

Corporate Measurement Policy

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Introduction

TechnoServe's vision is to be the most effective catalyst and partner for transformative, on the ground, market-based solutions to poverty. In order to achieve this vision, *TechnoServe's actions are guided by its organizational mission: We work with enterprising people in the developing world to build competitive farms, businesses and industries.*

TechnoServe fulfills its mission by undertaking projects that generate financial benefits to the poor. Our projects address growth constraints for businesses and industries, and encourage broader economic inclusion of marginalized populations such as smallholder farmers, workers, women and other groups. We do this by promoting the adoption of new skills and practices by individuals, entrepreneurs and institutions; improving access to markets and market-based services; promoting supportive policies by government and other enablers; and increasing the mobilization of capital.

The purpose of Corporate Measurement is to harmonize data on TechnoServe's impact across our portfolio in order to provide strategic insights for organizational leadership and decision-making. We define impact as our ability to generate financial benefits among our beneficiaries. In addition to providing inputs to guide our business, Corporate Measurement serves as a benchmark for ensuring our evaluation methods embody an appropriate level of rigor.

This document provides an overview of TechnoServe's Corporate Measurement initiative. It establishes the processes and standards used to collect data on TechnoServe's headline indicators. As a living document, it is both a reference for those engaging with Corporate Measurement and a reflection of our current thinking in how we capture, measure and analyze our impact.

This document will evolve with our increasing understanding of how to aggregate the diverse impact across our portfolio. The most recent update to this policy was **August 2016**. Future updates will provide the following:

- Links to resources and references on recommended evaluation methodologies
- Links to exemplary TechnoServe evaluations
- Revisions to our beneficiary typology
- Standards for measuring incremental, attributable profit (as opposed to revenue, as is the current standard)

Please direct all questions, comments and suggestions on this document to Kate Diaz (kdiaz@tns.org) or James Tinker (jtinker@tns.org).

Corporate Measurement in brief

Purpose

Corporate Measurement harmonizes data on TechnoServe’s impact across our portfolio in order to provide strategic insights for organizational leadership and decision-making. It provides inputs to guide our business and serves as a benchmark for ensuring our evaluation methods embody an appropriate level of rigor.

Guiding Values

We will implement and refine Corporate Measurement in keeping with the following values:

- **Credible and verifiable** – We will strive for best practices in data collection, storage, analysis, and transparency to third party observers.
- **Practical** - We are committed to balancing the highest level of rigor with an appropriate amount of cost and burden from the project teams and their implementation partners.
- **Relevant** - We will only capture data if it can provide strategic, timely insights to guide our business. Indicators that are no longer relevant will be eliminated from data capture
- **Transparent** - We will deploy technology to ensure open data and accessible reporting for all users in TechnoServe and for our partners, stakeholders, and the general public.

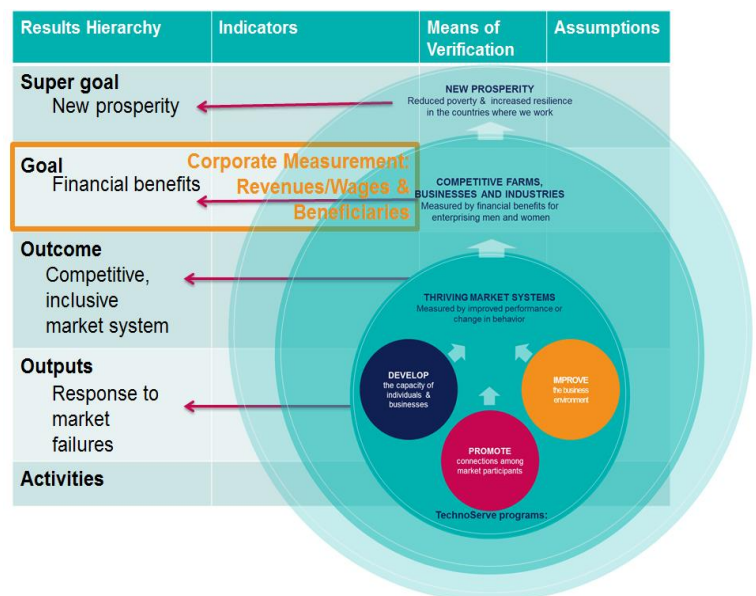
Headline Indicators

Corporate Measurement provides strategic insights into TechnoServe’s impact by tracking and analyzing data on headline indicators. The headline indicators map to the goal level of a project’s logical framework, which in turn map to TechnoServe’s mission to build competitive farms, businesses and industries.

We track four headline indicators:

Financial Benefits: How much better off are our beneficiaries?

We capture the value of the financial benefits generated within a project. This could be either the increased revenue or decreased cost of production for an enterprise, or the increased wages paid to employees that are a result of the TechnoServe intervention.



Beneficiaries: How many people are better off because of our work?

We track the number of women and men for whom we have evidence that our work has helped them generate increased financial benefits. Direct beneficiaries typically include individuals or businesses that have seen an increase in profit or revenues, or a reduction in costs; and new employees.

Private Sector Investment: How much third party investment have we driven?

We measure the amount of loans and equity and the number of men and women who obtain private sector investment. Since access to finance is often one of the final barriers to inclusive market systems, we capture this information to gain insight on our ability to transform market systems.

Return on TechnoServe Investment (ROTI): How efficient are we in creating results?

We assess the cost-effectiveness of a project in generating financial benefits for project beneficiaries through ROTI. ROTI is calculated at the end of a project after all of the costs related to project execution have been incurred. We include in the calculation a forecast of future financial benefits expected to accrue as a result of our work.

Results and Outcomes to Date

Corporate Measurement measures its own success by its ability to drive evidence-based decision making within TechnoServe. In support of this goal, we have created the following products:

- [2015 Impact report](#) - A high-level summary of our impact
- [2015 Results Dashboard](#) - A visual presentation of our impact to date across regions, countries, sectors and projects
- [Measurement Minute](#) - A periodic feature that offers strategic recommendations based on insights from Corporate Measurement

TechnoServe's Measurement Principles

Rigorously understanding our impact is essential on all of our projects. We subscribe to the [Goldilocks framework for right-fit M&E](#) developed by Innovations for Poverty Action. That is, we seek to weigh resources (including budget and time) against our commitment to rigorous evaluation in order to select the most appropriate measurement techniques for data collection and analysis. Academic-quality research is not always a justifiable use of resources, and is frequently infeasible given the complex market conditions and operational constraints we implement in. Typically our methods include the most rigorous, quasi-experimental approach available to a project.

Three principles apply in determining calculations of our impact:

- **Incremental:** We capture change over time. This implies available data at baseline, at or near the beginning of the intervention.
- **Attributable:** We capture only the portion of the change caused by TechnoServe intervention. We exclude any incremental change that was not a result of our work.
- **No “double counting”:** We ensure that we count the same benefit or beneficiary once and only once in a given reporting year. For example, incremental, attributable revenue earned by business is discounted by incremental, attributable wages earned by employees in the business.

[Appendix 1](#) has a detailed list of recommended methods, including resources and examples, for applying TechnoServe’s Measurement Principles, particularly the principle of attribution.

The relationship between Corporate Measurement and Project M&E

Corporate Measurement stands apart from, but relies on, our project-level M&E systems. The corporate measurement process leverages data collected by project teams. However, there may necessarily be adjustments to project-level data capture as part of the effort to standardize impact across our portfolio.

Our approach to project-level measurement is designed to assess progress towards our theory of change, both during implementation and at the project’s close. Projects articulate their theory of change through a logical framework that identifies the activities, outputs, outcomes, and goals we’ll undertake. The pathway for measuring our progress is laid out by the project’s M&E plan, which details the process for capturing data on indicators at all levels of the logical framework, as well as an approach for data analysis, dissemination and course correction. Capturing timely, relevant insights on project progress is critical for ensuring project success and for delivering key learnings about what works in our interventions. While M&E ultimately does look at impact, its core functionality lies in effective project management and accountability/transparency of our efforts to realize our theory of change throughout the life of the project.

Corporate Measurement’s headline indicators are goal-level indicators across all of our projects and are always tracked by M&E teams. Corporate Measure aggregates these numbers to look for top-level strategic insights across our entire portfolio. Given the wide variety of interventions that TechnoServe implements, and the diverse contexts we work in, there are some challenges to using project-level measurement data for making comparisons across projects. For example, donor requirements or local market conditions may steer M&E teams to different methods for understanding changes in financial benefits. The methodologies laid out in this document ensure that all data reported in Corporate Measurement is consistent in our methods, standards for rigor, and understanding of causal impact.

Headline Indicator Calculations

The following section details the requirements for calculating each headline indicator. These requirements have been developed to ensure the application of TechnoServe's measurement principles and the standardization of results across our portfolio.

Financial Benefits (IFBAP)

The financial benefits indicator is frequently referred to as IFBAP, or the incremental financial benefits attributable to the project.¹ IFBAP captures four types of financial benefits:

- Revenue: The value of an increase in sales generated by the project
- Cost: The absolute value of any reduction in costs generated by the project
- Wages: The value of any increase in wages generated by the project
- Profit: The value of any increase in sales, exclusive of costs, generated by the project²

In addition, projects report baseline³ revenue values in order to calculate IFBAP's percentual change to beneficiary financial benefits in addition to the gross change in financial benefits.

