Dow Sustainability Fellows 2014

RecoveryPark
Sustaining Detroit

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It wouldn’t have been possible without you.

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INTRODUCTION
SUSTAINING DETROIT
PURPOSE
This paper sets out to explore the relationship between developing a financially sound business plan and creating meaningful social impact through the case study of RecoveryPark Farms (RPF). Our goal is to begin a discussion around challenging questions in social sustainability, focusing on the assumed connection between growth of a mission-based business and its level of social impact.

BACKGROUND
RecoveryPark (RP) is a Detroit-based organization that “exists to create jobs for people with barriers to employment.” RP plans to work towards this mission by leveraging underused resources available in Detroit to create innovative business models that focus on local food systems. We have collaborated with RP to help the organization think through its approach to scaling its RecoveryPark Farms business and its communication strategy to potential investors and partners.

METHODOLOGY
In our analysis of RecoveryPark Farms, we began with the common hypothesis that if RPF expands production, their profits will increase. If their profits increase, they will have a greater social impact. Although this statement sounds straightforward and logical, it relies on a myriad of assumptions - some of which RP has thought through in depth, and others which have not yet been considered. We probe these assumptions and critically consider their impact on RP’s mission and business plan, providing analysis in the form of case studies, quantitative and qualitative data, and discussion for future consideration.

TESTING ASSUMPTIONS
The paper is structured around testing five basic assumptions that support the hypothesis stated above. The assumptions addressed are as follows:

- RecoveryPark Farms will achieve economies of scale as the business grows
- RecoveryPark Farms will have access to a cost effective distribution network so that as distribution grows, costs will not grow faster than revenues.

- By expanding its operations, RecoveryPark Farms will be able to employ more people with barriers to employment. By hiring those whose barriers to employment include prison records, RPF can help to reduce recidivism rates in Michigan.
- Increasing economies of scale will allow RPF to provide fresh produce at a lower price; the lower price will enable them to acquire new customer segments and impact food desert conditions in the neighborhood.
- RecoveryPark will contribute to the stabilization of Detroit neighborhoods by employing those with barriers to unemployment and providing them with critical support services.

Each section addresses a given hypothesis using data from RecoveryPark, academic research, and relevant case studies to determine its validity and provide growth recommendations.

CONCLUSIONS
The concept of a mission-based business that has a positive social impact integrated into its business model makes sense at a high level. However, it requires truly assessing and challenging each assumption, and building a business model that considers both the financial health as well as the idea of social return on investment.

INTERDISCIPLINARY APPROACH
The Dow Fellows program promotes an interdisciplinary approach to issues of sustainability in order to broaden the boundaries of social, environmental and economic phenomena and the way that they are evaluated in the real world. The RecoveryPark Dow Fellows team is comprised of masters and professional students from the College of Engineering, the School of Natural Resources and the Environment, Ross Business School and Taubman College of Architecture and Urban Planning. With such a broad knowledge base, the team is able to examine the operations of RecoveryPark on multiple fronts and can experiment with techniques and trajectories across constructed disciplinary lines.
RecoveryPark is a Detroit-based non-profit that has emerged from a collaborative effort by a number of non-profit and for-profit groups within the Detroit region to drive sustainable neighborhood economic recovery through agri-business. RecoveryPark’s mission is to become a strong job creation engine by providing jobs throughout the entire food production value chain. This value chain is based on food grown in urban farm settings in the Detroit region. Urban farming within city limits will lead to the renewal of abandoned and blighted urban properties that would otherwise continue to decay.

RecoveryPark Farms is the first of a family of for-profit companies being launched under RecoveryPark umbrella. As stated, the goal of RecoveryPark is to become a strong job creation engine by transforming land and lives and communities in blighted neighborhoods. That said, for RecoveryPark Farms to carry this mission forward, the quality of produce and service must be as good or better than what chefs can find elsewhere. The business must be well run and profitable.

The RecoveryPark Farms website emphasizes its social mission, as well as its differentiated product:

"At RecoveryPark Farms, we grow a highly curated variety of vegetables, leafy greens and herbs. And we do this through a number of proven agriculture techniques, ranging from high tunnel to glass greenhouses, and from soil-based growing systems to hydroponics.

Our business focus is on the foodservice industry and particularly with independent, chef-driven restaurants. By creating long-term relationships with our customers, we are growing the products they want, and when they want them. Everything from local, in season produce to growing staple vegetables year-round.

While this paper is focused on a single organization in the very specific context of Detroit, our larger goal is to begin a discussion around challenging questions relating to social sustainability and business, such as the relevance of social return on investment and the existence of an inherent connection between growth of a mission-based business and a greater social impact.

REFERENCES:
PROBLEM FRAMING
We implemented a hypothesis-driven approach to addressing the question of scaling RecoveryPark Farms’ (RPF) operations. From several initial interviews and meetings with key stakeholders, we developed an understanding of the current state of RecoveryPark, as well as the organizational challenges and achievements to date. As growth of RecoveryPark Farms is perceived as a key indicator of success, we developed an initial hypothesis (assumed by many socially driven organizations):

If RPF expands production, their profits will increase.
If their profits increase, they will achieve a greater social impact.

Embedded in this hypothesis were several assumptions that would need to be tested to determine the validity of the original hypothesis. This approach allows us to ask questions about why (or if) RPF should grow, and this process has resulted in recommendations for how the organization should grow to achieve their larger mission of creating jobs and revitalizing Detroit neighborhoods.

DESIGN
We determined key drivers by drilling down into the core problem—how should RPF grow? The team identified and analyzed five assumptions that affect the overall hypothesis: distribution, economies of scale, markets and food deserts, recidivism, and neighborhood stabilization. Using a mix of quantitative analysis and qualitative analysis, the team was able to dissect each of the core assumptions. This analysis enabled a more nuanced and critical understanding of the original hypothesis.

DATA COLLECTION
Literature, RPF’s business plan, and online searches of case studies were the primary means of data gathering. Additionally, the team spoke with several members of RecoveryPark staff in order to gain more insights about RPF’s business and the organization’s overall mission. Ultimately, the goal of gathering data was to prove or disprove the identified assumptions, but also led to developing a set of recommendations for how RecoveryPark Farms should scale its business. Next steps and recommendations were derived from the analysis.
RecoveryPark
ASSUMPTIONS
SUSTAINING DETROIT
ASSUMPTION
We began with the very basic assumption that RecoveryPark Farms will achieve economies of scale as the business grows, meaning that marginal costs will go down as production increases. This assumption is central to the overall hypothesis that growth will translate to greater profits. While it seems to be a very basic business operations question, it is an assumption that is important to explore, especially considering the relatively untested nature of RPF’s business model.

BUSINESS APPLICATION
According to Robert Kaplan and Allen Grossman in the Harvard Business Review, “While small may be beautiful, size matters when it comes to having a substantive impact on society’s pervasive and complex problems. By leveraging economies of scale and management talent, large nonprofits can deliver improved services at lower costs,” [Kaplan and Grossman, 2010]. Urban farms face many challenges; wages, resources, labor, and demand are all significant concerns. In addition, “urban farms often generate only small or supplemental incomes for a limited number of people. The income generated from farm sales typically does not provide sufficient wages for full-time employment for farmers. In addition, there are often limits on the number of farmers that can farm on relatively small plots of land in urban areas” [Hagey et. al, 2012]. Hagey recommends that urban farmers attempt to “increase potential revenue by extending the growing season or expanding the size of the urban farm in order to create economies of scale” [ibid]. Consequently, the business of urban agriculture is extremely difficult and the potential tight margins make it very challenging to generate sustainable profits all while having a material social impact.

The strategy of increasing production has been successful for at least two organizations: Growing Power, an organization that uses hoop houses to extend their growing season, and Green City Growers Cooperative, an organization that uses a greenhouse to grow lettuces and herbs year-round. Alternatively, many companies have attempted to combat the economies of scale that large corporations are able to realize by finding the “specialized slice of commerce which is an antidote to the economies of scale powering” modern day companies [Stock, 2014]. Specialization and catering to customers’ needs is a differentiation strategy that can enable a higher price point. Although economies of scale are important in this situation, being differentiated and de-commoditizing a product through specialization is an effective strategy to be implemented in tandem with increasing production capacity.

RECOVERY PARK
RecoveryPark Farms is currently operating in perfect competition which means that their product is relatively homogeneous. RPF, along with other local food distributors, is very small relative to the size of the total market. All market participants have perfect information, and companies can enter and exit the market easily, meaning there are no barriers to entry or exit. If this is indeed true, RPF will have little to no influence on the market price for the goods that they offer [outlined in Greenhouse and Field & Tunnel Revenue Assumptions pages in the RP Farms Financial Model].

