Measuring the Impact and ROI of the Poverty Stoplight Program

Supplemental Materials

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The Value Chain

	LEVEL	ISSUE	MEASURES	TARGETS
This is easy Always measured	0	Inputs	Volume, Hours, Convenience, Cost	100%
This is easy Almost always measured	1	Reaction	*Relevance, Engaging, *Important, Useful, *New Content, *Intent to Use, *Recommend to Others	100%
Not difficult Usually measured	2	Learning	Concepts, Trends, Facts, Contacts, Skills, Competencies	90%
Possible Often measured	3	Application	Use of content, Frequency of Use, Success with Use, Barriers, Enablers	30%
Not so difficult to connect Sometimes measured	4	Impact	Must take a step to Isolate the Effects Productivity, Health Status, Time, Quality, Costs, Income, Image, Reputation, Engagement, Compliance	10%
Possible for many programs Rarely measured	5	ROI	Benefit Cost Ratio or Return on Investment, Expressed as a Percent	5%

*Can predict

Executives prefer

*Best Practice: Percent of Programs Evaluated at this level each year.

A Variety of ROI Applications – The Possibilities are Endless…

1. The British Columbia Interior Health System calculated the ROI for a new procedure for colorectal surgery.
2. The Ministry of Education in Dubai calculated the ROI for implementing a model classroom program.
3. A major U.S. city calculated the ROI for investing in housing to reduce the number of homeless citizens on the streets.
4. The Australian Capital Territory Community Care agency forecast the ROI for the implementation of a client relationship management (CRM) system.
5. Horizon Home, a comprehensive shelter and protection system for abused and battered women, developed the ROI for the services provided to clients.
6. The state of Alabama developed the ROI for a recidivism program for drug related offenders.
7. A major city calculated the ROI for a new disciplinary system and selection system to reduce unplanned absenteeism and bus delays.
8. The Healthy Living Group in a Canadian government healthcare system developed the ROI for a smoking cessation program for citizens under the age of 35.
9. The UN Women agency measured the ROI for a micro financing program to increase economic empowerment of women, especially of those who are most excluded.
10. A large insurance company developed the forecast and actual ROI for a work-at-home program for two job groups.
11. A major hotel chain calculated the financial value and ROI of its coaching program.
12. An NGO has developed the impact and ROI for a new law to make domestic violence illegal in Kazakhstan.
13. A refugee services agency conducted ROI studies on two of its major programs: employment and vocation services.
14. The Singapore Defense Science and Technology Agency (DSTA) is measuring the ROI on team effectiveness.
15. The Danish Postal Service calculated the ROI for a project to improve employee engagement.
16. A large U.S. bank calculated the ROI for sponsoring a major sports event.
17. The World Food Programme (Rome, Italy) developed the ROI for a leadership development program for country directors.
18. A major U.S. defense department agency calculated the ROI for a master's degree offered to high-potential employees inside the agency.
19. The Association for Talent Development calculated the ROI for the annual conference, from the participant perspective and the exhibitor perspective.

20. The United Nations Security Department calculated the ROI for providing police training in Kuala Lumpur, Malaysia.
21. Novartis, a Swiss-based pharmaceutical, developed the ROI for a management development program.
22. A package delivery company developed the ROI for the replacement of keys with a fob in courier vehicles.
23. Laboratory Systems, a small 13-person company in Ireland, calculated the ROI for new product development.
24. Innova Energy developed the ROI for a stress reduction program.
25. A large Canadian bank calculated the ROI for networking among its senior leaders.
26. A large international consulting firm calculated the ROI for a social media system designed to manage the knowledge of their consultants.
27. The U.S. Air Force calculated the ROI for implementing new procedures to prevent an intrusion into a database.
28. The Institute for Clergy Excellence calculated the ROI in a program to address the burn out among clergy.
29. Sprint developed the ROI for a diversity program.
30. A large European software company calculated the ROI for a virtual business development conference for the sales team.

Questions for Discussion

1. What do you see in common with these examples?

2. What is driving this level of accountability for these programs?

New Habits at School[1]

In 1989, Stephen R. Covey wrote the book, *The 7 Habits of Highly Effective People®*, which became one of the most important, influential, and best- selling books in history with more than 20 million copies sold. This book is based on much research that defines the journey to effectiveness into seven easy-to-understand habits:

Habit 1: Be Proactive

Habit 2: Begin with the End in Mind

Habit 3: Put First Things First

Habit 4: Think Win/Win

Habit 5: Seek First to Understand, Then to Be Understood

Habit 6: Synergize

Habit 7: Sharpen the Saw

Covey built a business around the book to support the implementation of the seven habits. With the acquisition by Hyrum Smith's company, Franklin Quest, the company evolved into the FranklinCovey Company.

