



W.K.
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Mission Aligned Framework for Investing:

Maximizing the impact of the W.K. Kellogg Foundation's
Mission Driven Investment Portfolio



About this Report

This report was produced by **KKS Advisors** on behalf of the **W.K. Kellogg Foundation**.

About the W.K. Kellogg Foundation

The W.K. Kellogg Foundation (WKKF), founded in 1930 as an independent, private foundation by breakfast cereal innovator and entrepreneur Will Keith Kellogg, is among the largest philanthropic foundations in the United States. Guided by the belief that all children should have an equal opportunity to thrive, WKKF works with communities to create conditions for vulnerable children so they can realize their full potential in school, work and life.

About KKS Advisors

KKS Advisors is a leading consultancy firm providing innovative solutions that enable organizations to capture the enduring benefits of a sustainability approach. KKS' mission is to enable clients to create long-term value through the integrated management of economic, environmental, social and governance factors. Their vision is to reshape markets and is founded upon the effective integration of all forms of capital - financial, human, natural, and social. Their work with leading foundations centers around how to rethink traditional impact measurement techniques to maximize the power of capital to achieve social and environmental impacts.



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Revolution Foods - Kristin Groos Richmond, *CEO and Chairman* and Kirsten Saenz Tobey, *Co-Founder & Chief Impact Officer*

Contents

About this Report	2
Contents	3
Foreword	4
Introduction	6
Section One: Mission Aligned Framework for Investing – Developing the Framework	7
Section Two: Introducing Three Diverse Investees as Case Studies	12
1. HealthMine	13
2. Southern Bancorp	16
3. Revolution Foods	20
Section Three: Scoring Highlights – Mission Aligned Framework for Investing	23
Appendix	27

Foreword



**La June
Montgomery Tabron**

President and CEO

When cereal entrepreneur Will Keith Kellogg established the W.K. Kellogg Foundation in 1930, he dedicated us to promoting “the health, happiness and well-being of children.”

Children are at the heart of everything we do. But we know that children live in families and families live in communities. For children to thrive, families need to be able to support themselves and communities must be equitable places of opportunity. In many communities, however, that is not the case. So we use every tool available to pursue our mission on behalf of children — including investments.

In 2008, with the full backing of our board of trustees, we allocated \$100 million of the Kellogg Foundation's endowment for market rate, mission-related investments. After more than a decade, the Kellogg Foundation remains one of the largest foundations actively investing funds in mission-related investments and program-related investments.

Our goal is to strategically disrupt the status quo in capital market practices — to drive capital to low-income communities and communities of color in order to widen pathways to opportunity. We invest, learn and refine our approaches — continuously honing our strategy to better align our mission for children with market conditions. That means we must continually challenge ourselves — and the field — on impact measures. This report was commissioned as part of a comprehensive evaluation of the portfolio.

The purpose of the study was to develop a way of measuring social impact to effectively develop the double and triple bottom line model. When we invest, the financial return is clear. What we needed to gauge was the social return on investment. The team at KKS Advisors partnered with us to measure the effect of an investment on the economy writ large — including social return on investments. What they were able to do was to build a rubric by which we could begin to understand the weighting of social return.

As they discovered, some of the return was easy to identify. But they also encountered challenges related to where data was collected. In pursuit of useful metrics, they mapped the challenges and began to set a framework for analyzing a double bottom line investment opportunity. The approach they developed — the Mission Aligned Framework for Investing in this report — offers a set of determinants related to our programmatic strategy and desired outcomes. As we evaluate our investments, this analysis is contributing to our thinking and ongoing measurement of sustained impact.

We offer the report that follows as a resource for the field and a tool for other organizations exploring mechanisms to evaluate the social effect of investments in pursuit of deep impact.

Foreword



George Serafeim

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Impact investing is a field that holds promise to generate both social and financial value to create more economic opportunity for all. However, its full potential has yet to be realized. For that to happen, impact investors would need to adopt a systems perspective when allocating capital versus a deal-by-deal approach. Only by adopting a systems perspective, investors can catalyze change that has the potential to produce disruptive change.

The imperative to disrupt and catalyze positive change, has guided the W.K. Kellogg Foundation (WKKF) to expand their innovative work to deploy more of their endowment for impact through the creation of their Mission Driven Investment portfolio. The Mission Aligned Framework for Investing, introduced in this report, is a management and governance tool created by KKS Advisors on behalf of WKKF and seeks to help mission-driven investors in four ways. First, as an **assessment tool** for systems-level impacts during investment due diligence. Second, as a **diagnostic tool** post investment to understand portfolio level interactions and synergies across investments. Third, as a **monitoring tool** for assessing whether investees are delivering the expected impact. Fourth, as a **collaboration tool** where different teams working across investment and grantmaking teams could have a platform for cross-learning, information exchange and collaboration.

While there are tremendous data deficiencies plaguing the field, we find promising pathways for aligning mission and investments with rigor. Therefore, the framework is evidence-based and research driven. It focuses on the assessment of the following four categories; alignment and evidence, measurement quality, scalability of impact and potential for disruption. We apply the framework to three investees' cases to verify and showcase its practicality in helping make decisions. This could not have been done without the help of the investees who provided valuable insights, data and time.

The framework can enable all types (e.g. large, small, above-market, below-market, etc.) of mission-oriented investors to better weigh up alternative opportunities for impact in the marketplace. Although originally developed for WKKF's Mission Driven Investment portfolio, the learnings and approach are designed to be applicable to any impact investor. We hope you will find it useful.

Introduction

In 2007, the W.K. Kellogg Foundation (WKKF) embarked at the time a commitment to create a Mission Driven Investment (MDI) portfolio that would serve to disrupt the status quo and traditional thinking about philanthropy. This portfolio would allow the foundation to “unlock” a greater portion of its endowment and resources and direct them towards delivering social returns that were aligned to their mission. The foundation’s goal was to invest \$100 million to organizations using this so-called “double bottom-line investing approach,” with the aim of generating both financial returns (~ 4-6% target across portfolio) and social returns – supporting families and communities in creating conditions in which all children can thrive.

“We approach our mission-driven investments in very much the same way we approach grantmaking – with clear goals of improving the outcome of our managers, a focus on our mission and constantly learning from our work.”

Joel Wittenberg, WKKF vice president and chief investment officer

Staying true to continuous learning, there has been a need to refocus efforts into how WKKF can sustain and further enhance its approach to selecting and managing investments to maximize the social and financial impact of the portfolio. To this end, WKKF engaged KKS Advisors, a sustainable investment and impact advisory firm to conduct impact assessments on a diverse sample of its current investees. The aim of these assessments was to develop a practical framework for investing that WKKF could use to align the impact of its investments to the underlying drivers of its mission, effectively measure these impacts, assess the scalability potential

of the impacts and understand the opportunities for the investee must disrupt the wider system. The aim was to address three core challenges:

- 1 Selection:** how to choose between alternative investments that have an equal risk-adjusted return profile. Establishing alignment to the Foundation’s mission is key, by considering entire investment universe and looking beyond traditional screening or themed approaches. This requires a strong understanding of the underlying drivers of the mission.
- 2 Measurement:** the ability to accurately measure the social impacts achieved by the manager or company. As confidence in the measurement decreases, an investor could demand a higher level of impact for the given level of investment, as compensation for the higher measurement risk. They could also reward investees that are able to accurately measure the higher order impacts they are having by lowering their cost of capital.
- 3 Scaling and Disruption:** with limited capital available, it is important to make informed decisions about how the blend of investments in a portfolio create scalable and disruptive impacts in areas aligned to the mission.

Section one of this report provides an overview of the Mission Aligned Framework for Investing and why it was developed. Section two introduces three diverse WKKF investments that served as pilot cases in the development of the framework: HealthMine, Southern Bancorp and Revolution Foods. The Appendix contains more extensive information on the steps anyone can follow to apply this framework to their unique investment strategy, how each case study investee scored on the Mission Aligned Framework for Investing and more information on the individual impact assessments.



Section One:

Mission Aligned Framework for Investing – Developing the Framework

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This section provides you with the background to each category of the framework.

The four Mission Aligned Framework for Investing categories are:

- 1 **Alignment and Evidence:** how aligned is the impact an investee creates to an investor's mission?
- 2 **Measurement Quality:** can the impact be measured and at what level?
- 3 **Impact Scalability:** how scalable is/are the impact(s) that the investee is creating?
- 4 **Disruption Opportunity:** what potential does the investee have of creating broader systemic change with its activities?

1. Overcoming the selection problem – How to ensure an investment is aligned to your mission

How can an impact investor choose between an investment in a health care provider and an investment in a Community Development Financial Institution? Assuming the financial return profile is similar, it then becomes a question of what impact the investment is expected to generate, how this will be measured and whether this is aligned to the mission of the impact investor.

No impact assessment should start without a clear understanding of the degree of alignment that the

prospective investee is going to have with the investor's goals. Therefore, our starting point for developing an Mission Aligned Framework for Investing was WKKF's mission to support children, families and communities as they strengthen and create conditions that propel vulnerable children to achieve success as individuals and as contributors to the larger community and society.

Children are at the heart of the foundation's work. Yet, children live in families and families best thrive in equitable communities. Breaking this down into: thriving children, working families and equitable communities, these categories provide a framework of investment opportunities that advance WKKF's mission. The next step was to research the key factors that would affect how we can foster thriving children, support working families and create equitable communities; we call these key factors determinants for the purpose of this framework.

