Appendices for

Taking Control of the Value for Money Narrative: How Innovative Metrics are Making Impact Part of the Financial Equation

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Appendix 1: Use Cases for Programmatic Value for Money Metrics

HARAMBEE YOUTH EMPLOYMENT ACCELERATOR

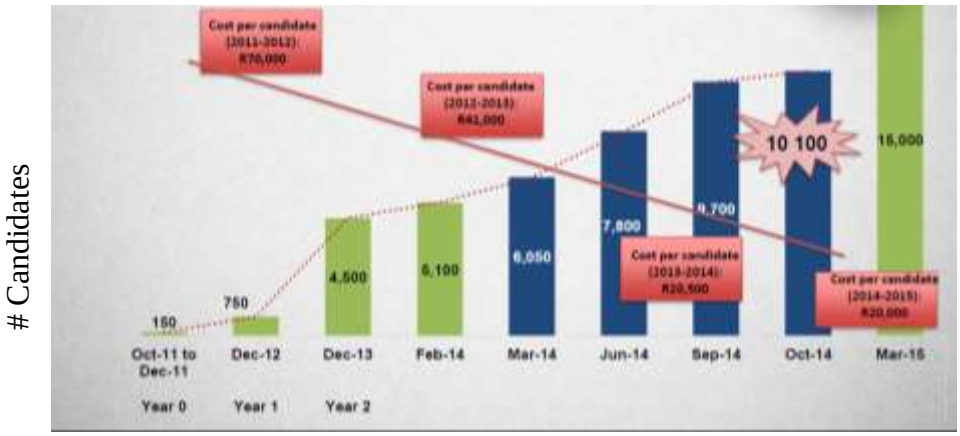
Programmatic Value for Money Metrics:

- Type 1: cost per candidate placed in job
- Type 2: disaggregated by job pathway

WHO: Harambee Youth Employment Accelerator NPC (Harambee) is a not-for-profit social enterprise with extensive experience building solutions and innovations that can solve the global youth unemployment challenge. Harambee partners with businesses, governments, young people, and many others who are committed to results that can work at scale. Harambee connects employers who are looking for entry-level talent to high-potential South African youth who are hungry for opportunity but lack the finances and networks needed to find jobs because they come from poor households. Harambee tackles the youth unemployment challenge using data, innovation, partnerships, and on-the-ground experience to build pragmatic, implementable solutions that get results.

WHY DEVELOP A PROGRAMMATIC VFM METRIC:

1) **Benchmarking**. It is important for Harambee to benchmark its cost and impact against that of similar programs, particularly for the Government of South Africa which funds and manages many of these programs. The metric helps Harambee engage in discussions on the actual cost to get a young person who has been excluded transitioned into employment and it communicates Harambee's value for the money to its key funders.
2) **Trends over time.** One of Harambee's key principles is to provide cost efficient scalable solutions to work seekers which has led it to develop metrics to track trends over time with respect to cost efficiency and/or changes in reach. For example, its value for money metric has shown that while the cost per candidate placed in 2013 was R2,576, by 2019 it was R498—and Harambee has significantly increased the number of youth it has placed over that period as well [see figure x]. Note that Harambee does not set a cost-per-candidate-placed target because there are so many dependencies (e.g., adding new families of jobs) but does use it to ensure it is trending in the right direction.
3) **Evidence of innovation**. For donors in particular, Harambee uses the changes over time in the cost-per-candidate-placed metric as evidence of innovation in delivery of its model and in its ability to change and iterate over time.



Harambee demonstrates the decrease in its cost per candidate reached over time and as the organization increases its reach

PROGRAMMATIC VFM TYPE CONSIDERATIONS:

- **Customer segments.** Harambee's target customer is unemployed youth, and while there is variability among that group (e.g., poverty levels, rural vs urban), Harambee has not disaggregated cost per candidate placed by such segments. Doing so would present a major accounting challenge, as these youth are all mixed together within any particular Harambee program; it would be difficult to break out costs by beneficiary. Harambee does acknowledge that the cost to reach rural youth is generally higher than that to reach urban youth, given lower density, but does not use a value for money metric to assign different costs to these groups.
- **Other Disaggregation.** As its model has evolved, Harambee is also trying to understand the costs related to different pathways a candidate might take to job placement—from higher touch (e.g., work readiness training,) to lower touch (e.g., only facilitating an employer introduction) pathways—demonstrating internally and to funders that a candidate's journey can take many forms. This disaggregation could arguably be considered Type 2 given that it is likely that the youth requiring more intensive training are different than those requiring less, but the disaggregation is not intended (at this point) to make such a statement. Harambee is also undertaking research to understand the cost to position youth in different job families (e.g., technology, customer service), along with the associated income-earning potential for each of those families—which could ultimately be considered a Type 3 metric in that it segments the program by order of magnitude of the impact (in this case, earning potential—so Harambee could potentially calculate cost per placement for different job families, each with an average earning potential).