Projects have the option of reporting against all or a subset of the IFBAP types, according to the expected impacts of the project. We do not disaggregate IFBAP by sex; many businesses have mixed ownership; we may not know sex of employee and/or be able to track wage to employee; and the farm household decision-making around finances is complex.

The approach to capturing IFBAP is akin to the project's approach to evaluating impact, and to the extent that a project's evaluation plan meets Corporate Measurement's principles, reporting of IFBAP will be the same as reporting project impact. Refer to [Appendix 1](#) for more details on fulfilling the reporting principles.

Reporting Currency and Currency Conversion

Projects are encouraged to report IFBAP in their local currency. However, if the project reports to their donor in USD, they may report to corporate measurement using the same, regardless of their currency conversion method.

When project's report in local currency, we convert IFBAP results to USD using a method called [constant currency](#). Constant currency uses the current year's exchange rate to convert both the current year values and baseline values to adjust for inflation and changes in foreign exchange rates over the life of the project.

Gap Year Data

¹ While incremental and attributable are one of our measurement principles, they are so relevant to calculating financial benefits that we explicitly reference them when discussing IFBAP.

² Profit IFBAP will be piloted in 2016 to determine feasibility and standards around its full implementation.

³ Baseline reporting will be piloted in 2016 to determine feasibility and standards around its full implementation.

Sometimes project will find annual data collection on impact data is not cost-efficient, perhaps because no measurable change over prior year data is expected. When a project has not measured incremental revenues in a given reporting year, previous year data will be used as a proxy for the gap in data collection. Note that the project must have at least one year of annual data entered in order to use prior year data as proxy. It is best practice for projects to only skip one year of measurement, but CM defers to project teams to determine the best evaluation methodology for them.

Negative IFBAP

What if revenues/wages decline? We sometimes see business revenue decline for one or a combination of the following reasons:

- Exogenous factors not satisfactorily controlled for via a counterfactual
- Investment for future growth stalls certain revenue streams
- Our advice was not well suited to the business

In the case of the first two, the decline is not necessarily a negative reflection of the intervention: exogenous factors not attributed to our intervention or a short-term decline preceding longer term growth. In these cases, there is some discomfort with subtracting declining IFBAP from increasing IFBAP because it erodes the impact we did achieve. However, the third case exemplifies when we did destroy value and in these cases we wish to account for that failure in our overall assessment of impact.

We have not yet determined the best path forward for incorporating negative IFBAP. The current guidance is to segregate negative IFBAP results and include a rationale for what occurred. It will not be counted in annual aggregate totals, but will be the subject of an annual learning review.

To date, the only negative IFBAP we have encountered is among businesses whose sales have declined during the intervention and for which we have an insufficient counterfactual. Overwhelmingly, these cases occur in markets in turmoil and we might conclude that exogenous factors had more influence on the negative IFBAP than our intervention.

Beneficiaries

Corporate Measurement captures the number of individuals and businesses for which a project has increased financial benefits in a given reporting year. We classify beneficiaries according to the size of the economic enterprise they work in. There are five types of beneficiaries:

- **Individuals and Microenterprises** - A person or business that employs entirely household or up to 3 FTE (assumed seasonal labor), less than \$100,000 in annual revenues
- **Small business** - A business that employs more than 3 FTE; OR has annual revenue greater than \$100,000 and less than \$3 million
- **Medium business** - A business that has annual revenue greater than \$3 million but less than \$15 million

- **Large business** - A business that has annual revenue greater than \$15 million
- **Full Time Equivalent (FTE) employee** - someone that works a total number of hours in one year to be considered a full time employee based on the legal definition of “full time” in the country of the project. An “employee” can also be the sum of all hours of part time employees that when aggregated, equate to the number of hours worked per year of a full time employee.

We disaggregate beneficiaries by sex.

Among individuals and microenterprises, we count each man and woman who was a beneficiary in our project, regardless of whether they belong to the same household. We do this for two reasons. First, to underscore the importance of equally engaging men and women in a household in our interventions. When men and women are engaged equally, we foster greater communication about resource use and support women’s economic empowerment. Second, there is evidence that men and women in the same household often maintain separate income streams, such that they effectively manage two separate microenterprises. To the extent that we have evidence of our support improving both income streams, we should disaggregate our impact and count that of the man’s and the woman’s (or women’s) separately.

When beneficiaries are a small, medium or large business, we count our impact at the business level but disaggregate by sex based on the business’s ownership. We use the percentage ownership of each business by sex, such that we might report 0.8 male-led businesses and 0.2 female-led businesses for a given business with five owners of whom one is a woman. If we’re reporting groups of businesses benefitted (rather than on a per-business basis) we take the average male and female ownership and multiply it by the number of businesses represented in that group.

Sometimes we don’t know the breakdown by sex of our beneficiaries. In these cases, we estimate the breakdown based on project records (such as attendance sheets) or market information (such as female participation in the market’s labor force). In the unusual circumstance that no estimates are possible, projects may report the beneficiaries as sex unknown.

A beneficiary is determined based on evidence of impact, not of participation.

We do not count all project *participants* in our calculation of Beneficiaries. For example, not all farmers or businesses who participated in a TechnoServe project necessarily saw a resulting financial benefit - perhaps their participation was too limited or they did not adopt the recommended practices that would have led to increased revenues.

A beneficiary often works directly with a project and as a result obtains an increase in financial benefits, but this is not the only mechanism for generating beneficiaries. A project working in a more facilitative style in an industry or marketplace may work with fewer actors directly, but have knock-on impacts among a much larger set of beneficiaries. Projects may count beneficiaries who have indirectly received an increase in financial benefits as a result of our work if we are able to gather evidence that those benefits are attributable to us.

The examples below illustrate cases and the evidence for counting beneficiaries. This is not an exhaustive list and Corporate Measurement encourages projects to report all beneficiaries for which there is evidence of impact.

When looking at agriculture as the economic generating activity, the following could be included as beneficiaries:

- Individuals for whom we have evidence of:
 - Increased yields/sales;
 - Increased price; and/or
 - Decreased cost of production attributable to the project.
 - Adoption of best practices that, combined with evidence of our successful resolution of other market constraints, permits a farmer to obtain higher yields/sales, increased price or reduced costs.
- Individual beneficiaries could also be determined via an associated business (Farmer Business Group or Processing Business) such that beneficiaries are:
 - New farmer clients selling to the business as the result of project-led outreach;
 - All existing farmer clients receiving a project-implemented price premium;
 - All farmers who newly access inputs or services that will increase yield, increase price or reduce cost of production

When looking at businesses in general, regardless of industry, the following could be included as beneficiaries:

- Businesses that have increased annual revenues over the baseline, when revenues are converted to USD⁴
- Businesses that have seen a reduction in revenues compared to baseline in a context of a local economic downturn. In these cases, only businesses with a percent revenue decline that is less than the percent decline in the local economy may be counted as beneficiaries.
- Incremental full time employees and equivalents (FTEs). That is, all FTEs over and above the number of FTEs at baseline. Part-time employees are converted to their appropriate fraction of a FTE and included in the incremental calculation.

Private Sector Investment

Private sector investment is a measure of debt and equity investment that supports businesses success and onward growth. The following standards apply:

⁴ It is sometimes the case that local currency fluctuations create dramatic shifts in beneficiaries' revenue streams which, compared to baseline, could indicate a reduction in revenue. We perform the comparison of incremental revenue in USD to avoid conflating currency fluctuations with impact.

- Corporate measurement only captures debt or equity financing that TNS played a role in securing.
- To be considered debt financing there must be pre-agreed conditions of repayment.
- We disaggregate private sector investment by sex in the number of recipients and amount awarded.

Broadly speaking, we include any private sector investment that must be repaid and for which there is a legally binding agreement. Included in private sector investment are:

Source	Yes	No
Project funds		★
Revolving loans	<ul style="list-style-type: none"> ★ Yes for the year facility was raised and approved. ★ Yes for out years if re-approval is required in subsequent years, and TNS is involved in re-approval process. 	★ No for out years if continuation of facility is automatic.
Friends & Family	★ Yes, if there is formal agreement / contract with repayment requirements.	★ No, if there is not formal agreement / contract with repayment requirements.
Savings		★
Guarantees	★ Underlying finance secured with guarantee is in.	★
Membership shares		★
Business' own investment		★
"Investment enabled"		★ Plan to address in 2016

We disaggregate private sector investment by sex

If to individual, the sex of the individual

If to a business, the sex of the owners or shareholders

Value can be proportioned to shareholders by sex.

Return on TechnoServe Investment (ROTI)

There are three main inputs that are required to calculate ROTI after a project has ended:

- Cumulative life of project IFBAP;

- Post intervention projections of IFBAP for the years after each measurement group has ended;
- Total project spend including indirect costs.

ROTI is calculated by dividing the cumulative life of project IFBAP and total post intervention IFBAP projections by the total project spend, including all indirect costs.