Our team identified a list of determinants under each of the categories that map to the foundation's programmatic strategy and desired outcomes, which are consistent with a literature review of academic research. For example, for thriving children, factors such as maternal nutrition, quality of child nutrition and quality of housing were found to be important drivers. This qualitative information is useful in identifying the type of social impact that would be the most relevant for WKKF. At the same time a methodology to further quantify the relationship between different determinants and the three mission categories was needed, to enable potential comparisons between different investments. For that reason, a more thorough analysis of the relevant literature and evidence for each determinant was carried out:

- 1 An assessment of the magnitude of impact (based on qualitative information wherever this was available) of each determinant (i.e. how much can we affect thriving children by improving their nutrition)
- 2 An assessment of the quality of scientific evidence. This is based on a combination of whether the results found were consistent across a large or small number of academic papers and whether the research was quantitative or qualitative in nature.

Example: Quality of Child Nutrition

- 1 **Magnitude of impact:** A variety of academic and practitioners' papers have investigated the impact of the quality of child nutrition on child development. These papers conclude that the quality of nutrition significantly affects the physical and mental health of children as well as their cognitive and academic abilities. As a result, this determinant was ranked as 'Major' based on its impact on child development.
- 2 **Quality of scientific evidence:** The evidence identified through the review was gathered from respected and peer-reviewed industry publications like the American Journal of Public Health or international organizations like the World Health Organization. Moreover, the evidence identified included a lot of quantitative studies reinforcing our confidence in the quality of the evidence. As a result, the quality of evidence was ranked as 'High' for this determinant.

The outcome of this exercise is the development of a mapping between WKKF's mission to key determinants, their magnitude of impact and the underlying quality of scientific evidence. This mapping is fundamental to the selection process between alternative investments and is the foundation for the next step, *measuring impact*.

2. Overcoming the measurement problem – Standardizing the process not the metrics

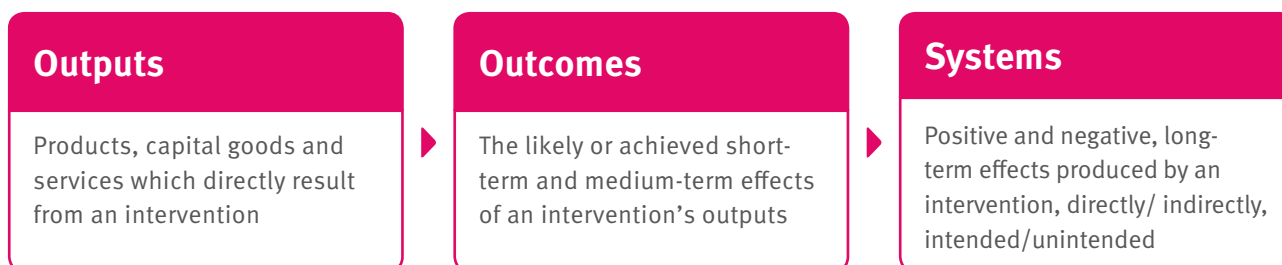
The next step in our process was to address the 'measurement problem' - how can an impact investor effectively measure the social impact (or the potential for social impact) of an investee and the quality of this measurement? Several publicly available frameworks are trying to address this problem, including the Global Impact Investing Network's IRIS metrics¹. The challenge most of these frameworks are facing is that they are trying to standardize the metrics, which is particularly difficult given the unique nature of each impact investor's mission. We took a different approach by attempting to standardize the process an impact investor would follow to help them choose investments, measure their social impact and then identify opportunities for scaling impact. As discussed, the selection challenge is addressed through our steps of breaking down the mission and mapping determinants. In order to create a standardized process that can overcome the measurement (and scaling and disruption problems) we had to leverage work from the impact investing and systems thinking fields.

In impact investing, a results chain is a measurement system used to encourage better and increased measurement of social and environmental impacts. The results chain links inputs to activities, outputs and ultimately to outcomes and impact. A results chain can be used to describe an intervention's observable changes at different levels, from the delivery of goods and services, all the way through to the long-term changes on people's lives or the wider environment. At each link of the results chain, different types of information gathered demonstrate achievement (or not), of the results.² An example of a results chain can be seen at the top of the following page. In our study we have renamed the 'impact' level in this taxonomy as 'systems'.

1. <https://iris.thegiin.org/metrics>

2. Impact in the results chain is defined as: "positive and negative, primary and secondary long-term effects produced by development interventions, directly or indirectly, intended or unintended": OECD (2010), Glossary of key terms in evaluation and results-based management, <https://www.oecd.org/dac/evaluation/2754804.pdf>.

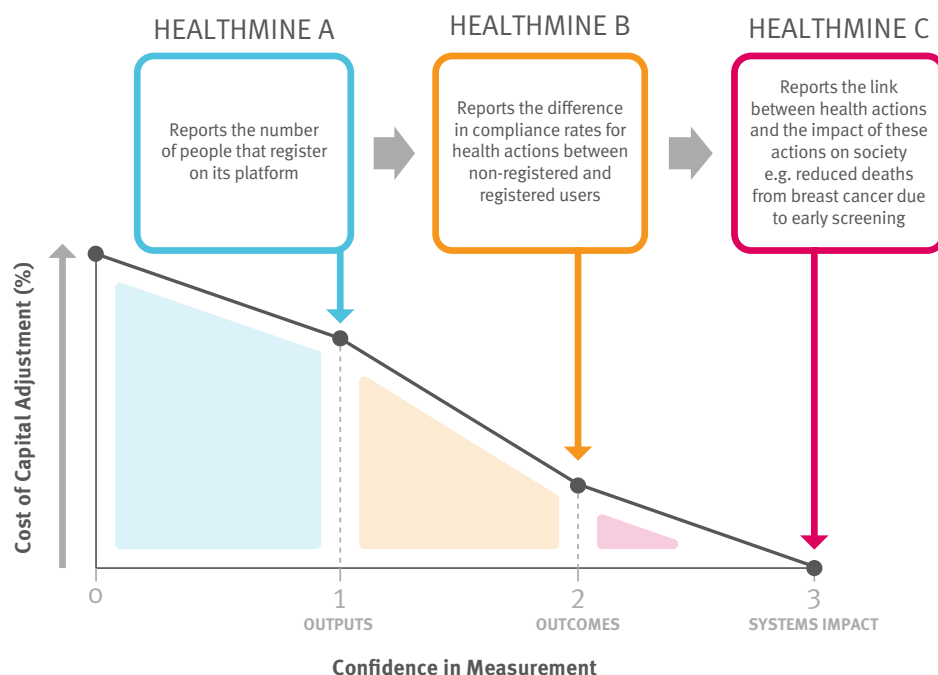
Impact Investing Results Chain



The advantage of constructing a framework around the mission objectives for WKKF is that once it is time to conduct an impact evaluation to assess an investee's impact, the foundation does not have to start looking into multiple reporting frameworks to find appropriate metrics that could potentially be relevant, but rather passes this question on to the investee. The investor can provide the investee with a list of their key determinants and ask them to produce evidence of how they can measure the impact of their products and services on these.³ The framework rewards investees that are able to measure

the impacts of their interventions further down the results chain. Investors could consider lowering the cost of capital for investees who can capture these higher order impacts and accurately report the social impacts they are creating. This would incentivize organizations to improve their data infrastructure to capture the full range of impacts to a high quality and increase transparency for them to access more capital. See the diagram below for a worked example based on one of the investees, HealthMine. (For a more detailed description of HealthMine's impact assessment see Section Two.)

Worked example: Measurement Quality



³ The term impact is used to imply causal attribution. Impact evaluation is an assessment of how the intervention being evaluated affects outcomes, whether these effects are intended or unintended. The proper analysis of impact requires a counterfactual of what those outcomes would have been in the absence of the intervention.

3. Overcoming the scaling and disruption problem – Bringing a systems perspective to impact measurement

What is systems thinking?

- A system is a set of elements that are interconnected in ways that produce distinct patterns of behavior.
- It is the relationships between the individual parts—shaped by their stocks and flows, relationships and delays that give rise to their behavior.
- You can map the feedback between different components of the system, to understand the positive and negative impacts of an intervention on the wider system in which it is operating.
- Thinking in systems can help us to understand causes, identify critical leverage points of influence and take effective action.
- The framework components applied in this assessment are based on the work of Donella Meadows (2009).⁴

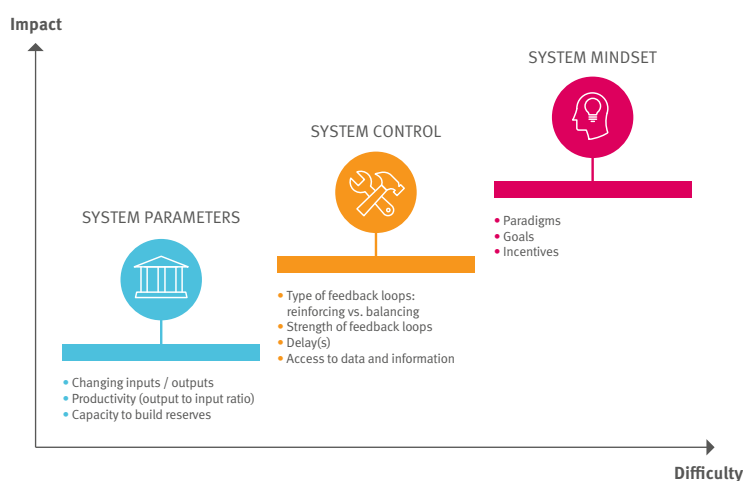
It is important for impact investors to be aware of the wider system that they are investing in. We designed an assessment of the scalability potential of an investment based on collecting information on stakeholder dependence and scalability costs. Understanding the ecosystem of an investment is a much more difficult task that includes working on systems maps that describe how an organization achieves impact within the broader system it is operating.