Although Covey expected widespread adoption of these habits, he was surprised that many school systems began adopting them and teaching the seven habits to schoolchildren. The process had been adopted for schools as illustrated by Muriel Summers, principal at A.B. Combs Elementary School, the first school to use the seven habits. As Summers sat among business leaders, she could not help but think, "If children learned the seven habits at an early age, how different their lives might be and how different our world might be." The following is a synopsis of the seven habits in kids' language. See if you come to the same conclusion.

Habit 1: Be Proactive. I am a responsible person. I take initiative. I choose my actions, attitudes, and moods. I do not blame others for my mistakes. I can only be offended if I choose to be.

Habit 2: Begin with the End in Mind. I plan ahead and set goals. I do things that have meaning and make a difference. I am an important part of my classroom and contribute to my school's mission and vision and look for ways to be a good citizen.

Habit 3: Put First Things First. I spend my time on things that are most important. This means I say no to things I know I should not do. I set priorities, make a schedule, and follow my plan. I am disciplined and organized.

1. Phillips, P.P., J.J. Phillips, G. Paone, and C. Huff-Gaudet. *Value for Money: How to Show the Value for Money for All Types of Projects and Programs in Governments, Non-Governmental Organizations, Nonprofits, and Businesses*. Hoboken, NJ: Wiley, 2019.

Habit 4: Think Win-Win. I balance courage for getting what I want with consideration for what others want. I make deposits in others' emotional bank accounts. When conflicts arise, I look for options that work for both sides.

Habit 5: Seek First to Understand, Then to Be Understood. I listen to other people's ideas and feelings. I try to see things from their viewpoints. I listen to others without interrupting. I am confident in voicing my ideas. I look people in the eyes when talking.

Habit 6: Synergize. I value other people's strengths and learn from them. I get along well with others, even people who are different than me. I work well in groups. I seek out other people's ideas to solve problems because I know that by teaming with others we can create better solutions than any one of us alone. I am humble.

Habit 7: Sharpen the Saw. I take care of my body by eating right, exercising, and getting sleep. I spend time with family and friends. I learn in lots of ways and lots of places, not just school. I take time to find meaningful ways to help others.

By 2008, about half a million schoolchildren were using the seven habits and school administrators were experiencing some important outcomes with student grades, behavior, and performance. These amazing results led to more adoptions.

At the same time, school systems faced tremendous budget strains and did not necessarily have extra money to spend on this program. Consequently, FranklinCovey decided to show the value for money to the school system. Ideally, the value should be translated into monetary benefits and compared to the cost of the program. In essence, they needed the ROI.

Several studies were conducted using the assistance of a major university. School systems, which had implemented the program, were compared to school systems that had not used the program. The systems were matched using the type of school systems, population demographics, number of students served, and other factors. The results were quite dramatic, revealing improvements in outcomes such as attendance, grades, test scores, reading levels, promotions to the next grade, student retention, incidents, counseling, and tardiness. Some of these were converted to money.

Other intangibles that could not credibly be converted to money were identified and reported. These results made the decision of a school superintendent much easier. If they invested in this program, they would be getting the money back and then some. What the FranklinCovey team did was to make the business case for using seven habits in schools by building in all the stakeholders, as shown in Figure 1.

It's a great way to see value and improve support for programs that, on the surface, appear to be very important but just don't have the monetary connections required to make the fiscal decision in today's economic climate.

