

Roots Rising Food Truck Feasibility Study

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Special thanks to our clients Jess Vecchia and Jamie Samowitz of Roots Rising for letting us work on their project! We wish you the best of luck in all of your future endeavors!

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Introduction

Alchemy Initiative and Berkshire Botanical Garden joined forces to create Roots Rising, an agriculture-based youth development program designed to build a sense of community and empower young people. Roots Rising currently offers a summer program, as well as a program throughout the school year. As a part of the program, Roots Rising pays teens to work on farms, in community kitchens, and in local food pantries; however, Roots Rising does not believe that this is simply a job; to them it is an “opportunity for teens to engage in meaningful work” and it is “work that needs to be done and contributes to a larger social good.”¹ In addition, the values and skills that the teen learn from working for Roots Rising include learning how to work hard, communication skills, perseverance, and a satisfaction of living closely with the land in service of something that matters.

Although the program is impactful and helps teens from the Pittsfield area, the founders have realized that it is a very expensive program to run. In order to diversify their funding stream and creatively generate income, Jess Vecchia and Jamie Samowitz of Roots Rising have asked us to research the feasibility of creating/operating a teen-run food truck business. In the food truck business, the teens within the program would cook tasty meals using ingredients from local farms and, eventually, ingredients from their own urban garden. The food truck would sell healthy food directly to the community. Roots Rising would invest the proceeds from the truck directly “back into the program, thereby reducing [their] reliance on grants,” as well as “offering a greater degree of financial security” for the program.²

¹ Alchemy Initiative, “Roots Rising,” 2017, <https://www.alchemyinitiative.org/roots-rising>.

² Andy McKeever, “Roots Rising’ To Provide Pittsfield Teens Work In Food Industry”, iBerkshires.com, March 12, 2017, <http://www.iberkshires.com/story/54113/-Roots-Rising-To-Provide-Pittsfield-Teens-Work-In-Food-Industry.html>.

As a group, we decided that Roots Rising should source their produce, meats, and other ingredients from local farms, specifically in the Berkshire area. By sourcing ingredients from local farms and bakeries, our clients would raise awareness and advertise for the local farms and bakeries in the area. This would enable Roots Rising to establish an amicable and symbiotic relationship with the farms, possibly making it even easier to source the produce and meats from the same local farms in the future. Furthermore, sourcing from local farms provides Roots Rising with environmentally sustainable ingredients, reduces their carbon footprint, and gives back to the local economy.

History of Farms

According to the USDA census of farms in the United States, between 2007 to 2012 (the most recent census collected by the USDA), the number of farms within the U.S. has decreased.³ This decrease is not attributed to large or small farms, but rather the number of medium sized farms is decreasing. Furthermore, according to the USDA, in 2015, small farms accounted for almost 90% of the farms in the United States.⁴ To note, a small farm is defined by the USDA as “one that grows & sells between \$1,000-\$250,000 per year in agricultural products;”⁵ however, over time, farming production has shifted to larger more industrial farms, with small farms only accounting for 24% of total farm production in 2015.⁶ Even though small farms dominate in number throughout the U.S., they often do not get recognition, as they only provide 24% of total

³ USDA, “Farms and Farmland Numbers, Acreage, Ownership, and Use,” 2012 Census of Agriculture, September 2014, https://www.agcensus.usda.gov/Publications/2012/Online_Resources/Highlights/Farms_and_Farmland/Highlights_Farms_and_Farmland.pdf.

⁴ James M. MacDonald and Robert Hoppe, “Large Family Farms Continue To Dominate U.S. Agricultural Production,” USDA Economic Research Service, March 6, 2017, <https://www.ers.usda.gov/amber-waves/2017/march/large-family-farms-continue-to-dominate-us-agricultural-production/>.

⁵ Brenda Dawson, “So, What is a Small Farmer?,” Small Farm News: UC Small Farms Program, February 15, 2011, <http://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=4222>

⁶ James M. MacDonald and Robert Hoppe, “Large Family Farms Continue To Dominate U.S. Agricultural Production.”

farm production. If our clients develop relationships with local farmers, it would create awareness surrounding small farms, as well as provide many other benefits regarding sourcing local food, which are mentioned below.

Furthermore, by sourcing local meat, Roots Rising could help address a lingering problem in the Berkshires - limited access to USDA slaughter facilities. Because of this absence, a step is missing in the local Berkshire farm-to-table movement. Farmers are not legally allowed to slaughter meat on their own farms and must ship their animals to a USDA certified slaughterhouse. Because there are no slaughterhouses in the Berkshires, this process takes time and is costly for the farmers.⁷ If Roots Rising enters into the meat business through their food truck, they could advocate on behalf of the farmers in order to open a USDA regulated slaughterhouse in the Berkshire area, making the meat fresher and safer for the consumer. A local USDA slaughterhouse would enhance the farm-to-table movement in the Berkshires, assist local farmers, improve the local economy, and foster more environmentally sustainable farming practices.

Benefits of Sourcing Local Foods

There are many benefits when it comes to sourcing food from local farms. To begin, local food is safe in that the consumer knows where their food comes from, as well as the practices involved in producing the food. In addition, sourcing produce and meats from local farms enriches community growth and interaction, increasing social capital within the community, including educational opportunities for students and families. Furthermore, sourcing local foods benefits the environment as well. Decreasing the distance food needs to travel to reach the consumer reduces the carbon footprint of food production. Furthermore, small-scale farming

⁷ JD Allen, "Agricultural Sector in Berkshires Longs for Slaughter Facilities," WAMC Northeast Public Radio, December 12, 2017, <http://wamc.org/post/agricultural-sector-berkshires-longs-slaughter-facilities>.

often uses less harmful chemicals and pesticides that could be detrimental to consumer health, as well as the ecosystem. The benefits of sourcing from local farms not only increases the health of the consumer, but it also decreases food production impact on the environment and supports the local economy.

