

## **ELECTRIC EXPRESS**

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***Problem.*** “A problem well stated is half solved.” This should be a set of declarative statements that clearly define the problem. Please address *Who, What, When, Where* and *Why!*

1. Who? People living in Urban areas who are more than one mile away from a grocery store and who do not have access to a car.
2. What? Face the problem of readily getting healthy food without having to go long distances or relying on fast food restaurants.
3. When? Food deserts are a continually occurring process. They do not depend on certain times of the year. Food Deserts came into existence when the “white flight” happened, where the middle class migrated to suburban neighborhoods in the 60’s/70’s.
4. Where? Large cities where the middle class has migrated to the suburbs.
5. Why? This migration resulted in owners of grocery stores following their profits and setting up shops in the suburbs, thus leaving the cities bereft of healthy food options and hence leaving those living in cities to rely on fast food restaurants for their daily meals.

***Significance. Why is this problem important? Please provide at least 3 reasons backed by cited sources for why this problem is important. In formulating a response, include the following: A) What are the costs to society (this may not be financial, but also time and resources) without fixing the problem; B) What are the possible causes of the problem; and C) How would society be improved if this problem were better addressed? Support your answers to A, B, and C with at least two cited references for each.!***

Food deserts need to be solved because:

A) People living in food deserts face problems ranging from obesity to having a high risk of heart disease.<sup>[5]</sup> They also have to travel long distances to large grocery chains to buy healthy food.<sup>[2]</sup>

B) Possible cause of the problem include the white flight<sup>[7]</sup> where upper middle class population migrated to the suburbs when the cities got too populated, this caused a need for grocery stores in the suburbs and store owners shifted there, leaving people in the cities with no way to get healthy food. Other causes include the cheap cost of fast food and the fact that you don’t have to cook it.<sup>[5]</sup>

C) Society would improve if this problem was addressed because it would lead to better

health for its residents.<sup>[11]</sup> Also it would lead to an increase in property prices in the area and to a general increase in business for neighbouring stores too.<sup>[10]</sup>

***Stakeholders.* Who thinks this problem is important? Who doesn't? Who is impacted? Consider four different stakeholder perspectives on the problem. Examples of stakeholders include individuals, organizations, communities, government agencies, elected officials, and corporations. Depending on the problem, there may be multiple stakeholders. For example, if you were studying gun control, example stakeholder perspectives could be a victim of gun violence, the police department, a gun manufacturer, and the mayor of a city with a high rate of violent crime. For each of the four stakeholder perspectives that you choose, describe their likely viewpoint(s) on the issue. Cite your sources.**

One of the stakeholders who are affected by food deserts are grocery chains, because they can't service people living in food deserts and so these people have no way of obtaining healthy food. People living in food deserts are affected the most because they are the ones who consume unhealthy food from fast food restaurants. Other stakeholders include: local businesses, because the opening of a grocery store increases property prices and this causes an increase in business in the concerned area, and existing fast food chains in the area, because they lose business if a grocer opens shop. Fast food restaurants will most likely oppose our expansion as will large grocery chains like Kroger. The local population's response will be lukewarm because though they will want healthy food, fresh produce might be more costly than the unhealthy food offered by fast food chains. This means that the local community will want us to operate in the area but might want more competitive prices. Moreover, local businesses will likely promote our growth because they get more business from our consumers.<sup>[10]</sup>

***Context and Existing Solutions.* Collect and critically analyze background information that pertains to the problem. Summarize what is known about the problem. In your response, include at least two examples of ongoing or previous attempts to solving the problem (unless you can make a compelling case that two examples don't exist - if so, explain why). Critique those solutions - why were they lacking? Examples of inadequacies could range from flawed design to a lack of sustainable infrastructure to a lack of resources. Create a compelling case for why someone else (your group!) needs to get involved. Cite your sources.!**

Food desert is a concept formally defined as limited access to groceries; these areas have no grocery stores in a close distance. This results in people relying in fast-food stores - ever so abundant - to supply their meals. This creates many other issues in these areas like obesity and diabetes. Moreover, small businesses in these communities have difficulties in growing given the high level of difficulty in competing with cheap, easy and efficient fast-food products. We want to make fresh produce available in these areas by creating a mobile distributing system - a food truck. One of the main problems in doing this is the rate at which the eating habits will change in these communities. Used to consuming fast-food goods, people in food deserts might be reluctant to changing their eating habits to consuming fresh produce and healthier goods; otherwise obesity would not be a problem that America is facing. Therefore, these issues can be

solved by different methods to educate the community into adapting their lifestyles, which can be challenging and require a long-term investment to provide results.