The 7 Habits	What Parents, Teachers, and Businesses Want	
Habits 1 – 3 (Independence) Be Proactive Begin with the End in Mind Put First Things First	• Goal Setting • Planning • Time Management • Organization	• Initiative • Responsibility • Vision • Integrity
Habits 4 –6 (Interdependence) Think Win-Win Seek First to Understand, Then to be Understood Synergize	• Conflict Management • Listening/Empathy • Speaking Skills • Problem Solving • Teamwork	• Respect • Ethics/Manners • Honesty • Openness • Valuing Diversity
Habit 7 (The Whole Person) Sharpen the Saw (Care for Body, Heart, Mind, and Spirit)	• Physical Wellness • Social Skills • Mental Skills • Emotional Stability	• Contribution/Meaning • Desire to Learn • Fun

Figure 1. The Seven Habits in Schools

As this situation underscores, there is a need to have an evaluation system that will serve the needs of top leaders in organizations and funders for the program. At the same time, it must have the ability to show the value of a particular project in ways that executives can understand and assist them in making the decision to continue to invest in the future. Most evaluation models don't seem to have the capacity to do this. This explains the need for an enhanced evaluation system, taking it beyond the classic program evaluation models that exist.

Questions for Discussion

1. Is this situation typical?

2. Is this approach possible?

3. Why is there so much resistance to this approach?

Case Study: Horizon Home

Horizon Home is a comprehensive shelter and protection system for abused and battered women. Most of the clients who come to the shelter have been beaten or abused in some way by a spouse or partner. Some need medical attention, a few need jobs, and they all need relief from the abuser. Horizon Home has offices throughout the state as well as several shelter locations, including a few secluded homes meant to protect their clients from an aggressive abuser. Through their offices and shelters, they provide a variety of services to support these clients. The services range from offering protection, seeking medical care when needed, providing temporary housing, job searches when necessary, and job training for those who might be unemployable. Legal assistance is secured to help them take care of the legal issues including restraining orders, divorces, or outright conviction of the abuser. Some financial assistance can also be provided when necessary.

Horizon Home has a great reputation, is well managed, and it has been funded by federal and state grants, several local governments, and foundations. In addition, individual donors who have been touched by the need for services provided also made financial contributions in the past. Unfortunately, some of the government funding is beginning to diminish and donors and foundations are not always taking immediate action to make up the difference. This raises some concern for the executive team. Robert Holleman, CEO of Horizon Home, asked to speak with Marilyn Curson, Chief Operating Officer, about the success of their clients. Robert started the conversation by reiterating how pleased he is with the services Horizon Home provides. He realizes that Horizon Home helps people in need and takes care of them quite well.

Robert asked: Do we have data showing the ultimate impact we have on our clients?

Marilyn: Yes, we have performance measures that show our process for referring individuals, getting them into medical care, even referring them to job-searching agencies, legal systems, and so forth. We have good data that shows the number of people we have successfully referred to these different agencies.

Robert: Do we have data that shows the ultimate outcome of the individual in terms of job placement, getting a better job, or having the medical issues resolved, and the legal outcomes?

Marilyn: We do not track what happens to them when they go to the other agencies. That is up to them. But we know that some are completely taken care of in every aspect.

Robert: It would be helpful if we had some of this impact data. While, we do refer people to others, we need to know the outcome there. Because, after all, it was our initial intervention that got the process started.

Marilyn: Well, just because we started the process does not mean that we can necessarily take full credit for the outcome. It’s up to the other agencies, the individual, and maybe some of the circumstances involved.

Robert: I understand that, but the more impact data we have the more persuasive our pitch will be to donors and foundations, in particular. Even the government agencies might be willing to take more action and increase funding if they have more data showing the impact. Also, there are some questions about developing a more efficient way to do what we do. In other words, do we know anything about the return on investment for donors and governments investing in us? What are they getting in return? We know we make a difference in the individuals' lives and we help them get back on their feet, and that involves avoiding some costs and adding revenue to the system. But it would be nice to know that what we do present a positive ROI for those who are funding the services.

Marilyn was very perplexed and added: We have never analyzed our work from that perspective. Let's not forget that not everything comes down to money. We are helping these women get their lives back together and take care of a very bad situation. It makes a difference in the family, the family unit, and the self-esteem of the person being abused. It is hard to put a monetary value on that.

Robert: I understand, there are data that cannot be converted to money, but maybe some of it can. Let's just look into the possibility of having more impact data and maybe even ROI.

Marilyn left the conversation a little disturbed. Was there some concern about the quality of services? Were there some people not convinced that we make a difference? What do we need to be doing? Sure, some data are available that would ultimately track individual outcomes, but that is beyond the scope of our agency. I guess we could find out, but that seems to be stretching beyond our accountability. Why should we have to do this? Why can't the donors just accept that we are doing a good thing and that we are doing it as efficient as we can? All of this is leaving Marilyn to question her whole system of measurements. Maybe we do not have the right measurements.