For this part of the framework we adapted work from systems theory to create a practical methodology for assessing investments. (See Appendix 1 for a detailed description and see graph below.) Our objective was to explore potential ways that an organization can change the system in which it operates. Then, disruption opportunities in the form of new investments can be identified based on the developed systems map and assessed in terms of their implementation potential.⁴

4. Testing the Mission Aligned Framework for Investing

We tested the Mission Aligned Framework for Investing by conducting an end-to-end impact assessment of three investments from WKKF's MDI portfolio: HealthMine (a health care technology provider), Southern Bancorp (a community development financial institution located in The Mississippi Delta) and Revolution foods (an organization producing and distributing healthy school meals to low income children). The sample was intentionally diverse in terms of the objectives of each investee. An interactive approach was used where our team worked closely with the investees to develop hypotheses, collect relevant data and produce the impact assessment results. The next section introduces these three case studies and provides an overview of key impact assessment findings.

Framework for System Disruption



4. Thinking in Systems: A Primer, Donella Meadows, 2009



Section Two:

Introducing Three Diverse Investees as Case Studies

Section Two: Introducing three diverse investees as case studies

Three investees from WKKF's Mission Driven Investment portfolio were selected as case studies and thorough impact assessments were carried out on each investee to test the assumptions and concepts integrated within the Mission Aligned Framework for Investing. These investees were HealthMine; a health care technology platform, Southern Bancorp; a community development financial institution and Revolution Foods; a healthy school meals provider. Please see Section 3 for the highlights of how each of these investees scored on each section of the Mission Aligned Framework for Investing.



1. HEALTHMINE

Introduction

HealthMine is a Health Action as a Service company that continuously empowers and incentivizes individuals to take action and improve their health, while enabling health plans and organizations to increase profitability. Originally built inside a Value-Based Insurance Design (VBID) health plan, its services have been leveraged by health plans since 2008 to target and engage individuals to take the next clinically-informed health actions that improve quality measures and clinical outcomes while decreasing total cost of care.

HealthMine accelerates clinical health action by:

- Seamlessly integrating data from multiple sources
- Operationalizing health plans' existing risk adjustment and Stars strategy⁵

- Learning, motivating and recommending simple and appropriate health actions for each member
- Prioritizing clinical pathways that will have the most impact.

HealthMine primarily partners with health insurance providers in the United States market.

Theory of Change

As a health care technology provider, HealthMine's impact is concentrated on the members who register on the platform who change their behavior as a result of registration. Our team assessed the impact of HealthMine on members in four key impact areas:

- 1 Use of the platform
- 2 Compliance with recommended health actions
- 3 Management of chronic conditions⁶
- 4 Healthcare expenditure⁷

Overview of methodology

A thorough review of the medical and academic literature (> 80 publications) was conducted to understand the existing evidence on the links between preventative health actions and the multitude of potential impacts on patients' health, well-being, professional and personal lives as a result. See 'systems map' section, below for a systems map detailing the literature review research findings and some examples of the causal relationships identified.

5. A quality rating system to measure the performance of health plans.

6. Chronic diseases account for 7/10 deaths each year in the United States and are associated with long-term treatment cycles, potential reductions in quality of life and lower productivity. CDC (2016) United States Department of Health and Human Services. Center for Disease Control and Prevention

7. Treating people with chronic diseases accounts for 86% of the United States total health care cost, CDC (2016)

Extensive datasets provided by HealthMine were analyzed using advanced quantitative techniques to understand the impact of HealthMine on its members, in the four core impact areas. Appendix 2 provides further details of the dataset used and a summary of the methodology applied to each of the four core impact areas.

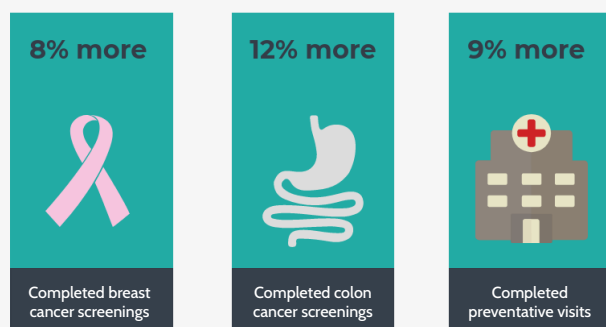
Key impact assessment findings

1 Use of the platform

- **Women are 1.7 times more likely to register on the platform than male users.** Women are also 2.4 times more likely to educate themselves about their health once registered on the platform compared to men.
- Females **aged 29-59** are most likely to register and make use of the platform, with probability of registration peaking between 30-59.
- Propensity to register is lower in states that scored lowest on a combination of socioeconomic factors, including income level.

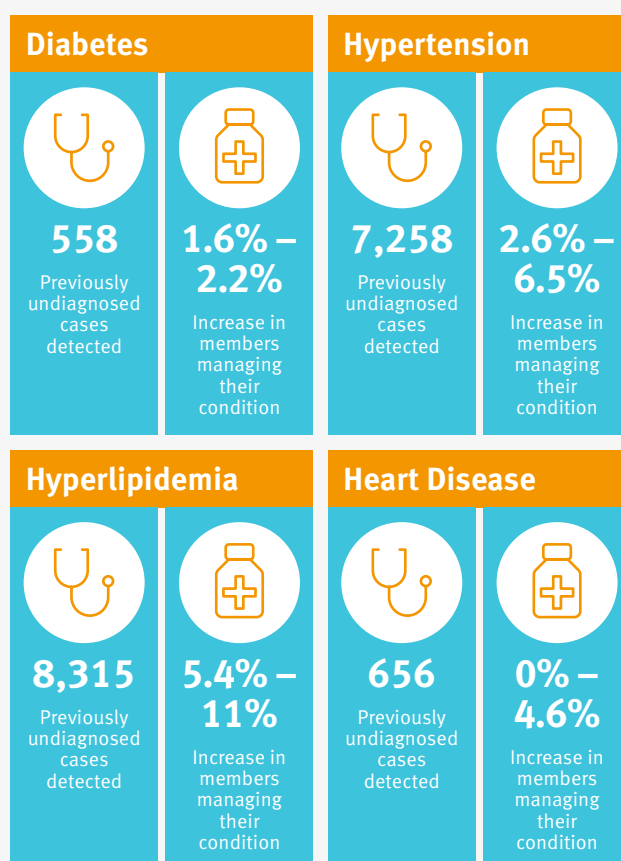
2 Compliance with recommended health actions

- Both males and females using the platform were found to have higher compliance rates for screening tests and preventive visits. Accounting for selection biases, the research found the **highest effect on females aged 40-49**, see diagram of full results for this group below.



3 Management of chronic conditions

The analysis finds an **increase in the detection rates and lift rates of four chronic conditions** as a result of use of the HealthMine platform – see full results in the diagrams to the right. The lift rate can be defined as the percentage of members managing their condition as a result of HealthMine.



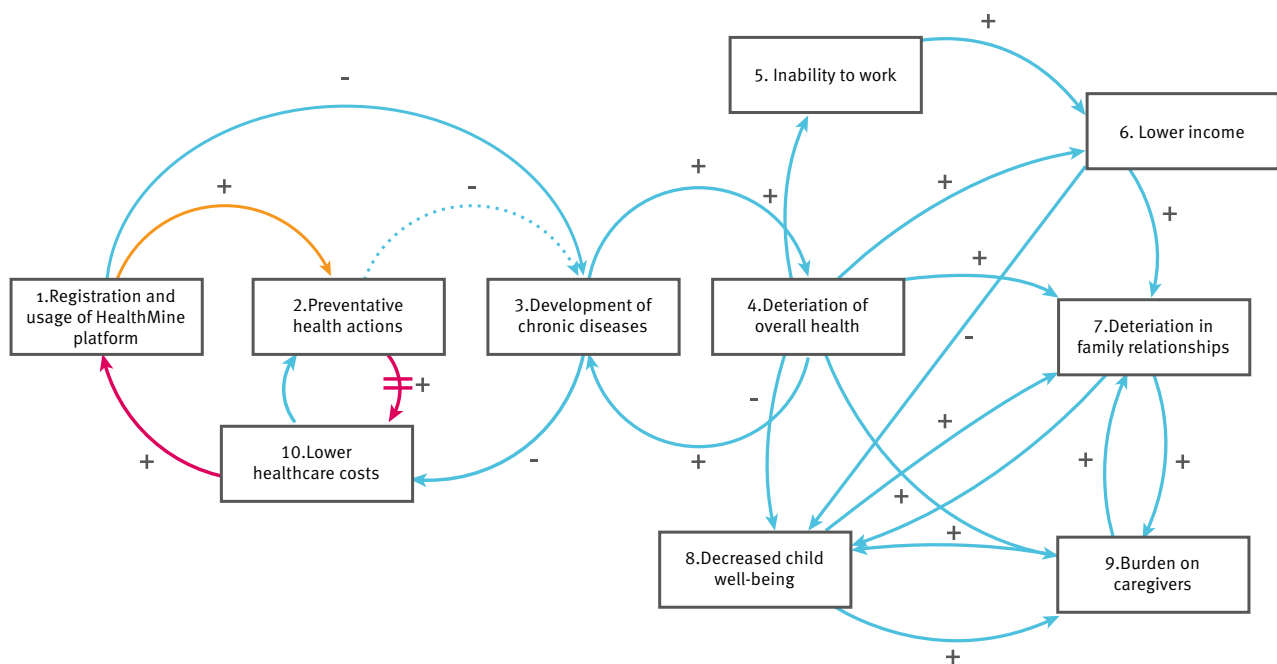
4 Healthcare expenditure

Based on this evaluation's estimates for chronic condition prevalence, lift rates and yearly savings, the research team estimated the projected health care savings results for a population of 300,000 individuals. The projected savings can be found in the table below for four chronic conditions:

Projected savings for each chronic condition	Savings in Year 1
Projected savings from using HealthMine to increase managed diabetes population	\$640,253
Projected savings from using HealthMine to increase managed hypertension population	\$465,975
Projected savings from using HealthMine to increase managed hyperlipidemia population	\$2,864,244
Projected savings from using HealthMine to increase managed heart disease population	\$2,964,800
Total projected savings	\$6,935,272

Systems Map

A systems map was developed using the software Vensim⁸ to understand how registration and usage of the HealthMine platform led to a series of impacts on its customers and broader society. It details the direction of the feedback loops present in the system and where there are delays in the impact being realized, e.g., between customers taking preventive health actions and observing lower health care costs, due to the lagging nature of information in health insurance pricing.⁹



An extract of the evidence underpinning the causal links

Component 1	Component 2	Evidence	Reference
Development of chronic diseases	Deterioration in overall health	For eight of nine common chronic medical conditions, patients with the condition showed markedly worse physical, role and social functioning; mental health; health perceptions; and/or bodily pain compared with patients with no chronic conditions. Heart disease and patient-reported gastrointestinal disorders had the greatest impact. Patients with multiple conditions showed greater decrements in functioning and well-being than those with only one condition.	Stewart, A.L., Greenfield, S., Hays, R.D., Wells, K., Rogers, W.H., Berry, S.D., McGlynn, E.A., and Ware, J.E. 1989. <i>Functional status and well-being of patients with chronic conditions. Results from the Medical Outcomes Study</i> . In: JAMA, 18;262(7):907-13.
Deterioration in overall health	Inability to work	The probability of a cancer patient being employed dropped by almost 10 percentage points, and hours worked declined by up to 200 hours in the first year after diagnosis. Annual labor-market earnings dropped almost 40 percent within two years after diagnosis and remained low, whereas total family income declined by 20 percent, although it recovered within four years after the diagnosis. These economic impacts on survivors were driven by effects among men; the effects among women largely were not statistically significant.	Zajacova, A., Dowd, J.B., Schoeni, R.F. and Wallace, R.B. 2015. <i>Employment and income losses among cancer survivors: Estimates from a national longitudinal survey of American families</i> . In: Cancer, 15;121(24):4425-32

8. <https://vensim.com/>

9. The line between 'lower health care costs' and 'registration and usage of the HealthMine platform' is red as this was a hypothesis that was unable to be evidenced with the data during the length of the impact assessment.



2. SOUTHERN BANCORP

Introduction

Southern Bancorp is a rural community development financial institution (CDFI) with \$1.2 billion in assets and serving 80,000 customers in some of the poorest communities in the country. Their 41¹⁰ branches span the Mississippi Delta and rural Arkansas providing a unique blend of products and services (both via their banking arm and non-profit) largely to the unbanked and underbanked including lending, asset building and public policy for this region. The average number of people unbanked and underbanked is significantly higher than the average for the United States and the two states perform worse across a variety of key socioeconomic markers.¹¹

Their three core 10-year goals, set in 2016 were:

- 1 **Housing:** 10,000 people supported in attaining and sustaining affordable housing
- 2 **Jobs:** 100,000 jobs supported through entrepreneurship, retention and creation of employment
- 3 **Savings:** 1,000,000 people empowered to save via products, services and public policy

Theory of change

Southern Bancorp's social impact flows from both the work of its non-profit arm (Southern Bancorp Community Partners) and its banking arm that together provide their customers with a suite of over 30+ products and services ranging from housing and credit repair counselling, to tax preparation services, loans, child savings programs and home-buyer education. They see themselves as community development agents, with their employees active in the local communities they serve and building close

relationships with other stakeholders, e.g., NGOs and universities, that have enabled them to scale their impact. An extensive literature review was carried out to understand the broader impacts that savings can have on an individual including the impact on total assets, homeownership, economic effects and psychological effects. See 'systems map' section below for the causal connections identified in the literature.

Methodology

A range of quantitative and qualitative techniques were applied to better understand the impact of Southern Bancorp's products and services. Quantitative techniques included econometric analysis of their individual development accounts program, savings initiatives and tax preparation initiatives and an analysis of their mission goals progress and survey data. Qualitative techniques included in-depth interviews with Southern Bancorp employees, developing a system map and interviews with customers.

Key impact assessment findings

1 Impact on savings

Southern Bancorp has a wide variety of products and services that enable its customers to build savings. This focus is key to them achieving their mission of providing wealth building to the underbanked and unbanked. This is especially important given that Pew Charitable Trusts research finds that 70 percent of people born into the bottom quintile of wealth remain in poverty¹². Having an initial asset to put down as a down payment or to use as collateral for a loan can be crucial in escaping the vicious cycle of poverty.

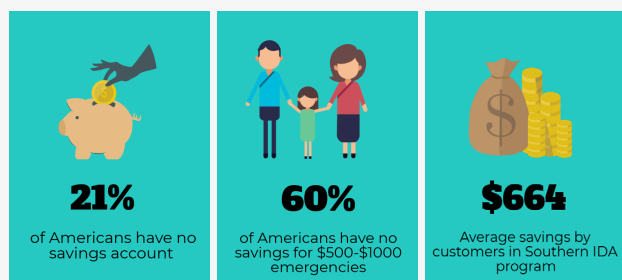
A detailed analysis was carried out on their individual development account (IDA) program given that there was a significant time series of data available, ranging from 1999-

¹⁰. As of start of Impact Assessment

¹¹. All data analyzed was taken from Policy Map (2018)

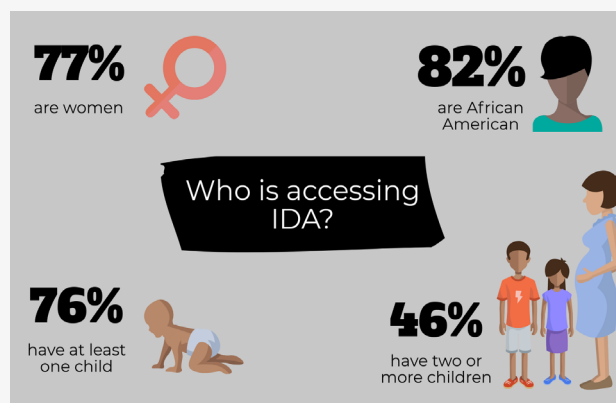
¹². the American Dream: Economic Mobility Across Generations. See: https://www.pewtrusts.org/-/media/legacy/uploadedfiles/pes_assets/2012/pursuingamericandreampdf.pdf

Savings in the United States



2017, with extensive information about the ~3000 customers that had used the program. This included demographic and household characteristics (e.g., education level, gender and family size), what asset goal they were saving for (intended use) and what they put the savings towards (withdraw use), whether they were successful in reaching the savings goal and how much they managed to save.

Who is accessing the IDA?



This allowed for an extensive quantitative analysis to be carried out to understand what impact the program was having on customer savings. A sample of the results are shown below.

Results

- 1 If customers were previously banked they were more likely to reach their goal.¹³ 27 percent of IDA customers went on to use other Southern Bancorp products and services, thus creating a virtuous cycle of saving. The IDA program is a good example of a 'primer' product for Southern Bancorp, that is often a customer's first interaction with the bank. This builds trust in the institution and a savings behavior that allows customers to go on to access other products.

What's influencing ability to save?



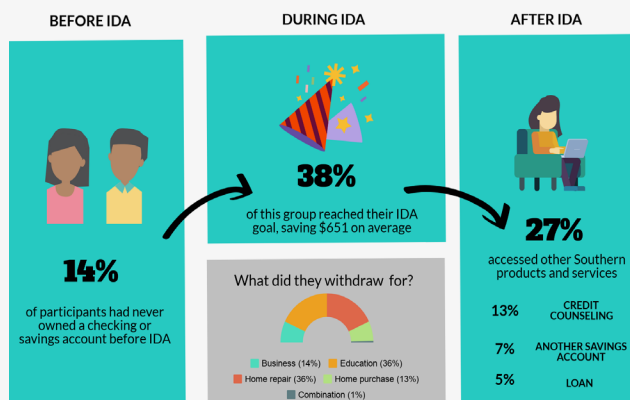
And choice of asset matters...



People were 70% less likely to reach a target for home purchase than for education



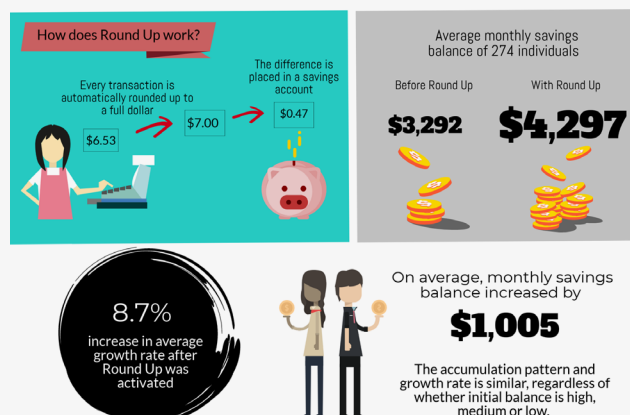
People were 160% more likely to reach a target for home repair than for education



- 2 Other support services provided in the branch led to increased chances of individuals reaching their savings goal.
- 3 The type of asset goal that customers choose matters. Larger, more audacious goals such as 'home purchase' appeared to be too large within a short-term savings goal as customers were 70 percent less likely to reach their goal.