One example of an ongoing attempt to solve the issue of food-deserts is a program created by Arthur Morgan. His program titled “Gather Baltimore” uses volunteers to collect fruit and vegetables donated by local farmers and food distributors, then transports this healthy food to low-income families. This solution has extremely low produce costs. However there are too many dependencies on the terms that the supply of food depends on how much food is left over after markets, big events, etc. Additionally, there is no source of profit. It is purely volunteer-run and thus, there seems to be no source of growth in this sector.<sup>[13]</sup>

Another example of an ongoing attempt to solve the issue of food-deserts is creating America's first nonprofit grocery store which brings fresh and affordable produce and groceries to a food-desert community in Chester, PA. The store receives funding from the government, foundations and corporations. The key problems with this attempt is once again relating to finances. There is no source of profit and thus, this option makes it unappealing to investors. Additionally, this option involves building an actual store. In an urban area area such as Atlanta, this building costs will be too high and running a non-profit with high taxes and property maintenance costs will make little to no sense.<sup>[13]</sup>

Based on these two solutions, our proposed idea of installing a mobile food-truck service seems to be more practical. We will not acquire property costs and having a truck will allow us to reach more markets than a stand-still store. Additionally, we will have to do more analysis on the pricing models, take into account the low-income families and corresponding ways to make profits using government subsidies and food stamps. We are hoping to achieve this by implementing our pilot program in minimarts.

***Why is it still a problem? If the problem is so important, why hasn't it been solved already? This part of the assignment will likely identify obstacles that your own solution proposal may encounter. Cite your sources.!***

The right to food has been specified by the United Nations as a human right because everybody needs food to survive. Today, though the right to food is simply not enough and people require healthy food and not just any food. Food Deserts are areas with extremely limited food availability and the people living in them do not have the means to get healthy food. This problem hasn't been solved because these areas are located in urban neighbourhoods. One Walmart store on average occupies about 197000 square feet they cannot open these supercentres here because of space constraints, high rentals and unaccommodating city legislation. Opening one of these stores in a large city is extremely difficult also because the huge number of people it employs. In order to serve a food desert which might be surrounded by areas of decent or even good availability of healthy food doesn't make sense for a large retailer. On the other side of the problem are the people who are not able to get healthy food regularly. Lack of comprehensive public transport is a major cause of this and this is so because these areas have a low population density. So this low population density stops retailers from opening stores here and reduces the reliability of good public transport which in turn limits the capability of these residents to go and get groceries.<sup>[14]</sup>

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**Goal. (1 paragraph).** Your goal should address one aspect of your problem statement and indicate a specific direction for your proposed solution. . Clearly state in one sentence one aspect of the problem you are focusing on (Scope). In the remainder of the paragraph, explain why you are focusing on that aspect (Rationale), and what will be possible if your solution is successful (Impact). Do not speculate (i.e. state stuff without research that “sounds reasonable”) – relate any statements of rationale and impact back to documented areas of need, and cite sources. *Scope, Rationale, and Impact should be clearly indicated with subheadings.* This goal section should be justified by citing at least 3 sources.!

#### SCOPE:

The aspect of the food desert problem our group is focusing on is accessibility of the fresh nutritious foods.

#### RATIONALE:

We are focusing on this aspect due to the following evidence, “The consequences are also clear: decreased access to healthy food means people in low-income communities suffer more from diet-related diseases like obesity and diabetes than those in higher- income neighborhoods with easy access to healthy food, particularly fresh fruits and vegetables.”<sup>[10]</sup> We feel that by tackling accessibility, we can provide an outlet for urban food-deserts to have the option to get fresh groceries compared to getting fast-food products. “Lack of access is one reason why many children are not eating recommended levels of fruits, vegetables and whole grains.”<sup>[12]</sup> This leads to bad eating habits and increased obesity rates.