Social Issues and Benefits

According to a study done in 2009, employed youth believe that their job helps them “develop a wide range of beneficial attributes, such as the capacity to take responsibility, develop time-management skills, overcome shyness with adults, and handle money. Furthermore, at least while they are in the work setting, employment makes them feel more like an adult.”⁸ These are incredibly important skills for young people to learn in order to help them prepare to become successful members of society. A different study found that individuals who worked in their teens often had higher incomes at ages 17-25 and had higher quality job matches at ages 21-23.⁹ In addition to this, it was found that teens aged 14-15 had fewer incidents of depression if they were employed, and higher self-esteem at 16-17.¹⁰ Roots Rising’s food truck would provide an employment opportunity that would allow Pittsfield teens to benefit from all of the above listed positive impacts of youth employment, as well as developing business and marketing skills, culinary skills, customer service proficiency, and leadership and teamwork experience. These are all fundamental values of Roots Rising’s mission.

⁸ Jeylan T. Mortimer, “The Benefits and Risks of Adolescent Employment.” *The prevention researcher* 17.2 (2010): 8–11. Print.

⁹ Houshmand, Marjan & Seidel, Marc-David & G. Ma, Dennis. (2014). Beneficial “child labor”: The impact of adolescent work on future professional outcomes. *Research in the Sociology of Work*. 25. 191-220. 10.1108/S0277-283320140000025007.

¹⁰ Ibid.

Case Studies

In order to fully understand the process by which Roots Rising would go about buying, operating, and maintaining a food truck, we needed to collect qualitative and quantitative data from food truck owners. Thus, we researched several food trucks both within the Berkshires and in Massachusetts in order to obtain first-hand accounts of starting a food truck. The following case studies intend to provide qualitative and contextual background for starting, operating, and managing a food truck.

Case Study 1: Ms. Kathy Lloyd & How We Roll: Pittsfield, MA

November 3, 2017

Overview of Costs

Ms. Kathy Lloyd owned and operated a food truck in Pittsfield, Massachusetts. Her truck, How We Roll, sold egg rolls primarily during lunch hours and on the weekends at special events. Ms. Lloyd suggested that it would be an \$80,000 investment from the time of a food truck purchase to the grand opening of the business. Ms. Lloyd claimed that a well-equipped truck that would be ready to operate at the time of purchase would cost around \$30,000. In addition, any graphic design that would embellish the exterior of the truck would cost around \$2000. Furthermore, required permits included the Board of Health for each town in Massachusetts (\$30-\$150), a Fire Department permit (\$10-\$40), and an event vendor fee (\$50-\$2000).

Equipment

Ms. Lloyd mentioned that towns in Massachusetts are moving away from allowing food to be prepared on the food truck, so Roots Rising must look into the option of finding a commercial kitchen in order to legally prepare the food. Ms. Lloyd mentioned that several church kitchens would be able to function as commercial kitchens, as well as the Taconic Lodge,

which can be rented for \$30 per hour. Ms. Lloyd suggested that Roots Rising attempt to find a willing partner in order to use a commercial kitchen for little to no extra cost.

In terms of truck equipment, Ms. Lloyd indicated that the specific equipment needed on a truck very much depends on the type of food Roots Rising wants to serve. Some required items include a 3-bay sink, a handwashing sink, the equipment required to cook the food, and a refrigerator that can vary in size depending on needs. Ms. Lloyd suggested that three people would be the ideal number of people to operate the truck at one time - one person to take orders, one person to operate the cash register, and one person to cook. These jobs could vary based on the demand, but Ms. Lloyd pointed out that more than three people would cause the truck to become cramped and overcrowded.

Venues

Overall, Ms. Lloyd expressed that she found the greatest success when she operated her truck at farmers markets and high-end festivals. She claimed that the Pittsfield farmers market proved to be very profitable for her food truck operation. Unfortunately, Ms. Lloyd explained that there is simply not enough foot traffic in the downtown Pittsfield area to justify setting up business during lunch or dinner times. She claimed that during a 3 hour lunch period on the main street in Pittsfield she would only bring in about \$100. Ms. Lloyd suggested that having a business manager is extremely important for accounting purposes and keeping track of money. Furthermore, it is extremely important to know a food truck's audience - this determines the type of food and the price range. Knowing your audience will ultimately determine the success of a food truck. Finally, Ms. Lloyd indicated that kindness and customer service proved to be vital skills when operating a food truck.

Potential Problems

Ms. Lloyd was also subject to a legal battle in the city of Pittsfield, as local restaurants viewed her mobile business as a threat to their traditional brick and mortar establishments. Most restaurants were opposed to Ms. Lloyd parking her truck near their restaurants, fearing that the truck would cut into business and could affect employment levels.¹¹ Eventually, parking regulations were established in order to clearly outline where food trucks were allowed to park. When asked about these legal battles, Ms. Lloyd seemed to shrug them off, claiming that instead of a negative outcome, the press resulted in good advertising. Furthermore, Ms. Lloyd celebrated the fact that How We Roll won the legal battle, so she continued to operate her business as usual. The prospect of a legal battle in Pittsfield suggests an animosity between local restaurants and food trucks; however, because parking regulations now exist, Roots Rising should not face any legal issues when serving food in the Pittsfield area.

Overall, should Roots Rising decide to stay within the Pittsfield area, they must focus on farmers markets and high-end events, as these seem to garner the greatest business for a food truck in the Berkshire area, as everyday foot traffic seems to be limited and cannot be relied on to turn a profit.