Questions for Discussion

1. What types of data are being used now to show the value of services?

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2. What types of data are needed in the future?

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3. Is it possible to actually show the ROI?

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4. Is this a typical issue?

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WorkLife Partnership

WorkLife Partnership began proving the merits of their approach to economic vitality in Colorado with their Sustainable Workforce Model starting in 2010. This organization, paired with WorkLab Innovations (a network that is replicating the model nationally), has always focused on the ROI of their projects and programs.

"We have always had to explain the potential return on investment," said Liddy Romero, founder and executive director of WorkLife Partnership. "We have had to be impact driven from the very beginning, and ROI is one way in which we do that."

Key business measures—such as productivity, retention, and engagement—are expanded on to show how programs offered by WorkLife Partnership are making a difference in the lives and careers of their clients. These are the frontline workers who may struggle with finding and affording quality childcare, living space, and even food. WorkLife Partnership's Upskill Services assist clients with working toward career advancement through competency-based coaching and help with planning career pathways for the businesses they serve.

In 2017, 58 percent of WorkLife Partnership clients reported positive change within their current circumstances, more than $10,000 in scholarships through collaborative agencies were awarded to clients, and $19,000 were invested in local childcare providers.

WorkLife Partnership is a supreme example of linking key business measures to the betterment of life and community.

Questions for Discussion

1. Is this approach typical?

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2. Is ROI necessary?

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3. Is ROI achievable?

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Crime in Atlanta

Most major cities are experiencing serious crime problems, with crime rates increasing and declining rates of successfully solving crimes. In Atlanta, Georgia, that's been the case. The major newspaper for the city, *The Atlanta Journal-Constitution*, wanted to bring attention to the crime issue, and in doing so they created a podcast series called *Breakdown*. The *Breakdown* podcasts combine real journalism and reporting with expert storytelling to take the listeners behind the headlines of Georgia's true crime stories. This behind-the-scenes story telling helps listeners gain an understanding of the causes of major crimes, the sensational details of the crime, and how the crime affects the community and the victims.

As the podcast series was introduced, success seemed to be apparent. In a major full-page ad, the paper boldly made the statement, **"Celebrating 8 Million Downloads,"** declaring that the series was a success.

As a backdrop to this issue, the public must be involved with preventing and solving crime. There is no city that can put a police officer on every street corner, in every school, in every business, or near every home. The public must be very diligent about crime and the root causes of crime. Crime usually increases when a family unit breaks down, poverty is rampant, education level is low, and good jobs are scarce. The family unit can influence these issues, if the family is poised to try to prevent family members from being involved in crime. While being alert to other crimes they see and know about, their focus will be on crime prevention.

Questions for Discussion

1. At what level of data is the focus of the success in the "8 Million Downloads" advertisement?

2. Could this program be measured at the reaction level? If so, what reactions would you desire?

3. Can the program be measured at the learning level? If so, how would this data be captured?

Farmer Production Program
WFP

-Sample-

Level	Needs	Objectives	Evaluation	Level
5	• Country must produce food for citizens	• Break-even (BCR = 1:1)	• Program benefits compared to program costs	**5**
4	• Farmer profits are negative • Food produced is not to WFP standards • Food not purchased by WFP	• Farmer profit at ___ • ___% of food meets WFP standards • WFP purchase ____% of production	• Farm records • WFP records	**4**

3	• Efficient farming methods not used
	• Standards not followed
	• Land not properly utilized
		• Farmers will:
		  ○ Follow standards
		  ○ Utilize land resources
		  ○ Sell food to WFP
			• Interviews
			• Action plans
			• Questionnaires
				3

2	• Operations
	• Equipment
	• Finance/accounting
	• Management
	• Technology
		• Farmers will demonstrate their knowledge of:
		  ○ Operations
		  ○ Equipment utilization
		  ○ Finance/accounting principles
		  ○ Operations management
		  ○ Technology
			• Simple quiz
			• Checklists
			• Demonstrations
				2

1	• Farmers must see program as:
	  ○ Feasible
	  ○ Important to their survival
	  ○ Relevant to their work
	  ○ Something they will use
		• Program receives favorable rating of 4 out of 5 on feasibility, importance, relevance and usefulness
		• Farmers commit to follow processes
			• Reaction questionnaire administered to farmers	**1**