#### IMPACT:

Assuming our solution is put into effect, we believe that it will be the start to chain of possible benefits to the society where the solution is implemented. These include lower rates of obesity and heart disease, easier accessibility to healthy food, increased business for neighbouring stores, employment for residents in the area and an increase in property prices in the neighbourhood.<sup>[10]</sup>

**Objectives (2-5 pages).** An objective is a focused, quantifiable statement that translates the major components required achieve your goal into measurable outcomes. It should be defined in such a way that you will know if you do (or do not) achieve it. You should list at least two objectives, likely more. They should not be too complicated to interpret. If your objective has more than one independent clause, it is likely more than one objective. For each objective:

- *Describe why this objective is both important (does it matter?) and necessary (if it is not accomplished, does it matter?) in order to solve the problem. Use citations to support your argument.*

- *Break each objective down into a series of actions or tasks necessary to complete the objective. List these actions required to meet each objective. For research projects, this is often referred to as the Methods or Approach.*
- *Describe two or more anticipated problems or obstacles that may be faced in reaching objective.*

*-Pilot Program by Spring 2015*

The initial objective is to find a method to gather market data and analyze if making a mobile food truck is a successful social entrepreneurship idea in analyzed areas. What this pilot program entails is setting up small stations inside pre-existing minimarts in food-desert areas. These stations will be filled with fresh groceries. We will be tackling the issue of accessibility of healthy foods by bringing the foods to where the low-income communities are located. This is a small demo of what we hope our future food truck to accomplish.

We plan to get the fresh groceries through donations from businesses and organizations like the Atlanta Community Food Bank. We will then analyze the sales of the products and the demographics of the people who come to purchase these goods. If this initial project is successful, we hope to start another pilot program. We wish to continue these pilot programs until we see statistically significant sales/demand ratios. In order to run these businesses, we will give a small percentage of the sales to the mini-mart owners. This way, we will not have to worry about labor or other time constraints.

One big anticipated problem is getting the minimarts to give us space in their locations for us to start our operations. They may be hesitant that it will make their stores more confined. We believe however, that by showing the owners, the profits we expect to make, they can grow their business and give people access to a service they did not have before. Overall, we expect communities to become healthier, as in the case of the BoxCar Grocer, and drive economic development. Another anticipated problem is the sustainability of the produce. We cannot expect the food donations to continue endlessly. Therefore, we need to funnel the profits made from sales into a business model that will allow for future profits and development of increase pilot programs.

*-One truck by Fall 2016*

The truck is the final factor of this project. It will allow us to distribute and temporarily keep our products. We surrounded all of our other objectives based on this piece. We are tackling the scalability issue of food deserts. We want to directly solve these issues of the availability of typical groceries to a needed customer service.

We need to raise money from investors to purchase the truck. Then, with the money we will purchase a used viable truck from a respective junk yard. We will only focus on one truck as

a prototype, which is why we are purchasing it used. Afterwards, in order to design the truck, we will raise and promote a junkyard design challenge to college students, who will win \$500. This junkyard design challenge will help us design our truck's interior and exterior without the need to hire a professional. Next, we will implement our design onto the truck. Also, we have to purchase and install a proper refrigerator and freezer for our food stock. Lightweight low-maintenance cabinets and shelves that are easy to clean will also be installed. Finally, we have to find someone to hire in order to drive the truck, maintain the truck, and store food in it.

One major concern we have in regards to achieving this objective is that we will not be able to raise enough money to bring the truck service to operational status. We have to conduct extensive market research data through our pilot programs and show investors that there is a future for this idea. Another concern is all the regulations we will face if selling products from a mobile food truck. There will be government regulations and additional taxes. An outside obstacle is crime in the low-income areas where the food truck will be servicing. Security of the truck is key to maintaining inventory and keep operation going.

*-Create partnerships: retailers (big) retailers (small), one food procurement contract, one food distribution contract.*

Electric Express will be an in-between for the people of America and big food retailers like Walmart and Kroger. It is essentially a grocery store on wheels. For this reason, we need a contract with a big food retailer. This will be our food procurement contract. We also need some satellite stations where our trucks can load themselves up, put remaining stock, and possibly just generally rest for the night if not in a garage. These locations would serve as our mini warehouses. Our agreement with these small stores will be a food distribution contract, as they are our partner is making healthy food accessible to the masses.

Our first step will be to contact them and reach a partnership deal, as advocated by Alphonzo Cross of the BoxCar Grocer. At that time our development teams can collaborate to create our first stock inventory for market purchase. To secure our food distributor contract we will most likely create a partnership with the Boxcar Grocer so that both businesses can flourish.