HOW IT IS CALCULATED:

- **Type 1:** To calculate the average cost per candidate placed, Harambee has historically taken its entire budget and divided it by candidates placed within a one-year period. Harambee considers this its "all in" metric; no costs are excluded.
- **Type 2:** Disaggregating by job pathway or job family is more complex. Harambee is considering how to allocate fixed costs as well as costs of people whose work is cross-program and cross-functional. The organization is also thinking about how to place enablement costs, such as technology investments; for large capital investments, Harambee hopes to get to a point where only the maintenance charges are incorporated into the calculation and not the capital investment itself.

VISIONSPRING

WHO: VisionSpring provides affordable, high quality eyeglasses to people living on less than $4/day. The organization *accomplishes its work through a network of distributors and micro-franchises, also providing livelihoods for community-based entrepreneurs.*

Programmatic Value for Money Metrics:

- Type 1: Philanthropic capital required per pair of glasses sold ("Philanthropic Investment per Pair")
- Type 2: PIPP per country and program model
- Type 3: PIPP with thresholds for target customers

WHY DEVELOP A PROGRAMMATIC VFM METRIC:

1) **Maintain commitment to core customer**. While piloting a new hub-and-spoke program model in Central America, VisionSpring realized that it was shifting upmarket, serving more affluent customers rather than the true base of the pyramid. The work in Central America also became increasingly costly and resource intensive. Therefore, VisionSpring needed a metric that could help track and communicate changes over time; keep the target customer at the center of decision-making; and evaluate the cost of reaching different customer segments in different geographies to assess the opportunity costs of resourcing decisions. The resulting metric, Philanthropic Investment per Pair, described below, helped the organization decide to shut down operations in Central America where the PIPP was $15.72 compared to $3.70 for VisionSpring's work in India and $2.42 in Bangladesh.

2) **Lock in mission.** In order to maintain this commitment to the core customer, VisionSpring sets overall program targets for its two key customer segments: those living under $4/day and the subset of those who are first time wearers (FTW). VisionSpring works to ensure that its global PIPP reflects the costs when 80% of its customers live under $4/day and 50% of its customers are first time wearers.
3) **Shift expectations on program economics**. VisionSpring was initially committed to finding a model that generated full cost recovery—and thus was 100% financially self-sustainable. The organization believed that the development of such a model would be key to demonstrating the viability of a market for eyeglasses in low income countries. However, once VS realized that 100% financial self-sustainability could risk not reaching its target population (those living under $4/day), it created PIPP to demonstrate that, while it remained focused on cost efficiency, it would still require some philanthropic dollars to achieve its mission.
4) **Understand range of reasonable program cost.** With PIPP calculations for different program models, different geographic locations, and different stages of program maturity, VisionSpring can better understand the range of reasonable cost for a program and make adjustments as needed.

PROGRAMMATIC VFM TYPE CONSIDERATIONS:

- **Customer segments**: There are many sub-populations of key interest to VisionSpring as it scales—some that are specific to a program (e.g., school children, workforce population,

country-level program) and some that exist across all programs (e.g., first-time wearers, those living under $4/day). With respect to cost accounting, however, VisionSpring is only able to break out PIPP by program—and not by the cross-cutting factors. VS is able, though, to take the cross-cutting factors into account through target-setting in its Type 3 metric.

- **Value of impact for key customer segments**: While VisionSpring is unable to disaggregate the PIPP specifically for its two key target populations—first time wearers and those living under $4/day—it does assign a value to the impact in reaching those two populations through target-setting. As VS works to decrease the overall PIPP, it only does so while ensuring that 80% of those reached live under $4/day and 50% of those reached are first-time wearers—a clear articulation of how it is valuing this type of impact over others.
- **Value of impact for programs.** VisionSpring has undertaken studies to determine increases in productivity for different program models, such as workforce programs versus school-based programs. While some programs, such as the school-based ones, are more costly to operate and have a higher PIPP, VisionSpring still invests in them given their high productivity—but must balance other programs within the portfolio to manage the global PIPP.

According to VisionSpring CEO Ella Gudwin, "There is not a single, magic PIPP target. Taking a portfolio approach, we need to drive it down, but not necessarily to zero; if we were, we would do wholesale all day long. But we also want to undertake more resource-intensive initiatives, like school-based eye screenings for children, which drive PIPP up. By focusing on PIPP, we can make decisions that allow us to reach the most people with a sustainable level of donated revenue that we can raise year after year."[1]

HOW IT IS CALCULATED:

- **Type 1:** *In its simplest form*, PIPP is a ratio of the number of glasses sold and the amount of philanthropic capital required to sell them (i.e., the difference between the full cost and the amount recovered through sales). For example, spending $20 of philanthropic dollars to reach five customers would result in a PIPP of $4 per customer served. Spending $20 to reach 10 customers would result in a PIPP of $2 per customer. The amount of philanthropic capital spent is calculated by subtracting the revenues from glasses sales from the total VisionSpring costs (including all global costs).

$$\text{PIPP ratio:} \quad \frac{\text{total philanthropic investment required to cover the net deficit and working capital requirement}}{\text{the number of target customers acquiring corrective glasses.}}$$

- **Type 2:** *To see PIPP by customer segment*, including both country and program models, VisionSpring tweaks the equation by including global administrative costs in the total cost for a country only if there is a direct link between that cost and the country program.
- **Type 3:** *To factor in social mission*, VisionSpring focuses on PIPP within the context of reaching its target customers. Globally, it sets a target for the percent of customers who are first-time wearers (FTWs, a proxy for those who the market has not reached), as well as a percent who earn $4 or less per day. Essentially, it asks, how can we decrease the PIPP while still reaching 80% customers living under $4/day and 50% first time wearers?