Case Study: City of San Francisco

As with many major cities in the United States, the City of San Francisco faces a growing problem with homelessness. The homeless population has been steadily growing leading to some major problems. Not only is it causing an image problem for the city, it is draining resources from the city. Homeless individuals are often arrested which creates court costs, court-appointed attorney costs, and costs for the duration of incarceration. In addition, many of them get sick, particularly during the wintertime, and have to seek medical care. Others are injured in some way and healthcare is provided. There are also sanitation costs involved in cleaning up areas where they have lived and sometimes there is even vandalism costs related to the homeless population that the city absorbs. One study has pinpointed the cost per homeless person at almost $75,000 a year. This was a shocking statistic for the city council to come to grips with.

Although there are many solutions to deal with the homeless issue, one solution became really apparent. It would be cheaper for the city to provide housing for them. The analysis shows that housing costs on a per person basis would be less than half the current cost of $75,000 per person. Consequently, apartments were constructed for the homeless.

What Should Have Happened

Just building apartments and hoping the homeless would occupy them in a responsible manner will not happen without first addressing some issues. The homeless population must see that this program is a benefit for them, and it is not some gimmick with hidden agendas involved. They must see that this is a real opportunity that can make a big difference in their living status and health. Also, they must clearly understand the rules and regulations involved and the responsibilities they must take before they start the process. Ideally, they must be able to see the apartments, understand fully what is involved firsthand, and talk to others who may be involved in a similar situation. Essentially, they need to be able to try it out in some way in order to determine if this program would be beneficial for them before they get involved in it.

Questions for Discussion

Identify the needs at five levels.

1. Payoff Needs

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2. Business Needs

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3. Performance Needs

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4. Learning Needs

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5. Preference Needs

Matching Evaluation Levels with Objectives

Instructions: For each objective listed below, indicate the level of evaluation at which the objective is aimed.

- Level 1: Reaction
- Level 2: Learning
- Level 3: Application
- Level 4: Business Impact
- Level 5: Return on Investment

Objective	**Evaluation Level**
After completing this program or project, families should:	
1. Decrease eyesight problems by 20% in one year.	______
2. Use problem-solving skills to uncover causes of problems.	______
3. Be able to create a plan and budget.	______
4. Rate the facilitator 4 out of 5 on presentation skills.	______
5. Receive vaccinations for the most serious diseases and which are considered compulsory.	______
6. Achieve a 20% ROI for the government three years after program implementation.	______
7. Perceive the program to be relevant to their needs (4.5 out of 5).	______
8. Reduce the acts of violence in their neighborhood to zero in six months.	______
9. Have an income above the poverty line.	______
10. Be able to describe the three elements of a comfortable home.	______
11. Intend to be successful with the Poverty Stoplight Program.	______
12. Have a valid identify card for members of age.	______

How do Level 3 and Level 4 objectives provide benefits? To whom?

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Case Application: International Healthcare Agency (IHA)

International Healthcare Agency (IHA), a large health delivery agency operating in developing countries, experienced a significant improvement in the length of stay (LOS) for the year in all the inpatient clinics. A decrease in LOS allows the agency to serve more patients with less cost per patient. In an executive meeting, the chief executive officer asked the executive group why the LOS decreased.

- The executive responsible for the operations started the discussion by pointing out that his managers and administrators were more aggressive. "They have adopted an improved approach to efficiency. They all have improvement plans in place. We are being more aggressive," he said. “This new approach has caused the reduction.”

- The medical director added that she thought the decrease was related to new medical procedures the physicians were trying during the period. "We’ve had some very effective results," she remarked.

- The technical director thought it was the result of new equipment and technology purchased last year. He pointed out that, “We have some of the best technology. Each time we upgrade technology, LOS is reduced.”

- The executive responsible for quality improvement suggested that the change was due to collaborative work teams. “These process improvement teams have been established in each region to focus on the LOS. These teams have driven some of the slack out of the system." She added, "When you have effective process management, you will have improvement."

- The human resources director spoke up and said that the new recruiting program had been successful with an increase in the quality of professional staff. This new recruiting, in her opinion, had caused the decrease in LOS. She concluded, “When you recruit better talent, they will make improvements.”

- The learning and development director said the recent LOS seminar caused the improvement. The seminar had been revised and is extremely effective, with appropriate strategies to decrease LOS. He concluded, "When you have effective training and build skills, you will decrease LOS."

