# Are College Students Really Eating Their Fruits and Vegetables?

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This paper explores Orlando's local options for UCF students to purchase organic fruits and vegetables. I explored the Orlando area and found a number of farmers markets and an abundance of grocery stores that sell such produce. I researched what makes organic produce differ from non-organic and the benefits of eating fruits and vegetables. Results indicated the farmers markets supply organic produce but not USDA-certified organic produce. Supermarket organic produce is pricier than farmers market produce, but their produce is USDA-certified. I have listed an assortment of options for UCF college students to decide where they can purchase organic produce.

#### Introduction

researched what local options University of Central Florida students have to purchase organic fruits and vegetables because I myself am interested in purchasing locally and organically since moving to Orlando. There are many local farmers markets in the Central Florida area—the closest located in Waterford Lakes, Winter Park, and Downtown Orlando— that all sell an abundance of fresh produce along with many other goods that UCF students may purchase. I found that farmers market produce stays fresher longer and has a more flavorful taste. Publix offers its Greenwise label of USDA-certified organic produce and foods. Organic produce is viewed as healthier because it does not get sprayed with the same fertilizers or pesticides as conventional produce but instead have more natural additives and are left naturally to grow.

My field of study is Biology and it correlates with this topic by discussing health and nutritional benefits of fresh fruits and vegetables. Biology is the study of life, and to maintain a healthy working body one must supply their body with enough nutrients that can be found in fruits and vegetables. College students will feel more inclined to purchase organic produce if they were aware of the cheaper and easier options the Orlando area offers them. Starting or maintaining a diet filled with fruits and vegetables is important because college students are vulnerable to succumbing to poor dietary intake away at college, and are unknowingly creating routines and lifestyles that will persist into their futures. College students who purchase organic produce are ultimately set up for a healthier long-term lifestyle. Those who attend local farmers markets do so in order to obtain produce that they claim is fresher, healthier, cheaper, and tastier. There isn't any research about farmers markets in the Orlando area, making my research the first for specifically UCF students. My research is intended for UCF students, but can be useful to those living in the Central Florida area as well.

### **Literature Review**

College students are responsible for feeding themselves and typically do not supply their bodies with enough nutrients. Nowadays, produce has a larger price tag on it which discourages students to eat healthy. However, farmers markets have seen an increase in community attendance for reasons such as lower prices, which can highly benefit college students. It is a slowgrowing trend toward attending farmers markets, but research shows that consumers are satisfied with farmers markets in terms of getting higher quality food that is fresher, healthier, and more flavorful (Elisová & Ottová, 2015;Ward, Blackely, & Brooks, 2014). They continue to attend the market and spread the word in their community. Organic food is produced by sustainable organic agriculture that only complies with natural pesticides and fertilizers and not with irrigation or any food additives. Publix ensures its organic food with the Greenwise label and promise. I researched the various local options University of Central Florida students have to purchase organic fruits and vegetables and found an assortment of locations. Orlando offers a

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variety of weekly local markets, including one downtown and one in Winter Park, that offer organic produce to purchase. There are many markets in the Orlando area that host a farmers market and provide opportunities for college students to purchase healthier and cheaper organic produce.

In 2002, the USDA implemented regulations and national standards for certifying foods labeled "organic." Consumers like to associate organic with

a healthy diet including fruits and vegetables (Padel & Foster, 2005). They explore the decisionmaking process to purchase organic produce, and how those who purchase it do so knowingly for its benefits. Guilbert and Wood (2012) explain what makes produce organic as defined by the National Organic Program (NOP) guidelines released in 2000. The NOP defines the final national standards for production, handling, and processing of organically grown agricultural products.

These farming and handling standards took many years to cultivate after the USDA's response to the Organic Foods Production Act (OFPA) of 1990 that defined the production processing for organic foods. The federal government argued that implementing these regulations would improve consumer confidence in organic food labels, and maintain the growing and handling procedures. The NOP states that the label "Certified 100% Organic" or "Certified Organic" means that the products contain between 95 and 100% ingredients that are grown meeting the USDA standards. The USDA seal and this wording will appear on the front display sticker on the product. Foods with at least 70% organic ingredients may label the product as "made with organic ingredients" or "contains organic from inorganic make the cognizant decision to buy organically. The best decision would be for UCF students to purchase produce at the farmers market because of the cheaper prices, as long as they entrust the local farmers word. This will also benefit the community and unite producers and consumers.