[1] Erin Worsham, Catherine Clark, and Robyn Fehrman, "VisionSpring: Business Model: Iteration in Pursuit of Vision for All," *Innovation Investment Alliance and CASE at Duke, Scaling Pathways*, 2017, www.scalingpathways.com.

MIRACLEFEET

***WHO**:* MiracleFeet provides organizational, technical, and financial support to clinics throughout the developing world in order to provide treatment to children born with clubfoot. Clubfoot is one of the world's most common birth defects, but if untreated results in a high risk of neglect, poverty, and abuse for the child.

Programmatic Value for Money Metrics:
- Type 1: Cost per child treated for clubfoot
- Type 2: Cost by country program

WHY DEVELOP A PROGRAMMATIC VFM METRIC:

1) **Support donor communications and fundraising.** MiracleFeet developed the cost-per-child-treated metric initially for donors, most of whom were unfamiliar with clubfoot and its treatment. MiracleFeet can also calculate the cost per child treated by country (or estimate the cost, for new countries) to support budgeting and share with donors interested in investing in the program in a particular region.
2) **Track trends over time.** Using its cost-per-child-treated metric, MiracleFeet can track changes over time for the program globally or in particular countries as the program scales. These trends can give MiracleFeet an idea of where it is seeing cost efficiencies and how countries compare to each other, given program maturity and other key factors (including existing local infrastructure).
3) **Benchmark boundaries of reasonable cost.** MiracleFeet uses its global average cost per child treated, along with an over/under range from its country programs, as a benchmark to push efficiency in other clubfoot treatment programs and demonstrate the value of the MiracleFeet methodology. MiracleFeet also uses this benchmark to "sanity check" cost-per-treatment numbers it sees in its own programs.

PROGRAMMATIC VFM TYPE CONSIDERATIONS:

- **Customer segments.** MiracleFeet defines its core customers as all of those born with clubfoot in the countries in which it works, with a target of 70% coverage in each country. Additionally, MF's model is designed to reach those with few or no other alternatives for clubfoot treatment, as the program is implemented through public hospitals. (A recent Lean Data evaluation validated that MiracleFeet is reaching very high levels of the low-income target population through this model). Given the high coverage targets and public hospital delivery model, MF has little risk of deviating from its core customers—and thus may not benefit from an effort to segment its customers further.
- **Cost stability**. The value for some organizations in using a VfM metric to hold cost and impact in constructive tension is less relevant for MF, as it has already brought down the cost of its intervention significantly and does not believe it can reasonably bring it down further. Instead of a focus on cost, MiracleFeet focuses significant effort on quality and coverage; it sets context-appropriate targets for existing programs and uses quality data to inform pace of growth and to direct where investments in quality need to occur prior to investments in expansion.
- **Value of impact**. MiracleFeet does use criteria to help inform internal decisions about future countries of operation, all of which are related to the magnitude of impact the organization could achieve. The two primary criteria are the size of the country (as a proxy for the number of people who could benefit and for economies of scale) and country poverty level (as a proxy for the quality of life someone could have with clubfoot untreated); a third criteria is risk, taking

into account MF's chance of success in that country. MF does not formally assign a value of impact based on these criteria but uses the data as one input in decision-making.

HOW IT IS CALCULATED:

- **Type 1:** *Average cost per child treated.* The number of children treated over a one-year period is the numerator. The denominator is all funds spent with local partners to implement the treatment program, including fixed costs (e.g., training, coordination with government, hiring clinic assistants for outreach and parent education, building referral pathways) and variable costs (e.g., plaster of paris, braces, other supplies)
    - MF also provides a calculation with the denominator including program management and M&E costs, and a fully loaded version with all costs (including head office admin and fundraising costs) for full transparency.
- **Type 2:** *Disaggregated metric: By country of operation*
    - Calculated (and projected) by country, given factors driving cost, such as existing infrastructure and density of population (i.e., potential for economies of scale).

INTERNATIONAL BRIDGES TO JUSTICE

WHO: International Bridges to Justice is dedicated to protecting the basic legal rights of individuals in developing countries. Specifically, IBJ works to guarantee all individuals the right to competent legal representation, the right to be protected from cruel and unusual punishment, and the right to a fair trial.

