-kind subsidies	Profits: + cash<in-kind (especially women)
Field et al. (2010a)	Women	India	Lower middle income	South Asia	2007	4	Financial and business skills training	Income, loan: + Business plan:0 Results varying by social status
Field et al. (2010b)	Women	India	Lower middle income	South Asia	2010	37	Changes in term structure from short to longer term repayment. There is a significantly positive impacts of giving grace period for repayment on those business owners.	Profit, business setup, income: +
Gine and Yang (2009)	Farmers	Malawi	Low income	Africa	2006	1	Provision of credit for technology adoption with or without weather insurance.	Take up of loan:+ (only without insurance purchase)
Gine and Karlan (2010)	Microfinance clients	Philippines	Lower middle income	EAP	2006	19	Changes from group to individual liability of repayment.	Default: 0

Table A1. (Continued)

Study id	Group	country	Income	region	Year	Interval (months)	Main intervention	Outcomes
Karlan and Zinman (2010)	Marginally rejected loan applicants	South Africa	Upper middle income	Africa	2006	27	Expansion of access to consumer credits	LM activities, income, consumption, wellbeing: +
Karlan and Zinman (2011)	Marginally rejected loan applicants	Philippines	Lower middle income	EAP	2007	13.51233	Expansion of access to consumer credits	Number of business activities or employees: -
Karlan and Valdivia (2011)	Female microfinance clients	Peru	Upper middle income	LAC	2005	20	Business training added to microcredit	knowledge: + profits, revenue, employment: 0
Klinger and SchündeIn (2007)	(Potential) Business owners	G&N	Lower middle income	LAC	2005		Business training and monetary prize	Business expansion: +
Mano et al. (2011)	Microenterprise owners	Ghana	Lower middle income	Africa	2008	13	Business training	Profit, practice, revenue: +
Macours et al. (2011)	SA beneficiaries	Nicaragua	Lower middle income	LAC	2009	32	Vocational training, grants	LM activities, income, profits: + (grants)
McKenzie and Woodruff (2008)	Small retail firms	Mexico	Upper middle income	LAC	2006	3	Cash or in-kind transfers on retail firms.	Profits: + (financially constrained)
Pitt et al. (2006)	Microfinance clients	Bangladesh	Low income	South Asia	1999	96	Microcredit	Women's empowerment: +
Premand et al. (2011)	Youth	Tunisia	Upper middle income	MENA	2011	3	Entrepreneurship education (proposal) for college graduates	Knowledge, self employment: + LM income: 0

Table A2: Summary of Effect Size by Program Characteristics and Estimates Significance

Effect Size	Overall	Insignificant or negative at 10%	Significantly positive at 10%
Proportion	100%	71.80%	28.20%
Average	0.058	0.009	0.183
Intervention Types			
Training only	0.057	0.002	0.212
Training+Counseling	0.095	0.019	0.232
Financing only	0.052	0.007	0.164
Financing+Counseling	0.011	-0.002	0.103
Training+Financing	0.104	0.052	0.181
Outcomes of interest			
LM Activity	0.065	0.017	0.181
LM Income	0.036	0.005	0.136
Financial Behavior	0.034	-0.017	0.204
Business Practice	0.106	0.007	0.254
Business Performance	0.044	0.009	0.154
Attitudes	0.090	0.044	0.180
Beneficiaries			
Female	0.048	0.011	0.158
Youth	0.102	0.010	0.226
High Education	0.082	0.016	0.223
SA beneficiaries	0.046	0.001	0.150
Entrepreneurs	0.063	0.012	0.201
Urban	0.036	0.013	0.104
Providers			
Government only	0.036	0.013	0.104
NGO only	0.081	0.031	0.164
University only	0.067	0.011	0.161
MFI and banks only	0.055	0.008	0.195
Mutiple providers	0.058	0.001	0.213
Regions			
AFR	0.122	0.033	0.258
EAP	0.003	-0.009	0.138
ECA	0.039	0.005	0.198
LAC	0.053	0.017	0.168
MENA	0.084	-0.003	0.206
SAR	0.046	-0.002	0.121
Income level			
Low income	0.130	0.019	0.273
Lower middle income	0.043	0.005	0.127
Upper middle income	0.057	0.010	0.210