Case Study 2: Mr. Brian Cole & El Conejo Corredor: Williamstown, MA
November 3, 2017

Overview of Costs

Brian Cole ran a Mexican food truck in Williamstown, MA after his college career. Overall, Mr. Cole emphasized that he had a positive experience with his food truck in Williamstown, and his food truck proved to be extremely profitable. Mr. Cole estimated that his initial investment in the food truck was around \$20,000. Consistent with Kathy Lloyd's advice,

¹¹Jim Therrian, "More Chewing on food truck rules in Pittsfield," *The Berkshire Eagle*, December 6, 2013. <http://www.berkshireeagle.com/stories/more-chewing-on-food-truck-rules-in-pittsfield.390147>

Mr. Cole claimed that in Williamstown, food must be prepared in a commercial kitchen prior to being brought onboard a food truck as required by the Board of Health and the Williamstown Health Inspector. In Mr. Cole's case, he paid \$400 a month to use the kitchen at Hobson's Choice and cooked in that kitchen for 6-7 hours, 5 days a week. Cooking in a commercial kitchen allowed Mr. Cole to purchase a less expensive food truck, as he did not need to install any cooking equipment on his truck. Mr. Cole paid \$13,000 for a truck on Craigslist that only had the capacity to keep food warm, but he estimated that a truck with the ability to cook would cost \$30,000. By using a commercial kitchen, Mr. Cole bought a more affordable food truck, prepared all of his food ahead of time, kept the food warm with a steamer on the truck, thereby satisfying the health requirements of Williamstown.

Permits

Mr. Cole outlined the permits required to operate a food truck specifically in Williamstown. First, the truck would need a permit from the Williamstown health inspector to sell prepared food, which requires a nominal fee. Furthermore, Massachusetts requires a 7% sales tax every month in order to sell prepared food. A ServSafe certification is required for all restaurants for training on safe practices for handling food. This is an online course and test that costs around \$100-\$150. Additionally, Mr. Cole decided to register his business as a Limited Liability Corporation (LLC), in order to separate himself from his business. He recommends this for small business, in case the food truck ever ran into liability issues, the owner could not personally be sued or targeted and allows the business to operate as a stand-alone entity. In order to register as an LLC, the owner must file an application with the state of Massachusetts, which costs \$500 per year.

Equipment

Mr. Cole gave insight into the general equipment that is required for a food truck. First, electricity must be supplied through either a generator or an extension cord. Mr. Cole explained that most trucks have both: generators can be used to run the truck on the street but can also be very loud. He explained that the electrical supply that is required greatly depends on what the food truck will be serving/cooking. Furthermore, hot water and a small hand washing sink is required by the health department. The food truck will need a tank for freshwater and a tank for wastewater. Depending on the type of food, the truck may also need a refrigeration unit; however, Mr. Cole used an ice cooler if he only intended to operate the truck for a short period of time, which was approved by the health inspector. Should there be cooking on a truck, a real refrigeration unit will be required. Finally, Mr. Cole suggested a stove with burners and a griddle should the truck serve freshly cooked meals.

Operation Information

Mr. Cole explained that he had an overall positive experience working in Williamstown. The community was very receptive to the idea of a food truck and was excited about having a different dining option. Mr. Cole used a Facebook and Twitter account to let the community know when and where his truck would be serving food. The most difficult obstacle Mr. Cole faced was the limited parking. At the time that Mr. Cole operated his truck, there was a two hour limit to parking on Spring Street. The Williamstown Police Department required that Mr. Cole adhere to these regulations and had him move his truck from the top of Spring Street to the bottom after two hours. This was cumbersome for Mr. Cole, as he explained the difficulty of packing up a food truck once operation was underway. Mr. Cole indicated that the existing restaurants on Spring Street originally viewed his food truck as competition, but Mr. Cole

claimed that his food truck created a more vibrant environment, which creates business for everyone. He advised to always be a good neighbor to restaurants by not parking near or next to a restaurant that sells similar food.

Income

Mr. Cole also revealed the monetary success that he found in operating a food truck. He managed to find a price point that was affordable for the student body/general population, but also brought in a profit (\$6 burritos). He had his food supplied by a weekly U.S. Food delivery of about \$500-\$600 and mentioned that he believed that using local, organic produce would have been much more ethical and appealing. His weekly gross sales totaled around \$8,000, and his yearly profits after expenses were around \$75,000-\$80,000. Mr. Cole indicated that he would make around \$600 on an average Saturday selling at the Williamstown Farmers Market.

General Advice

Mr. Cole had several general pieces of advice. First, he pointed out that cooking for mass numbers of people proved difficult, so he suggested hiring a local head chef with previous experience to help train the students initially. He indicated that running a food truck proved to be very hard work with a lot of stress, but also provided a creative outlet and was more exciting than working in a building. Finally, Mr. Cole is thinking about starting a vegetable farm in the Williamstown area and would be interested in partnering with Roots Rising should his initiative come to fruition.

November 4, 2017

Overview and Costs

Mr. Oliver Martinez owns and operates The Night Truck, which sells late-night food to students at Hampshire College in Amherst, MA. As a student, Mr. Martinez worked as a manager for the previous owner of the same food truck. When the original owner decided to leave, Mr. Martinez acquired the food truck for \$0, but soon learned about terrible condition of the truck. There were many issues with the kitchen, insulation, and functionality of the truck. As an architecture student, Mr. Martinez decided to renovate the entire kitchen within the truck. Because he did all of the labor, he only spent money on appliances, which he primarily bought off of Craigslist and Ebay, costing a total of \$6,000-\$8,000.

Permits

Consistent with previous interviews, Mr. Martinez stressed the importance of know the food truck's target audience. Mr. Martinez sells late night food to college students, which often consists of "hot, colorful" food items, including paninis, non traditional tacos, and his best seller: a grilled cheese with mozzarella sticks, bacon, and guacamole. The town of Amherst requires food trucks to rent a commercial kitchen, but Mr. Martinez indicated that he does not use the kitchen for food prep, but rather to fill up his water tank and cooking oil. He rents the kitchen from a local, community-minded grocery store for \$50 per month and cooks the food on his truck.