- The meetings and events director said that the annual delivery conference caused the improvement. She indicated that the meeting motivated the team, informed them about our LOS strategies and allowed them to learn from each other through breakouts and informal networking opportunities. She concluded, “When you have a successful conference, you will have improvements.”

These responses left the CEO wondering just what had caused the improvement. Was it one or all the factors? If so, how much was contributed by each?

Questions for Discussion

1. Is this situation unusual? Please explain.

2. Should the CEO drop the issue?

3. What are some approaches to resolve this dilemma?

4. What would you do?

Use of Estimates

Exercise: Economic Empowerment of Women in Zimbabwe

One of the Development Results Goals for Zimbabwe is the increased economic empowerment of women, especially of those who are most excluded. One program supporting this goal works to allow women to access microfinance loans. Working with the Women Development Savings and Credit Union (WDSCU), the application outcome is to increase the accessibility of affordable microfinance loans to rural women. After this program was implemented, women applied, and loans were approved for another 420 women. This amount is an increase over the pre-program level. At the same time, there were several other factors that increased the amount of loans. One factor was the changing attitudes of microfinance institutions, as they realize these types of loans are not necessarily high-risk and may have a better re-payment history than other types of loans. In addition, there is one other agency working on the same issues, pressuring microfinance institutions to make loans available to women. Finally, the government is also applying some pressure on institutions operating within the country to make loans available. In essence, all four factors have led to improving access to loans and the additional 420 loan approvals.

The program director assembled a group of microfinance lenders who were deemed experts in understanding the effect of all four factors in obtaining access to the loans. A neutral facilitator assisted a group of ten lenders in sorting out the cause and effect of each factor, following these steps:

- Describe the task.
- Explain why the information was needed and how it would be used.
- Ask lenders to identify any other factors that may have contributed to the increase in access.
- Have lenders discuss the link between each factor and the specific measure.
- Provided lenders with any additional information needed to estimate the contribution of each factor.
- Obtained the actual estimate of the contribution of each factor. The total had to be 100%.
- Obtained the confidence level from each lender for the estimate for each factor (100% = certainty; 0% = no confidence).

The results from this group are averaged and shown in the table below.

Δ= 420 Approved Loans Microfinance Loans for Women

Contributing Factors	Average Impact on Results	Average Confidence Level
UN Program	39%	81%
Changing Attitudes of MF Institutions	11%	77%
Competing Program (NGO)	33%	60%
Pressure from Government	12%	72%
Other	5%	85%
	100%	

The amount attributed to the UN program was determined by multiplying the percent for the program factor times the confidence percentage. This, in effect, shows the impact of the program.

Questions for Discussion

1. Given the above information, calculate the amount of loans approved caused by the UN Initiative.

2. Discuss the credibility of this approach.

3. What could be done to improve this process?

Notes:

The Wisdom of Crowds*

One day in the fall of 1906, British scientist Francis Galton left his home in the town of Plymouth and headed for a country fair. Galton was eighty-five years old and beginning to feel his age, but he was still brimming with the curiosity that had won him renown – and notoriety – for his work on statistics and the science of heredity. On that particular day, what Galton was curious about was livestock.

Galton's destination was the annual West of England Fat Stock and Poultry Exhibition, a regional fair where the local farmers and townspeople gathered to appraise the quality of each other's cattle, sheep, chickens, horses, and pigs. Wandering through rows of stalls examining workhorses and prize hogs may have seemed a strange way for a scientist to spend an afternoon, but there was certain logic to it. Galton was a man obsessed with two things: the measurement of physical and mental qualities and breeding. And what, after all, is a livestock show but a big showcase for the effects of good and bad breeding?

Breeding mattered to Galton because he believed that only a very few people had the characteristics necessary to keep societies healthy. He had devoted much of his career to measuring those characteristics, in fact, in order to prove that the vast majority of people did not have them. His experiments left him with little faith in the intelligence of the average person, "the stupidity and wrong-headedness of many men and women being so great as to be scarcely credible." Galton believed, "Only if power and control stayed in the hands of the select, well-bred few, could a society remain healthy and strong."

As he walked through the exhibition that day, Galton came across a weight-judging competition. A fat ox had been selected and placed on display, and members of a gathering crowd were lining up to place wagers on what the weight of the ox would be after it had been slaughtered and dressed. For sixpence, an individual could buy a stamped and numbered ticket, fill in their name, occupation, address, and estimate. The best guesses would receive prizes.