Results solidify that consumers have better outlook on organic produce by viewing it as healthier, more nutritious, and safer versus inorganic produce. Organic produce is most notably found at farmers markets as well as other local supermarkets, such as Publix's Greenwise brand and Whole Foods market. Their produce is USDA-certified and labeled, noting where the produce was grown. Whole Foods is noted for offering local in-season produce grown without pesticides and fertilizers, but is an eighteen-minute drive away for UCF students. Waterford Lakes is ten minutes away from the University of Central Florida's campus and offers a weekly farmers market. Larger markets can be found in Winter Park and Downtown Orlando and offer a larger selection of produce. Organic produce purchased at farmers markets tends to beat supermarket prices (Campus, 2008). For example, research done in Florida compares farmers market prices to Publix's prices of produce, both options for UCF students. Her results show that romaine lettuce purchased from the farmers market was \$2 for a huge head versus \$2.99 for 3 tiny hearts at Publix, and a large onion sells for \$1 compared to \$1.29/lb (Campus, 2008). This is not a tremendous gap, but college students will get more for less if they purchase locally and organically. Although the prices between produce purchased in supermarkets and those purchased in farmers markets are marginal, every penny counts for many college students.

Research by Sadler (2015) suggested that moving farmers markets downtown helped increase nutritional value within the community. This allowed more low-income residents to purchase healthier foods. Most college students do not receive a large income or rely on the government or their parents for funds. Purchasing produce from a market will give them fresher, longer-lasting produce that is also cheaper than supermarkets. Although supermarkets sell organic produce, their produce does not remain as fresh as produce from the market. Market produce remains fresher in a consumer's home longer because market produce does not withstand long transportation shipments or get sprayed with any pesticides.

To attract consumers, a farmers market must adhere to all five aspects of 'food access': availability, accessibility, affordability, accommodation, and acceptability (Sadler, 2015). College students are typically busy and bound to campus because of schoolwork, and many do not have their own transportation. These two reasons alone will discourage students from attending farmers markets. Ward, Blackley, and Brooks (2014) suggest that implementing a farmers market on the university campus would restore healthy and fresh foods back on campus. This would adhere to the aspects of 'food access,' and would help unite the population of college students. The market will provide a positive atmosphere and help revitalize the relationship between consumers and producers. People enjoy thinking of farmers markets as gathering places for families, giving them a chance to bond with neighbors and producers. Consumers are given the chance to talk with farmers and learn about where their produce came from. Many consumers feel good about supporting local farmers and the local economy, and they enjoy the overall experience and atmosphere of farmers markets. They also tend to distinguish farmers market produce as higher in quality, flavor, and freshness. Farmers can build relationships by interacting directly with their customers which will increase profits with higher customer loyalty. (Elisová & Ottová, 2015).

These articles complement each other and discuss the benefits of implementing a farmers market within a community. Researchers might agree that organizing a farmers market on UCF's campus would produce a positive outcome in many different ways. Moving a farmers market downtown surely enriched an urban area and gave healthy options to the low-income residents. The same will apply to an on-campus market that will allow low-income college students to purchase typically expensive organic produce for cheap prices.

#### Methods

When searching for peer-reviewed articles, I started with a basic search of "organic produce in Orlando," summarizing my research question in the library database. I realized that there has been no research conducted about organic produce in the local Orlando area, so I expanded my search. I searched "farmers market," and many results appeared about all the aspects of a farmers market. I chose to focus on those pertaining to produce, health benefits, and community development. I then set out to find a correlation between college-aged students and the farmers market, and I found an article about the impact a market held on-campus had on its students. I discovered another article of the profile of a farmers market, describing the many attractions and reasons why people attend the market. Since my research question is very narrow,

I used a Google search to find other local Orlando options to purchase organic produce.