ROTI

$$= \frac{(Cumulative\ life\ of\ project\ IFBAP + Estimated\ Post\ Intervention\ IFBAP\ for\ 3\ years)}{Total\ project\ spend\ including\ indirect\ costs}$$

Life of Project IFBAP

Life of project IFBAP refers to the cumulative annual IFBAP reported during the project’s active life. Financial benefits from each prior reporting year are totalled. Life of project IFBAP does not include the projections of IFBAP after our work with a particular measurement group has ended. Typically, prior year data is not restated, but if significant measurement errors occurred in prior year’s reporting, Life of Project IFBAP will sum the adjusted total, and not the reported total.

Post-Intervention IFBAP Projections

Post-intervention IFBAP is a forecast of the incremental, attributable earnings we estimate our beneficiaries will continue to perceive after we complete our work with them. Unless a case is made otherwise, the standard length to project post-intervention IFBAP estimates is for three years after our work with the measurement group has ended.

There are a variety of ways that IFBAP can be estimated for the post-intervention period.

Industry / Sector	IFBAP Projections for 3 Years Post Intervention
Agriculture	<p>Post-project IFBAP may account for expected increases in productivity and/or price differential as long as these assumptions are well supported.</p> <p>Post intervention IFBAP projections will vary greatly depending on the crop, projections of price and demand, the level of maturity of the sector, and other factors. Each project will need to create its own model of changes in yield and price and provide supporting rationale. The review will follow these guidelines:</p> <ul style="list-style-type: none"> • Projected increases in yield may not exceed average yields for the region. Simple, conservative estimates of changes in yield are more credible, but projects working with tree crops may estimate larger changes in out years to reflect larger yield increases linked to planting or stumping. • Projected increases in price must reflect sector price trends. • Projections should account for farmers who are likely to

	<p>abandon new practices.</p> <ul style="list-style-type: none"> Projects may only account for spillover adoption in the broader community if it was measured during life of project.
Other industries	The final year's IFBAP (revenues/absolute value of cost of production) are extended for the three years at the same level as the last year of the intervention.
Incremental FTEs	The final year's IFBAP (wages) are extended for the three years at the same level as the last year of the intervention.

Total Project Spend

The project spend includes the total amount of money spent from all fund codes associated with a project, plus all related indirect costs. ROTI should not be calculated until all costs associated with a project have ended and the project's fund code(s) has/have been closed.

Data Collection Process

Project Inclusion in Corporate Measurement

Not all projects at TechnoServe will be included in the corporate measurement data collection process. Examples include implementation type projects and pilot studies/assessments (non-implementation projects). In general, the following decision rules apply by default when considering whether or not a new project will be included in the corporate measurement data collection process:

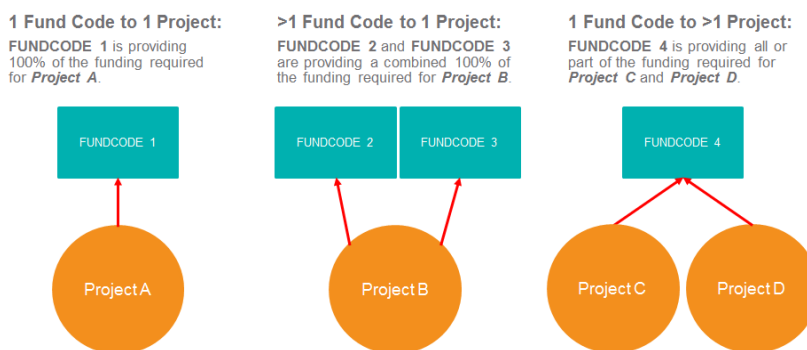
Project Type	Incl. / Excl. from CM Data Collection by Default	Exceptions
Pilots, studies, assessments, implementation projects without impact in their design	Excluded	None
Implementation projects lasting less than 18 months in length	Excluded	<ul style="list-style-type: none"> The project is expected to obtain follow-on funding which will allow it to surpass the 18 month timeframe threshold. All projects that receive follow-on funding will be incorporated into corporate measurement during the same reporting year in which the follow-on funding was obtained. The project would like to be included in corporate measurement, providing that they are able to meet the standards of corporate measurement and doing so does not place an undue burden on the corporate measurement team to collect the data each year.

Implementation projects lasting 18 months in length or more	Included	The project's goal, or intended impact, is not aligned with TechnoServe's global theory of change. That is, the project is not seeking financial benefit as its measure of impact.
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A project normally included in the CM process may not be included in the annual results in a given reporting year if the reviewers (project leaders, monitoring and evaluation leads, Country Directors, Regional VPs/Regional Directors, Chief Operating Officer, or the Department of Program Services) lack confidence in data quality. In these cases, results from the project will not be included for the reporting year, but will be reconsidered in future reporting years if the project has been able to improve its data quality.

Consideration of Fund Codes

A "project" for the purpose of Corporate Measurement may comprise of a single fund code, multiple fund codes, or portions of multiple fund codes. The decision as to whether or not a new fund code represents a new project or a follow-on project is based on whether or not the outcome-level narratives and outputs are broadly similar. If the new fund code is considered to be a follow-on project, the Completed Project Scorecard and ROTI calculation would happen only once the project in its entirety is completed. The relationship between fund codes and project is illustrated in the graphic below.



Corporate Measurement Reporting Year

For the purposes of corporate measurement, a reporting year is the 12 months prior the corporate measurement reporting date as defined by the project. Typically, the reporting date for corporate measurement coincides with the project's donor reporting cycle. If a project was implemented for a partial year within the reporting year, headline indicators will not be extrapolated to approximate impact across the full reporting year but will include only the IFBAP derived during the portion of the year the project was live and project participants were actively engaged in the project's activities.

Additionally, an option will be available for teams to indicate that they will not be reporting new values for a particular measurement group for the current year. If option is selected (and approved), previous year data will be used as a proxy for the gap in data collection.

Measurement Groups

Does the project have more than one sector, country, cohort of beneficiaries or beneficiary type?

You can establish measurement groups for the following reasons:

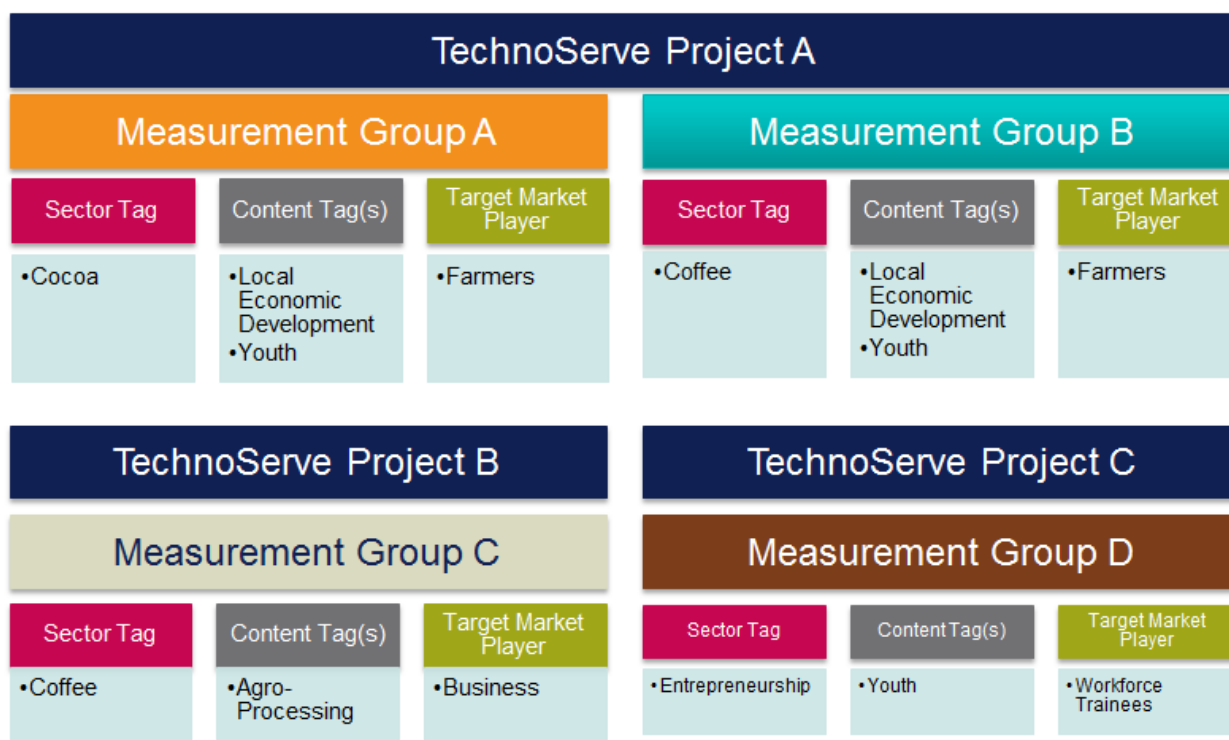
More than one project beneficiary type – so long as there is no overlapping IFBAP.

Different start dates and end dates of beneficiaries (cohorts).

