University of New Orleans

Spring May 25, 2015

Understanding the Uptown Triangle Neighborhood: Mapping Quality of Life Indicators in the Black Pearl
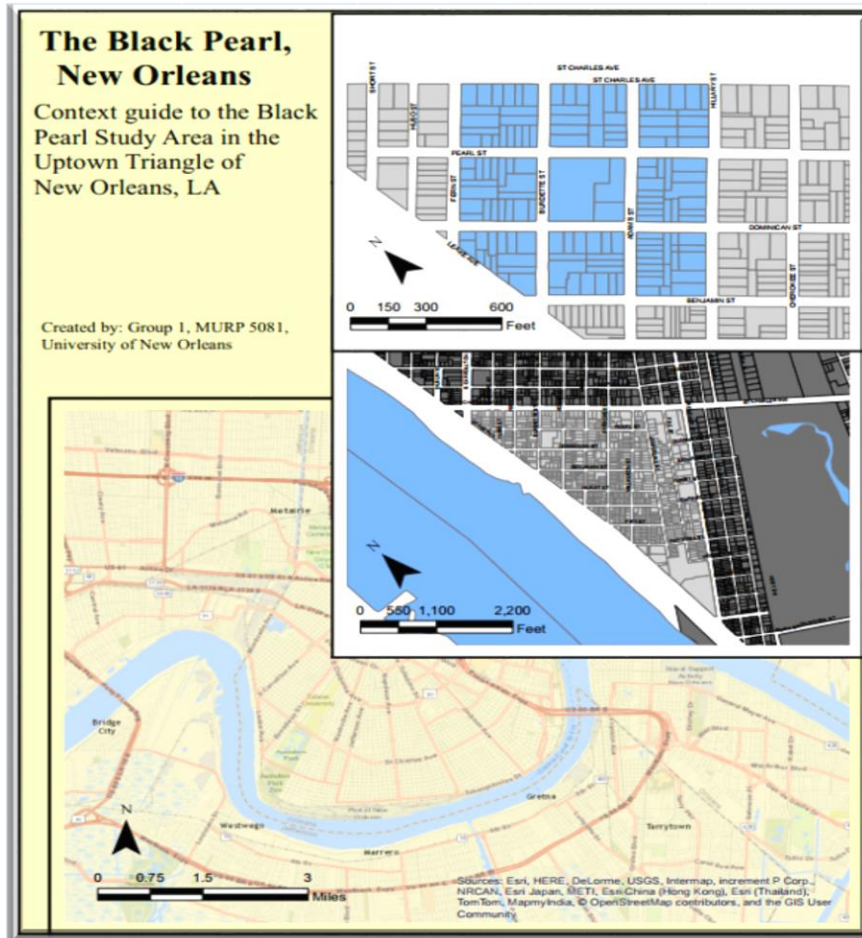
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The Black Pearl, New Orleans

Context guide to the Black Pearl Study Area in the Uptown Triangle of New Orleans, LA

Created by: Group 1, MURP 5081, University of New Orleans

Spring 2015

Understanding the Uptown Triangle Neighborhood: Mapping Quality of Life Indicators in the Black Pearl

Presented to the
Uptown Triangle Neighborhood Association

By University of New Orleans Department of Planning & Urban Studies

Applied GIS Analyst Team

In the MURP 4081/5081
Information Technology for the Planning Profession & Service Learning Course

In association with **WhoData.org**

Table of Contents

Front Cover: The image compiles the elements of a sample walking map document. The template for the image and walking map guide was provided by WhoData Intern Philip Gilmore.

Abstract

In the spring of 2015, University of New Orleans (UNO) students enrolled in the MURP 4081/5081 course-*Applied Geographic Information Systems: Information Technology for the Planning Profession* (also known as 'Applied GIS') led by Dr. Michelle Thompson. Since 2008 this course has provided students with a blended experience with learning the theory and receiving an introduction to spatial analysis using the Environmental Systems Research Institute (ESRI) ArcGIS software then applying this knowledge as GIS Analysts with a non-profit community partner. In the fall of 2014, Dr. Thompson competed to have this course designated as the inaugural Department of Planning and Urban Studies (PLUS) service learning course. By January 2015, Thompson developed a scope of services and formed a partnership with the Uptown Triangle Neighborhood Association (UTNA) to evaluate Quality of Life Indicators limited to the evaluation of property, road, and storm drain conditions. The Uptown Triangle Neighborhood (UTN), which was formerly known as the 'Black Pearl', is a triangular shaped neighborhood and is bounded by Street Charles Avenue, Broadway Avenue, and Leake Avenue.