Results indicated Publix's Greenwise label as another option for UCF students, as well as the farmers markets in Waterford Lakes, Downtown Orlando, and Winter Park. There are many more farmers markets in the Orlando area, so I limited my results to the closest and most convenient ones for UCF students to attend. I interviewed a University of Central Florida student at Winter Park's farmers market on April 16, 2016 and asked why she chose to shop at the local farmers market versus the supermarkets nearby. She stated that she attended the market for a number of reasons including a nicer shopping experience, more produce variety, and cheaper prices. She also noted that the appearance of the market was very lively with all the colorful flowers, interactive vendors, and smiling customers which made her want to continue shopping at the market. I asked her to compare supermarkets organic produce to the markets, and she answered that farmers market produce was tastier and remained fresher longer. She stated that although supermarkets are open daily and the market is only open on the weekends, she would plan accordingly to purchase her produce at the farmers market. I informed her that one vendor at the Winter Park farmers market was not USDA-certified organic, but he ensured he performed the same organic farming. I asked for her opinions, and she stated that she trusted the producer because she herself had personally talked and built a connection with the same farmer, and trusted his word that his produce is organic. She also noted that since farmers markets consisted of a more interpersonal relationship between producers and consumers, she knew where exactly her produce is grown, which made her comfortable consuming his produce.

I also interviewed a family business, Family Pride Produce, and asked where they thought the best option was for locals to purchase organic produce; he replied that he did not want to criticize supermarket food because it also had its positives, but farmers market produce gave one

more for their dollar worth. He explained that when supermarkets ran low on produce, they called certain warehouses that stored bulk amounts of all kinds of produce. That produce then is shipped via truck to the store to get displayed on the shelves. Unlike supermarket produce, he stated that his produce did not sit in warehouses or endure long transportation rides, which helped it stay fresher longer. The farmer stated that he either purchased his produce himself locally or grew in his own land. He stated that familyowned businesses like his could not afford to become USDA certified, but he ensured his produce endured

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the same farming organic produce did. He also stated that his produce did not get sprayed or mixed with any pesticides or fertilizers.

#### Discussion

Existing literature alongside my research has answered my research question about where UCF students can purchase organic produce. Established articles have shown all the benefits college students may receive by purchasing locally and organically. I ran into a surprise when performing my primary research interviewing the farmer of the Family Pride Produce. I assumed all farmers market farmers would sell organic produce but failed to realize all the requirements to become USDA-certified organic. I did not realize how much licensing costs from the application, annual, and inspection fee to become certified. Certification may range from a couple hundred to a few thousand dollars. His small family-owned business cannot afford to officially become certified, but he treats his produce as if they are. Although his produce does not have the documented licenses from the USDA, he follows the same farming and irrigation procedures with no extra

fertilizers or pesticides, so many consumers still consider his produce to be equal in quality to certified labeled organic produce.

# Conclusion

I found many local options for UCF students to purchase organic produce in different shopping environments, either at a farmers market or the supermarket. The closest Publix supermarket is less than one mile away from campus, and the nearest Whole foods is 6.7 miles away. Both offer a variety of 100% certified and certified organic produce. There are farmers markets located in Waterford Lakes, Downtown Orlando, and Winter Park that offer a variety of produce as well.

Vendors at the farmers market cannot necessarily become USDA-certified because of cost limitations. These local farmers promise they follow the same guidelines to become USDAcertified, but do not have the funds available to receive the seal. Future research can discuss any consequences of farmers not licensing their produce with the USDA and if this changes consumers' perceptions or decision where to purchase produce. My research pinpoints many options UCF students have to purchase local and organic fruits and vegetables but falls short in specificity. I did not solidify a certain distance radius to define the term 'local.' I found farmers markets ranging from 4.0-8.4 miles away and the closest supermarkets from the University of Central Florida campus. More research can be done to define how far college students are willing to travel to buy organic produce. My research is also confined to the loose term 'organic.' I found that produce can be labeled organic, certified organic, and 100% certified organic. There can be more research done differentiating organic, certified organic, and 100% organic in terms of agriculture and labeling. Research can also explore consumers' opinions about organic produce and their decision-making process purchasing produce in general. This leaves room for plenty more specific research to be explored, after my research established the first of its kind done about Orlando's local options for UCF students to purchase organic produce.

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