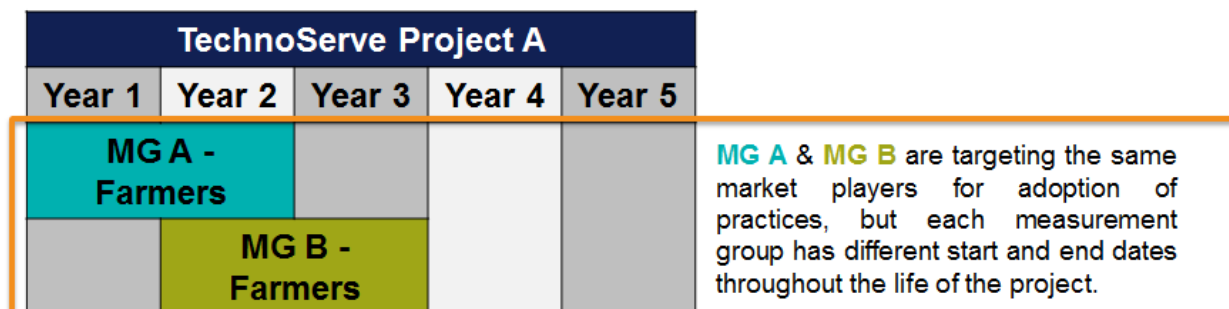
Different sectors. For example, if you are working with a farmer in coffee and maize, you could have a measurement group for coffee and one for maize.

Different geographic locations (different countries within a regional project).

Measurement Groups: Situated in System



Measurement Groups: Illustrative Examples



TechnoServe Project B			
Year 1	Year 2	Year 3	Year 4
MG A – Guatemala Farmers [coffee]			
MG B – Guatemala Farmers [cocoa]			
MG C – Nicaragua Farmers [cocoa]			
<p>MG B & MG C are targeting the same market players for adoption of practices with the same start/end dates and commodity, but each measurement group is located in a different geographic area (country).</p>			
<p>MG A & MG B are targeting the same market players for adoption of practices with the same start/end dates and geographic location, but each measurement group works with different commodities/sectors.</p>			

Data Collection and Approval

Key Roles and Responsibilities

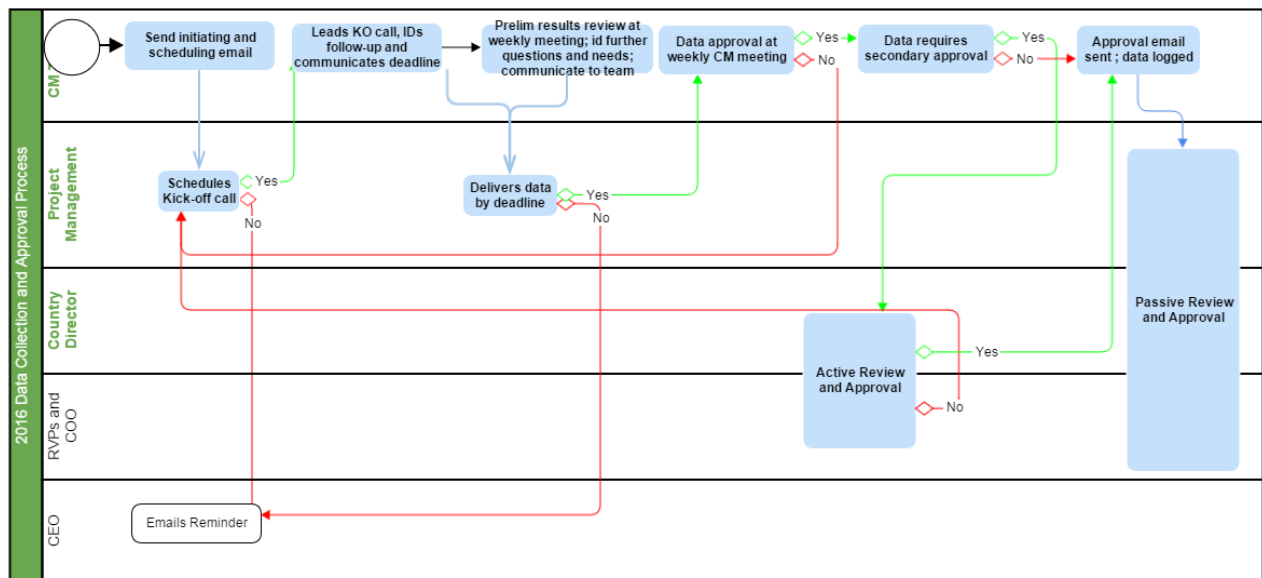
- CM team - Lead process. Primary data approval
- Project team
 - M&E manager (PM if no M&E manager) - primary point of contact for data collection; responsible for delivering data requests and engaging with CM team on data calls.
 - Project manager - secondary point of contact for data collection. All project managers, regardless of level of interaction, will receive an email with final impact numbers and summary of how the numbers were calculated. Passive approval - if no response, we assume it's approved.
- Country director - Tertiary point of contact for data collection. All country directors, regardless of level of interaction, will receive an email with final impact numbers and summary of how the numbers were calculated. Passive approval - if no response, we assume it's approved.
- Regional directors and COO - Secondary data approval. Requested to approve numbers approved by CM team in specific cases (see below). Active approval required, to be performed through Tantalus. Will have passive access to all approved project data and will receive a periodic email confirming which projects are approved and which outstanding.

- Technical experts - Tertiary data approval. Requested to approve numbers on an ad hoc basis. Active approval over email (through Tantalus?) required.
- CEO - Notified when a project team is unresponsive at key deadlines

Approval Process

- Impact figures represent >\$5M (4% of 2015 total IFBAP) or 10,000 beneficiaries (3% of 2015 beneficiaries)
- Calculation method is significantly different from prior year (hence, all new projects)
- CM team requests secondary approval
- Regional director or COO requests secondary approval

Share suggested engagement paths for COO, RVPs, and CD (at same time as PMs or at same time as RVPs).



Sharing Results and Data Dissemination

- By end of Q1 Impact Report with summary data for use with both external and internal audiences
- Data available on my.tns.org broken down by region, country, project and sector
- Other internal dissemination TBD
- Data available for use in sales, with the understanding that standards may vary

Results Aggregation and Reporting

This section specifies how headline indicators are aggregated within a project for annual and life of project reporting, and across projects for reporting at the country, divisional, and portfolio level.

Reporting Annual and Life of Project IFBAP Results

Annual Reporting

Each year, corporate measurement will calculate total IFBAP from revenue increase, cost reduction, and wages for the project by aggregating the results from all measurement groups associated with a project. Note that IFBAP from profit will not be aggregated with IFBAP from revenue increase, cost reduction or wages, as IFBAP from profit combines the other three.

Life of Project Reporting

At the end of the project, the cumulative life of project IFBAP will be calculated and reported using the total IFBAP from revenue increase, cost reduction, and wages in each year that the project is active from all measurement groups.

Illustrative Example

The table below illustrates the concept of annual and cumulative life of project reporting of IFBAP as well as the post intervention period estimation of IFBAP after a project's intervention with a measurement group has ended. Note that the table does not distinguish between IFBAP from revenue, cost, and wages, but instead illustrates a roll-up of the as each is treated the same by the CM database for annual and cumulative life of project reporting purposes.

Measurement Group	Y1	Y2	Y3	Y4	+1 Year	+2 Year	+3 Year	LoP* Cumulative IFBAP
MG1	\$1,900	\$2,500	\$625	\$625	\$625			\$4,400
MG2		\$2,000	\$1,700	\$1,530	\$2,040	\$2,550		\$3,700
MG3			\$1,300	\$1,900	\$1,425	\$1,425	\$1,425	\$3,200
Annual Total	\$1,900	\$4,500	\$3,000	\$1,900	\$0**	\$0**	\$0**	\$11,300

*LoP = Life of Project

**See summary table below for details.



Active year for measurement group, total IFBAP reported in annual results.

Post intervention period year for measurement group; estimated post intervention period IFBAP is automatically calculated by the system, as defined above, but not reported in annual results at this time.

Summary of Results from Illustrative Example

Project Year	IFBAP Reported	Details
Y1	\$1,900	Only measurement group, MG1, reporting IFBAP in Y1.
Y2	\$4,500	Measurement groups, MG1 and MG2, reporting IFBAP in Y2.
Y3	\$3,000	Measurement groups, MG2 and MG3, reporting IFBAP in Y3. MG1 is in the first year after the project's intervention with the measurement group, before the project has ended. The \$625 estimated IFBAP will not be counted in total IFBAP in the Y3 annual results.
Y4	\$1,900	Measurement group, MG3, reporting IFBAP in Y4. MG1 is in the second year after the project's intervention with the measurement group has ended, still before the project has ended. MG2 is also in the post intervention period (it's first year). The \$625 estimated IFBAP from MG1 and \$1,530 estimated IFBAP from MG2 will not be counted in total IFBAP in the Y4 annual results.
+1 Year	\$0	All measurement groups are now in the post intervention period, as the project ended after Y4. No IFBAP will be estimated for these years will be counted in the cumulative life of project IFBAP.
+2 Year	\$0	
+3 Year	\$0	
Cumulative LoP IFBAP	\$11,300	Cumulative life of project IFBAP, reported at the end of the project, is the sum of the all years of IFBAP for each measurement group while the measurement group was active.