As we explore RPF’s assumption that the company will achieve economies of scale as they grow, we must remain cognizant of many factors. First, RPF must determine its profit maximizing point. RPF’s decision rule to maximize profits comes at a point where marginal cost, the incremental contribution to cost, is greater than or equal to the marginal revenue, or incremental contribution to total revenue. At any point other than when marginal revenue equals marginal costs, they are operating inefficiently. RPF’s Cost of Goods Sold (COGS) is a significant component of the company’s variable costs. Currently, marginal costs do not exceed marginal revenue in their five-year projection, meaning the company should continue operations and keep producing as they have not reached diseconomies of scale. Economies of scale are buttressed on the assumption that long run average costs decline as the company increases quantity. The other portion of cost is RPF’s operating expenses, which appear to be fixed costs in the current business model. Fixed costs have Compound Annual Growth Rate of 37.5% which should taper in the future as the company becomes more mature and finishes investments in fixed assets.
Another concept to consider in the context of RecoveryPark is economies of scope. Economies of scope exist when “the firm achieves savings as it increases the variety of goods and services it produces” (Wicker and Breuer, 2014). RPF has a plan for 23 different varieties of vegetables in the Greenhouse build-up, 7 varieties in High Tunnel build-up, and 16 varieties to be field grown. The theory is that there are synergies that exist resulting in a reduction in combined total costs because of synergies across the products (ibid). It will be important to assess these synergies not only as RecoveryPark Farms expands to new varieties of produce, but also as RecoveryPark invests in new agri-business opportunities.

**RECOMMENDATIONS**

The assumption that RPF will achieve economies of scale is currently true given their current projections. Marginal costs have not exceeded marginal revenue, and are not projected to do so in the future. Therefore, RPF should continue increase production as planned, continue to hire, and keep their business in alignment with their social mission. It is impossible to know exactly at what point the marginal revenue will equal marginal cost of production; however, in order to maximize their profitability (which we hypothesize is directly tied to their level of social impact), RPF must diligently monitor and control costs (direct labor, direct materials and allocated overhead). It is our recommendation that RPF hire a cost accountant in order to ensure they are allocating costs effectively as it will have a significant impact on bottom line performance.

Based on RPF’s current business model, labor remains a fixed percentage of their variable costs and revenue over the five-year projection. This is highly unlikely, which means RPF must continue to closely monitor the cost of labor. Details of fixed costs were not provided and it is recommended that RPF have a clear strategy in determining investment opportunities in non-liquid assets as the assumption of economies of scale is dependent on spreading fixed costs over more units sold.

**REFERENCES:**


Common Market "is a values-driven wholesale consolidator and distributor of local food, linking regional farmers to Philadelphia-area communities and consumers" (The Common Market Business Plan, 2010). Common Market’s vision is to support the local community (particularly those that are most vulnerable) by providing access to reliable, safe, healthy and affordable food. As part of this vision, Common Market is committed to local economic development, and encouraging sustainable growing practices (Common Market Vision, 2014). Common Market launched its operations in 2008 and now serves over 150 customers including hospitals, schools, grocery stores, and workplaces in the Delaware Valley. The organization works with nearly 75 farmers and distributes food through its storage facilities, distribution center, and fleet of trucks (Common Market FAQs, 2014).

The organization’s Value Proposition emphasizes Common Market’s ability to return a higher margin to producers by streamlining the local food supply chain, building a strong market and brand for local foods in the region, and achievement of economies of scale through consolidation of operations and distribution.

The organization currently employs 19 people directly, according to their website. In a feasibility study published by Common Market, the organization projected the direct and indirect employment generation of about 40 people by Year 5 through distribution center jobs, farm jobs, and a ripple effect (The Common Market Feasibility Study). Furthermore, Common Market reaches underserved communities through its distribution to “large institutions, hospitals and schools that provide food to students, patients, clients and workers, many of whom come from underserved communities; [the organization] employ[s] people from underserved communities; and share[s] distribution assets with other community groups to help bring affordable food to vulnerable families and children.” (Common Market FAQs, 2014)
ASSUMPTION
Regarding organizational growth and distribution capabilities, we identified the following assumption: RecoveryPark Farms (RPF) will have access to a cost effective distribution network so that as distribution grows, costs will not grow faster than revenues.

A key component of achieving economies of scale is the assumption that RPF will have an efficient and cost effective distribution network to tap into—either through another company or through the development of RP’s own delivery and sales mechanisms. This means that,

1. Increasing the number of deliveries will not raise costs more than revenues, and
2. Increasing total delivery radius will not raise costs more than revenues.

With small-scale, specialized production, these efficiencies cannot be assumed, and should be explored in further detail to understand the benefits and challenges of available distribution options as RecoveryPark expands its operations.

BUSINESS APPLICATION
THE ROLE OF DISTRIBUTION NETWORKS
According to Frost & Sullivan, “success [of a business] ultimately depends upon the effectiveness and reach of its go-to-market strategy. Distribution channel optimization is therefore a critical ingredient to sustaining growth through a rigorous customer focus.” (Frost & Sullivan, n.d.). Distribution networks come in all shapes and sizes. Put simply, they serve the role of getting the product from the producer to the consumer. There are many advantages to the producer of seeking out effective distribution partners. These include: market knowledge, distribution knowledge, ability to cover territory, a well-functioning sales organization, administrative support, advertising support, marketing plans, forecasts of purchases, and demonstrated efficiency. (adapted from Thomas & Wilkinson, 2005)

Distributors provide service and expertise that are not within the core competencies of many producers. Consequently, both producers and distributors benefit from an effective partnership. However, there are also substantial risks inherent in these producer/distributor relationships. While analyses of distribution networks are the topic of many research papers, we will focus on challenges for local food producers specifically, and how those challenges relate to RecoveryPark and its mission for greater impact through growth.

APPLICATION TO LOCAL FOOD PRODUCTION
Issues of scale and efficiency are crucial to agricultural producers, as margins in the food industry tend to be tight. Local, small-scale producers face pronounced barriers to scaling because of the “limited nature of the outlets for their products” (Bloom and Hinrichs, 2011), for example, small high-end restaurants, rather than large grocery chains, school districts, hospitals, or corporate restaurant chains.

Figure 1
One option for small-scale food producers is to partner with a conventional distributor to take advantage of already existing expertise and economies of scale. However, there are several key issues to consider. Conventional food distributors need to be cost competitive; they are pressured to offer low prices to buyers, and in turn pressure producers to lower their prices in order to maintain feasible margins. Furthermore, conventional buyers often share a common perception that local produce should be less expensive because of shorter shipping distances. This is not necessarily the case due to the small scale and higher production costs. Furthermore, as the market is structured today, conventional food distributors don’t generally have access to the target market segment for organic, locally sourced food (like specialty grocery stores, farm to table restaurants, and farmers markets).

Local food production is growing quickly to meet growing demand, and we can learn from the successes and setbacks of other production and distribution models. The following examples (described in more detail in separate case studies) provide alternative models to the conventional food distributor or direct distribution options. The benefits and drawbacks of each of these models in relation to RecoveryPark will be explored in more detail below.

**COMMON MARKET** (Philadelphia, PA) is a wholesale consolidator and distributor that specializes in local foods. Through focusing on consumer needs, supply chain consolidation, and producer partnerships, Common Market has demonstrated a successful approach to efficient local food distribution.

**GROWING POWER** (Wisconsin) and Intervale Center (VT) are two other organizations that have combined local food production operations with creating a cooperative distribution network in partnership with other local producers in order to increase scale and diversity of products. Both of these organizations started with farming and food access central to their mission, and later added a food hub/cooperative distribution arm to their organizations to achieve greater scale and better meet consumer needs.
**IN-HOUSE DISTRIBUTION AND DIRECT MARKETING (CURRENT MODEL)**
RPF operates trucks, packaging, delivery, and all other tasks associated with distribution of foods and sells directly to consumers.

**PROS**
- Creates jobs through direct employment of drivers, packers, and others associated with distribution of goods
- Maintains a direct relationship between RPF and the customer

**CONS**
- Higher expenses due to potential inefficiencies
- Growth may be limited by production capacity
- May not have the expertise needed as complexity of operations and distribution networks grow.

**AGGREGATE/FOOD HUB MODEL**
RPF partners with other local producers and pools resources to distribute aggregate goods. This could have a number of different organizational structures such as a separate distribution business under the Recovery Park umbrella or a farmers’ cooperative model.