¹³ 14% of IDA customers had never owned a savings or checking account prior to the program and 45% had never owned a savings account.

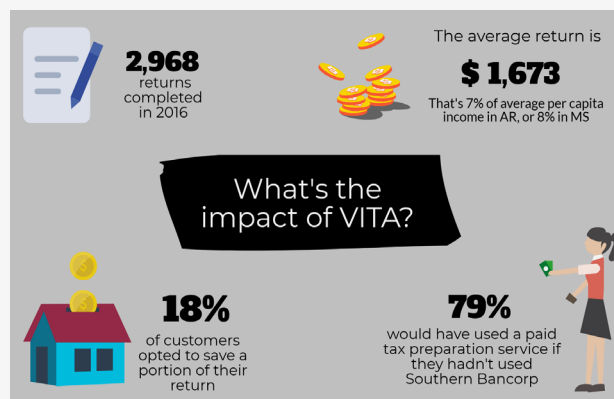
Background to Round Up



4 Savings incentive programs such as 'Round Up'¹⁴ have a positive impact on savings levels.¹⁵ Please see the graphic (above) for a summary of the key impacts.

5 The free tax preparation service¹⁶ that Southern Bancorp offers contributes positively to the savings

What is the impact of the Volunteer Income Tax Assistance (VITA) program?



level of customers. Eighteen percent of customers opted to save a portion of their return in 2016 and 2,345 customers (79 percent) would have used a paid service costing between \$200-700 if they hadn't used the volunteer income tax assistance program (VITA) provided by Southern Bancorp Community Partners.

2 Impact on job creation and housing

Southern Bancorp has a CDFI-data collection process for all loan officers to adhere to, that helps the bank to report CDFI-relevant information for awards and to funders to highlight the success of their mission. Information such as loan type is recorded alongside

Jobs	2016
Microloans (<\$50,000)	
Microloans (<\$50,000) #	310
FTEs supported per Microloans (<\$50,000)	310
Small business loans (<\$100,000)	
Small business loans (<\$100,000) #	517
Business loans (>\$100,000) #	1,630
FTEs supported per business loans (>\$100,000)	1,630
IDAs	
Small business IDA asset purchases	19

a set of other inputs, dependent on the loan type selected, e.g., capacity at facility, census tract, low income accessibility and units created. For the 'housing' and 'jobs' components of the Southern mission, we were only able to evidence the impacts the bank was creating at the output level, using information from the Southern Bancorp Mission Goals spreadsheet. A paucity of time series data with demographic characteristics meant that a deeper assessment of impact was not possible.

Housing	2016
People supported by Home Loans - Single family	426
People supported by affordable housing loans - multifamily	581
First time homebuyers #	45
New housing counselling clients	55
Home purchase IDA asset purchases	10
Home repair IDA asset purchases	22

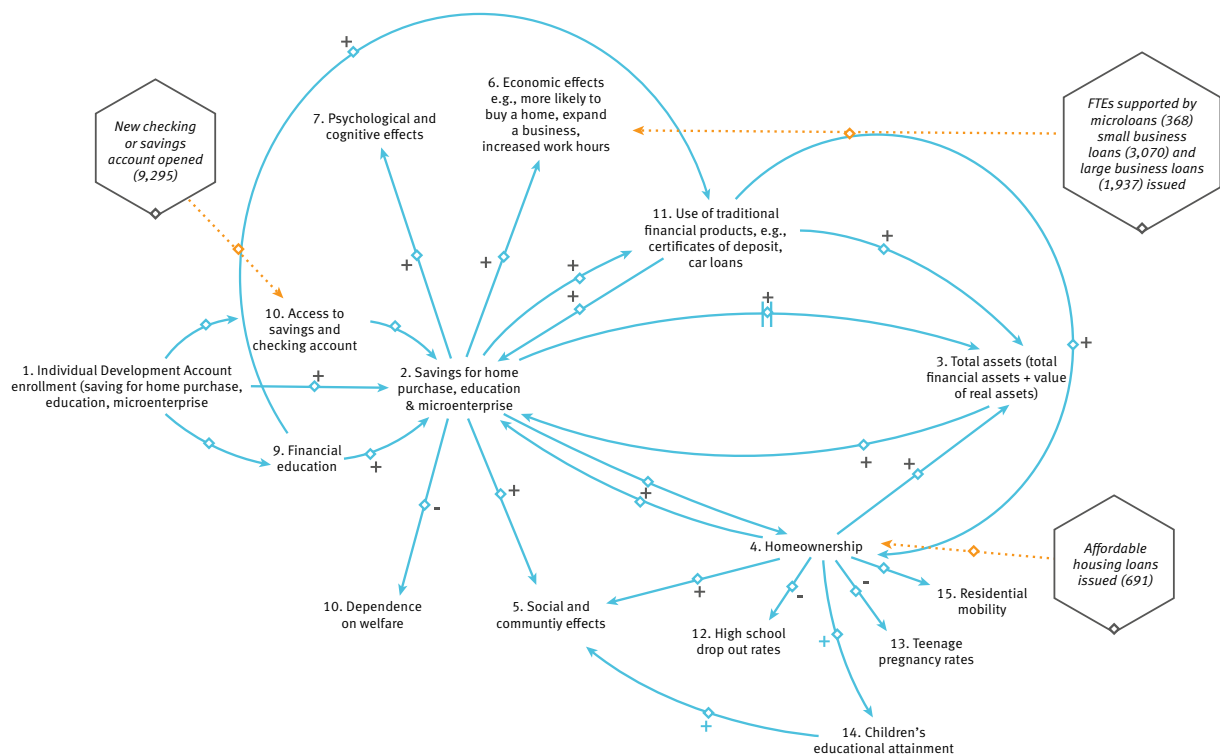
¹⁴. 'Round Up' is an optional add-on that can be activated on Southern Bancorp's savings accounts that allows customers to elect for all their transactions to be automatically rounded up to a full dollar amount. The difference is directly transferred into a savings account.

¹⁵. Statistical analysis was conducted on a sample of 274 customers whose savings habits could be analysed for 18 months prior to the activation of Round Up and 18 months post activation.

¹⁶. The Volunteer Income Tax Assistance (VITA) Program provides free income tax return preparation to taxpayers, helping them to take advantage of the tax credits they are eligible for including the Earned Income Tax Credit (EITC), Child Tax Credit (CTC), and education credits. Increases in the size and number of tax credits have made tax returns more complex, placing heavy burdens on low-income tax payers.

Systems Map

A systems map was developed to explore how the savings programs run by Southern Bancorp were impacting their customers, based on an extensive review of the academic literature. It also details the nature of the feedback loop at play between variables. An extract of the literature underpinning the causal connections in this map is shown in the table below.



An extract of the evidence underpinning the causal links

Component 1	Component 2	Evidence	Reference
Savings	Homeownership	After 48 months, overall homeownership rate and rate of recent home purchase among non-homeowners was 7-11 percent higher in the IDA treatment group	Mills et al 2006, Abt Associates, based on randomized experiment study and econometric analysis
Use of traditional financial products e.g. certificates of deposit, car loans etc.	Savings	Increase in use of traditional financial products after IDA participation e.g., certificate of deposit (4.5 percent increase)	Arkansas IDA Program Survey, Policy Points V.28, October 2006
Financial education	Savings	Participants in programs with financial education are associated with a \$15.14 higher Average Monthly Net Deposit (AMND) in their IDA account compared to those that don't receive education	Grinstein-Weiss, M., Sherraden, M., and Zhan, M., 2006. <i>Saving Performance in Individual Development Accounts: Does Marital Status Matter?</i> In: Journal of Marriage and Family 68(1):192-204.

3. REVOLUTION FOODS

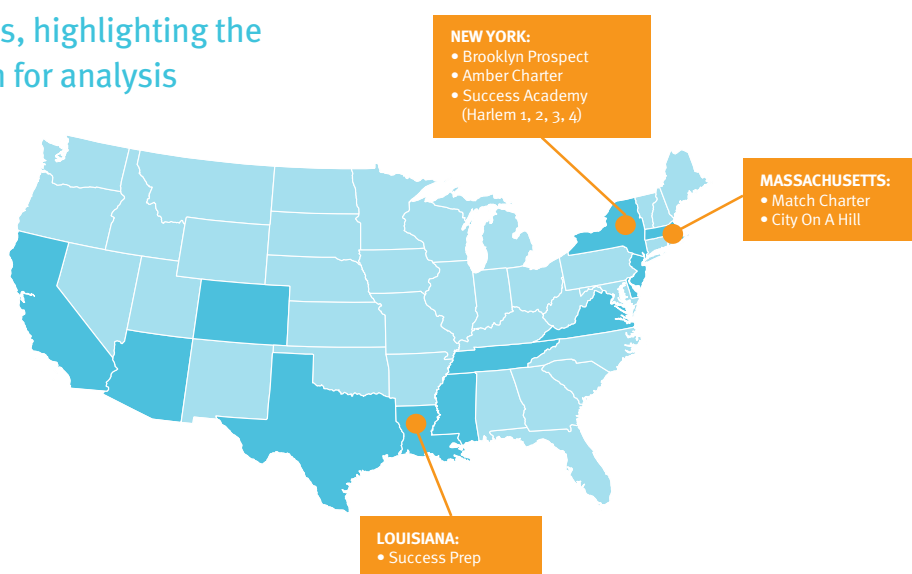
Introduction

Revolution Foods started in 2006 with a mission to build lifelong healthy eaters by making kid-inspired, chef-crafted food accessible to all. As of the 2018-2019 school year, the company designs, produces and delivers 2 million freshly prepared and healthy meals every week, working in partnership with school districts, city feeding programs, early education centers, and community-based programs across the nation to ensure their students are well-nourished and ready to learn.¹⁷

Serving 96,000 pounds of vegetables and 1.2 million servings of fruit per week, Revolution Foods utilizes a clean label supply chain to source its real food ingredients including fresh local produce, high quality proteins, rBST-free dairy products, and no artificial flavors or colors. Beyond the lunch line, Revolution Foods aims to promote overall family wellness by equipping parents, teachers and students with valuable tools and resources to continue positive nutrition education. Together with best-in-class community partners such as FoodCorps and Share Our Strength, Revolution Foods brings nutrition curriculum, cooking classes, gardening lessons and other education events to students beyond the cafeteria.