Reporting Annual and Life of Project Beneficiary Results

Annual Reporting

Each year, corporate measurement will report on the total Direct Beneficiaries for the project by aggregating the Direct Beneficiaries results from all measurement groups associated to a project. Refer to the table below in the *Illustrative Example of Direct Beneficiaries* section for more details on how Direct Beneficiaries will be reported annually each year.

Life of Project Reporting

By default at the end of the project, life of project Direct Beneficiaries will be calculated and reported using the highest Direct Beneficiaries result for each measurement group during an active year for that measurement group then summed at the project level. The year with the highest number of Direct Beneficiaries will determine which year the system will use when calculating the total life of project Direct Beneficiaries per measurement group.

Refer to the table below in the *Illustrative Example of Direct Beneficiaries* section for more details on how life of project Direct Beneficiaries will be reported.

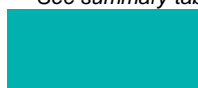
Illustrative Example of Direct Beneficiaries

The following table illustrates how Direct Beneficiaries are reported each year as well as the post intervention period estimation of beneficiaries after a project's intervention with a measurement group has ended.

MG	Y1	Y2	Y3	Y4	LoP* Direct Beneficiaries
MG1	1,900	2,500			2,500
MG2		2,000	1,700		2,000
MG3			1,300	1,900	1,900
Annual Total	1,900	4,500	3,000	1,900	7,700

*LoP = Life of Project

**See summary table below for details.



Active year for measurement group, Direct Beneficiaries reported in annual results.

Summary of Results from Illustrative Example

Project Year	Direct Beneficiaries Reported	Details
Y1	1,900	Only measurement group, MG1, reporting Direct Beneficiaries in Y1.
Y2	4,500	Measurement groups, MG1 and MG2, reporting Direct Beneficiaries in Y2.
Y3	3,000	Measurement groups, MG2 and MG3, reporting Direct Beneficiaries in Y3. MG1 is now considered a "closed" measurement group.
Y4	1,900	Only measurement group MG3 is reporting Direct Beneficiaries in Y4, MG1 and MG2 are now considered "closed" measurement groups.
LoP Direct Beneficiaries	7,700	Life of project Direct Beneficiaries, reported at the end of the project, is the sum of the highest Direct Beneficiaries reported for each measurement group associated to the project (during an active year for the measurement group).

Illustrative Example of Private Sector Investment

The following table illustrates how private sector investment is reported each year along with the reported results of recipients of private sector investment.

MG		Y1	Y2	Y3	Y4	*LoP Total
MG1	Amount	\$10,000	\$7,500			\$17,500
	Recipients	700	775			775
MG2	Amount		\$8,000	\$8,500		\$16,500
	Recipients		1,200	1,100		1,200
MG3	Amount			\$5,000	\$7,000	\$12,000
	Recipients			200	450	450
Annual Amount Total		\$10,000	\$15,500	\$13,500	\$7,000	\$46,000
Annual Recipients Total		700	1,975	1,300	450	2,425

*LoP = Life of Project



Inactive year for the measurement group, annual results reported for adoption of practices, amount of finance mobilized, and recipients of finance mobilized.

Active year and reported number of participants adopting practices (all types).

Summary of Results from Illustrative Example

Project Year	Component	Results Reported	Details
Y1	Amount	\$10,000	Only measurement group, MG1, reporting amount of private sector investment, and recipients in Y1.
	Recipients	700	
Y2	Amount	\$15,000	Measurement groups, MG1 and MG2, reporting amount of private sector investment and recipients in Y2.
	Recipients	1,975	
Y3	Amount	\$13,500	Measurement groups, MG2 and MG3, reporting amount of private sector investment and recipients in Y3. Measurement group MG1 has ended.
	Recipients	1,300	

Y4	Amount	\$7,000	Measurement group, MG3, reporting amount of private sector investment and recipients in Y4. Measurement groups MG1 and MG2 have ended.
	Recipients	450	
LoP Results	Amount	\$46,000	The amount of private sector investment reported in each active year of a measurement group is totaled and reported cumulatively at the end of the project.
	Recipients	2,425	By default, the maximum value reported in each active year of a measurement group is used as the life of project results for recipients of financing. Once the maximum value for each measurement group is determined, the results are aggregated at the project level.

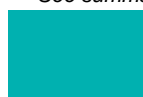
Illustrative Example of ROTI Calculation

The following table illustrates how ROTI is calculated for a project at the end of the project's life. Note that the project has three measurement groups, each of which start and end at different times throughout the life of the project.

MG	Y1	Y2	Y3	Y4	+1 Year	+2 Year	+3 Year	LoP* IFBAP	Projected IFBAP
MG1	\$1,900	\$2,500	\$625	\$625	\$625			\$4,400	\$1,875
MG2		\$2,000	\$1,700	\$1,530	\$2,040	\$2,550		\$3,700	\$6,120
MG3			\$1,300	\$1,900	\$1,425	\$1,425	\$1,425	\$3,200	\$4,275
Total	\$1,900	\$4,500	\$3,000	\$1,900	\$0**	\$0**	\$0**	\$11,300	\$12,270

*LoP = Life of Project

**See summary table below for details.



Active year for measurement group, total IFBAP reported in annual results.



Post intervention period year for measurement group; estimated post intervention period IFBAP is automatically calculated by the system, as defined above, but not reported in annual results at this time. Used in the numerator of the ROTI calculation and added to the cumulative life of project IFBAP.

When a project has measurement groups that start and end at different times in the project such that not all participants engage with the project throughout the entire life of project, we count the out year projection from when the measurement group is no longer being actively engaged by the project. We refer to this as the post-intervention period.

Summary of Results from Illustrative Example

Project Year	IFBAP Reported	Details
Y1	\$1,900	Only measurement group, MG1, reporting annual IFBAP in Y1.
Y2	\$4,500	Measurement groups, MG1 and MG2, reporting annual IFBAP in Y2.
Y3	\$3,000	Measurement groups, MG2 and MG3, reporting IFBAP in Y3. MG1 is in the first year after the project's intervention with the measurement group, before the project has ended. The \$625 estimated IFBAP will not be counted in total IFBAP in the Y3 annual results, but will be counted in the total post-intervention IFBAP estimate.
Y4	\$1,900	Measurement group, MG3, reporting IFBAP in Y4. MG1 is in the second year after the project's intervention with the measurement group has ended, still before the project has ended. MG2 is also in the post intervention period (it's first year). The \$625 estimated IFBAP from MG1 and \$1,530 estimated IFBAP from MG2 will not be counted in total IFBAP in the Y4 annual results, but will be counted in the total post-intervention IFBAP estimate.
+1 Year	\$0	Measurement group MG1 is in it's final year of the three year post-intervention period. The \$625 estimated IFBAP will be counted in the total post-intervention IFBAP estimate. MG2 and MG3 are in the second and first year of their post-intervention period, respectively. The \$2,040 and \$1,425 will be included in the total post-intervention IFBAP estimate.
+2 Year	\$0	Measurement groups MG2 and MG3 are in the third and second year of their post-intervention period, respectively. The \$2,550 and \$1,425 will be included in the total post-intervention IFBAP estimate.
+3 Year	\$0	Only measurement group MG3 has any estimated post-intervention IFBAP for the +3 year, which will be included in the total post-intervention IFBAP estimate. The +3 year post-intervention period for MG1 and MG2 have ended by the +3 year and will not report any additional estimated post-intervention IFBAP.
Cumulative LoP IFBAP	\$11,300	Cumulative life of project IFBAP, reported at the end of the project, is the sum of the all years of IFBAP for each measurement group while the measurement group was active.
Post Intervention Period IFBAP	\$12,270	The post intervention period estimated IFBAP calculated by the CM database based on the inputs for number of years to extend each measurement group and the discount percentage to apply each year is summed, totaling \$12,270.

A total project cost of \$20,000 would result in a ROTI for the illustrative example above of 1.18.

$$\frac{\$11,300 + \$12,270}{\$20,000} = 1.18$$

Appendix 1: Counterfactual Methods

Work in Progress - August 2016

A counterfactual is essential for calculating our impact. For example, if we measure an increase in income of X among our beneficiaries, you might wonder: How much of this was because the economy was growing? Or because of price volatility? Or because of better weather compared to the previous season? A counterfactual is an estimate what would have happened if TechnoServe had never reached its beneficiaries. It allows us to see how much of the impact is not due to TechnoServe, and isolate the part that is. Very often it is in the form of a control group, but several other methods are possible. Below, in roughly hierarchical order, are the list of counterfactual methods that TechnoServe relies on to calculate our impact.

Randomized controlled trial (RCT)

An RCT, or experimental design, is a study in which the beneficiaries and the control group are selected entirely randomly from the same pool at the beginning of an intervention. Impact is calculated by looking at the difference between the treatment and control group in their pre-intervention numbers and a post-intervention numbers. Randomization can happen at the village-level or the household-level. While RCTs are considered the gold-standard in academic research they are rarely used in conjunction with TechnoServe interventions because they are resource intensive and tend to usually infeasible given the nature of our projects.