**PROS**
- May be able to use non-profit umbrella of Recovery Parks to incubate the this distribution model
- Allows for pooling of resources resulting in a greater scale and variety of goods
- Maintains a close connection with consumers and traceability

**CONS**
- Requires partnering with other producers who have their own priorities and modes of operation

**CONVENTIONAL FOOD DISTRIBUTION NETWORK**
RPF sells to a conventional distributor (e.g., Del Bene Produce) who in turn sells their produce to its customers branded as “local produce” and priced at a premium.

**PROS**
- Established networks facilitate easier access to institutions and large grocery stores and will likely expand customer base quickly

**CONS**
- Conventional distributors tend to have more power than producers in this context
- Lack control over the product, including pricing
- Squeezed margins, costs set by buyer
- Minimal contact with end customer

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**RECOVERYPARK**
RecoveryPark Farms serves eight high-end farm-to-table restaurants in the Detroit metro area through its one-acre production pilot program. These restaurants include those shown in Figure 2, with many other restaurants on the waiting list.

RPF’s business model currently assumes in-house distribution in the first five years of operations. The number of leased trucks is calculated based on number of deliveries per day and number of drivers needed to complete these deliveries. However, it also assumes that the miles per delivery remains constant at 10 miles per delivery, meaning that the delivery radius will not expand significantly in this timeframe.

RPF’s current customer base results in an average delivery distance of 15.5 mi (though this will vary with the exact delivery route). The shortest delivery distance is 2.3 miles from RPF production facilities, and the farthest is 35.9 miles. A simple sensitivity analysis (see Figure 3) shows that an increase in average delivery distance by 5 miles only adds about $2000 in cost in Year 1, however in Year 5 it would add over $22,000 in costs due to other projected rising costs. An increase from 1 mile per delivery to 30 miles per delivery would raise costs by almost $221,000 in Year 5.

Unless additional production and/or storage facilities are built in central locations for a wider distribution radius (following the model of Growing Power which has added facilities to serve its Chicago market), increasing delivery radius will result in an increase in average delivery distance, and a significant increase in delivery costs over time. Thus, we recommend focusing on expanding number of local customers in the Detroit metro area in the short term, before considering geographical expansions.

As RecoveryPark scales up its operations in order to increase profits, and thus have a greater social impact, it has several options regarding marketing and distribution. As mentioned, their most recent business plan assumes a truck leasing model, where RPF hires drivers and distributes directly to customers. As RPF grows distribution will become...
much more complex. Without the proper expertise and efficiency in distribution processes (this includes marketing, packaging, and delivery of goods), RPF risks costs rising more than revenues, squeezing margins, and decreasing profits that can be reinvested in the organization and create more jobs.

We have identified three possible distribution models, and addressed the pros and cons of each for the organization based on relevant background research and case studies (see figure 4).

**RECOMMENDATIONS**

Distribution optimization is a complex challenge and, as noted, there are advantages and disadvantages to each model. We have determined that the initial assumption - RecoveryPark Farms will have access to a cost effective distribution network so that as distribution grows, costs will not grow faster than revenues - is false within the current direct distribution model. However, there are opportunities to increase efficiency through a food hub model and expanding to new customers within the Detroit metro area rather than geographic expansion.

Based on the start-up stage of Recover Park Farms, its unique mission, and its local affiliations, we recommend that RPF continue its current plan to start with in-house distribution, but consider the aggregate/food hub model as the organization grows. There may be an opportunity for RecoveryPark to facilitate this aggregate network with other local producers in the region through its plan to incubate multiple food-oriented businesses under the non-profit umbrella. Additionally, with geographic expansion, RPF will likely need to consider investing in additional facilities in other locations to reduce transportation time and costs. This could be an opportunity to create more jobs (supporting the RP social mission) for these additional operations. In order to do this RP would have to start to develop strong, trusting relationships with other producers in the area that share similar values. We recommend connecting with organizations that have launched similar food distribution models in other locations [see case studies on Intervale Center, Growing Power, and Common Market] to learn from their successes and challenges before launching such an initiative.

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Growing Power is a national non-profit with a mission of supporting people from diverse backgrounds “by helping to provide equal access to healthy, high-quality, safe and affordable food for people in all communities” (About Growing Power, 2014). Growing Power started in 1993 with a plot of land, a farmer (Will Allen), and a group of teens who needed a place to work. The organization has grown to operate farms in Milwaukee, Madison, and Merton, Wisconsin, and Chicago, IL. Growing Power distributes its own produce, as well as produce, meats, and other value-added products from over 300 small family farms in the region to restaurants and small grocery stores in Chicago, Madison, and Milwaukee. These customers include over 15 locations in the Madison/Milwaukee area, and over 30 in the Chicagoland region, including 10 Walgreens on the west- and south-side of the city (Growing Power - Restaurants, 2014).

Growing Power has a strong focus on education. The organization runs hands-on workshops and demonstrations on developing and maintaining sustainable food systems, in addition to ongoing educational programs and partnerships. The Youth Corps program provides job-training and life skills to underserved youth in Milwaukee and Chicago, effectively engaging and employing hundreds of children each year. (Growing Power - Education, 2014)

In order to expand its reach geographically, Growing Power has developed a network of Regional Outreach Training Centers (ROTC). These ROTC locations “are community organizations that have a vested interest in urban and small farming and serve as national training sites that assist Growing Power in reaching a larger population in its efforts to further its mission to build sustainable food systems. Growing Power provides technical support to the ROTCs, visiting each one on a yearly basis to assist with managing facilities and helping them shape their vision” (Growing Power - Regional Outreach Training Centers, 2014). There are currently over 10 well-established ROTCs throughout the US that actively engage with Growing Power and adhere to its core techniques and values.

REFERENCES:
ASSUMPTION
RecoveryPark’s core mission is to employ those with barriers to entry. Sustained employment can have lasting benefits for those recently released from prison. Recidivism rates and post-release employment are highly correlated, and by targeting those most in danger of ending up back in the corrections system, RPF can help to decrease recidivism rates in the state. Due to budgetary pressures and current dynamics in the corrections system, Michigan’s state government has made recidivism reduction a priority. New financial incentives and funding models have been created to incentivize businesses and NGOs to pursue actions to keep ex-offenders out of prison. Employing those ex-offenders will not only help RP fulfill its social mission; it could also lead to new sources of capital for its for-profit entities.

In this section we explore the assumption that by expanding its operations, RecoveryPark Farms will be able to employ more people with barriers to employment. By hiring those whose barriers to employment include prison records, RPF can help to reduce recidivism rates in Michigan.

THE CURRENT STATE OF RECIDIVISM IN MICHIGAN
Recidivism rates measure the proportion of released inmates that re-enter the prison system. They are used as a general measure of the effectiveness of the corrections system in rehabilitating prisoners for reintegration into society and preventing future crimes (Pew Center on the States, April, 2011). Studies have estimated that two of three former inmates are rearrested within three years of their release from prison, and that nearly 40% are returned to prison during that period (The Pew Center on the States, 2012). Michigan is among a handful of states which led the nation in recidivism reduction over the past decade (The Sentencing Project, 2014).

While Michigan has experienced recidivism reductions well above the national average in recent years, most of those gains were achieved with the implementation of early release programs, alternative sentencing, and the easing of parole violation standards that would send parolees back to prison (Michigan Department of Corrections, 2012). These efforts target a general decrease in prison populations, rather than specifically addressing recidivism rates. Alongside these general efforts, since 2005 the Michigan Prisoner Reentry Initiative (MPRI) has worked from intake to release to support offenders in their transitions back home. Through risk assessments and job skills training among other programming, the MPRI participants have achieved a 38% lower recidivism rate when compared to those not participating in the program. In addition, the MPRI provides subsidies to employers willing to commit to hiring those recently released from Michigan’s correctional facilities (The Pew Center on the States, 2012).

Michigan’s reductions in overall prison populations and recidivism rates over the last decade have not led to a corresponding reduction in corrections expenditures. As recently as 2002, the state was spending nearly one fifth of its total general fund, $1.6 billion, annually on the correctional system (The Pew Center on the States, 2012). Despite a 15% drop in overall prison population over the same time period, the overall budget for corrections has increased to over $2 billion per year (Egan, 2013). An aging prison population has led to increasing healthcare costs, and daily expenditures per inmate have ballooned from $76 in 2001 to $94 in 2013: an increase of $6,570 per inmate annually (MI Dashboard, 2014). While these numbers are disappointing, the increasing cost of the corrections corresponds to an increased value for every unit of recidivism reduction. For every job provided to a newly released inmate, the expected annual value of savings to the state in terms of corrections spending is approximately $17,155.[1]

RECOVERYPARK
EMPLOYMENT REDUCES RECIDIVISM
Post-release employment is the best predictor of whether or not a former inmate will return to prison. The recidivism rate among employed ex-offenders is less than half that of those without jobs (Re-entry Policy Study Commission of Indianapolis-Marion County, 2013). A 2010 study found that, among male parolees in Texas, those who were employed post-release reduced their probability of going back to prison by 68.5%. Furthermore, the study found that those who found employment remained crime free for nearly twice as long as those who did not find a
There is substantial empirical evidence to indicate that sustainable employment after release is an important factor in readapting to life outside of the corrections system, and lowering re-offense rates. However, the barriers to employment faced by those released from prison are substantial.