Programmatic Value for Money Metric:

- Type 1: Cost of a Case (for someone who otherwise would not have legal representation)

WHY DEVELOP A PROGRAMMATIC VFM METRIC:

1) **Funder request.** IBJ was asked by a funder to create an SROI-type metric to help approximate cost efficiency alongside impact. It developed "cost per case" to represent an aspect of its work and then calculated a rough per case return on investment in economic terms, equal to the salary the represented individual would earn during the years he would have otherwise served in prison.

PROGRAMMATIC VFM TYPE CONSIDERATIONS:

- **Selected outcome challenge.** IBJ focuses on improving access to justice and increasing rule of law in the countries in which it works, and thus no one output or outcome adequately captures the breadth of the systems-focused work. Since it was asked to create a VfM metric, IBJ selected an outcome which is significant and measurable, but is still not adequately representative of its work.
- **Limited use.** For internal decision-making, IBJ's VfM metric has little to no use. Decisions about where to invest (whether existing or new countries) is driven by factors such as country demand, existing country infrastructure, and where it believes it can make the most impact—which often is in the most challenging country environments.

HOW IT IS CALCULATED:

- **Type 1:** *Cost of a case.* Cases are defined as representation for those who would otherwise not have legal assistance, and cost is calculated as direct program costs (e.g., the sum of defender fees, transport costs for hearings, investigation costs, and witness expenses and travel). Overhead and management are not included in this calculation.

ONE ACRE FUND

WHO: One Acre Fund provides smallholder farmers in the most vulnerable regions a complete bundle of services focused on helping them increase their yields and farm profits, improve resilience, eliminate chronic hunger, and contribute to health. This bundle includes financing for the purchase of inputs required at the beginning of the season (e.g., seeds and fertilizer), delivery of farm inputs, training on modern agricultural techniques, and market facilitation.

Programmatic Value for Money Metrics:

- Type 1: Net cost to help farmer achieve $1 in incremental profit
- Type 2: Disaggregated by country
- Type 3: Assigned value of impact by need level

WHY DEVELOP A PROGRAMMATIC VFM METRIC:

1) **Change narrative around cost-recovery goals**. One Acre Fund[2] was initially working toward 100% cost recovery in its core program but realized that reaching that goal would compromise the impact that it could achieve. One Acre Fund used its SROI to reframe its targets; SROI allows it to prioritize programs that may be more costly but provide greater impact—while still focusing on sustainability overall.
2) **Estimate likely cost and impact of potential new programs**. **"**Nonprofits serious about maximizing their social good typically use measurement to *improve* programs during implementation and *prove* those programs post-implementation. But, in recent years, as we've grown and pursued multiple delivery models in multiple geographies, we began to wonder whether we could use measurement data *before implementing programs* to determine which ones should get off the ground and with what level of resources, in the first place."[3] Although challenging, One Acre Fund uses SROI for programs/products in its research and development pipeline—which it can then use (along with other factors) to determine whether or not to roll-out more broadly.
3) **Inform allocation of resources within organization**. One Acre Fund wanted a more rigorous way to determine how to allocate resources within its organization and used SROI to create a "healthy growth path" that helps it determine where it should invest in efficiency versus expansion of existing programs.
4) **Benchmark.** With the multitude of other organizations and programs serving smallholder farmers with similar goals of increasing farmer income, it was important for One Acre Fund to have a metric that could be used to benchmark it against other similar organizations.

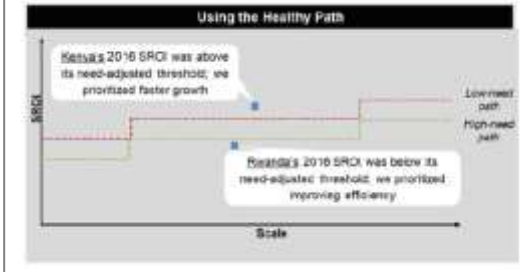
PROGRAMMATIC VFM TYPE CONSIDERATIONS:

- **Regional need level.** One Acre Fund recognized that its clients in different geographic areas have different levels of need and that an incremental dollar in profit in Burundi might be more impactful than an incremental dollar of profit in Tanzania. It also recognized that the cost to reach clients in higher need areas may be different than in lower need areas, making the designation of higher and lower need a critical input in determining resource allocation. One Acre Fund uses farmer income pre-intervention as a proxy to determine country need level.

[2] Content in the One Acre Fund section is drawn largely from Forti and Calhoun, "How Nonprofits Can Drive Healthy Growth Using SROI," and Matthew Forti and Jake Calhoun, "Measuring Social Return on Investment Before You Invest," *Stanford Social Innovation Review* 13, no. 4 (2015): https://ssir.org/articles/entry/measuring_social_return_on_investment_before_you_invest.

[3] Forti and Calhoun, "Measuring Social Return on Investment Before You Invest."

- **Targets to operationalize value of impact**. To account for value of impact along with SROI, One Acre Fund decided to accept lower SROI values in higher-need regions (and, conversely, demand higher SROI values in relatively lower-need regions).
- **Development of the Healthy Growth Path.** To maintain a focus on efficiency and impact and help inform resource allocation decisions, One Acre Fund takes into account SROI, value of impact (i.e., country need level), and program maturity and scale to create a healthy growth path. The healthy growth path helps inform 1AF resources allocation decisions, "prioritizing growth when a country's SROI is above its healthy path and prioritizing efficiency when a country's SROI is below."[4]



This chart shows how One Acre Fund uses the healthy path for resource allocation decisions, prioritizing growth when a country's SROI is above its healthy path and prioritizing efficiency when a country's SROI is below.