Quasi-experimental design

Just as in experiments, quasi-experiments also examine the difference in pre and post intervention numbers between a treatment and counterfactual, however, the main ingredient of an experiment is missing – randomization. Instead, of randomizing, quasi-experiments use a number of other techniques to identify a counterfactual group that is a fair comparison for the treatment group. While quasi-experiments do not provide the same irrefutable certainty of experiments, if the counterfactual is carefully chosen careful, they can demonstrate causality with sufficient certain given the context of our work.

The next 3 counterfactual methods are the quasi-experimental that form the foundation of the TNS evaluation system.

Matched comparison control group

This involves identifying a control group through selection criteria. For example, if TechnoServe is delivering a program to farmers in 5 villages. You could match these villages one-for-one with nearby comparison villages of similar size, income, geography, etc. and randomly select a control group from within these villages. The name ‘matched comparison’ can lead to some confusion as it is sometimes referred to as ‘difference in difference’ and can include a variety of

sub-methods of different names as well. We use 'matched comparison' to encompass anytime a the program team collects baseline and endline data from any control group that was identified through non-strictly randomized means.

Propensity score matching

Propensity score matching (PSM) involves creating a control group by matching program participants one-for-one with non-participants who have similar characteristics. Using this method requires having a large data set for non-participants that can be used for matching. The method can be particularly useful in situations where conducting a proper baseline for a control group was impossible and creating an ex-post counterfactual is necessary.

Time-series (trend line comparison)

This is an option when a project is working with individuals or businesses that have records of their finances going back at least two years before the intervention. We can use this historical data to construct a trend line that serves as the counterfactual to estimate what their income would be at endline in the absence of TechnoServe's program. The difference between this trend line and their actual measured income is our estimate of TechnoServe's impact. This method is particularly effective when the intervention is "rolled out" and not all of the participants start receiving the intervention at the same time.

Control group using proxy data

In the event that the project is in no way able to capture a counterfactual using any of the above methods, a team can use **secondary data to approximate the counterfactual**. Options already approved include:

- Yield data drawn from an industry organization (such as the International Coffee Organization, World Cocoa Foundation, etc.), a government body such as the Ministry of Agriculture, USDA, or [FAOSTAT](#). Preference is given to the source with the most updated information, but if information for the current reporting year is not available, prior years will be used as a proxy.
- Price information drawn from government sources if the government sets the price from a crop, from industry organizations, or from TechnoServe's own knowledge of common market prices if no formal third party data is available.
- In our work with businesses, we may assume that 50% of incremental revenues are attributable to our work. This assumption is based on literature review by the Aspen Network of Development Entrepreneurs that shows that on average, technical assistance leads to 50% of the increase in the growth of a business.

For **start-up businesses**, or businesses in a **start-up sector** when the birth of the sector was due to TechnoServe's intervention, take incremental business revenue and multiply by a **90% attribution rate**.

Causal Inference

Another option when a traditional counterfactual is not possible is a causal model. This is usually appropriate when the uniqueness or complexity of the intervention or beneficiaries prevents a fair comparison to any type of available control group. A causal model describes the causal mechanisms of a system and rigorously pinpoints and measures the pieces that were directly affected by the TechnoServe intervention. This approach uses available data from the marketplace, survey data collected by the project, census data, and other secondary sources.

For example, in the large businesses reached in the SAFE project, we linked revenue to intervention type to tease out changes in revenue or cost of production that are directly linked to TechnoServe's intervention.

Appendix 2: Evidence of Impact

(DRAFT)

This growing list of documentation around our impact and the impact of interventions similar to our is intended for reference both in terms of developing evaluation techniques for our own projects and to identify potential proxies when estimating our impact. This is a growing list and will be updated frequently.

In agriculture

- [Duflo, Kremer, Robinson](#) - shows exogenous actors (like TNS) can provide little nudges to influence fertilizer decisions to adoption something that lead to higher yields.
- Davis et al. (2012)
- Godtland (2004) - Effectively links training to learning and learning to increased yields.
- Mendola (2007) - Demonstrates that encouraging farmers to adopt something can improve income
- Owens, Hoddinot (2003) - Links extension services to increased income. Methods are a little loose.

In entrepreneurship

COMPILED RESEARCH

Workforce Development: For programs related to Workforce Development, there seems to be clear evidence of positive impacts of business skill training on business and borrowing income, especially for programs focused on women (more specifically in India). The impact, however, also seems to be subject to the grip of conservative social norms: increasing knowledge of business practices seems to be more effective for women who face more restrictions. Training with peers also seems to yield higher business activity and household income for women confronted with social norms that restrict female mobility. Youth entrepreneurship training seems to be effective in Latin America. There are positive effects on key intermediate employment outcomes: savings ability, employment confidence and

personal finance, as well as formality of employment, particularly for men. In conflict zones of Uganda, there is evidence of a positive impact of grants for vocational training and business start-ups on business assets, working hours, earnings and formalization of businesses, but not on social cohesion, antisocial behavior, or protest.

Small and Growing Businesses: The evidence seems to be more mixed for programs related to Small and Growing Businesses. Some Business Plan Competitions in Nigeria lead to greater firm entry, higher survival of existing businesses, higher profits and sales, and higher employment. Similarly, management consulting interventions in Mexico have increased sales and profits due to previous open advertisement of the program to find interested firms. In Ghana, however, similar interventions have been unsuccessful because businesses were instead directly approached and offered free consulting services. Yet in a study of microenterprises in Peru, the impact was higher on microentrepreneurs who expressed lower interest in business training. In this context, external validity seems to be a particularly salient problem for SGB RCTs. For some programs in Latin America (in Dominican Republic, Chile and Brazil), business training seems to have an overall positive impact on employment generation. There is also evidence that simplifying training programs might improve their effectiveness for less sophisticated individuals (Dominica Republic). More generally, a meta-analysis for programs mostly implemented in Latin America shows that matching grants, technical assistance and tax simplification programs improve firms' performance and job creation; with technical assistance also improving labor productivity. In contrast, in developed countries like the US and France, there seems to be little evidence of positive effects from subsidizing entrepreneurship.

I. RCTs

A. Workforce Development

1. Botha, M., Nieman, G. & van Vuuren, J. (2006), "Enhancing female entrepreneurship by enabling access to skills", The International Entrepreneurship Management Journal 2: 479. doi:10.1007/s11365-006-0011-2

Link to source: <http://link.springer.com/article/10.1007/s11365-006-0011-2>

Abstract

Literature reveals the need for entrepreneurship training programmes that focus on the skills required by female entrepreneurs. The purpose of this paper is to introduce the Women Entrepreneurship Programme (WEP) as an initiative to provide entrepreneurial and business skills to female entrepreneurs. An experimental group of 116 women attended this training intervention whereas 64 women formed the control group who did not attend the WEP. The findings highlight that through the WEP the experimental group gained new skills and knowledge relevant to running a business; increased their confidence in their entrepreneurial abilities; and used these skills to start new ventures.

2. Field, Jayachandran & Pande (2010), “Do Traditional Institutions Constrain Female Entrepreneurship? A Field Experiment on Business Training in India”, J-Pal.

Link: <https://drive.google.com/drive/folders/0B3jXhZVKIoJbYlgxenhLYm4wRmc>

Summary

This paper explores how traditional religious and caste institutions in India that impose restrictions on women’s behavior influence their business activity. Our analysis makes use of a field experiment in which a randomly selected sample of poor self-employed women were trained in basic financial literacy and business skills and encouraged to identify concrete financial goals. The sample is relatively homogenous in terms of socio-economic status (e.g., education). However, differences in religion and caste mean that they face very different traditional restrictions on mobility and social interactions. Muslim women face the most restrictions. Among Hindu women, upper castes (hereafter, UC) face significantly more restrictions than scheduled castes (hereafter, SC), the lowest group in the caste hierarchy. In general, the returns to entrepreneurship should be highest for those least fettered by conservative social norms. However, this need not be the case for an intervention that primarily influences women’s knowledge of business practices and aspirations. If traditional norms about gender roles can be challenged, or if they mainly work to limit women’s exposure to and knowledge of business opportunities, then returns from training may be higher for women from more restrictive social groups. Our results provide some support for both theses: Among Hindu women, training increased borrowing and business income for those facing more restrictions, i.e., UC women. However, Muslim women failed to benefit from the training program. We interpret these patterns as suggestive of a non-monotonic relationship between social restrictions and the ability to benefit from business training.

3. Field, Jayachandran, Pande & Rigol (2015), “Friendship at Work: Can Peer Effects Catalyze Female Entrepreneurship?”

Link: <https://drive.google.com/drive/folders/0B3jXhZVKIoJbYlgxenhLYm4wRmc>

Abstract:

Does lack of peers contribute to the observed gender gap in entrepreneurial success, and is the constraint stronger for women facing more restrictive social norms? A random sample of customers of India’s largest women’s bank was offered two days of business counseling, and a random subsample was invited to attend with a friend. The intervention had a significant immediate impact on participants’ business activity, but only if they were trained in the presence of a friend. Four months later, those trained with a friend were more likely to have taken out business loans, were less likely to be housewives, and reported increased business activity and higher household income. The positive impacts of training with a friend were stronger among women from religious or caste groups with social norms that restrict female mobility.