A prison record has a direct negative effect on job prospects. Most employers are less willing to hire someone with a record, and they routinely ask about felonies in the application process. Outside of these direct effects, the ex-convict population also exhibits lower average levels of education than the general population, a higher rate of mental health problems, as well as higher rates of substance abuse (Harding, Wyse, Cheyney, & Morenoff, 2011). These demographic factors add to the difficulty of finding a job post-release, and the current state of the economy only exacerbates the problem.

During the same period in which prison populations and recidivism rates have been falling in Michigan, the rate of post-release employment has also dropped significantly. In 2001, parolee post-incarceration employment in the state was at a high of 54.3%. By 2013, the percentage of parolees that found employment after release had dropped to 24.5% (MI Dashboard, 2014). A good portion of this reduction is likely due to larger labor market trends; with the economic downturn and larger numbers of newly released offenders, there are simply more job-seekers and fewer jobs. However, without directly addressing employment options for those newly released from prison, recent gains in recidivism reduction are unlikely to be sustainable. These lower employment numbers for newly released offenders can also be seen as an opportunity for socially-minded businesses to tap into an under-utilized workforce. To continue making gains in recidivism reduction, better employment numbers are essential, and businesses with a focus on social impact can be an essential component. As such, RecoveryPark, with its emphasis on sustainable opportunities for those with barriers to employment, is well poised to encourage long-term success for the ex-offenders it employs and to contribute to sustained reductions in the state-wide recidivism rates.
Private entities create real public value by employing ex-offenders. However, because the value of this public good is not captured by any private entity, the labor market will likely undersupply jobs for ex-offenders. Social-impact bonds and MPRI subsidies are potential tools to incentivize private companies, like RecoveryPark, to employ more ex-offenders, and therefore create more value for the public. These tools are an opportunity for the public sector to invest in recidivism reduction, and to create sustainable long-term cost savings for the tax-payers.

RecoveryPark’s core competencies include providing social services to those with barriers to employment. They have experience helping individuals addressing the challenges that face many of those recently released from prison; low levels of education, substance abuse, and histories of mental health problems. RecoveryPark Farms and future private ventures will create jobs with minimal education requirements, and their employees will enjoy the suite of support services offered by the non-profit wing. This creates an environment in which those with barriers to employment can thrive. By including ex-convicts and parolees in their target employment demographic, RecoveryPark could have a substantial impact in recidivism reduction.

FINANCIAL INCENTIVES
Not only do RecoveryPark’s core competencies position it well to help ex-convicts stay out of prison, but substantial financial incentives exist as incentives to pursue such an impact.

Several public subsidies and tax breaks help businesses in Michigan hire those newly released from prison at lower costs. As a component of the Michigan Prisoner Re-entry Initiative (MPRI), the program offers temporary subsidies to businesses to allow them to try out newly released offenders as employees at reduced costs. In addition, they aid employers who hire parolees to access the federal Work Opportunity Tax Credits, which can further reduce labor costs [Michigan Prisoner ReEntry Initiative, 2010]. Social impact bonds and other incentives to hire newly released offenders could be
promising tools in efforts to reduce recidivism.

In September 2013, Michigan was selected as the home of a pilot program by the Social Impact Bond Technical Assistance Lab of Harvard’s Kennedy School. Since then, the state has launched Pay for Success, a social impact bond program which works with investors, non-profits, and businesses to improve outcomes for taxpayers and recipients of state services. Recidivism reduction is among the target areas the state has set for this innovative funding mechanism (Liebman & Sellman, 2013).

Social impact bonds allow private sector investors to invest in innovative social programs which are designed to increase impacts and reduce costs to the state. Under the model used in Michigan, the government contracts with an intermediary to provide social services. Specific performance targets are included in the contract, and the government agrees to pay set rates for achieving those targets at different levels. In addition, an independent program evaluator is agreed upon to perform rigorous evaluations of the success of the program. The intermediary then issues bonds, and sells them to private investors to raise sufficient capital to fund the program. If the program meets its targets, the government pays at the set rate. However, the bonds are only paid if programs achieve the agreed upon outcomes and efficiencies (Michigan Office of the Governor, 2013).

These bonds benefit governments by allowing them to support innovative approaches to social services that accelerate progress toward social policy goals, but also shield them from the risks associated with new approaches to service provision. They also result in significant cost-savings to the state through more efficient approaches. The service providers in the model enjoy the benefits of rapid access to capital and in-depth program evaluation, both of which can help them scale more quickly after demonstrating success. In addition, it provides opportunities for philanthropists and the private sector to invest in innovative approaches to social services, and early trials have shown the potential for significant returns.

**THE CASE OF RIKER’S ISLAND: SOCIAL IMPACT BONDS FOR RECIDIVISM REDUCTION**

In New York, the state has begun to use social impact bonds as a tool for recidivism reduction. In late 2013, it contracted with Social Finance US as an intermediary to issue bonds in support of an intervention targeting employment services for those recently released from prison. The Center for Employment Opportunities (CEO) is providing comprehensive employment services to 2,000 parolees, in exchange for $13.5 million in bond financing. The capital was raised by Social Finance and the Bank of America Merrill Lynch, and covers the 5.5 year duration of the contract. As a part of the program, a randomized control trial will be conducted to determine the recidivism reductions and employment gains of those in the program against a baseline control group. Once the program and evaluation are over, the state of New York will pay the bondholders at the rate of $6,000 per person per percentage point increase in employment, $85 per participant per day less spent incarcerated than the control group average, and $3,120 per percentage point increase in transitional employment in the treated group. The payouts are directly tied to performance, and up to $21.5 million will be paid by the state when the program ends (State of New York, 2014).

While the actual social impact gains from the program are still unknown, Pay for Success contracting helped CEO to scale quickly, and allowed private investment capital to fund innovation in the social service sector. Social impact bonds are a promising mechanism by which to form mutually beneficial public-private partnerships, and have shown potential for funding socially minded enterprise like RecoveryPark.

Michigan’s Pay for Success program could aid RecoveryPark in raising the capital necessary to scale. RecoveryPark is a proven provider of social services, and the RecoveryPark Farms/RecoveryPark partnership is an innovative model with which to make gains in recidivism reduction. Pay for Success Funding would also require RecoveryPark to agree to independent evaluations of its programs, and to convince potential investors that it is capable of having the level of social impact necessary for the bonds to pay. This would afford RecoveryPark an opportunity to...
raise funds while demonstrating a real commitment to their social mission.

The social impact bond model is built for socially-minded enterprises like RecoveryPark, and Michigan’s recent embrace of the funding mechanism could be a good opportunity for RecoveryPark to raise the capital it needs to expand.

RECOMMENDATIONS
Through this research we have determined that the above assumption is true. Jobs are the best tool for fighting recidivism rates and helping those released from prison to reintegrate to life outside of a correctional facility. RecoveryPark’s core competencies are an opportunity for RecoveryPark Farms to have a real impact on recidivism reduction. Due to Michigan’s falling post-release employment numbers and the state’s emphasis on further reductions in prison expenditures, the state has prioritized post-release employment as an area of focus. We recommend RecoveryPark pursue Pay for Success bonds and take advantage of tax credits for employing parolees to help RPF to reduce its labor costs while simultaneously fulfilling its unique social mission.
Intervale Center is a nonprofit organization with a mission to strengthen community food systems “by enhancing farm viability, promoting the sustainable use of agricultural lands and engaging people in the food system.” (Intervale Center - History, 2014) The organization was founded in 1988, and is built around the Intervale: 700 acres of previously abandoned agricultural land within the city limits of Burlington that was used as a dumping ground in the 1980s. Today, the Intervale Center has revitalized this area and strengthens the local food systems through new farm incubation, farm business development, agricultural market development, agricultural land stewardship, and food systems research and consulting (Intervale Center - Mission & Vision, 2014). The land is home to 11 small farms that produce for the local market, including restaurants, farmer’s markets, CSAs, local grocers, and free food share programs for community members in need.