Table A3. Distribution of Type of Intervention by Outcomes of Interest

Broad type of intervention	Disaggregated intervention	LM Activity	LM Income	Financial Behavior	Business Practice	Business Performance	Attitudes
Training only	(1) vocational +business	6	16
	(2) business+financial	1	13	30	60	44	.
	(3) business	.	11	6	33	17	12
Training+counseling	(4) vocational+counseling	18	17
	(5) business+counseling	46	3	.	16	.	13
	(6) financial+counseling	.	4	.	10	12	.
Training+financing	(7) vocational+financing	9	18	.	3	3	.
	(8) business+financing	.	7	3	16	7	4
Financing only	(9) grant (cash, in-kind)	10	36	.	.	12	.
	(10) microcredit	109	116	83	17	81	61
Financing+counseling	(11) financing+counseling	43	68	4	.	8	10
Total		242	309	126	155	184	100

Note: the number of observations are specified in the table.

Table A4. Random Effect Regression Model : Labor Outcomes

	LMActivity	LMIncome
	(1)	(2)
	coef/se	coef/se
Vocational Training	0.122*** (0.027)	-0.041 (0.039)
Financing	0.152*** (0.041)	0.003 (0.017)
Female	-0.008 (0.028)	-0.023 (0.023)
Youth	0.063*** (0.013)	0.032 (0.024)
High education	-0.005 (0.008)	0.047* (0.024)
Microenterprise owners	-0.015*** (0.004)	-0.024 (0.026)
Social assistance beneficiaries	0.057* (0.031)	0.018 (0.039)
Microfinance clients	0.007 (0.036)	-0.005 (0.030)
Urban	-0.033 (0.023)	0.040** (0.018)
Private sector delivery	0.024* (0.014)	0.035 (0.024)
Months since completion/100	-0.241 (0.153)	0.179** (0.079)
Number of observations	223	309
Adjusted R2	0.373	0.179

note: *** p<0.01, ** p<0.05, * p<0.1

Standard errors are clustered by study id, t-statistics reported in parenthesis.

All specifications include study characteristics (period between the completion of intervention and estimation, journal publication, experimental design, and the square root of number of observations), region and income dummies, which are not reported here.

Table A5. Random Effect Regression Model: Business Outcomes

	Business Practice	Business Performance
	(1)	(2)
	coef/se	coef/se
Training (business and financial)	0.067* (0.038)	0.066** (0.028)
Training+counseling	-0.079** (0.040)	0.122*** (0.031)
Financing	-0.012 (0.013)	0.140*** (0.032)
Female	-0.071 (0.078)	-0.029 (0.029)
Youth	0.134 (0.085)	0.157*** (0.027)
High education	-0.024 (0.030)	0.023 (0.041)
Microenterprise owners	0.070* (0.038)	-0.037** (0.018)
Social assistance beneficiaries	(dropped)	-0.113** (0.056)
Microfinance clients	0.057 (0.093)	-0.033 (0.038)
Urban	-0.033 (0.114)	-0.081*** (0.023)
Private sector delivery	0.022 (0.077)	0.024 (0.032)
Months since completion/100	-0.541 (0.362)	0.337** (0.138)
Number of observations	223	309
Adjusted R2	0.373	0.179

note: *** p<0.01, ** p<0.05, * p<0.1

Standard errors are clustered by study id, t-statistics reported in parenthesis. Dependent variable is the All specifications include study characteristics (period between the completion of intervention and estimation, journal publication, experimental design, and the square root of number of observations), region and income dummies, which are not reported here.