Mapping Local Food Production Capacity in

Alachua County, Florida



Team 2

Brett Lackey

Arinn Bolin

Jason Argont

Kelly Williams

URP 4273: Survey of Planning Information Systems

Group Project

Our group set out with the intention to locate public places that would be ideal for growing small community gardens. Local gardens provide many opportunities to communities, ranging from economical, social, and individual wellness.

"According to the 2007 US Census, farmers in Alachua County produced \$53M of food at wholesale or \$235M (about 25% of the Alachua County food market) at retail prices, but almost all of this food left the county because markets to sell and process this food do not exist."

This quote from Ed Brown demonstrates the economic benefits of switching to local food production. Not only is it inefficient to ship food out of the county, and even state, for processing but, it also takes away job opportunities. Farms, harvesters, and processing plants all provide employment for those without jobs and who live in the impoverished rural areas. In information presented by Yes! Magazine, "every dollar that stays in a community has three times the effect of a dollar that does to a distant corporate headquarters". Community gardens provide an incalculable amount of social benefits to a community. They improve the quality of life for all who work in them, and reduces crime in the area, encourage resident interactions, and simultaneously provides recreation, exercise, therapy and education. These wellness benefits stated before include freshness and accessibility of foods. Fresh food travels "between 1,500 to 2,500 miles" and has "numerous handlers" along the way. The risk for infection and food rot greatly increases as the travel time increases. Once in reaches grocery stores, some citizens don't have access to these stores. Many people who live in poverty generally live too far away from a reliable grocer, or cannot afford the "fresh market" prices. Either way, poverty stricken citizens do not receive any of the health benefits from consuming produce, whether it be fruits or vegetables, daily. Healthy eating in regards to fruits and veggies is 5-9 servings a day. Many

people who have access to these goods find it difficult to reach that number of servings a day, let alone if you are unable to afford it or cannot attain it.

Based on all of these benefits associated with placing community gardens in a low income area, we decided to base a major selection factor on poverty. Residents living in poverty stricken areas have the most to benefit from community gardens.

The scope of our project included the entirety of Alachua county. We from there focused on populations in poverty in the county, and then again in urban clusters and municipalities.

After these initial searches and eliminations, we changed our focus to the municipality of Gainesville, which host approximately two-thirds of the most impoverished citizens in Alachua county.

We kept four goals in mind when considering site selection. First off, we wanted to locate lands that would be suitable for communities to grow their own community garden. We set out to provide fresh produce that would otherwise be inaccessible, and in doing this we considered the amount of time it would take residents to reach their food. The final goal of our project was to encourage healthy eating throughout the county, and more specifically Gainesville.

From these goals, we were able to identify four different types of locations. These included correctional facilities, cultural centers, religious centers, and schools, each with their own unique sets of benefits.

Correctional facilities often have community gardens, and in recent years, they have become much more popular and successful. These gardens provide fresh, local food for inmates and in many occasions in excess. This excess food is often donated to food shelters and pantries, directly giving back to the community. An added benefit for growing food in correctional

facilities is the relief given to taxpayers, who no longer have to support the entire sustenance division. Inmates also receive invaluable skills from gardening that could help them return to the work force once they serve their time. Responsibility and social skills are also taught through gardening and will become invaluable when an inmate returns to society. Due to the circumstances and nature of these gardens, they are often the most productive. Often, sentence time is reduced if an inmate volunteers in the garden, or it is offered as a "free time" activity.

Cultural centers, another prime location, include many different types of public and private lands. These types of buildings include theaters, museums, libraries, civic centers, 4-H, Girl Scout, Boy Scout, and FFA meeting sites, and Veteran Affairs. These buildings might not seem like ideal, or probably locations for garden sites, but there are many hidden benefits. First off, our group did not set out to find large plots of land, merely accessible ones. Research shows that you can grow a sustainable and productive garden on a size of land the size of three doors (approximately 2.7 meters x 2 meters), which is possible to obtain at any of these locations. Also, these cultural centers are places many people, regardless of socioeconomic status, travel to. Gardens in these locations would be highly accessible.

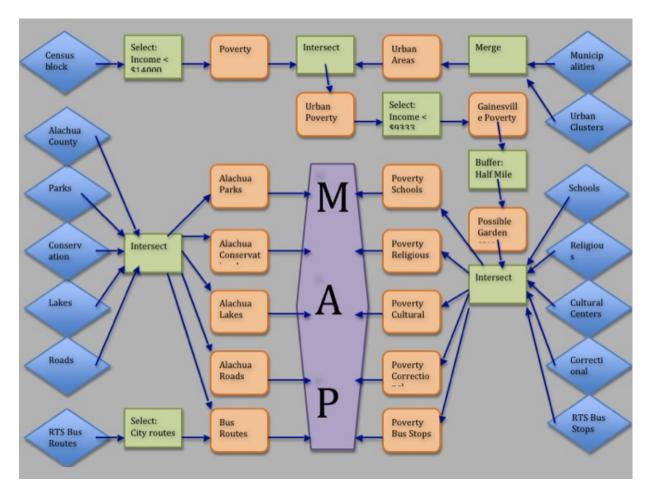
Another location we considered for the location of community gardens was religious centers. Not only do religious centers exist on a large scale, they also impact a diverse group of people. Recently, many congregations have started their own gardens in an effort to "go green" the old fashioned way. Religious centers generally already have a program in place in effort to help those in need, and placing a community garden on religious lands could only help support the programs. Included with this idea, is the ability to include community gardens with community service. Gardens could also provide fresh food to the congregation itself, eliminating

the need to purchase expensive food for a large number of people. These new gardens could also instill a further sense of community among members of the congregation.