Equipment

The equipment on his truck fulfill the needs of cooking late-night food. He bought a panini press for \$300-\$400 and a deep fryer for \$700-\$800. Mr. Martinez has a stove with four burners and a blacktop station (24' x 12") in between, which also has an oven underneath. The

whole stove system (Dynamic Cooking Systems) cost around \$20,000. Mr. Martinez also has a mini fridge and a 24” x 30” freezer, which he purchased for \$100 off of Craigslist. He has a 3-bay sink that he purchased for under \$200, as well as a separate hand washing sink as required by the Board of Health. He has a hot water heater that can heat three gallons of water at a time. His freshwater tank holds 15 gallons of water and is mounted to the undercarriage of the vehicle, which uses a 12V pump that runs off of the truck engine battery. Mr. Martinez pointed out that the wastewater tank must be bigger than the freshwater supply tank. Pictures of Mr. Martinez’s renovation can be found in the Visuals and Maps section of our report.

Food Sourcing

Mr. Martinez sources his food from a local grocery store that obtains produce from local farms. This enables Mr. Martinez to work with a local business, rather than a big supplier. The grocery store does source some of its ingredients from large-scale suppliers, such as Cisco, but acts as an intermediary between Mr. Martinez and Cisco. Mr. Martinez will give the grocery store a list of required ingredients, and the store will then include that in their larger order. In this way, Mr. Martinez is able to source both local, seasonal foods, as well as food he cannot find in the area.

Educational Opportunity

Mr. Martinez is also interested in the educational component of running a food truck. When speaking with him, he mentioned that he would be very interested in running an educational workshop for the youth in Roots Rising as a way to give back to the community. He has a significant personal investment in the food truck industry and wants to share his experience with the community.

Photos

Mr. Martinez provided photos of his renovated truck for reference. While Roots Rising will most likely not need all of the equipment that is in The Night Truck, these photos provide spatial and logistic visualization of the potential organization of a food truck.



Figure 1: The Night Truck



Figure 2: Stovetop and Fryer



Figure 3: 3-bay Sink and Hand Washing Sink



Figure 4: General layout of the truck, including oven, stove, cabinet, frier, serving window, and panini press.



Figure 5: Electrical configuration



Figure 6: Plumbing System

Case Study 4: Ms. Marcy Megarry with Nom Nom Hut: Springfield, MA
November 5, 2017

Overview and Cost

Ms. Megarry Megarry is the co-owner and operator of Nom Nom Hut is a food trailer that sells homemade dumplings, based out of Springfield MA. Ms. Megarry explained that the original trailer (20' x 8') cost around \$8,500, but also that the trailer did not come with the required kitchen appliances or ventilation. Ms. Megarry suggested that it would be worth considering designing the interior of a trailer to fit specific vendor needs and that much of the electrical and gas requirements depend on the food being served. Because Ms. Megarry intended to use grease to fry her dumplings, a hood with a fan needed to be installed into the trailer, which cost \$6,000. The plumbing and electrical needed to be installed as well, including a 3-bay sink and a handwashing sink. According to Ms. Megarry, the plumbing and electrical installation cost between \$3,000 and \$5,000. Ms. Megarry indicated that a generator is used to power her trailer. She recommends the Honda generators, which cost around \$4,500. Additional electrical cords will be required, which she suggested would cost around \$1,000. Furthermore, Ms. Megarry suggested installing custom cabinets and countertops based on the specific needs of the food truck. For advertising purposes, Ms. Megarry suggested to have some sort of design on the outside of the trailer, which costs between \$5,000 and \$6,000. Fresh and wastewater tanks, as well as a hot water heater and valves could cost around \$1000. All in all, Ms. Megarry suggested that a fully equipped trailer with a window would cost around \$30,000.

Permits

Ms. Megarry gave excellent insight into the multitude of permits and licenses needed in order to operate a food truck. First, the food trailer will need a license to operate from the Board of Health from each specific town in which they want to operate. Furthermore, they will need a

license to operate from each town. These fees are minimal. The trailer will need to register its business name with the state of Massachusetts, and an LLC registration is a \$500 annual fee. A meals tax account is required for the state of Massachusetts, but depends on the town of operation, and typically runs between 6-7%. If Roots Rising decides to use a trailer, a common VIC License will be required for the towing truck, which costs about \$60 per year, as well as a commercial Massachusetts license plate, which is generally more than a standard license plate. SafeServ, as mentioned previously, is required for food trailer operation and costs \$225, as well as an Allergen Awareness certificate which costs \$300. These two certifications must be renewed every 5 years. The vehicle that pulls the trailer also requires insurance. Ms. Megarry indicated that with her insurance policy, she pays \$3000 annually for her vehicle and \$500 annually for her trailer. A food truck will also require a business policy for any open flame within the vehicle (\$1000/year) and workman's compensation (\$500/year). Ms. Megarry emphasized that the paperwork involved in starting a food truck can be very tricky and complicated, but once complete would be much easier to manage.

Marketing

Ms. Megarry emphasized the importance of advertising. When first starting up, Ms. Megarry mentioned the prospect of having small events, such as tastings, in order to get the name and reputation of the food out into the public, which will quickly transfer through conversations. Furthermore, Ms. Megarry uses social media, such as Facebook and Twitter, in order to communicate to her customers about future locations and festivals where the truck will be parked. Ms. Megarry stressed the concept of convenient, mobile food. Customers want something new and exciting, but also food that is not too messy or awkward to eat while on the go.