The Intervale Center also owns a Food Hub: “The Intervale Food Hub is a local foods market offering convenient, year-round delivery. We collaborate with ecological farmers and food processors in our region to provide you with an array of the highest quality foods. We are nonprofit-owned and are cultivating a local economy that sustains healthy food, farms, land and people.” (Intervale Food Hub - Mission & Vision, 2014) The Food Hub operates on a membership model. Members choose from a variety of convenient pick-up locations (these include universities, community health centers, retail locations, gyms, libraries, and offices) on a weekly basis. The organization has also developed partnerships with universities to using Dining Points toward their Food Hub membership as part of their meal plan options. The Food Hub sources food from local farmers, fishermen, bakers, cheese makers, beekeepers, maple syrup makers, and food producers, and distributes to its members at businesses and institutions throughout the region. This model connects local producers with many more consumers than a traditional CSA model, and allows the Food Hub to plan efficient delivery locations to minimize transport costs.
ASSUMPTION
Many areas in Detroit currently exhibit food desert conditions where many of the population lack access to healthy affordable food. These conditions are especially common in the area where RecoveryPark Farms operates and where most of the individuals they will try to employ and help will live. RPF has a primary social goal to serve individuals with barriers to employment, and initially plans to focus their initial business model and high margin customers in the high-end food service market. However, expansion may allow economies of scale to lower prices to a level that will allow RPF to serve the community in which they operate that suffers from a significant shortage of affordable fresh produce.

FOOD DESERTS: CONDITIONS & EFFECTS
There is a general lack of consensus on the definition of a food desert. There has been much discussion of this condition’s existence in Detroit, however, few have examined the competing definitions put forward in research and academic works. Hendrickson, et al defined food deserts as “urban areas with 10 or fewer stores and no stores with more than 20 employees” (Hendrickson et al, 2006). Cummins and Macintyre lay out a definition that high contrasts this highly quantitative definition in a study in 2002—they define food deserts as “poor urban areas, where residents cannot buy affordable, healthy food” (Cummins and Macintyre, 2002). The USDA defines a food desert as an area where at least 500 people live more than a mile away from a large grocery store or supermarket that sells whole foods (ANA). For the purpose of this paper we consider the more general, qualitative principles that underlie the conception of food deserts. Our examination of the city of Detroit mainly takes place through the lens of RecoveryPark’s needs assessments which identify the democratization of healthy, local food options as a priority they aim to address as part of their long-term goals.

Whatever definition of food deserts to which we choose to subscribe, the area around RPF undoubtedly falls into this categorization. Access to affordable high quality produce is very difficult and often requires fairly long travel distances in a city that lacks a robust public transport system. The profile of businesses within the community has a profound impact on the diet of residents. Residents consume the foods that are accessible at an affordable price and the youth in the area are raised in a culture where highly processed foods are considered normative, and fresh produce is uncommon and fairly foreign. This ultimately affects the public health of residents in food deserts and can be extremely detrimental to quality of life factors. “In Detroit, a fundamental underpinning of poor nutrition is the dearth of retail outlets that sell a range of nutritious foods at reasonable prices. Fast food and other fringe food outlets are everywhere, yet there are comparatively few quality grocery stores where fresh and healthy foods can be purchased” (Mari Gallager RCG, 2007).

Research on the social correlations and impacts of food desert conditions has focused mainly on four significant areas of inquiry:

1. Access to Supermarkets
2. Racial/Ethnic Disparities in Food Deserts
3. Income/Socio-economic Status in Food Deserts
4. Differences in Chain versus Non-Chain Stores

The research in these areas is summarized in Walker et al, 2010. However, one factor that RecoveryPark also considers in its social ambitions is the public health effect of food deserts and how they correlate to other socio-economic disparities.

The poor diet associated with urban food deserts has significant implications for the economic health of the community and success of the residents. Body Mass Index (BMI) scores among low income adolescents are higher in areas with more convenience stores and less supermarkets. This link is influenced by the positive correlation of proximity to a supermarket with levels of fresh fruit and vegetable consumption. (Akihiko Michimi, 2010) Convenience stores typically have produce of lower quality and higher cost.

High BMI scores within low-income communities cause significant direct healthcare costs and stifle economic activity. In 2010, the economic costs of obesity were estimated at $151.3 billion. (Youfa Wang, 2008) The number of lost workdays, and other indicators of decreased productivity rise dramatically.
along with obesity levels. Low income populations with lower levels of education can be even more vulnerable to the impact of decreased productivity than communities that enjoy the greater productivity associated with higher levels of education and capital investment.

MARKET ASSESSMENT: FRESH PRODUCE CONSUMPTION IN FOOD DESERTS
The consumption of fresh produce by individuals in an urban food desert is largely driven by the total cost of acquisition. The produce available in the convenience stores and fast food outlets that characterize a food desert are typically significantly more expensive and are of lower quality than those commonly available in full size grocery stores. (Rose, 2004) There is also a significant cost to travel to large grocery stores for many who live in urban food deserts, especially those in Detroit. Many of the residents do not own their own car and Detroit’s public transit system is not particularly effective or reliable. “Today, the Motor City has the distinction of being the most expensive place in the U.S. in which to own and operate an automobile; more than a fifth of Detroit households are carless. Never having been a city known for its public transportation, Detroit is now an even tougher place in which to do simple things” (Mari Gallagher RCG 2007). The additional time commitment required for the acquisition of fresh produce effectively raises the price considerably higher than the direct cost.

There are structural issues that many food providers face in bringing fresh produce into an urban food desert. The convenience stores and fast food outlets that currently provide the majority of the calories to the residents of food deserts face less risk in continuing to provide the highly processed foods that their customers are accustomed to. These institutions are primarily fringe retailers such as liquor stores, gas stations and convenience stores. It is also more difficult for convenience stores that would like to provide fresh produce to attract distributors interested in providing the limited quantities that their far smaller sales space could support. There are clear incentives for food providers in urban food deserts to continue selling the foodstuffs that they know will display a high turnover rate. Despite all of these drawbacks, “given that these store owners have

<table>
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<th>Crop and Market</th>
<th>Quantity [lbs]</th>
<th>Revenue ($)</th>
<th>Price ($/lb)</th>
</tr>
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<td>POTATO</td>
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<td>Total</td>
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<td>91,455,000</td>
<td>0.07</td>
</tr>
</tbody>
</table>

Figure 1
Quantities, Revenues and Prices for Fresh and Processed Markets, 2006
Via: Cantrell, Patty; Conner, David; Erickcek, George; and Hamm, Michael W. “Eat Fresh and Grow Jobs, Michigan” 2006.

THE IMPACT OF FOCUSING ON THE NEIGHBORHOOD FOOD ENVIRONMENT IS TWO-FOLD. FIRST, INCREASED ATTENTION IS BROUGHT TO THE LOCAL FOOD ENVIRONMENT GIVEN THE IMPORTANT ROLE THESE ENVIRONMENTS PLAY IN PROVIDING FOOD FOR RESIDENTS WITHIN THEIR IMMEDIATE VICINITIES. SECOND, THE UNEVEN DISTRIBUTION OF FOOD STORES CAN BE OBSERVED AND DISADVANTAGED NEIGHBORHOODS THAT LACK SUPERMARKET ACCESS, OR FOOD DESERTS, CAN BE NOTED.

WALKER ET AL., 2010

Figure 2
Current clientele for the pilot program.
Via: http://recoverypark.org/
In addition to the urban context and its unique cause and effect, it is impossible to speak to the market landscape of food production without at least touching upon broader regional markets, supply chains and governmental systems. Despite having over 53,000 farms and the second widest variety of farm products in any state, “much of the $1.9 billion of higher-value fresh fruits and vegetables consumed in Michigan comes from other states and countries” (Cantrell et al 2006). In addition, most of the farm products in Michigan are sold as processed foods despite the fact that fresh produce consistently fetches a higher price (see figure 1). In 2006, the state ran a very successful program called Select Michigan, which promoted the sale of local fresh produce from within the state. In its first year, the program boosted sales of local fresh produce by 111%. Programs such as these show that there is unmet demand and that specific attention must be paid to how RecoveryPark moves forward in its marketing strategies as it expands to democratize the access to its products.