From Forti and Calhoun, "How Nonprofits Can Drive Healthy Growth Using SROI."

HOW IT IS CALCULATED:

- **Type 1***: Net cost to help farmer achieve $1 in incremental profit*. In its simplest form, One Acre Fund's SROI is calculated as the incremental profit its farmers generate using the One Acre Fund model, divided by the net cost to serve that farmer.

SROI ratio:

$$\frac{\text{impact generated per farmer (incremental profit each farmer generates using the One Acre Fund model)}}{\text{net cost to serve that farmer (expense of serving farmer minus farmer repayments, i.e., donor subsidy)}}$$

  Net cost is calculated as the sum of expenses for One Acre Fund to serve the farmer, minus the farmer repayments. One Acre Fund calculates net cost in two different ways:
  - All-in SROI: uses total net operating budget, including all systems change work.
  - Program SROI: uses only traceable program costs.

  Since One Acre Fund's peer institutions most often share program SROI publicly, it is the calculation that One Acre Fund also generally shares publicly. However, internally, it uses both.
- **Type 2***: Disaggregated by regions of operation*. Calculated as the Program SROI for each region of operation individually.
- **Type 3:** *Assigned need level to region*. One Acre Fund designates operational regions as high need versus (relatively) low need based on smallholder farmer income pre-One Acre Fund programming. The organization then sets different SROI standards for high need versus low need regions to account for the higher value of impact (but often higher associated costs) in the higher need areas.

[4] Forti and Calhoun, "How Nonprofits Can Drive Healthy Growth Using SROI."

ROOT CAPITAL

WHO: Root Capital invests in the growth of agricultural businesses unreached by other lenders in poor, environmentally vulnerable regions, with the goal of growing rural prosperity. Using a mix of philanthropic and debt capital, Root Capital provides these businesses with loans and training and also engages in general market-strengthening and thought leadership work across the field.

Programmatic Value for Money Metrics:

- Type 1: Net cost (requiring donor subsidy) or return per loan to agricultural business
- Type 2: Noted poverty and environmental risk level for business
- Type 3: With assigned value of expected impact per loan, a measure that aggregates dozens of impact metrics

WHY DEVELOP A PROGRAMMATIC VFM METRIC?

1) **Elevate the financial sustainability vs. impact conversation**. The leadership at Root Capital[5] regularly and vigorously debated the tension between impact and financial sustainability within its programs but, in the absence of data, had difficulty moving beyond intuitive or ideological assertions. The addition of data—namely impact metrics on borrowers—to examine the issue elevated these conversations, as leadership was then working off of the same data and mental model and could root decisions in evidence (accompanied by other critical considerations for the organization).
2) **Move from intuition to standardized, scalable approach.** Root Capital recognized that its portfolio managers were using a largely intuitive approach to create portfolios that were high impact but also financially sustainable. Yet, as Michael McCreless writes in "Toward the Efficient Impact Frontier" in SSIR, "intuition is a powerful tool—but intuition is fallible, and it isn't scalable." The development of the expected impact rating—a scoring system that aggregates over a dozen key impact measures for each client—plotted against expected financial return for each client borrower helps Root Capital more systematically increase the accuracy and efficiency of capital allocation to maximize impact and financial sustainability.
3) **Maximize funding and impact.** An easy path to improving financial performance can often be accomplished by dropping the highest cost customers, but Root Capital's impact metrics allow it to see which high cost customers have highest expected impact and which have lower expected impact. The organization can then make a more strategic decision to drop the high cost, low impact clients, and balance the high impact, high cost clients with others who will help balance the portfolio.
4) **Make case to organization's mix of investors and philanthropic funders.** Root Capital uses both grant funding and investment capital to make its loans, with the grant capital providing a subsidy for the loans yielding a negative financial return, and with the investment capital generating below market-rate returns. The value for money metric allows the organization to more clearly demonstrate to both types of funders how their money is being used most efficiently and effectively.