Prior to the UTNA study, Graham Hayes – UTNA Board Member, UT resident, former WhoData Intern and Bachelor of Science in Urban Studies Program'14 graduate, had developed a series of datasets and crowdsourced data through resident and volunteer activities from spring to early fall 2014. The GIS Mapping Analysts collected primary and integrated secondary data to provide the results of their study in this report. Within the same project, a separate team of novice GIS Programming Analysts developed, tested with the GIS Mapping Analysts and deployed a web-enabled data collection application known as the *'WhoData Map App.'*

The goal of this project and the goal of the client, is to create a tool that will empower members of the neighborhood to advocate community involvement in decision making for the Uptown Triangle Neighborhood. It will also provide a strategic resource for members of the community to evaluate future conditions that may impact the quality of life for those that live there.

Acknowledgements

UTN GIS Analyst Team　　　　**University of New Orleans**, **Department of Planning and Urban Studies**

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Michelle M. Thompson,

Uptown Triangle
Neighborhood
Association
Where the River Bends

May 13, 2015

Nestled between the banks of the mighty Mississippi, Broadway, and the historic St Charles Streetcar line, the Uptown Triangle Neighborhood is a relatively quiet place. Home to just over 1700 residents, the neighborhood is sprinkled with churches, local businesses, as well as two schools and Loyola Law School's Broadway Campus.

The Uptown Triangle Neighborhood Association (UTNA) was formed in the early 90's as a means to protect the interests of the residents and provide services, such as a security patrol, to protect our little corner of the city of New Orleans.

Through the efforts of committees dedicated to social events, neighborhood beautification, safety and security, and communication with city officials, the UTNA has helped make the area an extremely desirable place to live as well as one of the safest in the city.

In an attempt to learn more about physical aspects of the neighborhood, and to help guide the decision making process of the board members, the UTNA teamed up with WhoData and the University of New Orleans to conduct a property and street conditions survey. With this information, and a template to collect the same information over time, the UTNA is now able to more effectively monitor the long-term changes that affect us.

The following report highlights some of the findings of the most recent survey conducted by University of New Orleans students. Utilizing these findings, the UTNA can better address large scale issues that were previously difficult to corral, as well as focus in on specific areas of the neighborhood that might be in need of attention. It also allows the relevant committees to provide appropriate information to those city officials that can best aid the UTNA in making the neighborhood a better place for all of it's residents.

It is with appreciation and gratitude to both WhoData and the University of New Orleans Department of Planning and Urban Studies, that the Uptown Triangle Neighborhood moves forward with this data and with hope that positive change can be more effectively brought to our residents.

Sincerely,

Graham S Hayes
Board Member
Uptown Triangle Neighborhood Association
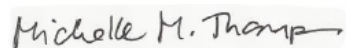
23 May 2015

Since 2008 I have served as the Project Manager for Geographic Information Systems (GIS) Analyst teams who want to use their newly acquired knowledge of spatial thinking to an applied community mapping project. A semester in which students are introduced to the GIS technology then immediately apply their knowledge with a 'live' project is challenging and rewarding. In an effort to extend the existing public participation GIS (PPGIS) research of WhoData.org, the spring 2015 project integrated and continued work in the Uptown Triangle neighborhood which was formerly named the 'Black Pearl.' The primary goal for spring 2015 was to complete a 100% property/street/sewer condition survey of the entire neighborhood. In the fall of 2014 the MURP 4081/5081 *Information Technology for the Planning Profession* course was designated as the inaugural 'service learning course' for the Department of Planning & Urban Studies. The integration of formal reflection, project assessments and time tracking added a new dimension to the applied PPGIS course. This spring 2015 report summarizes new methods in project development, evaluation and data collection strategies. A gallery of maps and reports from the prior projects laid the groundwork and have been integrated within this study. The combination of these integrated projects has expanded the data, tools and maps which will be provided to the Uptown Triangle Neighborhood Association (UTNA) to add to their "tool chest" for informed decision-making. It is also the hope that through this project, the value of Community GIS data can be showcased, and its importance to cities and neighborhoods can help institute further GIS related work in, around and beyond the city of New Orleans.