**RECOMMENDATIONS**

RPF currently sells the produce they have grown in their pilot farm to high-end restaurants in the greater Detroit area (see figure 2). The motivation to target this market during the early parts of their learning and scaling curves is clear. Until RPF scales their operation and brings marginal costs down, they need customers with relative price inelasticity. The residents of a food desert would be a poor target market during the scaling of RPF’s operations; food expenditures by residents of a food desert have been shown to be highly price elastic (Dave Witherspoon, 2013). High end restaurants are an almost ideal initial market; they value the reliable quality, availability, and prestige that RPF provides and they can pass on the higher cost of their inputs to their own affluent customers. However, as RPF scales their operations they will need to expand their sales geographically, or seek new market segments within the Detroit area to find sufficient customers for their higher production.

The difficulty with expanding geographically has been discussed already, and there are clearly obstacles for reaching new customer segments in the area surrounding RPF. However, there are several models for ways to local producers to make fresh produce available to urban food desert residents. These strategies can use the existing food distribution networks, create new ones, or any combination of the two. RPF can look to the examples of Common Market, Growing Power, and Intervale Center for examples of models that have successfully reached customers outside of high end restaurants.

Any of these strategies require strong partnerships within the community to create demand and reduce the risk concerns of local food retailers. RPF is already well positioned to leverage the relationships they have established through their efforts to employ individuals with barriers to employment. They can also carry their social credibility to create new partnerships with local schools and religious leaders that might otherwise be wary of working closely with a purely for-profit business.
Land Use and Access to Produce in Detroit

* urban farms, school and community gardens listed were documented and in operation in 2009
** produce data derived by query of shops within a 10mile radius of city center
urban farms and produce data are from 2009
all other data derived from 2000 US census

Figure 4
Via: http://www.erikalindsay.com/DETOIT-FOOD-DESERT
Focus: HOPE is a Detroit nonprofit pledging “intelligent and practical action to overcome racism, poverty, and injustice” (Focus: HOPE, 2014). One major way the organization has worked towards this goal is through job creation. Their career training programs have assisted 12,000 men and women gain employment with sustainable wages, generating an estimated $1.2 billion in economic activity in Southeast Michigan.

Since its founding in 1968, Focus: HOPE has provided numerous career training tracks and job placement assistance by partnering with employers and community organizations. 8,000 people have graduated from their job training programs in the last 40 years. Training tracks include information technology, machinery, Microsoft Office, career or college preparation for high schoolers, “fast track” math and reading skills training, GED preparation, and an “earn and learn” program for the formerly incarcerated and chronically unemployed. These are partially funded by the Michigan Department of Workforce Development. College-track options also exist; the Center for Advanced Technologies (CAT) at Focus: HOPE offers an associate’s and the option for a bachelor’s degree at local universities. CAT partners with universities and industry and performs research for the U.S. government. Participants in the Information Management and Systems Engineering take bridge classes to strengthen basic academic skills and take classes through the Wayne State University department of computer science.

Focus: HOPE provides a unique array of support services to ensure the success of its students. Drug tests are required for admittance into any program. After enrolling in a program, students receive lifetime job placement assistance, help with emergency needs such as food, clothing, and shelter, bus passes, on-site childcare, and workshops on financial literacy. In the “earn and learn” program, students are provided with four weeks of job training and then placed in a part-time job while concurrently enrolled in further education and training. This program has an 80% job placement success rate for placing ex-offenders, most whom have no high school diploma or GED.

REFERENCES
http://www.focushope.edu/page.aspx?content_id=404&content_type=level2
ASSUMPTION
In this section we start with the assumption that RecoveryPark will contribute to the stabilization of Detroit neighborhoods by employing those with barriers to unemployment and providing them with critical support services. This is a statement that leads to a number of follow-up questions. For example, how should neighborhood stabilization be defined? How many jobs does RP need to provide in order to meet that goal? What kinds of jobs lead to a more stable neighborhood? While we will not fully answer every one of these questions in this section, we will explore the subject in greater detail as it relates to RecoveryPark.

DETROIT NEIGHBORHOODS
RecoveryPark (RP) has the opportunity to contribute to the stability of Detroit neighborhoods by reducing a host of interrelated problems, including a critical unemployment crisis in Detroit, by providing employment to a sector of the population with criminal or addictive backgrounds and low levels of education. RecoveryPark is also considering a greenhouse location in Waterford in Oakland County, MI. While the Midtown and downtown neighborhoods in Detroit have seen a recent spike in growth and boast occupancy rates of near 99%, outlying neighborhoods have struggled to achieve growth and population density. “What’s left is a Detroit defined by a barren landscape of deserted neighborhoods and abandoned buildings that overwhelms the very recent rebound in parts of downtown” (Cohen, 2013).

In Detroit, the unemployment level of those without a high school degree is 21.5%, 14.7% higher than the unemployment level of those with Bachelor’s degrees (Rothwell & Berube, 2011). Jobs have been shifting away from metropolitan areas to the suburbs in recent years (Tatian, Kingsley, Parilla, & Pendall, 2012) making employment within cities even more difficult to obtain and creating a spatial mismatch between unemployment and job availability. In areas with high education gaps, Rothwell and Berube (2011) note an “inadequate demand for workers relative to supply”. One of RecoveryPark’s target employment groups is ex-offenders, who face an added suite of difficulties when searching for employment: “Reentry is also concentrated in certain neighborhoods, which are likely to be disadvantaged, disproportionately minority, and with low institutional investment, the very type of neighborhoods associated with returns to prison” (Tatian, Kingsley, Parilla, & Pendall, 2012).

RecoveryPark’s employment model also targets the issue of co-locating social services for struggling individuals; “one of the strongest criticisms of social services today is that they are delivered through multiple independent silos without coordination, which sometimes inflicts harm rather than benefits for residents” (Tatian, Kingsley, Parilla, & Pendall, 2012). By addressing the critical barriers to stable living conditions for those with criminal, addictive, and low-education backgrounds, RecoveryPark offers solutions to promote neighborhood stabilization in Detroit.

RECOVERY PARK’S SUPPORT SERVICES MODEL
RecoveryPark proposes to structure employment and support services in a way that could substantially improve the financial, physical, and emotional well-being of employees with disadvantaged backgrounds. The pilot location of RP farms at 2600 E. Grand Boulevard is located in an area of Detroit with 20-40% unemployment and where greater than 25% of residents do not hold a high school diploma or GED. By locating RP farms in this neighborhood, RP tackles the growing issue of low-skill level jobs migrating away from urban areas with low education rates. Additionally, RP plans to target is the suite of needs that each RP associate with barriers to employment presents. RP plans to provide “case workers, life coaches, and career coaches” (RecoveryPark, 2014) to each associate. This support, in conjunction with RP farms’ location in a struggling neighborhood of Detroit, would provide employment to a disadvantaged community while offering the necessary services to help them and their families succeed. According to Tatian et al. (2012), “Some argue that an effective way to encourage service coordination is by co-location, In the co-location model, representatives of different programs come together to provide services in the same physical space, providing greater opportunity to deliver varied assistance in an integrated manner to neighborhood residents” (Tatian, Kingsley, Parilla, & Pendall, 2012). This was demonstrated with the Annie E. Casey Foundation’s Centers for Working Families in 26 states. The Centers aim to assist low-income families in overcoming three key obstacles
to financial stability because "a job alone often isn’t enough" [Annie E. Casey Foundation, 2014]. Services are provided in a single location and include "financial coaching and education", "helping people find work and advance their careers", and "improving access to public benefits...which can help families make ends meet" [Annie E. Casey Foundation, 2014]. RP will offer a similar suite of services, particularly tailored to the unique needs of the particular populations they aim to employ. This will fulfill Tatian et al.’s primary goal of achieving neighborhood stabilization through coordinating "human and social service delivery inside the neighborhood" [Tatian, Kingsley, Parilla, & Pendall, 2012].

RecoveryPark is poised to help stabilize the lives of ex-offenders in a unique way. Individuals released from prison often identify employment as the most important factor that helped them stay away from crime and return to the community [The Council of State Governments Justice Center, 2014]. According to Tatian et al. [2012], "It is particularly important to co-locate mental health, substance abuse, employment, housing and other supportive services within neighborhoods that receive high concentrations of ex-offenders, given their high level of need." The National Supported Work Demonstration was an effort that targeted ex-offenders, along with those recovering from substance abuse and those on welfare, by providing supervised work and training in small groups. This effort greatly increased employment for the welfare group and resulted in increased wages for the ex-offender group. In the U.S. Council of Mayors 2006 report on reentry efforts, the number one challenge to reentry was lack of jobs [United States Conference of Mayors, 2009]. "Substance abuse and lack of substance abuse support services" [United States Conference of Mayors, 2009] also ranked highly on the Mayors’ list of challenges. The city of Chicago adds that one of their largest challenges is "coordinating the efforts of our City agencies with those of the County, the State, and the various community-based and faith-based organizations working with ex-offenders in our City" [United States Conference of Mayors, 2009]. Thus, if RecoveryPark successfully coordinates the support services ex-offenders with potential substance abuse issues need in conjunction with meaningful training and employment, they may provide an environment that allows ex-offenders to be meaningful contributors to the city of Detroit.