PROGRAMMATIC VFM TYPE CONSIDERATIONS:

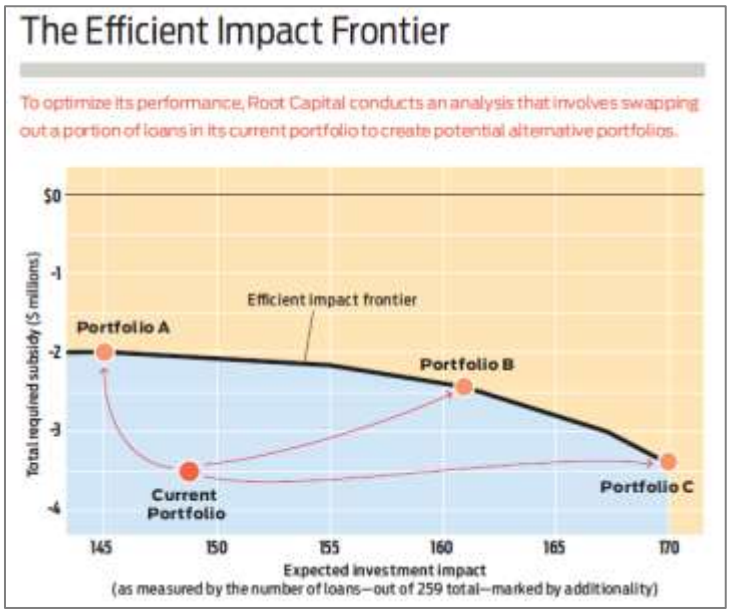
- **Making decisions with many decision-makers.** Given the many loan investment decisions made by its lending team across Root Capital's countries of operation, it was important for Root

[5] Content in the Root Capital section is drawn largely from Michael McCreless, "Toward the Efficient Impact Frontier." *Stanford Social Innovation Review* 15, no. 1 (2017): https://ssir.org/articles/entry/toward_the_efficient_impact_frontier.

Capital to understand the expected impact of a loan against its expected financial return—and have these metrics standardized and quantified.

- **Quantifying expected impact.** To establish expected impact, Root Capital first identified the types of impact it most valued, and that its own deep-dive impact studies revealed as most salient: 1) additionality (i.e., extent to which Root Capital's loan adds to—and doesn't merely replace—other capital available to the enterprise); 2) the social and environmental context in which the enterprise operates; and 3) the expected social and environmental impact of the enterprise itself. Root Capital then assigned a numeric value to aspects of additionality, context, and enterprise impact (with weights to account for importance of the element to Root Capital, its client businesses, and smallholder communities) and created an index for expected impact. This index can be applied to any particular investment to generate an expected impact rating for that investment.

- **Establishing hurdle rates and the efficient impact frontier.** To help inform investment decision-making, Root Capital plotted its loans' expected financial returns against the loans' expected impact ratings to understand the level of return it can generate for a given level of expected impact. It uses this data to better understand which loans to avoid (i.e., those with a low financial return and low impact), the hurdle rate for impact and return that merits an investment, and how to maximize the return and expected impact of its full portfolio (i.e., the efficient impact frontier).



From McCreless, "Toward the Efficient Impact Frontier".

The additional work required to create and use such a chart may be worthwhile only for organizations working to achieve some level of financial sustainability and/or who must make many investment decisions spread over many decision-makers (and who could therefore use a more standard, consistent, and scalable tool for making decisions). See McCreless's "Toward the Efficient Impact Frontier" for more detail.

HOW IT IS CALCULATED:

- ***Type 1**: Expected financial return per loan.* Root Capital calculates the expected financial return for each individual loan and, in the aggregate, aims to have a financial return in line with the

organization's available capital resources. Root Capital's expected financial return metric combines both financial risk and financial return. The risk is based on a predictive model that Root Capital built (from analysis of over 1,000 previous loans); the return accounts for the fully loaded cost to underwrite and monitor a loan, the cost for Root Capital to borrow from its investors, and the interest and fees Root Capital expects from the loan recipient. See a more detailed description of the calculation in "Toward the Efficient Impact Frontier."

- **Type 2**: *Poverty and environmental risk.* While Root Capital may look at overall loan performance by segments such as country, region, or type of agriculture, for the purposes of this particular set of programmatic value for money metrics it considers each loan—and its impact—individually and then looks at the portfolio as a whole. However, it does assign each loan a designation based on poverty and environmental risk and accounts for that designation as a part of the expected impact rating (i.e., up to 0.5 points of the ten-point index are assigned based on poverty and environmental risk).
- **Type 3**: *Expected financial return per loan with assigned expected impact.* As described above, Root Capital created a weighted index to quantify the additionality of the investment and the social and environmental impact of the enterprise as a proxy for expected impact. See a more detailed description of the calculation in "Toward the Efficient Impact Frontier."

SCENARIOS IN WHICH PROGRAMMATIC VALUE FOR MONEY METRICS MAY BE LESS USEFUL

The calculation of programmatic value for money metrics, and of Types 2 and 3 in particular, may not be possible or justified for certain types of organizations.

Where Types 2 and 3 may not be justified:

For certain organizations, such as those with the following characteristics, the effort to calculate Types 2 and 3 may not yield sufficient benefit:

- *Little risk of deviating from target market.* Some models are designed in such a way that they are extremely likely to benefit the customers' core to the organization's mission and unlikely to move more upmarket in pursuit of additional cost efficiencies. *These organizations can still create type 2 and 3 metrics, but they may not have as much impact on decision-making.*
- *Relatively few big investment decisions and centralized decision-making*. Where investment decisions occur with sufficient infrequency, to allow for more centralized decision-making, such decisions can often be informed by consistent application of intuition, qualitative data, and available quantitative data—not benefiting as much from the effort to standardize the data.
- *Dependence on donor priorities.* The investments by many nonprofit organizations are largely informed by donor priorities, meaning that, while value for money metrics is a useful piece of data, it plays a lesser role.