A map of the United States, highlighting the treatment schools chosen for analysis

*Dark blue identifies the states in which Revolution Foods has operations



Theory of change

Before analyzing the impact of Revolution Foods on its key stakeholders, the research team undertook a thorough review of the existing literature on the links between child development and food/nutrient intakes. Improved nutrition is associated with improved academic outcomes, cognitive skills, health status and child behavior. However, previous credible impact evaluations of nutritious food programs in both developed and developing countries highlight that improved nutrition may not automatically translate into improved outcomes as many other factors are involved. See 'systems map' section below for some of the causal connections identified in the research.

Methodology

To assess the impact of Revolution Foods, students in schools served by Revolution Foods (the treatment schools) were analyzed to understand if they performed differently compared to students in comparable schools not served by Revolution Foods (the control schools). Data was extracted from the State Department of Education data sources. Treatment schools were selected by mapping out which Revolution Foods schools had relevant performance data available for a minimum of 2 years prior and post the introduction of the healthy school meals – see chosen treatment schools in the diagram below.

¹⁷. As of 2017, the company operated in: California, Colorado, Texas, Louisiana, Mississippi, Tennessee, Alabama, Virginia, Washington, DC, Delaware, Pennsylvania, New Jersey, New York, Connecticut, Massachusetts, Rhode Island

Control schools were then selected for comparison that met the following key criterion: located in an area with similar socioeconomic characteristics, a similar entity as the treatment school, a school with comparable outcomes and trends in student academic performance prior to the intervention and one with no previous healthy school meal program in place prior to the research timeframe.

State-level Performance Index (PI) scores¹⁸ were used to assess school performance before Revolution Foods' intervention. If prospective control schools shared similar

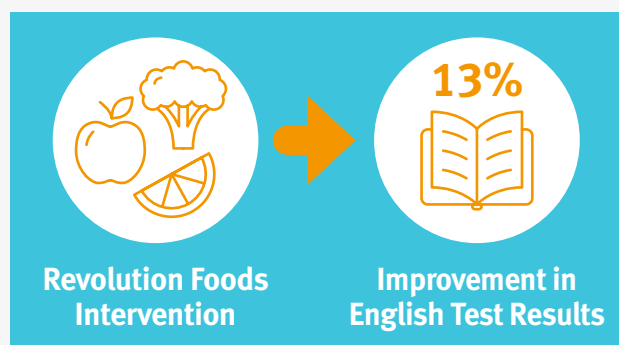
PI scores to the treatment school prior to Revolution Foods' intervention, a deeper analysis of specific academic performance indicators was then undertaken. Data quality and availability for over 100 schools in three states was analyzed before finalizing the final list of treatment and control schools suitable for the analysis (see Appendix 4). In order to compare the performance of schools across states, the data collected was normalized and a difference-in-differences was performed to isolate the impact of Revolution Foods. See Appendix 5 for further details of these steps and for an outline of the key data limitations.

Key impact assessment findings

Given the data challenges (outlined in Appendix 5), the research team focused on the states of Louisiana, Massachusetts and New York for the analysis because of the consistency, reliability and the availability of data for these three states. Impact was assessed across the following categories: English language Arts (ELA), mathematics and attendance rate.

1 A 13 percent improvement in English Language Arts (ELA) results

Out of the three categories assessed, the research found the greatest effect upon ELA performance grades across all the schools assessed. We observed a 13.1 percent improvement in the ELA performance of treatment schools compared to control schools. This means that the pass rate of the ELA exam was 13.1 percent higher in treatment schools served by Revolution Foods compared to control schools.



2 A small positive effect on mathematics exam results and attendance rates observed

The estimated effects on the mathematics exam and attendance rates was also positive, yet small (< 1 percent). It is important to highlight that the data availability and quality issues discussed in the methodology have highly affected the scope of the evaluation and could be impacting these results. Indeed, as long-term changes in eating behaviors require time, higher positive effects across categories could be identified with longer time series.

3 Number of employees receiving access to traditional financial services for the first time

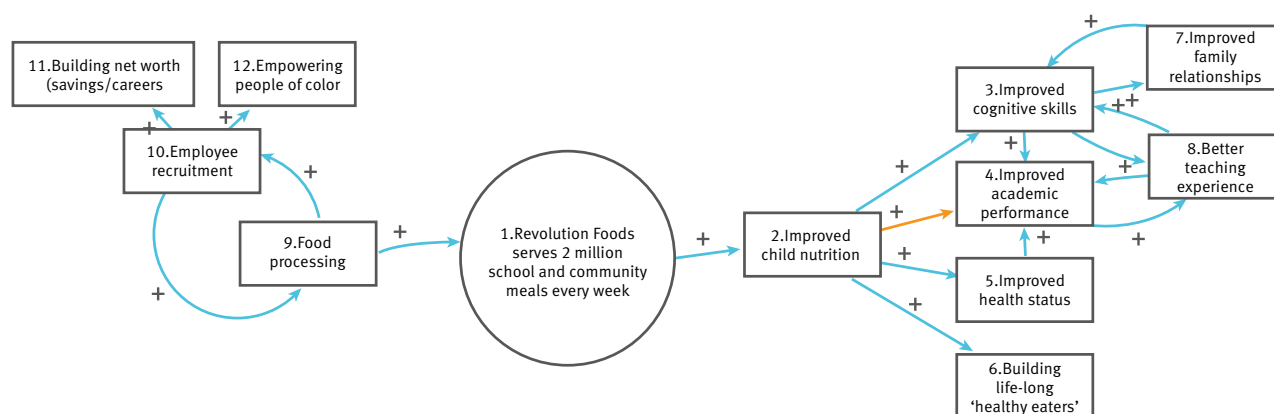
Revolution Foods not only provides accessible, good quality food to students, but also provides good jobs. Revolution Foods observed that most of its employees did not have access to traditional financial services. As a result, the company decided to partner with Community Financial Resources to allow its employees to open bank accounts to receive their salary and encourage savings habits. The account and deposit type of employees participating in the savings program are outlined below.

Account type	Number of employees	% of total
Checking	994	72.8%
Debit card	324	23.7%
Savings	48	3.5%

¹⁸. A Performance Index (PI) score is a measurement of academic performance and progress of individual schools across a state.

Systems Map

As with the other investees, a systems map was developed to explore how Revolution Foods is having an impact on the wider system through its healthy school meals. Some examples of the causal connections identified in the literature are outlined in the table below.



An extract of the evidence underpinning the causal links

Component 1	Component 2	Evidence	Reference
Revolution Foods serves 2 million school and community meals every week	Improved child nutrition	Healthy food is a fundamental right that impacts not only the health of our youth, but their academic success as well. According to a recent paper published by UC Berkeley, students at schools that contract with a healthier school-lunch vendor perform better on tests. In this study, Revolution Foods was ranked the #1 healthiest provider of nutritious meals. Providing students with access to good nutrition is crucial to helping them achieve their academic potential.	Anderson, L.M., Gallagher, J., Ritchie, E.R., 2017. <i>School Lunch Quality and Academic Performance</i> . In: NBER Working Paper No. 23218
Improved child nutrition	Improved cognitive skills	Access to nutrition that incorporates protein, carbohydrates, and glucose has been shown to improve students' cognition, concentration and energy levels.	Sorhaindo, A. and Feinstein, L., 2006. <i>What is the relationship between child nutrition and school outcomes?</i> In: Wider Benefits of Learning Research Report No. 18]. Centre for Research on the Wider Benefits of Learning, Institute of Education, University of London: London