Eight hundred people tried their luck. They were a diverse lot. Many of them were butchers and farmers, who were presumably expert at judging the weight of livestock, but there were also quite a few people who had no insider knowledge of cattle. "Many non-experts competed," Galton wrote later in the scientific journal Nature. "The average competitor was probably as well fitted for making a just estimate of the dressed weight of the ox, as an average voter is of judging the merits of most political issues on which he votes."

Galton was interested in figuring out what the "average voter" was capable of because he wanted to prove that the average voter was capable of very little. So, he turned the competition into an impromptu experiment. When the contest was over, and the prizes had

* Taken from *The Wisdom of Crowds: Why the Many Are Smarter Than the Few and How Collective Wisdom Shapes Business, Economics, Societies and Nations*. James Surowicki. New York. Doubleday, 2004.

been awarded, Galton borrowed the tickets from the organizers and ran a series of statistical tests on them. Galton arranged the guesses (totaling 787 – thirteen were discarded because they were illegible) in order from highest to lowest and graphed them to see if they would form a bell curve. Then, among other things, he added all the contestants' estimates, and calculated the mean of the group's guesses. That number represented, you could say, the collective wisdom of the Plymouth crowd. If the crowd were a single person, that was how much it would have guessed the ox weighed.

Galton undoubtedly thought that the average guess of the group would be way off the mark. After all, mix a few very smart people with some mediocre people and a lot of dumb people, and it seems likely you'd end up with a dumb answer. But Galton was wrong. The crowd had guessed that the ox, after it had been slaughtered and dressed, would weigh 1,197 pounds. After it had been slaughtered and dressed, the ox weighed 1,198 pounds. In other words, the crowd's judgment was essentially perfect. The "experts" were not close. Perhaps breeding didn't mean so much after all. Galton wrote later: "The result seems more credible to the trustworthiness of a democratic judgment than it might have been expected." That was, to say the least, an understatement.

What Francis Galton stumbled on that day in Plymouth was the simple, but powerful, truth: under the right circumstances, groups are remarkably intelligent, and are often smarter than the smartest people in them. Groups do not need to be dominated by exceptionally intelligent people in order to be smart. Even if most of the people within a group are not especially well-informed or rational, they can still reach a collectively wise decision.

Questions for Discussion

1. What implications does this concept have in evaluation?

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2. Can you cite other examples?

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Can Happiness be Converted to Money?

At Yale University, the most popular course these days is a course on happiness. It is taught to students who are sometimes struggling to find meaning and value in much of what they do and are involved in. The course has been, surprisingly, very popular to all types of students.

According to the New York Times' David Shimer, "The course, taught by Laurie Santos, a psychology professor and the head of one of Yale's residential colleges, tries to teach students how to lead a happier, more satisfying life in twice-weekly lectures. Dr. Santos speculated that Yale students are interested in the class because, in high school, they had to deprioritize their happiness to gain admission to the school, adopting harmful life habits that have led to what she called 'the mental health crises we're seeing at places like Yale.' A 2013 report by the Yale College Council found that more than half of undergraduates sought mental healthcare from the university during their time there."

In this case, increased happiness could be linked to mental illness out-comes, such as healthcare costs, absenteeism, and productivity.

Happiness shows up everywhere. Many organizations measure happiness through job satisfaction, which has several components, such as satisfaction with pay, career, supervisor, and the work. Employee engagement focuses more on the fulfilling aspects of the work individuals are doing, such as being more responsible, involved in decisions, accountable for results, and willingness to share information. A person with these characteristics may be a good team member. Engagement has been connected to retention, productivity, and quality, which are all easily converted to money.

The United Nations has entered the happiness trend by having a happiness index, which measures six main components. According to a UN report, the six factors are GDP per capita, healthy years of life expectancy, social support (as measured by having someone to count on in times of trouble), trust (as measured by a perceived absence of corruption in government and business), perceived freedom to make life decisions, and generosity (as measured by three recent donations). The top 10 countries rank highly on all six of these factors. In 2017, Norway was at the top of the happiness index, while the United States ranked 12th.