Food Truck vs. Food Trailer

When asked about the advantages and disadvantages of a food trailer versus a food truck. Ms. Megarry emphasized that the initial investment proves quite striking - a food trailer would generally cost \$50,000, while a truck costs \$80,000, suggesting that a food truck involves higher upfront costs. Food trucks also require more maintenance and upkeep, as you not only have to manage the kitchen, but also the inspection of the engine of the vehicle as well. Food trucks also require more fuel than regular pickup trucks. Ms. Megarry also suggested that food trucks have less storage options, as the driving space take ups room, whereas a pickup truck offers ample storage space for a trailer. The only downside to operating a trailer is the need for an additional vehicle with which to tow the trailer.

General Advice

Overall, Ms. Megarry stressed the idea of adaptation and making circumstances work. She did not have a custom trailer, and at first that inhibited her progress and efficiency as a merchant; however, over time, she made her trailer work for her and now runs an extremely successful food trailer with many tasty dumplings. Ms. Megarry made it clear that the food truck owner must prepare excellent food that is very well executed and should enter the business with a flexible plan.

Case Study 5: Ms. Sarah Heusner and Fork in the Road - Burlington, VT November 6, 2017

Overview

Sarah Heusner helps run Fork in the Road, a culinary job training program started in 2013 for teenage students in the Burlington School District. Their truck supplies locally-sourced foods such as tacos and pulled pork sandwiches, and students earn wages while learning how to

prepare food and provide customer services. The truck acts as an on-the-move classroom, similar to Roots Rising's vision for their own truck.

Cost

Fork in the Road uses a trailer that was specially built for them and cost about \$32,000. Ms. Heusner said that, though she was very appreciative that the trailer was built for them for minimal costs, if she were to do it again she would absolutely buy a traditional food truck since the trailer is a pain to move around. She also said that she highly recommends not putting the system together on your own but having a professional do it. Though it might cost more up front, she adamantly feels that it saves on repairs down the line and ensures that it is done safely.

Employment

Ms. Heusner was helpful in providing information about the ins and outs of hiring minors. She was able to clarify that because Roots Rising probably already has a plan that includes the hiring of minors to work on farms, this could be put under that umbrella when explained to the provider. Ms. Heusner felt that Roots Rising would be able to simply extend their same payment system to their kids for working on the food truck with no complications.

Vendor Fees

Ms. Heusner also touched on the some of the licenses and fees that come along with running a food truck, many of which she felt were hidden and unexpected fees. She made sure to stress that a catering license often costs around \$300, and other fees are around \$100. These other fees include purchasing a slot at farmers markets, peddlers fees for selling in different cities, etc. Sarah mentioned that she did not account for these in the initial budget for the truck and was surprised by how much it added up to.

Case Study 6: Adam and Umami Bites, USA

November 12, 2017

Overview

Umami Bites is a food truck based out of Ohio, but it travels across the United States to different food festivals and venues. Umami Bites served its food at Fresh Grass in North Adams, so it has experience in the local area. Adam offered some important qualitative advice regarding the startup of a food truck.

Food Sourcing

To begin, Adam sources his food from small business and small farmers. When he arrives in different cities around the U.S., he looks for local farmers markets from which to source his food. Adam recognizes that he might not get a large quantity of food from these markets, but he remains more concerned with providing the highest quality food. Along those lines, he emphasized the importance of framing in advertising the local food he uses. He says that “supporting local, small businesses” might be more appealing to some customers than “environmentally sustainable food.” While Roots Rising would most likely want to advertise the use of local produce, it is advisable to do so in a way that does not deter or alienate a specific group of the population that might be adverse to such messaging, and rather frame it in economic terms.

Food Truck Industry

Adam also had some insight into the food truck industry in general. To begin, he claimed that most people who chose to start a food truck already have a background in the restaurant industry, but cannot afford to start their own restaurant. Adam suggested that in order to get a food truck business off the ground, it would cost around \$40,000-\$50,000. Adam stressed that there is no guarantee of a return on this investment, and that many times it takes years to

generate enough income to start turning a profit. Furthermore, Adam claims that it is a very labor intensive business, claiming that at some points throughout his career, he would work 100+ hours per week and still not cut himself a paycheck. In other words, Adam stressed the difficulty of paying people a living wage when working on a food truck.

Because Roots Rising intends to use the food truck as a supplemental source of income and a part-time job, the wage issue seems less urgent; however, it is important to recognize the amount of time and intensity of labor that goes into operating a food truck. Adam provided important background information that revealed the less glamorous side of operating a food truck, which is important in order to fully understand both the monetary and time investment that will go into starting the Root Rising food truck. On a more positive note, Adam also illustrated that food trucks can be successful even when sourcing from local farms and small businesses, which is important for Roots Rising's business model.

Case Study 7: James Stark and DriveChange: New York, NY
November 20th, 2017

Overview

DriveChange is a 501c3 non-profit that uses a food truck to provide a one year fellowship to individuals returning home from prison to give them the skills to find employment. In a call with one of their employees, James Stark, we learned that they own their food truck as a for-profit subsidiary of their company and use the profits to limit reliance on grants and donations. As of right now, the truck provides ~20% of the companies income.

Permits & Sourcing

Mr. Stark explained some of the complications of attempting to obtain permits to work as a vendor in New York City, but felt strongly that Roots Rising would not face the same challenges since they are not attempting to operate in a city the size of New York or Boston. Mr.

Stark also noted that DriveChange is incredibly lucky to have all of their food from farms sourced for no fee. DriveChange takes advantage of this by created a seasonal menu that showcases the local produce (sourced from within 200 miles of NYC) that is currently in season. They have both a brunch and lunch menu, and run the truck 4 days per week.

DriveChange would be happy to host a visit for Roots Rising to show them a bit more about how they run their program, and answer any questions they may have.

Interviews

We also conducted several interviews with members of the local Berkshire community who are involved in food vending and production in order to better understand potential costs and income involved with a food truck. We interviewed Ms. Anne Hogeland, the manager of the Williamstown Farmers' Market, and Sandra Thomas, a partner at Marty's Local and a Board member of the Alchemy Initiative.