Where any Programmatic Value for Money metric may have limited use:

We have seen in our research that these metrics may have limited use (and/or be extremely difficult to develop) for certain types of organizations, related to sector and/or model factors such as these:

- The work is in a sector where impact proxies are difficult to name or measure, such as within democracy, human rights, and environmental sustainability. Interventions in these areas are often very systems-focused with more distant outcomes and few meaningful programmatic outputs or outcomes.
- The work is in a sector where the net cost and output/outcome measures are relatively stable and/or in which costs would be difficult to drive down further. For these organizations, quality, scale, and other factors are significantly more informative for internal decision-making.

Appendix 2: How to Calculate Three Types of Programmatic Value for Money Metrics

Key Determinations:

- *Output/Outcome of Interest*
- *Key Customer Segments*
- *Impact value for different customer segments*

Type 1: Net Cost per Output/Outcome	
NUMERATOR: Output or Outcome 1. **Select output or outcome** of significance to your mission, whether monetized (e.g., incremental profit earned) or programmatic (e.g., pair of glasses sold). 2. **Calculate** the number of outputs/outcomes you have achieved over the most recent one-year period (or average over the past few years).	**Considerations for output/outcome selection:** i. *Locus of control.* For internal use, using the impact proxy over which you have the most control seems to be much more helpful to drive programmatic and operations decisions than a more distant outcome over which you have less influence. While this proxy is often outputs or outcomes, it can also be an impact metric if it is both meaningful and within the locus of control (e.g., One Acre Fund looks at change in incremental profit for smallholder farmers). ii. *Size Matters.* If you are able to quantify your impact proxy, consider how the size of the impact is meaningful to your program. For myAgro, its impact metric is incremental dollar of profit for the smallholder farmers it serves. Since its goal is to help farmers achieve $500 in incremental profit, calculating a net cost per $1 incremental profit would not represent meaningful impact. For MiracleFeet, only the full treatment of a child (i.e., not just one component of treatment) is meaningful impact. iii. *Objectivity.* Ensure that your metric is as objective as possible--meaning it could pass an audit by an independent evaluator.
DENOMINATOR: Net expenses 1. **Calculate net expenses** (expended by just your enterprise) that contribute to the achievement of this output or outcome over the most recent one-year period (or average over the past few years if you are also looking at an average with your impact proxy).	**Considerations in net expense calculation:** i. *All-in or partial?* There appears to be little consistency in the pieces of the budget that are included in this calculation. Some organizations calculate an "all-in" net cost per outcome, and others calculate it using only specific program costs or expenses in a particular geographic region. Consider if/how to include global costs, particularly if you have largely unrelated workstreams, a major capital investment, etc. ii. *Earned income.* Organizations with earned income will subtract the amount earned from total expenditures to come up with net cost.
EQUATION	

1. **Divide** number of outputs/outcomes (#1) by net expenses (#2) to get your net cost per output/outcome.	
ANNOTATE 1. **Annotate** the calculation with notes on what the output/outcome represents and what costs the calculation does/does not include.	

Type 2: DISAGGREGATE BY CUSTOMER SEGMENT	
CUSTOMER SEGMENTS 1. **Determine** the customer segments that are meaningful to your mission which could be related to gender, age, poverty-level, and/or access-level. You should take into account the extent to which you can count the number of outputs/outcomes (and/or average quantified outcome) per customer segment. 2. **Conduct** the counting with selected segments.	**Considerations in determining key customer segments for this calculation** a. *Difficulty counting by segment*. If you cannot count the number of outputs/outcomes by customer segment (e.g., customer poverty level is important but the poverty level of each customer is unknown), see if there is another proxy for that segment that you can count, such a geography or program/model (e.g., program delivered through public hospital vs through private facility).
COSTS BY SEGMENT 3. **Determine** the extent to which you can separate out costs to deliver the output/outcome to each of those segments. 4. **Calculate** costs by customer segment.	**Considerations in separating costs by segment** a. *Global fixed costs and shared costs.* Determine if you should divide them evenly across segments, account for different levels of use of global resources, or not include global costs at all. Be sure to annotate. **b.** *Difficulty separating out costs.* If you cannot separate out costs by customer segment, you can either create a different boundary for your segments that is easier to calculate (e.g., place of intervention), or jump to Type 3 and set targets for your key customer segments. VisionSpring is unable to separate out costs to reach first time wearers and those living