In providing employment and support services for substance abusers, it is important to consider the wide range of home, work, and neighborhood support services to ensure successful recoveries. The Housing and Urban Development Neighborhood Stabilization Program guide advocates three types of support services: first, home visits by a case worker to attend to ongoing needs and ensure stability; second, access to outside services such as Alcoholics Anonymous meetings and financial and life skills classes; and third, access to specialized services such as mental health counseling and medical care [Enterprise Community Partners, Inc., 2012]. If RecoveryPark makes these resources available in one location, they can provide a supportive environment for employment and reintegration of ex-substance abusers.

RecoveryPark will further contribute to the stabilization of both Detroit neighborhoods and the overall region by pursuing business opportunities in stable, green industries. Rothwell and Berube [2011] note that "domestic and global demand will also continue to grow for products and services that benefit the environment". RP farms is committed to improving the environment through "recycling water, optimizing energy use and the use of biological pest control" [RecoveryPark Farms, 2014]. RP also aims to reduce combined stormwater and sewage runoff into the Detroit River through a large underground catchment basin that will also serve irrigation needs. In addition to RP farms, RP aims to open "sustainable, for-profit businesses" [RecoveryPark, 2014] in the farming, food, and fisheries industries. This green industry choice is critical for employment; Rothwell and Berube highlight that "green industries also provide a disproportionate share of jobs for less educated workers, meaning that their expansion could help lower metropolitan education gaps, while potentially improving their industry orientation". By pioneering environmentally friendly practices and growing sustainable businesses, RecoveryPark is poised to create a stable industry in Detroit and keep the region competitive in a globally expanding market for sustainable goods and services.
Quality employment in poverty-stricken areas is critical to neighborhood-based redevelopment, according to the Community Redevelopment Authority of the City of Los Angeles (Public Counsel Law Center, 2012). The opportunity for residents in poor communities with a lack of private investment to be able to join the middle class is critical to ending the cycle of concentrated poverty. In his discussion of the spatial mismatch of job availability and impoverished areas of high unemployment, Wilson states that the lack of jobs available to predominantly minority residents has exacerbated issues such as crime, the flight of the middle-class to “better” neighborhoods, and a shortage of access to financial resources, stores, jobs, and “institutional resources” (United States Department of Housing and Urban Development, 2011). These problems create a positive feedback loop in that communities develop crime, health, and education issues that further restrict opportunities to residents. The Mayor’s office of Stamford stated that “employment and housing are the greatest reentry challenges” (United States Conference of Mayors, 2009). The Project on Human Development in Chicago Neighborhoods demonstrated that neighborhoods in which residents participated in formal and informal neighborhood organizations were most effective at reducing crime and delinquency (United States Department of Housing and Urban Development, 2011). Additionally, the Community Redevelopment Authority of the City of Los Angeles found that partnering with neighborhood-based organizations to bring outside development money into the city was effective at bringing employment, commercial opportunities, and affordable housing into the city (Public Counsel Law Center, 2012). Breaking the cycle of concentrated poverty and struggling neighborhoods requires strategic community partnerships to provide a crucial backbone to improve the lives of residents.
NEIGHBORHOOD STABILIZATION

In order to provide the necessary level of support to the groups RecoveryPark plans to hire and to contribute to meaningful neighborhood stabilization, the following actions are recommended:

1. Choose one target neighborhood in which to provide employment and locate support services there. Concentrating on the Detroit location would be preferable to expanding to Waterford, as the unique needs of ex-offenders, former substance abusers, and those struggling to break the cycle of low education and poverty are best suited to co-located and comprehensive support services.

2. Consider the needs of associates that may reach beyond the support you provide, such as affordable and stable housing availability in the area. If possible, try to ensure these needs are met for each associate.

3. Partner with formal and informal community organizations to work towards sustainable development and neighborhood stabilization on a grassroots level.

REFERENCES


RECOMMENDATIONS

Detroit Future City’s proposed 50 Year Land Use Vision

We have concluded that in the case of RecoveryPark Farms, economies of scale are necessary but not sufficient to achieve a greater social impact. Smart and efficient growth allows the organization to hire more employees and reach more people through its products. However, for RecoveryPark, target market, distribution, facility locations, and employment goals are not just about growing the business to increase the bottom line, but rather about achieving positive social impact through those operations. Thus, successful growth on its own is not enough. RecoveryPark Farms needs to be strategic about how it grows.

SUMMARY OF RECOMMENDATIONS

- RecoveryPark Farms should continue to increase production as planned, continue to hire, and keep their business in alignment with their social mission. In order to maximize their profitability, RPF must diligently monitor and control costs (direct labor, direct materials and allocated overhead). It is our recommendation that RPF hire a cost accountant in order to ensure they are allocating costs effectively as it will have a significant impact on bottom line performance. An experienced cost accountant would also be able to more accurately forecast costs going forward, enabling better strategic planning.

- RPF should develop a clear strategy to determine a clear strategy in determining investment opportunities in non-liquid assets as the assumption of economies of scale are dependent on spreading fixed costs over more units sold.

- RPF should continue its current plan to start with in-house distribution, but consider the aggregate/food hub model as the organization grows. There may be an opportunity for RecoveryPark to facilitate this aggregate network with other local producers in the region through its plan to incubate multiple food-oriented businesses under the non-profit umbrella. RPF should also leverage the partnerships it develops to support its employees to create new distribution models.

- In the case of geographic expansion, RPF will likely need to consider investing in additional facilities in other locations to reduce transportation time and costs. This could be an opportunity to create more jobs [supporting the RP social mission] for these additional operations. In order to do this RPF would have to start to develop strong, trusting relationships with other producers in the area that share similar values.

- We recommend connecting with organizations that have launched similar food distribution models in other locations [see case studies on Intervale Center, Growing Power, and Common Market] to learn from their successes and challenges in local food distribution.

- RecoveryPark should pursue Pay for Success bonds and take advantage tax credits for employing parolees to help RPF to reduce its labor costs while simultaneously fulfilling its unique social mission.

- RPF should choose one target neighborhood in which to provide employment and locate support services there. Concentrating on the Detroit location would be preferable to expanding to Waterford, as the unique needs of ex-offenders, former substance abusers, and those struggling to break the cycle of low education and poverty are best suited to co-located and comprehensive support services.

- RPF might consider the needs of associates that may reach beyond the support you provide, such as affordable and stable housing availability in the area. If possible, try to ensure these needs are met for each associate.

- RPF would do well to continue to partner with formal and informal community organizations to work towards sustainable development and neighborhood stabilization on a grassroots level.

As RPF scales their operations they will need to expand their sales geographically, or seek new market segments within the Detroit area to find sufficient customers for their higher production. There are several models for ways to local producers to make fresh produce available to urban food desert residents. Any of these strategies require strong partnerships within the community to create demand and reduce the risk concerns of local food retailers. RPF is already well positioned to leverage the relationships
they have established through their efforts to employ individuals with barriers to employment. They can also carry their social credibility to create new partnerships with local schools and religious leaders that might otherwise be wary of working closely with a purely for profit business. These partnerships have the potential to facilitate lower cost distribution and customer acquisition in new customer segment.
ORGANIZATION WEBSITES

Common Market
http://commonmarketphila.org/

Focus Hope
http://www.focushope.edu/

Growing Power
http://www.growingpower.org/

Intevale Center
http://www.intervale.org/

RecoveryPark Farms
http://www.recoveryparkfarms.com/

READING


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Recovery Park: Sustaining Detroit

We began with a hypothesis: If RPF expand production, profits will increase. If profits increase, RP will have greater social impact. To test this hypothesis we considered the validity of its underlying assumptions, and applied our findings to make recommendations to Recovery Park Farms. Through this hypothesis based approach, we use RPF as a case study to examine the relationship between creating a financially viable business plan and having a meaningful social impact.

ASSUMPTIONS & RECOMMENDATIONS

DISTRIBUTION

Recovery Park Farms will have access to a cost effective distribution network so that as distribution grows, costs will not grow faster than revenues.

- Direct distribution is limited by organizational reach and scale.
- RPF costs will increase substantially with increase in average delivery distance.
- Food Hub model can facilitate cost effective market access through partnering with other local producers, condensing the conventional supply chain, and creating strong producer-consumer connections.