Some potential problems are landing face-to-face time with these big companies. Then, we need to make our pitch effective enough to make it appealing to these business owner. Proving the mathematics of profit in these pitches will be one of our greatest challenges in the project overall. And lastly, we will have to be conservative with the resources allotted to use and our food distributor.

*-Investment to speed start up.*

We need to rope in investors to get the company off the ground because the truck and the equipment will cost a lot. Without investment, we cannot start this company because, being students we do not have the necessary funds to do so. Starting without seed investment would be suicidal as competition only increases with time and the slower we start, the lower the chance of getting further investment is.

Getting investors to invest in our idea is a long process for which we will have to:

- Make a business plan that takes into account all our expenses. This will include salaries paid to employees, cost of the truck, cost of refrigerating equipment and logistical costs. It will also cover positions held by each one of us and the responsibilities undertaken by each person.
- Prepare presentations to pitch to investors.
- Schedule meetings with prospective investors, these will include large grocery chains like Kroger, smaller retailers which are looking to set up food trucks. Each of these meetings will be scheduled with the business development departments in these companies because it's these departments which are responsible for expanding into new areas.
- Actually meet with investors and present our idea along with our business plan.

Problems we could face while raising investment will range from investors not buying our idea because grocery trucks have never been implemented in Atlanta and doing so is going to be risky. Another problem could be that our budget could be outrageously high since food storage is expensive and we will have to obtain licenses from government agencies before raising investment.

Investors might not be interested because being college freshmen, we lack the required expertise at the moment and might have to hire expensive consultants to do the job.

*-Create inventory guidelines.*

The inventory for our food trucks will likely fluctuate not only through time, but also by geographic location, depending on the food preferences of each neighborhood. This is critical to our business plan because we will need to maintain a minimum sales level throughout the year.

The categories we will consider is the food pyramid and a balances of nutrition. We will also have to consider how much of our stock will be perishable, non-perishable, and frozen depending on the energy and space constraints of our trucks.

Our challenges will be making the healthy food transition for a community and teach them how to substitute different items into their diet.

***Research Team (0.5-2 pages). Describe how many students your team will have, and the expected role of each student on your team. You do not need to name names, but should describe their desired attributes, their role on one or more objectives, and why a person with those skills is necessary. You will also need assistance from faculty or community mentors. Identify either 1 individual who has verbally agreed to be your advisor for this project or 3 individuals whom you have not contacted but would provide useful advice for your proposed project. This is somewhat similar to your final project last semester – you are describing the team necessary to pursue the proposed work.***

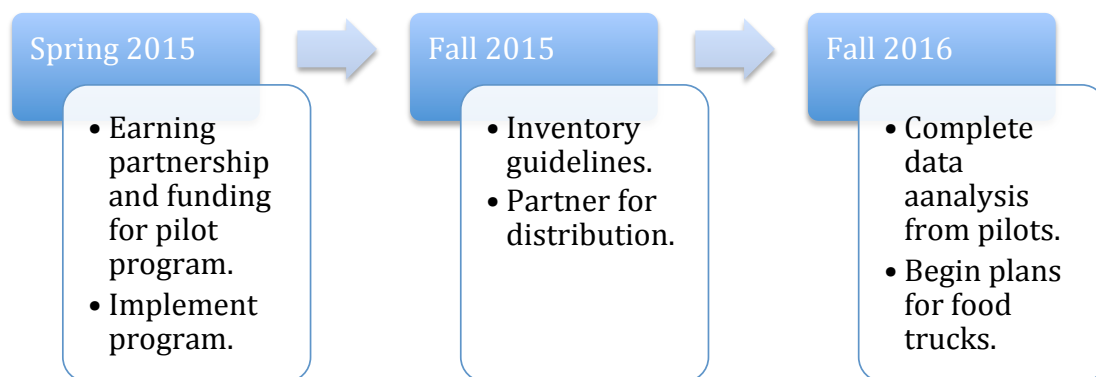
There are three main positions that we intend to develop through our five-member team. Firstly there will be a Project Manager (PM). This role will entail the dedication to seeing that the group accomplishes its goals on time. He/she will guide group discussion and brainstorming sessions and actively come up with S.M.A.R.T goals. This position will be responsible for meeting with outside contacts and leading discussions as well. The attributes needed for this position is being proactive, organized, and goal-oriented. Because this person will essentially be the face of the group, they always need to be on top of things and have everything organized for