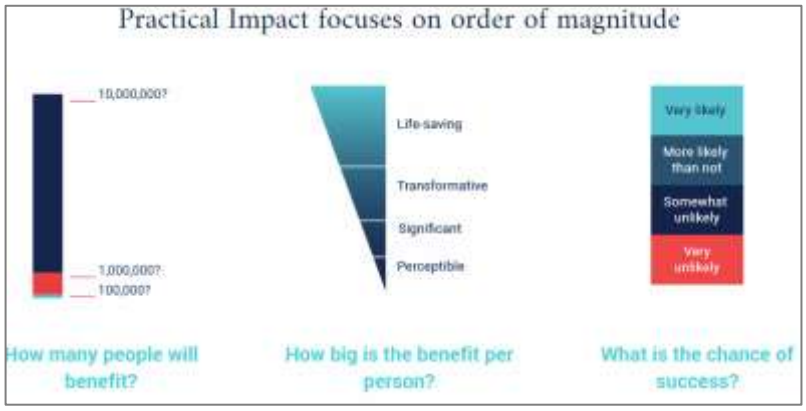
	under $4 a day (its key customer segments) as the populations are reached—along with others—through the same program models. However, VisionSpring collects data on the individuals it reaches and can thus set targets for reach to those populations that both demonstrate the organization's priorities and also couch the global PIPP within the boundaries of those targets.
EQUATION 5. **Divide** the total associated costs (#4) for each segment by the total outputs/outcomes (#2).	
ANNOTATE 6. **Annotate** the calculation with notes on how customers are segmented and how costs per segment are determined.	

Type 3: ASSIGN VALUE OF IMPACT FOR EACH CUSTOMER SEGMENT	
IMPACT DIMENSIONS 1. **Identify** the impact dimensions that affect the "value" of impact related to the organization's mission (e.g., poverty level, additionality).	**Considerations in determining key impact dimensions** a. *Dimensions of impact for customer segment.* What is it about your key customer segments that aligns them with your mission? If you care about reaching those who otherwise would not be reached with your services, perhaps it is additionality, or the chance that the customer would be reached if not for you. If you care about serving the most vulnerable populations, perhaps you consider the poverty level of your segments, their gender, and/or their distance from services. As you ask yourself this question, see below for impact dimensions as articulated by others. b. *Inspiration for impact dimensions.* The Impact Management Project defines the five dimensions of impact as the following:[6] i. *What*: tells us what outcomes the enterprise is contributing to and how important the outcomes are to stakeholders.

[6] "What is Impact?" *Impact Management Project*. https://impactmanagementproject.com/impact-management/what-is-impact/.

	ii. *Who*: tells us which stakeholders are experiencing the outcome and how underserved they were prior to the enterprise's effect. iii. *How much*: tells us how many stakeholders experienced the outcome, what degree of change they experienced, and length of time they experienced the outcome. iv. *Contribution*: tells us whether an enterprise's and/or investor's efforts resulted in outcomes that were likely better than what would have occurred otherwise. **v.** *Risk*: tells us the likelihood that impact will be different than expected.  b. The Global Innovation Fund uses the following three categories to define "practical impact" for its portfolio:[7] i. *Breadth of impact*: the number of low-income people who will benefit at year 10. ii. *Depth of impact*: the benefit per person relative to annual income. iii. *Probability of Success*: the likelihood that the innovation will be successful in ten years.
VALUE OF IMPACT	**Considerations for determining the value of impact.**

[7] "Practical Impact Assessment," *Global Innovation Fund* 1, no, 1 (2020), https://www.globalinnovation.fund/practical-impact-assessment/.

3. **Determine** the "value" of impact using qualitative or quantitative categories.	1. *Categorical value of impact.* Within your dimensions of impact, how can you best articulate the value of impact for one customer segment versus another? The Global Innovation Fund uses order of magnitude estimates for a "good enough" assessment of the value of impact. For example, if trying to assess the value of impact by looking at the size of the benefit per person, GIF suggests considering the size as perceptible, significant, transformative, or life-saving; in other words, will the innovation make a 1% difference to individuals' standard of living or a 10% difference?[8] Organizations can use this value of impact in decision-making, whether they assign weights to the categories or whether they use them more as general guide points. a. Example: One Acre Fund divides its regions into segments based on "need level," grouping them into higher need and relatively lower need (based on average, pre-One Acre Fund agricultural incomes). It values $1 of incremental income as a more significant benefit in the lower need regions than in the higher need regions and has operationalized this difference in value by accepting lower SROI values in the higher need countries. (See One Acre Fund example for more.)  *From Practical Impact Assessment, GIF.* 2. *Quantitative value of impact*. Some organizations will want to quantify the value of impact, particularly to standardize its interpretation if the organization has a significant number of decisions and decision-makers. Root Capital moved from an intuitive approach in using value of impact in investment decisions to a more scalable, quantitative approach with its Efficient Impact Frontier. In this model, expected impact combines the extent to which Root Capital's loan fills a crucial

[8] "Practical Impact: GIF's approach to impact measurement," *Global Innovation Fund* 1, no 1 (2019): https://www.globalinnovation.fund/wp-content/uploads/2019/06/GIF_practical_impact_v1.01_final.pdf.

	financing gap for the business, with key social and environmental factors, and assigns a score and weight to each metric to generate a single numeric score. See more detail in the Root Capital example.
ANNOTATE 7. **Annotate** the value of impact assignment for each of the customer segments.	