Interview with Ms. Anne Hogeland
December 1, 2017

Farmers' Market Application

Ms. Hogeland illustrated the process by which food trucks are selected for the Williamstown Farmers' Market. While she is the manager for the Farmers' Market, she has no say in the acceptance of vendors. Rather, a Steering Committee decides which vendors will be permitted based on their application. In this way, Ms. Hogeland could not provide an idea of whether a truck like Roots Rising's would be accepted in there Farmers' Market. She alluded to previous made-to-order vendors that had served in the past (Hobson's Choice and El Conejo Corredor), suggesting that the Farmers' Market would be open to accepting a food truck vendor.

Vendor Brand Recognition

Ms. Hogeland also suggested that consistency is very helpful for vendors to maximize their income at farmers' markets. Ms. Hogeland suggested that because consumer lives are extremely busy, it would be wise for Roots Rising to establish their food truck at one farmers' market before expanding to others. When and if Roots Rising does decide to expand, Ms. Hogeland suggested creating a pattern for different locations (ex. every other Saturday in Williamstown) and a calendar so that consumers can easily locate and attend the correct farmers' market.

Interview with Ms. Sandra Thomas

December 4, 2017

Food Sourcing Through Distributors

In order to better understand the process of food sourcing, we interviewed Ms. Sandra Thomas who works for Marty's Local, an organization that "connects nearby farmers and food entrepreneurs with institutional buyers, distributors, restaurants, and grocers throughout New England and New York."¹² Ms. Thomas suggested that going through a vendor such as Marty's Local would be beneficial for Roots Rising, as it streamlines the food sourcing process. In other words, instead of working with many different farmers, Roots Rising would solely work with Marty's Local, a "one-stop-shop" in which to source their local produce. Furthermore, distributors benefit the farmers who have more time to cultivate produce by eliminating the need to work with many different customers. Finally, working with a distributor eliminates the risk of the event of a bad crop, as the distributor will have access to many different farms rather than just one. Sandra also provided pricing for produce that will be discussed in the cost section.

¹² <http://www.martyslocal.com/about>

Sandra provided valuable information regarding an alternate way to source food - through a distributor rather than individual farms.

Interview with Kim Wells - East Mountain Farm, Williamstown, MA
December 6, 2017

Meat Sourcing

Kim Wells owns a meat farm in Williamstown, MA. Mr. Wells provided additional information regarding local meat sourcing. Specifically, he sells sausages (Sweet Italian Links and Hot Italian Links) for \$10 per pound (4 sausages per pound). Mr. Wells sells bratwurst for \$11 per pound. These prices are retail; however, Mr. Wells would give a 10-15% discount for wholesale pricing.

Mr. Wells emphasized targeting farmers markets and bigger events when selling meat products. At the Williamstown Farmers Market, Mr. Wells would make around \$700 on average. He also suggested the Williamstown Holiday Markets, during which he earns around \$2000-\$3000. When asked about the potential success of a cooked sausage truck, Mr. Wells was very enthusiastic. He believed that selling cooked sausages would be very successful in the Berkshire area. In fact, he had thought about cooking his sausages to order as a side business; however, as a full-time farmer, he never found enough time to partake in the endeavor. Overall, Mr. Wells encouraged the idea and would be a great local partner from which to source meat.

Cost/Income Analysis

Startup Costs

After conducting extensive research and examining our case studies, we propose two options for Roots Rising's food truck:

1. A fully operating food truck with food prepared onsite. This truck would have all the capabilities of a commercial kitchen. Therefore, no prior food preparation would be

required before an event. (Note: some towns require food trucks to rent a commercial kitchen for health administration purposes, regardless of whether they actually use it or not).

2. A truck that has some cooking capabilities, but mostly warming capabilities. In this scenario, the majority of the food would be prepared and cooked offsite in a commercial kitchen. The prepared food would then be loaded onto the truck, kept warm, and then prepared to order.

We have conducted cost analyses for both cases primarily based on the information acquired from our case studies, as well as additional research. Furthermore, we contacted Mezze to learn more about the possibility of buying their food truck (fits capabilities of option 2), which is included in the cost matrix.

Based on our calculations, it would be more financially advisable and feasible to initiate option 2, a partially equipped food truck with the capacity for heating. Not only would it save around \$40,000 on the infrastructure of the truck, but it also presents the cheaper option due to the fact that Roots Rising has access to commercial kitchens free of charge.

Item	Option 1: Food Truck with food prepared onsite	Option 2: Food Truck with food prepared offsite (all truck info based off of Mezze truck)
Food Truck	\$25,000-\$30,000	\$13,000-\$15,000 (Mezze asking price)
Food Trailer	N/A	N/A
External design	\$3000-\$6000	Up to personal discretion
Electrical & Plumbing	\$3000-\$5000	Installed (propane and generators)
Water Tanks	\$1,000	Installed
Sinks	<\$200	Installed
Refrigerator/Freezer	\$100-\$200	Installed
Panini Press	\$100-\$400	\$100-\$400
Stovetop with oven	\$20,000	included
Commercial Kitchen Rent	N/A	\$35/Day \$250/Month (Shire City Sanctuary, Pittsfield)
Board of Health	~\$100	~\$100
Fire Department	\$100 (Transportation of combustible liquids), \$75-\$225 (Propane storage permit and inspection) etc.	\$100 (Transportation of combustible liquids), \$75-\$225 (Propane storage permit and inspection) etc.
Event Vendor Fee	~\$125 per event (average slot cost)	~\$125 per event (average slot cost)
LLC	~\$500	~\$500
SafeServ	\$125 (manager), \$36 (vouchers), \$150, \$100 (handler),	\$125 (manager), \$36 (vouchers), \$150, \$100 (handler),
Allergen Awareness	~\$15-\$22	~\$15-\$22
Sales Tax	6.25%	6.25%
Insurance	Current Insurance Rate (?)	Current Insurance Rate (?)
Total Approximate Cost	\$54,000-\$64,000 plus vendor fee costs	\$14,800-\$16,800 plus vendor fee costs