In service,

Michelle M. Thompson, Ph.D.   Associate Professor
2000 Lakeshore Drive, 301 Milneburg Hall   New Orleans, LA 70148   mmthomp1@uno.edu   504-280-6593
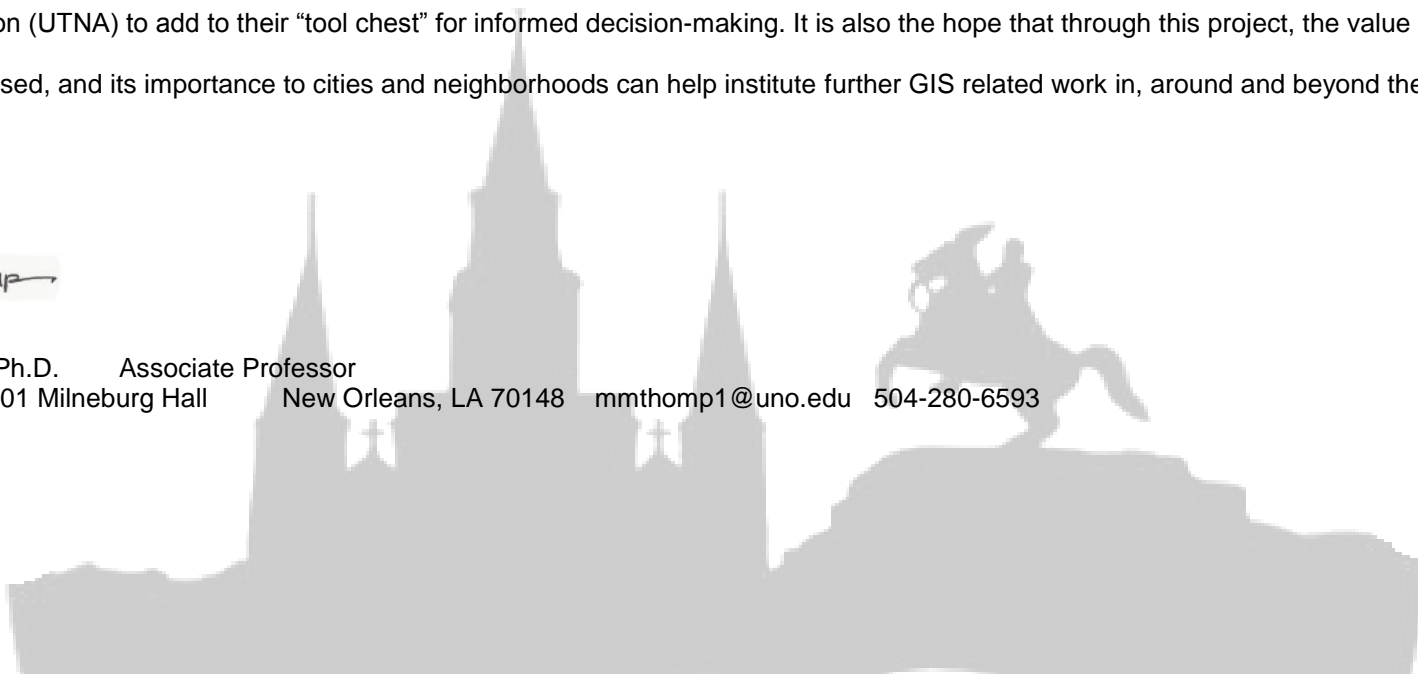
About the Uptown Triangle Neighborhood Association

"The Uptown Triangle Neighborhood Association (UTNA) is an organization devoted to the preservation of the quality of life and property values within the boundaries of the uptown triangle. The Uptown Triangle's boundaries are Broadway Avenue, Street Charles Avenue and the River (Leake Avenue). The Triangle neighborhood is as diverse in its housing stock as it is in its population. Home to a number of churches, Loyola University Law School and two New Orleans public schools, there are numerous ethnicities and religions represented spanning all age groups. Formerly known as the *Black Pearl* in several city maps, the Triangle, according to legend, is said to be the location of the famed "House of the Rising Sun". The Triangle is also the birthplace of New Orleans own Mahalia Jackson, who used to sing at Mount Moriah Baptist Church on Millaudon Street and introduced Martin Luther King's "I Have a Dream" speech in Washington D.C." (UTNA, 2015) The UTNA boundaries (right) extend beyond the City of New Orleans Planning boundaries for the 'Black Pearl' neighborhood (below).
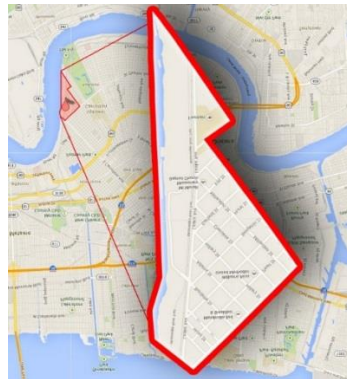
Figure 1: Uptown Triangle Neighborhood Boundary (top right); Figure 2: Black Pearl Neighborhood Boundary (Hayes, 2014)