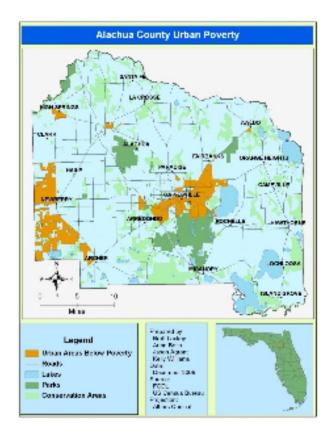
Lastly, and most importantly, our group focused on schools. Children are the most susceptible to learning and development from a community garden. Not only are they more likely to get excited about something they have never done before, they can also be interested in the science aspect of plant biology. Incorporation of a school garden and the classroom can be extremely beneficial to the students involved. Gardening also creates a sense of community, working in a garden could teach children about the importance of a good attitude, encourage proper behavior, and teach sociological skills such as cooperation, tolerance, and cultural appreciation. Gardening in a school system also teaches and encourages children about the importance of healthy eating. With easy access, and a sense of pride for their accomplishments, children are more likely to give healthy eating a try. This also has implications in obesity prevention among children, which plagues over 9 million children, or roughly 16% of the population ages 6-19 (Center of Disease Control 2007). Children who come home to their parents excited about gardening might also influence and involve their parents into the process, further extending the benefits of community gardens.

The first step in creating our maps was to remove all the areas that we could not place a community garden- this included conservation areas and lakes in Alachua County. Then, we set out to remove all park lands since it is difficult to determine land use and other conservation implications. We then set our poverty threshold at \$14,000 per year, per household income. This was an estimated mean in order to include single and multi-person home households. Our next step was to divide Alachua County into income classes based on parcel blocks. We had the intention of making less than \$14,000 the lowest two-thirds of poverty. We then set out to find

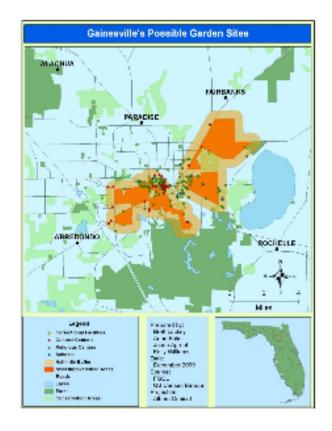
this poverty in urban areas in municipalities, in order to reach the greatest density affected. By clipping the poverty economic class area with the urban areas and municipalities, we created a new map of urban poverty that we wanted to focus on. We then focused on the municipality of Gainesville. From this clip of urban poverty, we created another clip that included the selection of the lowest two-thirds of the poverty located in Gainesville. From this selection we created a half mile buffer around the urban poverty. This is because we felt that a half mile was a reasonable distance for members of the community could travel in order to reach their garden. Within this clip and buffer, we chose correctional facilities, cultural centers, religious centers, and schools that intersected, or where included in this clip. These were our prime locations for placing community gardens. Our next step was to overlay the RTS bus routes and stops with our selected sites. That way, we could make sure that our community gardens were accessible to those in need of community gardens.



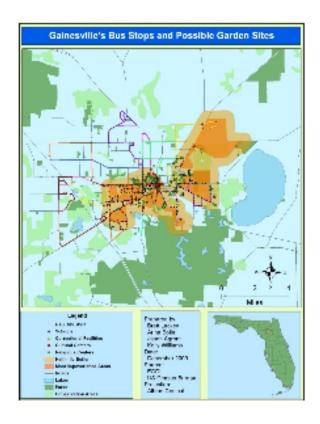
Urban poverty was most concentrated in the Gainesville area, and therefore became the primary focus of our study. The map below shows the urban poverty map that includes income classes and urban areas and municipalities.



Further focusing on Gainesville, we then set out to find ideal locations. Based on our data, we located 4 correctional facilities, 31 cultural center, 106 religious centers and 9 schools, 5 of which were elementary schools. The map below shows good locations for community gardens to be located within urban poverty and the half mile buffer surrounding it.



We also wanted to make sure that each site was accessible to residents so that they could reach their gardens. The map below shows bus routes and bus stops, many overlap the exact location of many possible garden sites.



Community gardens provide an incalculable amount of benefits to society and the people who participate in them. We set out to find lands suitable for growing crops in poverty stricken areas. This would provide easy access to fresh foods and encourage healthy eating. We feel that our data shows many possible locations for local gardens that would serve the community and satisfy these goals. Out of all the sites we selected, elementary schools would most likely be the most effective. Not only are younger children easily educated, but are much more likely to be excited about growing their own food. Also, parents are generally more involved with their children at this stage in their life an therefore, children are likely to influence their parents on this matter.

Our next steps would be to contact sites we selected and let them know of the many benefits of creating a public, community garden on their land. We hope that eventually Alachua

County can make the transition to more locally grown produce in order to reap the economical and social benefits of one.