presentations, etc. The Project Manager will also need to help to an extent the OnCampus Team (explained below). The next position will be a Marketing Team consisting of two team members. This position will require getting market data and analyzing it to supplement our goals. They will be required to do more writing for additional papers and reports. Advertising and getting the groups mission known to the community will be an additional responsibility. Attributes required for this position are strong communication skills and writing skills. Good use of language is important because we want to persuade people to invest in our cause and help us tackle our problem area. Public Speaking skills/confidence is a must. The final two members of the group will make up the OnCampus Team. They will be responsible for the finances, Georgia Tech relationship, and other logistical aspects. The attributes needed for this position is good analytical skills and good organizational skills since there is the issue of monetary funds. Proactiveness is another key attribute as this position needs to be on top of things in terms of forms/applications.

One individual who has verbally agreed to be our advisor is Mr. Alphonzo Cross of the BoxCar Grocer.

***Timeline. (single figure). For each of the component actions of all of your objectives, list whether they will occur in Fall 2014, Spring 2015, or Summer 2015. Indicate when you will expect to have each objective completed (i.e. you will know if it was achieved or not).***

Earning the partnership/funding/implementation for our project (Pilot Program) will be the first objectives we will complete by the end of Spring 2015. After that, we will get the try to get the inventory guidelines completed with our partner as long as we assume that finding a partner objective was met. This will be met hopefully by Summer-Fall 2015. By Fall 2016, complete data analysis from pilot programs and began plans for food truck.





***Budget (no more than one page).***

PILOT PROGRAM:

Food Supply: Donations from Atlanta Food Bank

Transport to Minimart: Van (possibly rental) and gas

Store Presence:

- Stand
  - Space where fresh produce are placed in simple wooden crates stacked asymmetrically
  - Just to get a sense of what the demand is
- Marketing
  - Advertising to communities in food desert
  - Speakers who hold meetings in town hall to speak about service
- Travel
  - Going to Midtown Atlanta (using lyft/uber)
  - Going to individual minimarts to present proposals

EXPANSION PLAN:(for future possible expansion of project)

Materials and Supplies:

- Software to track Truck Location (similar to that of GT Buses)
- Tablet x 2 - Inside the truck to make payments / calculate transactions / report locations / For us to check where the bus is.
- Wifi hotspot - on the bus to report GPS location
- Food/Groceries - need to work with BoxCar grocer on supplier

Equipment:

- Food Truck (Bus), refrigeration equipment

Services:

- Developing an app for the software mentioned above
- Servicing the truck to make the most optimal space
  - Refrigeration
  - Shelves
  - Technology implementation

Travel:

- Going into Midtown Atlanta
- Employee costs:
  - Salaries given to driver, food servers.

***Expected Outcomes and Future Directions (1-2 paragraphs)!***

We expect that by implementing this idea, we will be able to provide healthy food to at least 4 areas in Atlanta classified as food deserts by the end of two years. We want to be able to provide employment to people in the areas we want to operate in.

In the next two years, we want to be able to expand beyond Atlanta and venture into other large cities across the US, which also have food deserts.

We expect to be accepted into the communities we provide grocery to, ie. we want people to shop at our trucks.

***What do you reasonable expect to achieve when this project is over? After year 2, where do you see the project going? What organizations could you tap into for funding or resources? What collaborative relationships would keep the project going?***

When this project is over, we expect to see at least 4 areas in Atlanta that are classified as food deserts being served healthy food on a regular basis by food trucks operated by us. If we look 2 years into the future, we see this venture expanding beyond Atlanta into other large cities where a large number of people live in food deserts. We do not want to limit ourselves to the Metro Atlanta area especially after a long period like 2 years and we believe that by then we can have a self sustaining business model which can be successfully implemented in other cities as well. We will need seed funding to set up the venture since equipment and vehicle costs in such a company are generally high. We plan to approach angel investors for the seed funding which will cover initial costs for equipment and our first couple of vehicles. For further rounds of investment, we will approach venture capitalists who can invest a lot more than angel investors. Other organisations which could help fund this project are the Bill and Melinda Gates Foundation which also strives to provide healthy food to everyone and The Boxcar Grocer which is a company interested in our food truck idea. We can collaborate with either the Atlanta Food Bank or the Boxcar Grocer to take this idea forward since both of these organisations expressed interest in partnering with us to implement the idea.

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