4. Ibarrarán, Kluge, Ripani & Rosas Shady (2015), “Experimental evidence on the long-term impacts of a youth training program”, IDB Working Paper 657.

Link:

https://publications.iadb.org/bitstream/handle/11319/7367/Experimental_evidence_on_the_long_term_impacts_of_a_youth_training_program.pdf?sequence=1

Abstract:

This paper presents the results of a randomized controlled trial on the long-term impacts of a youth training program. The empirical analysis estimates labor market impacts six years after the training – including long-term labor market trajectories of young people – and, it is one of the first experimental long-term evaluation of a youth training program outside the US. We are able to track a representative sample of more than 3,200 youths at the six-year follow-up. Our empirical findings document significant impacts on the formality of employment, particularly for men, and impacts for both men and women in Santo Domingo, the capital of the Dominican Republic. The long-term analysis shows that these impacts are sustained and growing over time. There are no impacts on average employment, which is consistent with the low unemployment in countries with high informality and no unemployment insurance. Looking at the local labor market context, the analysis suggests that skills training programs work particularly well in more dynamic local contexts, where there is actual demand for the skills provided.

5. Ibararán & Rosas Shady (2009), “Evaluating the impact of job training programmes in Latin America: evidence from IDB funded operations”, *Journal of Development Effectiveness*, Vol. 1 Iss. 2.

Link to source: <http://www.tandfonline.com/doi/pdf/10.1080/19439340902918094?needAccess=true>

Abstract:

Among active labour market programmes, job training is popular in Latin America as an attempt to help the labour market insertion of disadvantaged youth, and also as a way of providing skills to low-income groups to enable them to deal with the challenges of globalisation. This paper summarises the findings from the first rigorous set of evaluations of job training programmes in Latin America that were made in the context of a project undertaken by the Office of Evaluation and Oversight at the Inter-American Development Bank. This research was complemented by two independent impact evaluations of similar training programmes in Chile and Colombia. The paper reports the results of two evaluations with an experimental design (the Dominican Republic and Colombia), one with a natural experiment (Panama), and four non-experimental evaluations (Argentina, Chile, Peru, and Mexico). Overall, in contrast to the evidence for developed countries, the results suggest that employment effects range from modest to meaningful – increasing the employment rate by about 0 to 5 percentage points – although higher and significant for some groups, such as women in Colombia and Panama – with an impact of 6 to 12 percentage points in the employment rate. In most cases there are larger and significant impacts on job quality, measured by getting a formal job, having a contract, and/or receiving health insurance as a benefit.

6. Blattman, Christopher, Nathan Fiala, and Sebastian Martinez. (2014). "Generating Skilled Self-Employment in Developing Countries: Experimental Evidence from Uganda." *The Quarterly Journal of Economics* 129(2): 697-752.

Link: <https://drive.google.com/drive/folders/0B3jXhZVKIoJbYlgxenhLYm4wRmc>

Abstract:

We study a government program in Uganda designed to help the poor and unemployed become self-employed artisans, increase incomes, and thus promote social stability. Young adults in Uganda's conflict-affected north were invited to form groups and submit grant proposals for vocational training and business start-up. Funding was randomly assigned among screened and eligible groups. Treatment groups received unsupervised grants of \$382 per member. Grant recipients invest some in skills training but most in tools and materials. After four years, half practice a skilled trade. Relative to the control group, the program increases business assets by 57%, work hours by 17%, and earnings by 38%. Many also formalize their enterprises and hire labor. We see no effect, however, on social cohesion, antisocial behavior, or protest. Effects are similar by gender but are qualitatively different for women because they begin poorer (meaning the impact is larger relative to their starting point) and because women's work and earnings stagnate without the program but take off with it. The patterns we observe are consistent with credit constraints.

B. Small and Growing Businesses

7. Mckenzie, D. (2015), *"Identifying and Spurring High-Growth Entrepreneurship. Experimental Evidence from a Business Plan Competition"*, Policy Research Working Paper 7391, World Bank Group.

Link: <https://drive.google.com/drive/folders/0B3jXhZVKIoJbYlgxenhLYm4wRmc>

Abstract

Almost all firms in developing countries have fewer than 10 workers, with the modal firm consisting of just the owner. Are there potential high-growth entrepreneurs with the ability to grow their firms beyond this size? And, if so, can public policy help alleviate the constraints that prevent these entrepreneurs from doing so? A large-scale national business plan competition in Nigeria is used to help provide evidence on these two questions. The competition was launched with much fanfare, and attracted almost 24,000 entrants. Random assignment was used to select some of the winners from a pool of semi-finalists, with US\$36 million in randomly allocated grant funding providing each winner with an average of almost US\$50,000. Surveys tracking applicants over three years show that winning the business plan competition leads to greater firm entry, higher survival of existing businesses, higher profits and sales, and higher employment, including increases of over 20 percentage points in the likelihood of a firm having 10 or more workers. These effects appear to occur largely through the grants enabling firms to purchase more capital and hire more labor.

8. Duflo, A., & Karlan, D. (2012), *"Can Management Consulting Help Small Firms Grow?"* Stanford Social Innovation Review.

Link: <https://drive.google.com/drive/folders/0B3jXhZVKIoJbYlgxenhLYm4wRmc>

Abstract: No Abstract

Takeaways: Based on two RTCs, one in Ghana and another in Mexico, the article highlights that the success of the management consulting intervention in Mexico (increased sales and profits), was due to previous open advertisement of the program to find interested firms. In contrast, in the unsuccessful program in Ghana businesses were directly approached and offered free consulting services. Despite this comparison, however, the article warns that in an earlier study on microenterprises in Peru, IPA found that the impact was higher on microentrepreneurs who expressed lower interest in business training, thus raising an issue of external validity of RCTs. The article recommends looking deeper into specific contexts and into the interventions themselves to determine which factors matter.

9. Karlan D., & Valdivia M. (2011), “Teaching Entrepreneurship: Impact of Business Training on Microfinance Clients and Institutions” *Review of Economics and Statistics*, Vol. 93, No. 2 , Pages 510-527 (doi: 10.1162/REST_a_00074). (No Access)

Source Link: http://www.mitpressjournals.org/doi/pdf/10.1162/REST_a_00074

Abstract:

Most academic and development policy discussions about microentrepreneurs focus on credit constraints and assume that subject to those constraints, the entrepreneurs manage their business optimally. Yet the self-employed poor rarely have any formal training in business skills. A growing number of microfinance organizations are attempting to build the human capital of microentrepreneurs in order to improve the livelihood of their clients and help further their mission of poverty alleviation. Using a randomized control trial, we measure the marginal impact of adding business training to a Peruvian group lending program for female microentrepreneurs. Treatment groups received thirty- to sixty-minute entrepreneurship training sessions during their normal weekly or monthly banking meeting over a period of one to two years. Control groups remained as they were before, meeting at the same frequency but solely for making loan and savings payments. We find little or no evidence of changes in key outcomes such as business revenue, profits, or employment. We nevertheless observed business knowledge improvements and increased client retention rates for the microfinance institution.

10. Drexler, Fischer & Schoar (2014), “Keeping it Simple: Financial Literacy and Rules of Thumb”, *American Economic Journal: Applied Economics*, 6(2), 1-31.

Link: <https://drive.google.com/drive/folders/0B3jXhZVKIoJbYlgxenhLYm4wRmc>

Abstract:

Micro-entrepreneurs often lack the financial literacy required to make important financial decisions. We conducted a randomized evaluation with a bank in the Dominican Republic to compare the impact of two distinct programs: standard accounting training versus a simplified, rule-of-thumb training that taught basic financial heuristics. The rule-of-thumb training significantly improved firms’ financial practices, objective reporting quality, and revenues. For micro-entrepreneurs with lower skills or poor initial financial practices, the impact of the rule-of-thumb training was significantly larger than that of the standard accounting training, suggesting that simplifying training programs might improve their effectiveness for less sophisticated individuals.

11. Martínez, Puentes & Ruiz-Tagle (2016), “Micro entrepreneurship support programme in Chile”, *Impact Evaluation Report 40, International Initiative for Impact Evaluation.*

Link: <https://drive.google.com/drive/folders/0B3jXhZVKIoJbYlgxenhLYm4wRmc>

Abstract

Using a randomized controlled trial of a large-scale, publicly run micro entrepreneurship program in Chile, we assess the effectiveness of business training and asset transfers to the poor over a period of 46 months. We find that the program significantly increases employment by 15.3 percentage points in the short run (mostly through self-employment) and 6.8 in the long run (mostly through wage work). This is consistent with the hypothesis that skills taught during the training lessons are useful for wage work, which is supported by the finding that quality of the intervention positively affects wage work, especially in the long run.