ECONOMIES OF SCALE

Recovery Park will achieve economies of scale as they grow (costs will go down as production increases).

- Fixed costs have Compound Annual Growth Rate (CAGR) = 37.5%.
- Assume fixed costs will eventually plateau.
- Cost of Goods Sold (CAGR = 178%) are main source of variable costs.
- Labor costs assumed to remain constant at approximately 45% of Variable costs.

MARKETS & FOOD DESERTS

Increasing economies of scale will allow RPF to provide fresh produce at a lower price; the lower price will enable them to acquire new customer segments and impact food desert conditions in the neighborhood.

- Current customers, high-end restaurants, have a relatively inelastic demand.
- Commodity prices are common for produce throughout the value chain in the area and are fairly steady except in cases of extreme shock.
- Price sensitivity is extremely high in low-income areas, and price and availability are the largest factors for fresh produce consumption in urban food deserts.

RECIDIVISM

Employing previously incarcerated individuals in Detroit can reduce local recidivism rates and create new funding opportunities for Recovery Park.

- Post-release employment is the best predictor of recidivism and has been on the decline for the past 15 years.
- Work Opportunity Tax Credits offer incentives for businesses which employ those recently released from prison.
- Michigan’s Pay for Success social impact bond program allows private investors to fund businesses which promote cost-savings to the state.

NEIGHBORHOOD STABILIZATION

Recovery Park will contribute to the stabilization of Detroit neighborhoods by employing those with barriers to unemployment and providing them with critical support services.

- RP is considering agriculture facilities in both Oakland County and Detroit and aims to employ 12 associates with barriers to employment in its first 5 years.
- Successful support efforts provide “human and social service delivery inside the neighborhood” (Tatian et al., 2012), thus “providing greater opportunity to deliver varied assistance in an integrated manner to neighborhood residents” in the same physical space (Ginsburg 2008; Task Force on Collaborative Services Report 2006).

INTERDISCIPLINARY APPROACH

The interdisciplinary nature of the team allowed us to examine the operations of Recovery Park on multiple fronts and experiment with techniques and trajectories across constructed disciplinary lines.

ACKNOWLEDGMENTS

Dow Chemical
Anne Wallin and Greg Bond

Recovery Park
Charlie Wilson
RecoveryPark: Sustaining Detroit

DOW SUSTAINABILITY FELLOWS

Made possible by The Dow Chemical Company, the Dow Sustainability Fellows Program at the University of Michigan supports full-time graduate students and postdoctoral scholars at the university who are committed to finding interdisciplinary, actionable, and meaningful sustainability solutions on local-to-global scales. The program aspires to prepare future sustainability leaders to make a positive difference in organizations worldwide.

The diverse array of fellows brings together many relevant interests related to water, energy, health, consumption, green chemistry, transportation, built environment, climate change, biodiversity, human behavior, environmental law, and public policy, among others. The program comprises masters/professional degree, doctoral, and postdoctoral fellows, who engage with one another within and across cohorts, thrive on collaboration, learn to employ interdisciplinary thinking, experience diverse stakeholder perspectives, and implement projects with significant potential for impact on local-to-global scales.

Key components of the University of Michigan’s Dow Sustainability Fellows Program are as follows:

- Masters & Professional
- Doctoral
- Postdoctoral
- Distinguished Awards for Interdisciplinary Sustainability

MASTERS & PROFESSIONAL FELLOWSHIP

This component of the Dow Sustainability Fellows Program includes a select group of full-time graduate students pursuing terminal masters and other professional degrees at U-M – Ann Arbor (e.g., architecture, arts, business, engineering, environment, health, law, medicine, policy, social work, urban planning, etc). Each year, 40 fellows are selected from a pool of candidates nominated by Schools and Colleges throughout the University. Each cohort begins in January and concludes in December of the same year.

In addition to receiving a $20K stipend ($10K per semester), each masters/professional fellow participates in collaborative engagement activities and a substantial interdisciplinary team project. Co-curricular programming consists of monthly seminars and workshops involving a diverse array of sustainability practitioners in addition to other activities. To meet program requirements and be eligible for funding, fellows must participate in at least 75% of these co-curricular offerings.

For the project requirement, masters/professional degree fellows form interdisciplinary teams (4-6 fellows each) to draft a persuasive white paper (ideally for a client) that develops a comprehensive stance or an analysis of options on a particular sustainability challenge of the team’s choosing, or a comparable deliverable approved in advance by the program director.

Schools/Colleges are encouraged to match degree requirements to the interdisciplinary project outcomes, if feasible. For example, a fellow could earn independent study credit in their home unit for project work completed through the program.

REFERENCES

http://sustainability.umich.edu/dow
OVERVIEW

RecoveryPark’s mission is to create jobs for people with barriers to employment. The organization believes developing businesses in food production, processing and distribution centered on approximately 100 acres of blighted lots north and east of Eastern Market generally bounded by St. Aubin, I-94, Chene and Scott. RecoveryPark will have the opportunity to create a large number of jobs and improve the local economy and neighborhood.

RecoveryPark has engaged a merchant bank, Next Street in Boston, to organize $25 million of mixed funding to support the business and community projects in this footprint. This effort has resulted in Business Incorporations, Memorandums of Understandings, Letters of Support and other engagement documents identifying property needs for agriculture businesses, academic research, sustainability and recreational activities.

RecoveryPark is developing the Associate Support Platform with partners including MRS, Easter Seals, JVS and SHAR to provide job training and support.

IMPLEMENTATION ACTIONS

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<thead>
<tr>
<th>IMPLEMENTATION ACTIONS</th>
<th>DATE</th>
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<tbody>
<tr>
<td>B2 Develop detailed action plans for primary employment district.</td>
<td>December 2013 – November 2018 for recommendations; June 2014 for implementation</td>
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<td>C3 Provide young Detroiters with exposure to and experience in Digital/Creative and other new economy clusters.</td>
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<td>D1 “Hire Detroit”: strengthen local hiring practices.</td>
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<td>D2 Coordinate workforce development best practices.</td>
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<td>D3 Revitalize incumbent workforce training.</td>
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<td>D4 Expand public-private partnerships for workforce development.</td>
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<td>D5 Implement blue and green infrastructure projects.</td>
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<td>D6 Encourage reuse of vacant land with productive landscapes.</td>
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OBJECTIVES

- Build an economic, infrastructure and human asset redevelopment model for a sustainable local food system using DFC Framework as a baseline.
- Build an economic model for creating food production, processing and distribution businesses supporting local jobs for people with barriers to employment.
- Engage community groups and residents in creating a sustainable walkable and secure neighborhood.
- "Hire Detroit": strengthen local hiring practices.
- Coordinate workforce development best practices.
- Revitalize incumbent workforce training.
- Expand public-private partnerships for workforce development.
- Implement blue and green infrastructure projects.
- Encourage reuse of vacant land with productive landscapes.

RESOURCES

- Detroit Future City leadership and staff
- RecoveryPark 501(c)(3) nonprofit, RecoveryPark Farms, RecoveryPark Foods and RecoveryPark Aquaculture
- Detroit Infrastructure Partners

EVALUATION METRICS

- Number of jobs created
- Amount of blighted land cleared and maintained

INITIATIVE VITALS

CONTRIBUTING ORGANIZATIONS:
- Detroit Water and Sewerage Department,
- DTE Energy, Detroit Future City, Michigan State University, TechTown, Detroit Department of Public Works, playgrown, Detroit Blight Authority, Michigan Rehabilitation Services, Easter Seals, JVS and SHAR

DFC INITIATIVE TYPE: Partner

DFC APPROACH

The DFC Implementation Team will use the Framework to support urban economic, employment, business and infrastructure redevelopment in the general RecoveryPark footprint.

The DFC Framework addresses vital infrastructure alternatives. RecoveryPark provides an opportunity to rethink infrastructure with the responsible organizations through an Infrastructure Advisory Board lead by DFC and Detroit Planning and Development Department.

DFC can evaluate the potential of the RecoveryPark model to create jobs that are accessible to local residents, especially those with barriers to employment, to begin establishing an economic base of businesses and impetus to neighborhood redevelopment. DFC can also dimension the combined impact of for-profit business income, jobs and taxes with the reduction in societal cost for people who otherwise would be unemployed and dependent on City services and other activities to support themselves.

The RecoveryPark experience can be used as a template for other sector based redevelopment such as water, energy and advanced manufacturing. The common theme is the need for effective land use, resident employment and infrastructure redevelopment based on customer demand and need.