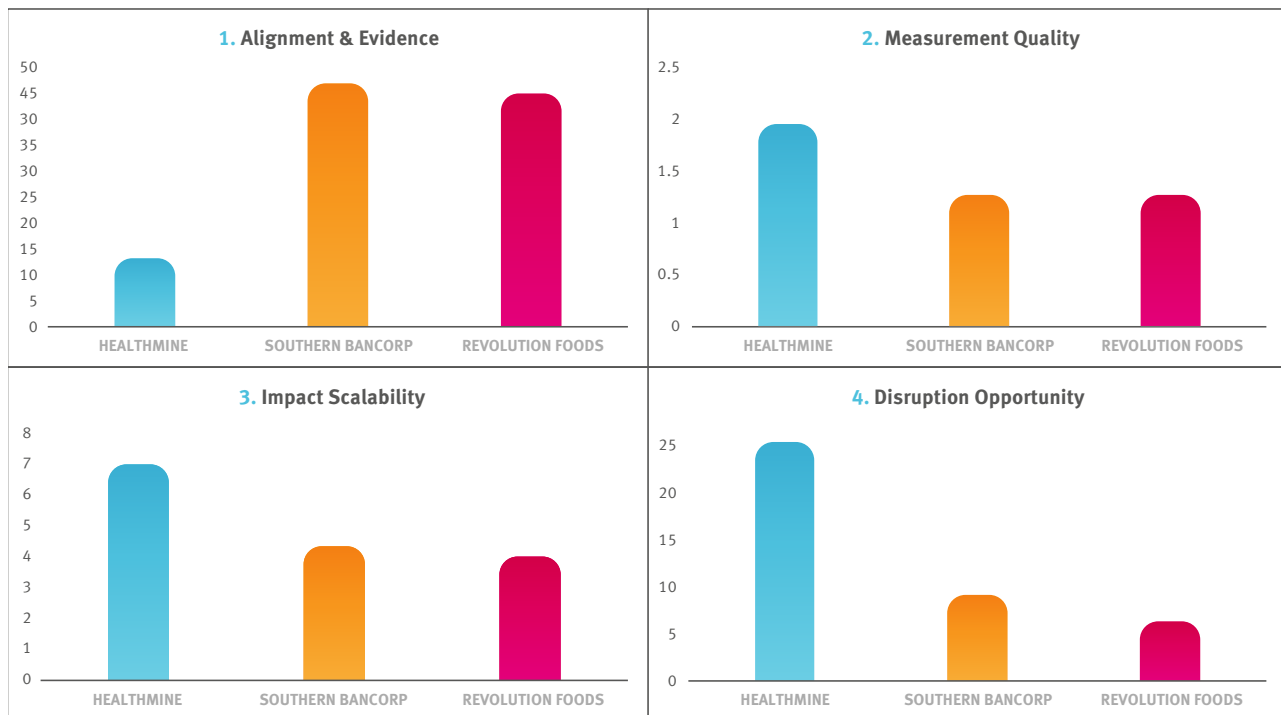


Section Three:

Scoring Highlights – Mission Aligned Framework for Investing

Section Three: Scoring Highlights – Mission Aligned Framework for Investing

Results Overview



This section contains some of the key scoring highlights, however a more detailed set of results tables can be found in the Appendix (no. 3-6).

Alignment and Evidence – Highlights

- HealthMine's** product does not directly target priority populations owing to its relatively low alignment and evidence score of 13.5. However, the members that are most likely to register, use and benefit from the platform are females of a child bearing age or females likely to raise children aged 5-18. Hence, there is an opportunity in the future for HealthMine to impact this group of pregnant women and mothers.
- Southern Bancorp** has products and services that impact each core area of WKKF's mission (impacting 2-4 drivers in each), owing to the highest alignment and evidence score of 48.
- Revolution Foods'** products and services align to WKKF's mission well overall, contributing to its high alignment and evidence score of 46. Their healthy school meals impact the key determinants of 'thriving children' and the high-quality jobs and development opportunities offered to their employees positively impact the determinants of the 'working families' and 'equitable communities' priority areas of the program strategy.

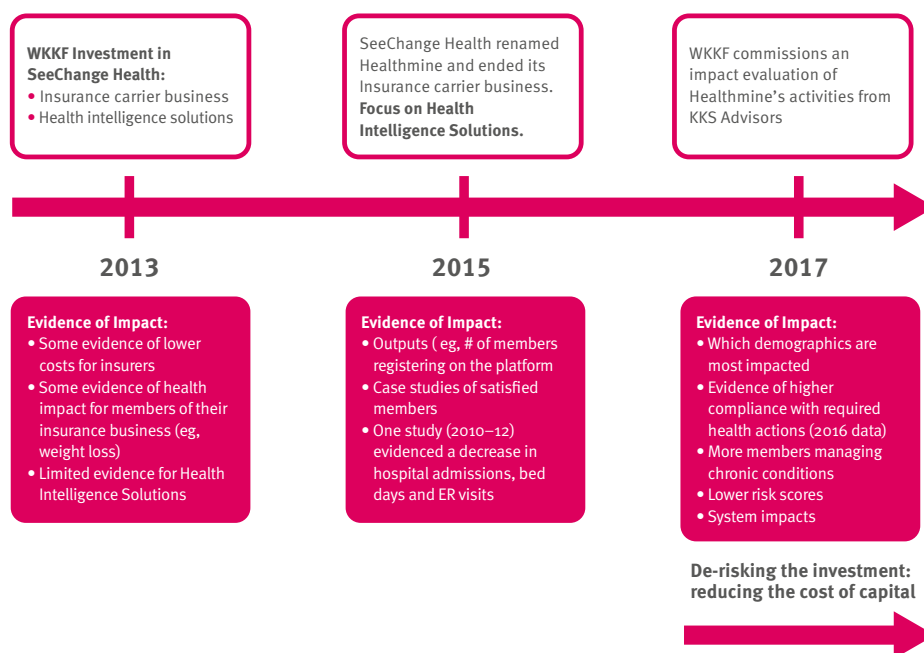
Measurement Quality – Highlights

- **HealthMine** – the measurement quality was significantly improved during this impact assessment, owing to the highest average measurement quality score of 2/3. The evolution is detailed below.
- **Southern Bancorp** – This impact assessment allowed Southern to measure the impact of two of its products and services (the IDA program and the saving initiative Round Up) at the 'outcome' level for the first time for the driver's 'income', 'access to finance' and 'effective training and skills development'. This led to a modest measurement quality score of 1.3/3.
- **Revolution Foods** – The impact assessment provided some evidence beyond the output level by identifying impacts on the educational outcomes of the students that access Revolution Foods' healthy school meals. The average quality of measurement was 1.3/3.

Impact Scalability – Highlights

- **HealthMine** had a high average impact scalability score of 7/8. Because its core product is hosted on a digital platform, it has the potential to scale globally, with a relatively low cost associated with scaling the impact. It is however dependent on customers' access to technology and their level of digital skills, hence a medium dependence on external stakeholders. The evaluation highlighted that the propensity to register was lower in states that had higher levels of socioeconomic deprivation. This would be an ideal opportunity for a program-related investment or grant to be made in providing digital education.
- **Southern Bancorp** has an average impact scalability score of 4.3/8, with its impacts on most determinants being 'regional' in nature and the level of stakeholder dependence generally being high, with dependence on stakeholders for funding or support of initiatives such as from local NGOs (e.g., to guarantee loans to specific groups e.g. women or minorities) and local

The evolution in the quality of impact measurement for HealthMine



and national policy makers (e.g., the response to their research and recommendations on payday lender policy recommendation). The cost of scaling initiatives is also high, for example, with considerable time and resources invested in preparing funding applications. They are currently exploring products such as the 'MyImpact Account'¹⁹ that will expand the geographic scalability of their impacts. The policy advocacy work also has the potential to scale nationwide (e.g., through national CDFI Fund campaigns) and globally (e.g., through their work as members of the Global Alliance for Banking on Values).

- **Revolution Foods** has an average impact scalability score of 4/8. Because of its existing operations in 17 states across the U.S., the company's impact is national and could extend to other states. The company's dependence on external stakeholders was assessed as medium as establishing operations from the ground-up in a new state requires strong partnerships with local schools and community organizations. The costs associated with scaling the impact are also high; expanding operations in existing states or new ones involves significant product, labor and transportation costs as well as potential investments in new facilities.

Disruption Opportunity – Highlights²⁰

- **HealthMine** scores a high average disruption opportunity score of 24 due to its potential to disrupt the health care system. It could play a central role in helping patients and insurance plans transition from a reactive health care system, focusing on treating specific conditions as they arise, towards a preventative health care system that focuses on keeping people healthy and preventing conditions from developing. The uptake of the HealthMine

platform could be accelerated by an increased move to dynamic insurance pricing that reduces insurance premiums as a result of preventive actions, rather than the current process of calculating and updating risk scores annually.

- **Southern Bancorp** scores an average disruption opportunity score of 8.7 based on three opportunities identified during the analysis. In general, this relatively low score reflects that most initiatives that have a high probability of realization and low difficulty of implementation are concerned with adjusting the parameters in the system. One opportunity that has the potential to change how the system is controlled is to invest in financial technology, including advanced data analytics to better understand different customer segments and the automation of loan processes to free up capital and employee time for community outreach. This opportunity is associated with changing how the system is controlled, by providing Southern Bancorp with new information that enhances its ability to provide products to its customers.
- **Revolution Foods** scores an average disruption opportunity score of 6 based on the opportunities for disruption identified. In order to achieve the company's long-term goal of building lifelong healthy eaters, the company needs to continue to work to ensure that their impact on children's eating habits extends beyond one healthy meal provided at lunch time. They are working to do this by providing breakfasts, snacks and suppers in some areas, as well as expanding into grocery stores to ensure that children are exposed to nutritious food outside school. They can also scale their operations to have an impact on system parameters, by creating new jobs and training opportunities for staff and providing more healthy school meals to children.

¹⁹. This will allow people across the United States to open an account with Southern and enable them to track the social impacts that they are supporting through the work of the Southern Bancorp non-profit arm in Mississippi and Arkansas.

²⁰. This section explores disruption opportunities identified during the impact analyses, but the examples covered are not designed to be exhaustive.



Appendix

Appendix

Appendix 1. Systems Framework: Descriptions of components

The following components are based on the thinking and research of Donella Meadows (2009)²¹, who identified a list of multiple ways in which one can intervene in a system, so-called 'leverage points'.