12. Martínez, Puentes & Ruiz-Tagle (2013), “Microentrepreneurship Training and Asset Transfers: Short Term Impacts on the Poor”, *Serie de Documentos de Trabajo 380, Universidad de Chile.*

Link: <https://drive.google.com/drive/folders/0B3jXhZVKIoJbYlgxenhLYm4wRmc>

Abstract:

Using a randomized controlled trial of a large-scale publicly run micro-entrepreneurship program in Chile, we assess the effectiveness of business training and asset transfers on individuals’ employment and income. About half of the participants had not yet started their businesses at intervention, allowing us to study the program effects by baseline economic activity. To analyze the shape of the production function, two levels of asset transfers are allocated. We find that the program does significantly increase individuals’ employment and income by 18% and 32% respectively after one year and significantly improves the business practices of its beneficiaries. The program seems more effective for individuals who are unemployed at the beginning of the program, followed by the self-employed at the baseline. The effect on wage earners is positive only for low-income individuals. This is consistent with the presence of fixed costs. The additional transfer of assets has a positive and significant effect on employment and self-employment. However, the additional transfer does not have a statistically significant effect on labor and household income, consistent with rapidly decreasing returns in the production function.

13. Pires, Lodato, Cravo & Vellani (2014), “A Comparative Analysis of IDB Approaches Supporting SMEs: Assessing Results in the Brazilian Manufacturing Sector”

Link: <https://drive.google.com/drive/folders/0B3jXhZVKIoJbYlgxenhLYm4wRmc>

Abstract: No Abstract

Takeaways: In the area of **business consulting**, the study finds a positive impact on employment generation. The estimations suggest that business consulting support alone has a positive impact on employment. The establishments that received business consulting support experienced nearly a 16% increase in their number of workers (3.6 jobs per establishment). The result is statistically significant only at the 5% level and is robust when using alternatively the nearest neighbor matching estimation with 2002 as the baseline.

14. Fairlie, Karlan & Zinman (2015), “Behind the GATE Experiment: Evidence on Effects of and Rationales for Subsidized Entrepreneurship Training”, *American Economic Journal: Economic Policy* 2015, 7(2): 125–161.

Link: <https://drive.google.com/drive/folders/0B3jXhZVKIoJbYlgxenhLYm4wRmc>

Abstract:

Theories of market failures and targeting motivate the promotion of entrepreneurship training programs and generate testable predictions regarding heterogeneous treatment effects from such programs. Using a large randomized evaluation in the United States, we find no strong or lasting effects on those most likely to face credit or human capital constraints, or labor market discrimination. We do find a short-run effect on business ownership for those unemployed at baseline, but this dissipates at longer horizons. Treatment effects on the full sample are also short-term and limited in scope: we do not find effects on business sales, earnings, or employees.

Takeaways: Governments and donors spend billions of dollars subsidizing entrepreneurship training programs around the world. Some common rationales for these programs include that they can improve access to training services and promote employment among groups affected by discrimination, but it has been difficult to test rigorously whether such benefits exist. Using a randomized evaluation, researchers found little evidence supporting these common rationales for subsidizing entrepreneurship training in the United States.

15. Crepon, Duflo, Huillery, Pariente & Seban (2014), “Small Business Training and Loans for Aspiring Entrepreneurs in Disadvantaged Neighborhoods in France (ADIE)”, *Ministère des Sports, de la Jeunesse, de l’Education populaire et de la Vie associative Fonds d’Expérimentation pour la Jeunesse*.

Link: <https://drive.google.com/drive/folders/0B3jXhZVKIoJbYlgxenhLYm4wRmc>

Abstract: No Abstract

Chronic unemployment is a considerable problem in France, particularly in disadvantaged neighborhoods. While self-employment could be an alternative, entrepreneurship is low. Researchers evaluated whether coaching, guidance, and financial support could help young people create and sustain independent businesses. The entrepreneurship training program did not increase entrepreneurship, and participating youth were more likely to be unemployed and earn lower revenues from their business 28 months after the start of the program.

II. OTHER ARTICLES

1. ANDE (2016), “Entrepreneurship & Acceleration Questions from the Field”- Data Brief

Link: <https://drive.google.com/drive/folders/0B3jXhZVKIoJbMkJidVQ4Y0RXOXM>

Abstract: No Abstract

Data brief based on data from the Entrepreneurship Database Program at Emory University. Since 2013, the Entrepreneurship Database Program has been systematically collecting data from entrepreneurs who apply to one of several participating accelerator programs. The data used in this analysis come from 34 programs run between 2013 and mid-2015.

Takeaways: Philanthropic/Grant funding and accelerator programs can increase the likelihood of impact measurement in ventures.

2. International Trade Centre (2015), “SME Competitiveness Outlook”, Geneva.

Link: <https://drive.google.com/drive/folders/0B3jXhZVKIoJbMkJidVQ4Y0RXOXM>

Abstract:

The first annual flagship report of ITC on the topic of SME internationalization. The report highlights the fundamental role SMEs have in addressing global income inequality and presents a new analytical framework to measure, identify and enhance SME competitiveness. It introduces a working definition of firm competitiveness and introduces the SME Competitiveness Grid as a tool to classify determinants of firm competitiveness according to how they affect competitiveness and according to the layer of the economy at which this determinant intervenes. The report provides 25 country profiles containing SME competitiveness pilot assessments. It informs ITC’s work in strengthening SMEs and trade and investment support institutions (TISIs). The case studies illustrate how ITC assistance fits within the wider evidence on SME competitiveness and describe practical steps to strengthen SME competitiveness at the firm level. Includes bibliographical references (p. 217-235).

3. Krause, B., Seitz, A., & Chapman D. (2015), “Fuelling financial literacy: estimating the impact of youth entrepreneurship training in Tanzania”, *Journal of Development Effectiveness*, Volume 8, Issue 2. (No access)

Link to source: <http://www.tandfonline.com/doi/pdf/10.1080/19439342.2015.1092463?needAccess=true>

Abstract:

Training programmes are popular development interventions that aim to address problems of youth unemployment. This paper estimates the impact of a youth entrepreneurship programme in Tanzania on financial literacy and employment knowledge. Using primary data within a successive cohort design in a community-led programme, the authors employed propensity score matching and fixed-effect estimation methods to assess changes in knowledge, skills and attitudes of marginalised youth. They found strong positive effects of the programme on key intermediate employment outcomes: savings ability, employment confidence and personal finance. The positive impact of this programme supports youth entrepreneurship training programme and non-experimental evaluation methods.

4. Beneavente, Crespi & Maffioli (2007), “Public Support to Firm-Level Innovation: An Evaluation of The FONTEC Program”, *Office of Evaluation and Oversight Working Paper 05, Inter-American Development Bank*.

Link: <https://drive.google.com/drive/folders/0B3jXhZVKIoJbMkJidVQ4Y0RXOXM>

Abstract:

Latin-American Governments have frequently adopted Technology Development Funds (TDF) to financially support innovation activities of firms. In this paper, we analyzed the effectiveness of a Chilean TDF, the FONTEC program. We found that FONTEC's subsidies partially crowded-out private investments in innovation and they more effectively promoted technological upgrades and process innovations, rather than radical product innovations. In the empirical analysis, we considered four levels of potential impact: input additionality, behavioral additionality, innovative output, and performances. In terms of input additionality, although FONTEC increased the overall R&D budget of the firms, it did not stimulate additional private investment in innovation activities. In terms of behavioral additionality, FONTEC effectively promoted process innovation and induced changes in the innovation strategy of the firms. In terms of innovative outputs, FONTEC did not significantly foster patenting activities and had no significant impact on the creation and adoption of new products. In terms of performances, although FONTEC increased the sales, employment and export, it did not significantly foster productivity. In the absence of randomized experiments, we estimated these impacts through a quasi-experimental approach that combines difference-in-difference and propensity score matching techniques.

5. Piza, Cravo, Taylor, Gonzalez, Musse, Furtado, Sierra & Abdelnour (2016), "Business Support for small and medium enterprises in low-and middle-income countries. A systematic review"

Link: <https://drive.google.com/drive/folders/0B3jXhZVKIoJbMkJidVO4Y0RXOXM>

Abstract:

Business support interventions in low and middle-income countries (LMICs) direct a large amount of resources to SMEs, with the assumption that institutional constraints impede small and medium-sized enterprises (SMEs) from generating profits and employment at the firm level, which in turn is thought to impede economic growth and poverty reduction. Yet despite this abundance of resources, very little is known about the impact of such interventions. To address this gap, this systematic review analyses evaluations of SME support services in LMICs to help inform policy debates pertaining to SMEs and business support services. This review examines the available evidence on the effects of SME support services in LMICs on firm-level performance indicators (such as revenues, profits, and productivity), employment generation, and labour productivity.

Takeaways: The study finds that business' support to SMEs improves their performance, their ability to create jobs, their labour productivity and their ability to invest, on average. The effects on innovation were unclear. It finds that matching grants, technical assistance and tax simplification programmes improve firms' performance and job creation; with technical assistance also improving labour productivity. Export promotion and innovation programmes do positively affect exports and innovation, but there is no evidence that they improve performance or job creation. Overall, however, the effects of the programmes studied were not very big in magnitude.