Potential Income

Season #Event Breakdown	Farmers Markets (100 meals at \$6 per meal)	Special Events (1000 meals at \$6 per meal)	Total/Season
Season One - 12 Farmers Markets 4 Special Events	\$7,200	\$24,000	\$31,200
Season Two - 12 Farmers Markets 6 Special Events	\$7,200	\$36,000	\$43,200
Season Three - 16 Farmers Markets 6 Special Events	\$9,600	\$36,000	\$45,600
Total	\$24,000	\$96,000	\$120,000

The potential income projection is based on a meal price of \$6. Looking at existing sausage vendors such as Gunther's Sausage Wagon, which charges \$6.50 per sandwich, and analysing the cost of making a meal based on sourcing prices (around \$4), we were able to assess that \$6 is a competitive market price for what the food truck is selling.

In addition to assessing price of meals, we also developed an events schedule of number of farmers markets and special events for the first three seasons of operation. By combining these two factors, price and event schedule, we were able to create the above income projection for the first three seasons of operation.

Events and Vendor Fees

When researching potential events and venues, we decided to focus on the summer for Roots Rising's first season as a food truck operator. Not only would this present the greatest number of business opportunities due to the warm weather and abundance of events, but it also gives the students ample time to learn the processes and work that go into mass-cooking, as well as maintaining, and operating a food truck. We are in no way opposed to Roots Rising expanding their seasonal calendar in the future; however, from speaking with previous food truck owners, we believe it would be wise to have a shorter season when starting the business, as this provides the students opportunity to learn, grow, and gain experience in operating the food truck, and also provides the greatest marketing opportunity, as food trucks are generally more popular during the summer months. Listed below are potential venues for Roots Rising's first season as a business, as well as the vendor fees and potential income for each proposed event.

Pittsfield Farmers Market

The Pittsfield Farmers Market presents a great opportunity for the food truck. Because Pittsfield is Roots Rising's hometown, serving at the farmers market would bring bring the community access to fresh, local food at an affordable price. This would allow the student the chance to engage with their local community and give them a sense of pride in the business that they run. The Outdoor Market runs every Saturday from 9am-1pm. We propose that Roots Rising operate every Saturday from June-August due to the students' summer holiday and increased foot traffic at the market.

- When: May-September (June-August), Saturdays, 9am-1pm
- Where: Pittsfield, MA
- Vendor Fee: (*waived*)
- Potential Income: \$400-700 (depending on weather) at \$3 per egg roll.¹³

¹³ Kathy Lloyd with How We Roll, Email, 2017.

Williamstown Farmers Market

The Williamstown Farmers Market presents the third feasible option for farmers markets in the Berkshire area. Roots Rising could also look into potential farmers markets in other towns throughout the Berkshires; however, we advise Roots Rising to begin its business within these three towns, both for logistical purposes as well as marketing opportunities, as name recognition is crucial in the food truck business. The Williamstown Farmers Market, similar to Pittsfield and North Adams, operates on Saturdays in May-October from 9am-1pm. It has a seasonal rate of \$150 and a daily rate of \$20.

- When: May-October (June-August), Saturdays, 9am-1pm
- Where: Williamstown, MA
- Vendor Fee (2018 Season)
 - Seasonal \$150
 - Daily: \$20¹⁴
- Vendor Application: <http://www.williamstownfarmersmarket.org/wp-content/uploads/2017/01/2017-WFM-Vendor-Application-Form.pdf>
- Potential Income (Brian Cole)¹⁵:
 - Served 60 meals from 11am-2pm
 - Income: \$600-700

Third Thursdays

Third Thursdays is a street fair in Pittsfield, MA that occurs during the third thursday of every month. The event offers multiple tents with different food and shopping options. This would be a another great way for Roots Rising to get involved with the Pittsfield area by providing local food at an affordable price. Additionally, because it is on a Thursday, this would allow students to have multiple opportunities to prepare food and operate the truck during the week.

- When: 3rd Thursday in June-August, 11am-1pm
- Where: Pittsfield, MA

¹⁴ Anne Hogeland, Interview, 2017.

¹⁵ Brian Cole, "Farmers Market Food Truck," Email, 2017.

- Vendor Fee: (*waived*)
- Income: similar to that of Pittsfield Farmers Markets (\$400-\$700)

Pittsfield Sun's Food Truck Festival

The Pittsfield Suns Food Truck Festival opened last year and was a success. It is a community event designed to provide family fun, and is free to the public. Again, this would be a great opportunity for Roots Rising to engage with the community of Pittsfield in a sports setting. Brian Flagg, the contact for this festival, claimed that “It is hard to say with any degree of certainty what the vendors actually make because they are priced so uniquely. Let's put it this way, though, every single one of my vendors from last year said they were VERY pleased with their day and most have already committed to coming back this year.”¹⁶ Mr. Flagg is interested in more vendors.

- When: End of May
- Where: Pittsfield, MA
- Vendor fee: \$175
- Attendees: ~1500
- Contact: Brian Flagg, Brian@pittsfieldsuns.com, (413)445-7867

Solid Sound Festival & Fresh Grass Festival

Solid Sound and Fresh Grass are both three-day music festivals that take over the MassMoCA campus. These extremely popular festivals would be great venues for the Roots Rising food truck, as the close proximity to the patrons would most likely result in a large income. While these larger events typically have waiting lists for food vendors, through connections, we feel confident that Roots Rising could have the opportunity to serve at these venues.