System parameters

System parameters are about the fundamental inputs and outputs of a system and their productivity (output to input ratio). Interventions in systems parameters are relatively easy, but the impact is relatively limited. For example, an increase in the amount of funding that Southern Bancorp receives will affect its ability to provide customers with Individual Development Accounts. At the same time the impact will be limited to this increase in funding. System parameters are important, especially in the short term and to the individuals that are involved directly in the productivity flow (turning inputs to outputs). Changing system parameters rarely changes behaviors or disrupts the entire system. If a system is chronically stagnant, parameter changes can rarely kick-start it or produce significant impact.

System control

System control is about the relationships within the different parts of a system, the lengths of time relative to the rates of system changes (delays) and access to data and information. A complex system usually has numerous relationships described by feedback loops (reinforcing or balancing). A balancing feedback loop is self-correcting while a reinforcing feedback loop is self-

reinforcing. Understanding the nature and the strength of these relationships is critical in deciding on potential intervention points. Delays in feedback loops are critical determinants of system behavior. For example, a system that has long-term delays cannot respond to short-term changes. Mapping these delays can provide important information on how long it can possibly take to measure the effect of an intervention. For example, for HealthMine there is currently a delay in preventive health actions leading to lower health care costs for customers due to the use of lagging information in health insurance pricing, rather than leading information. Access to data and information can be an important intervention point. Data and information can help with understanding the limits of a system, assigning accountability and providing more input on how different relationships between parts of a system work and can be optimized.

System mindset

Disrupting the system mindset means changing a system's paradigms, goals and incentives. This type of disruption can provide the highest impact but are also the most difficult to implement. A system's paradigm is about interventions targeting long-term behavior changes and as such require time to materialize. Paradigms are the essence of systems and together with goals and incentives, they shape the different system components (feedbacks, delays, inputs, etc.) An example of this in action is Revolution Foods, where the company is trying to change children's eating habits and build lifelong healthy eaters. They are working to do this by providing breakfasts, snacks and suppers in some areas, as well as expanding into grocery stores to ensure that children are exposed to nutritious food outside of their lunches at school.

²¹. Thinking in Systems: A Primer, Donella Meadows, 2009

Appendix 2. HealthMine – details of the datasets used for the impact evaluation and a summary of the methodology

Dataset 1

- 227,179 plan members getting insurance coverage from two plan providers (one commercial, one Medicare)
- Members eligible for registration on the HealthMine platform for at least nine months in 2016
- Focus on subsample of 226,882 plan members after elimination of plan members with missing data or data errors

Dataset 2

- 471,069 plan members getting insurance coverage from a commercial insurance plan.

- Monthly data available between 2012-2017 (9,411,531 observations)
- Focus on subsample of 226,795 members with 24 observations per member from January 2016 to December 2017 and more than 11 coverage months with health insurer at January 2016

Dataset 3

- 188,921 plan members getting insurance coverage from a Medicare plan
- Monthly observations available between 2015 and 2017 (4,189,683 observations)
- Focus on a subsample of 62,743 members with 24 observations per member from January 2016 to December 2017 and more than 11 coverage months with the health insurer as of January 2016
- The table below provides a breakdown of the indicators provided in the datasets:

Due to the confidential nature of the members' health care data, all the datasets used were de-identified to preserve the anonymity of members.

A breakdown of the indicators provided in HealthMine datasets

Indicator	Description
Plan member demographics	Gender/age of plan members and state of residence
Registration status	Whether plan members choose to register on the HealthMine platform (registered) or not (non-registered)
Health actions compliance	Compliance level of plan members (both registered and non-registered) on a variety of health actions: breast cancer screening, cervical cancer screening, colon cancer screening, hemoglobin A1c, preventive visit, urine microalbumin, BMI measurement, retinal exam, doctor visit for asthma, doctor visit for CHF, doctor visit for COPD, doctor visit for CVD, doctor visit for diabetes, doctor visit for hyperlipidemia, doctor visit for hypertension, doctor visit for obesity, doctor visit for tobacco use, retinal eye exam
Education	Number of educational articles accessed by plan member registered on the platform
Risk adjustment score	The risk score calculated by using demographic information and medical claims history from the previous year to estimate what the members future utilization would be over the next 12 months. HealthMine uses Milliman MARA to generate that score. Registration is not an input into the risk model
Hospital admissions	Data provided on whether plan members were admitted in hospitals for treatments, how many days they stayed and whether they had to be readmitted in that same year

Summary of methodology for each impact area

Impact area	Summary of Methodology
1. Use of the platform	<ul style="list-style-type: none"> To understand the probability of registration across different sub groups, logistic regressions with odds ratios were calculated. Educational articles on the platform were used a proxy for platform usage.
2. Compliance with recommended health actions	<ul style="list-style-type: none"> Investigated through comparing the compliance rates of members who register on the platform (treatment group) to members that do not register on the platform (control group). In addition, the compliance rates of registered members who use the platform are compared with registered members who do not. Selection bias (arising from people already living healthier lifestyles being more likely to register on the platform) is accounted for (see Appendix 3 for full calculations).
3. Management of chronic conditions	<ul style="list-style-type: none"> As members register on the platform, the algorithm starts recommending health actions based on the member's demographics and health records. Analysis sought to understand if the recommended health actions had the potential to translate to higher likelihood of diagnosis and better management of chronic conditions. Detection was defined as the diagnosis of a chronic condition through a Health Risk Assessment A 'managed' condition was defined based on the recommended health actions directly associated with a condition (e.g. doctor's visits, diabetes assessment, A1c tests and blood glucose tests for Diabetes). Management of the chronic condition as a result of registering on the platform can then be analyzed, this is termed the 'lift rate'. Selection biases and data biases were accounted for through looking at the same members before and after the 'treatment' (registration) and using the differences-in-differences approach (both paired and unpaired approaches), respectively. The output of the analysis is a range of lift rates indicating the percentage of members managing their chronic diseases as a result of registration and usage of the HealthMine platform.
4. Healthcare expenditure	<ul style="list-style-type: none"> The research team investigated how the prevented incidents and improved management of chronic conditions translates into savings in health care expenditure. A literature review on population health management and disease prevention was conducted and findings were triangulated to get best estimates for potential yearly savings per member managing a disease, e.g. diabetes or hypertension. Estimates on dollars saved were combined with lift rate estimates (i.e. levels of improved management as a result of HealthMine) and with the prevalence in the commercial insurance plan population.

Appendix 3. HealthMine – Adjusting for registration bias

The observed effect of females registering on the platform for the Medicare sample is used to control for the selection bias by using the observed effect of females registering on the platform for the Medicare sample. The table below provides calculations of the registration bias:

Calculations of registration bias

Plan provider	Gender	Effect	Age group	Breast Cancer Screening	Colon Cancer Screening	Preventive Visit
Regional Health Plan	Female	Bias-adjusted effect	40-49	8%	12%	9%
Regional Health Plan	Female	Bias-adjusted effect	50-59	1%	0%	6%
Regional Health Plan	Female	Bias-adjusted effect	60-69	0%	1%	3%

Appendix 4. Revolution Foods –

Final list of treatment and control schools suitable for analysis

State	Treatment	Control
Louisiana	Success Prep	James M Singleton Charter
Massachusetts	Match Charter	Boston Prep
	City on a Hill	Boston Collegiate Charter
	Salem Academy	(insufficient data)
New York	Brooklyn Prospect Charter	Summit Academy
	Amber Charter school	Dream Charter
		Harlem Prep Charter
	Success Academy Charter (Harlem 1)	Future Leaders Institute Charter
		The Sisulu-Walker Charter School of Harlem
	Success Academy Charter (Harlem 2 & 3)	Harlem Village Academy Charter
	Success Academy Charter (Harlem 4)	Future Leaders Institute Charter

Appendix 5. Revolution Foods – Normalization of data and difference-in-difference analysis

Normalization of data

To be able to compare the performance of schools across states, the data collected was normalized using index numbers. An index number is an indicator of average percentage change in a series of figures where the base value is assigned an arbitrary value of 100 and other figures in the series are adjusted in proportion to the first number in the series. Once all numbers have been indexed, the scale is normalized, allowing a comparison of the percentage change across metrics on different scales.

Difference-in-differences analysis

Having normalized the dataset, difference-in-differences were performed to isolate the impact of Revolution Foods. The difference-in-differences method compares the changes in outcomes over time between a population that is enrolled in the Revolution Foods program (the treatment group) and a population that is not (the control group). This allows to correct for any differences between the treatment and control groups that are constant over time.

Data challenges

The main data challenges encountered when conducting this analysis are as follows:

- A lack of historical data. To perform the analysis, it was necessary to have access to datapoints both before and after the Revolution Foods 'intervention'. Many states' databases did not have sufficiently large time series to perform meaningful statistical analysis (i.e., poor data before the Revolution Foods intervention).
- Lack of relevant indicators. Some states did provide assessments of overall school performance but did not provide granular scores on academic performance.
- Granularity of datasets. States departments of education were sometimes providing data at the state level rather than a granular breakdown of individual school performance needed for the analysis.
- Errors in the databases. Some databases with seemingly enough data points could not be used for the analysis as various errors were identified during the scoping phase (e.g., same school code for various schools).
- Major changes in the assessment methodology. A certain number of states with good data coverage saw significant changes in the way students were assessed over time, rendering the data unusable for the statistical analysis.

Given these data challenges, the research team focused on the states of Louisiana, Massachusetts and New York for the analysis because of the consistency, reliability and availability of data for these three states.



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