Should you worry about the happiness index? If you're the Minister of Happiness, as in Dubai, you might want to see the monetary value. For example, the Roads and Transport Authority (RTA) in Dubai is interested in the monetary value of happiness because it has to show the ROI on projects. RTA builds additional roads, bridges, new lanes, transit systems, water taxis, and other kinds of transport processes to keep citizens happy. Until recently, there haven't been ROI studies for a new bridge, canal, or road lane addition. Instead, these changes were implemented because there was a need to eliminate road congestion, accidents, and driving times. Essentially, the RTA wants to make citizens happy with the transportation system.

In our work with RTA, we were surprised to find that there is a happiness department, nestled within this large organization, with some interesting data helpful for the project managers to determine the ROI of new projects. For example, this department found a correlation between happiness with transit and the amount of money citizens spend in the city. If they're happy with transit—it is reliable, takes a short amount of time to travel, and is safe—they're more likely to go to the mall and spend money, and citizens spending money ultimately helps the city.

In short, there is usually a way to develop the monetary value to happiness. We suspect that in Norway, the happiness index has brought in tourists to see what goes on there, as well as some who want to stay there for a long period of time, or even live there. Maybe there is a monetary value to the Happiness Index. The key issue is that it can be done and is being done…if it is needed.

Questions for Discussion

1. Should happiness be converted to money? Explain.

2. When should you stop this conversion process?

Notes:

Misuse of ROI

The formula provided above should be used consistently throughout an organization. Deviations from or misuse of the formula can create confusion, not only among users but also among finance and accounting teams. The chief financial officer (CFO) and the finance and accounting staff should become partners in the implementation of the ROI Methodology. The program team must use the same financial terms as those used and expected by the CFO. Without the support, involvement, and commitment of these individuals, the wide-scale use of ROI will be unlikely.

Figure 1 shows some financial terms that are misused in literature. In the innovation field, terms such as return on ideas (or innovation), abbreviated as ROI, are used to describe the benefits of innovation without the financial calculation. This will confuse the CFO, who assumes that ROI refers to the return on investment described above. For meetings, the return on involvement (ROI) is used. NASA uses a term, return on inspiration (ROI) for students who are exposed to space and technology. Technology groups use return on information (ROI) or return on intelligence (ROI). These terms create confusion with executives. Sometimes return on expectations (ROE), return on anticipation (ROA), and return on client expectations (ROCE) are used, also confusing the CFO, who assumes the abbreviations refer to return on equity, return on assets, and return on capital employed, respectively. The events field uses return on event (ROE), return on exhibit (ROE), or return on engagement (ROE).

Term	**Misuse**	**CFO Definition**
ROI	Return on ideas	Return on investment
	Return of impact	
	Return of information	
	Return on innovation	
	Return on inspiration	
	Return of intelligence	
ROE	Return on expectation	Return on equity
	Return on events	
	Return on exhibit	
	Return on engagement	
ROA	Return on anticipation	Return on assets
ROCE	Return on client expectation	Return on capital employed
ROP	Return on people	?
ROR	Return on resources	?
ROT	Return on technology	?
ROW	Return on web	?
ROM	Return on marketing	?
ROO	Return on objectives	?
ROQ	Return on quality	?
ROC	Return on character	?

Figure 1. Misused Financial Terms

The use of these non-CFO-friendly terms for the benefits of a program will also confuse and perhaps lose the support of the finance and accounting staff. Other terms such as return on people, return on resources, return on technology, return on web, and return on marketing are used with almost no consistency in terms of financial calculations if they are provided at all. The bottom line: don't confuse the CFO. Consider this person an ally, and use the same terminology, processes, and concepts when applying financial returns for programs.

Social Return on Investment

SROI is the acronym for Social Return on Investment, a relatively new term for communicating the value of a nonprofit's impact on the community. The most credible calculation comes from the New Economics Foundation, which suggests that SROI "captures social value by translating outcomes into financial values." SROI uses the general formula:

$$\text{SROI} = \frac{\text{Tangible + Intangible Value to the Community}}{\text{Total Resource Investment}}$$

If all the tangible and intangible value is all the outcome data, then this represents the total benefits, based on cost avoidance. If the total resource investment is all the cost of the program, then this is the cost of the program. Therefore, this is actually the benefit cost ratio, which has been used by governments for centuries.

There are other variations of this concept. It has the advantage of being more "acceptable" to those individuals who are uncomfortable with the standard ROI calculation. The disadvantage is that the funders and executives may think that this concept and subsequent calculation is not credible.