- When: Solid Sound - June 2018; Fresh Grass - September 2018
- Where: North Adams, MA (MassMoCA)
- Vendor fee: *Potentially waived with Mass MoCA connections*
- Potential Income: \$3000-\$4000 at \$4 per egg roll

¹⁶ Brian Flagg, “Food Truck Festival,” Email, 2017.

Sourcing

Meat Sourcing

In order to source the meat for the sausages, we focused on local farms. Not only does this encourage small farming, but because meat is not seasonal, it will support farmers year-round. In looking at pork, we focused on Elmartin Farm, specifically the three blue cells that indicate pricing for sausages (\$6.50 per pound). Furthermore, we recognize that certain dietary restrictions prohibit the consumption of pork, so we also looked into sourcing beef, particularly from Holiday Brook Farm. By sourcing from different farms, this spreads the wealth among local farmers and supports several different businesses. In this way, while we understand the impact that producing meat has on the environment, we want to promote sustainable, small-scale meat farming practices, such as those exhibited in local Berkshire farms.

Holiday Brook Farm			
Item	10 lbs.	20 lbs.	100 lbs.
Mixed Beef	\$85	\$160	\$750
All Ground Beef		\$130	

Elmartin Farm*			
Item (Beef)	Price per lb.	Item (Pork)	Price per lb.
Grd. Beef Patties	\$7	Smoked Bacon	\$10
Fresh Grd. Beef	\$7	Smoked Ham	\$4.25
London Broil Steak	\$8	Nitrate Free Ham	\$8
Top Round Stk.	\$8.50	Center Cut Ham Slices	\$4.75
Rib Eye Stk.	\$13.25	Breakfast Sausage	\$6.50
Porterhouse	\$15.25	Sweet Sausage	\$6.50
T Bone	\$13.25	Hot Italian Sausage	\$6.50
NY Sirloin Stk.	\$15.25	Center Cut Pork Chops	\$8.50

Vegetable Sourcing

Sarah Thomas provided us a pricing table for the different vegetables sourced from Marty’s Local. Ms. Thomas provided both organic and inorganic options; however, all of the produce listed below is local. These vegetables can be used in the salads and soups, as well as as toppings for the sausages, which justifies the need for bulk purchasing.

Produce	Cost
Peppers (Green and Red)	Green: \$32 (20 lbs.) Organic Green: \$20 (1 1/9 bushel) IPM Red Bull’s Horn: \$42.50 (20 lbs.) Organic Red Bell: \$31.50 (1 1/9 bushel) IPM
White Onion	Yellow Sweet (40 lbs.) \$37.50 Organic White (50 lbs.) \$72 Organic Walla Walla (20 lbs.) \$42.50
Mushroom	Shiitake \$9.65 / pound
Sauerkraut	\$185 (5 gallons)
Carrots	\$31.50 (25 lbs.) Organic
Tomatoes	\$38.50 (20 lbs.) Organic \$25 (20 lbs.) IPM
Spring Mix Lettuce	\$36 (6 lbs.)
Cucumber	\$27.50 1 1/9 bushel (~40 lbs.) IPM
Cheddar Cheese	On average, \$12 - \$13 per pound for local cheese. The cheddar that we sell is a clothbound cheddar at \$16 per pound. It’s not the best choice for a food truck in terms of cost but it’s a darn good cheese.
Goat Cheese	
Pepper Jack Cheese	
Garlic	\$6.50-\$9.50 per pound

Bread Sourcing

In order to further support local, small businesses, we propose the idea of sourcing bread for the sausages from Berkshire Mountain Bakery. Not only do they provide high-quality bread with excellent ingredients, but also sourcing from Berkshire Mountain Bakery supports a small business in the area.

Berkshire Mountain Bakery		
<i>Item</i>	<i>Price</i>	<i>Amount</i>
Baguette	\$2.75	1 baguette (12 oz.)
Cheese & Herb Mini Ciabattas	\$8.00	6 pack (4 oz. each)
Jalapeno & Cheese Mini Ciabattas	\$8.00	6 pack (4 oz. each)
Olive & Rosemary Mini Ciabattas	\$8.00	6 pack (4 oz. each)
Plain Mini Ciabattas	\$6.00	6 pack (4 oz. each)
Potato Onion	\$4.25	1 loaf (16 oz. boule)

Feasibility Analysis and Recommendations

Ultimately, we are excited about this project and feel it has the potential to be very successful. In order to ensure this success we have a few recommendations. First, it is important to start slow and start small in order to work out the kinks and master all of the complexities of running a food truck. Focus on just season one and create a consistent schedule of vending locations in order to build maximum brand recognition and market value. Second, limit start up costs wherever possible. Mezze has a food truck available for a very reasonable price, so this seems like the perfect place to start. Maximize connections in order to find a commercial kitchen that can be used for low or no cost, and find vending locations where connections can waive vending fees, as these can often add up. Utilize online retailers, such as Craigslist, in in order to purchase any additional equipment for a discounted price. Additionally, do not try to alter the

menu or complicate it. What we learned from our case studies is that executing and preparing food well is absolutely critical. Lastly, do not expect huge margin on profits in first season. The restaurant business is tough, let alone the food truck industry. It is going to be a lot of time and hard work before income and profit numbers start to grow, but with proper planning and strategy this has the potential to become very successful!

Presentation Comments

After giving our presentation on December 12, we received helpful comments from our audience. Specifically, we received advice from one woman on next steps that she would expect as an investor. Her main point was that income would need to be compared to operation costs such as insurance rates and maintenance costs, as well as the startup cost. Although we did look at sourcing and startup costs, we did not have access to insurance information or enough detail about the definite operation plan for the truck to realistically assess this. We highly recommend Roots Rising inputting these costs in comparison to the income projections we estimated in order to get a complete picture of potential profit over the first three seasons.