About WhoData

WhoData empowers organizations throughout New Orleans by providing them a platform to map and analyze the information they collect on properties in their area. The WhoData.org online mapping tool allows residents to assess their own neighborhoods, highlight properties that display indicators of blight, create their own maps and property lists, and share this information with the public. Since 2009, WhoData has been a pilot project that was created to integrate community developed data that can be integrated and evaluated with public information. This public participation geographic information system (PPGIS) program was created to develop an environment for integrating data 'from the ground up'. In a post Hurricane Katrina environment, there were few opportunities for the public to have access to the information needed to monitor neighborhood change. Equally vacant was a municipal data information system that would enable the community to have a holistic understanding of critical data and be able to use this in a shared environment. By creating standard methods of data collection, dissemination, analysis and sharing, WhoData increased availability to this crowd-sourced data and created an online community data information system (CDIS). The results of the community and public data integration are compiled in the CDIS and in maps on www.whodata.net. WhoData will continue to provide residents and community organizations with training to develop, conduct and analyze quality of life data. During the fall of 2015, the project will transition to focus on reporting on the results of prior PPGIS activities (which included the creation of crowdsourced data) and examine the role of WhoData within the framework of Citizen Science.

About UNO

About UNO/PLUS The University of New Orleans (UNO), the urban research University of the State of Louisiana, provides essential support for the educational, economic, cultural, and social well-being of the New Orleans metropolitan area. Located in an international city, the University serves as an important link between Louisiana, the nation and the world. The University strategically serves the needs of the region through its undergraduate and graduate programs. It also provides the area with mutually beneficial collaborations between public and private organizations, whose missions and goals are consistent with and supportive of UNO's teaching, scholarly, and community service objectives. As the only accredited urban planning program within the state of Louisiana, the Department of Planning and Urban Studies (PLUS) has been an important regional institution. For over 40 years PLUS has helped train leaders who develop solutions to a wide range of urban issues. With a range of programs, from bachelor to master and the PHD programs, PLUS provides comprehensive training to prepare students for careers in urban studies. The UNO/PLUS MURP 4081 course on Information Technology for the Planning Profession offers enrolled students the opportunity to implement applied research in cooperation with non-profit partners. This course combines an introduction to geographic information systems, with service learning, to provide students with a client focused, applied community-based project. This type of 'on the ground' experience furthers our institutional commitment to fostering social development within the larger community.

What is PPGIS

In recent years there has been a development in the use of the "bottom up GIS" or *BUGIS* (Talen, 2000) approach of the planning process in resolving public/community issues. This is achieved by allowing the public to be involved in the greater part of the planning process thereby empowering them to generate plans and ideas that reflect the needs of their communities. Public Participation Geographic Information Systems (PPGIS) can be described as a geographic information systems (GIS) technology used by members of the public, in their capacity as individuals and advocacy groups for participation in the public processes affecting their lives. It serves as a connection between the rational planning paradigm with the traditional radical planning that emphasizes on participation and discourse.

The development of PPGIS is the outcome of the inquiries on public concerns related to implementation of the technology to bring about social change. Thus, PPGIS illustrates how Geographic Information Systems (GIS) technology could be used as a tool for decision making, and a participatory avenue to support the public in sharing information as well as peer to peer communication. In addition, the importance of the relationship between the public and GIS is first to understand that GIS is not just a tool for managing and analyzing geographic and spatial data, but rather the development of GIS should be seen as a social process that seeks to make the technology and training accessible to local residents to use in the decision-making process. The extent of the PPGIS application ranges from 1) the development, operationalization, and measurement of spatial attributes for data collection, 2) data collection and participatory methods including mail-based GIS surveys, facilitated workshops, internet applications, and mixed modes of collection, and 3) data analysis integration and interpretation (community/neighborhood planning and mapping, analysis). "PPGIS provides a unique approach for engaging the public in decision making through its goal to incorporate local knowledge, integrate and contextualize

complex spatial information, allow participants to dynamically interact with input, analyze alternatives, and empower individuals and groups." (Sieber, 2006)

A number of models have also been formulated for easy access of the GIS technology to the communities/community organizations. The models are, community-based GIS, university-community partnerships, publicly accessible GIS facilities at universities and libraries, map rooms, Internet map servers, and the neighborhood GIS center. For the purposes of the Uptown Triangle Neighborhood property condition and blight assessment study, the university-community partnership is adopted because of the service learning component.

Service Learning at UNO

Service learning is a blend of classroom learning and community engagement. Service learning is a method:

1. where students learn and develop through active participation in thoughtfully organized service experiences that meet actual community needs and that are coordinated in collaboration with the school and community;

2. that is integrated into the student's' academic curriculum and provides structured time for students to think, talk, or write about what the students did and saw;

3. provide opportunities to use newly acquired skills and knowledge in real life situations;

4. enhance what is taught in school by extending student learning beyond the classroom and into the community. (Schlossberg and Wyss, 2008) Service learning allows students to become actively engaged with a community to create meaningful work that allows them to take what they have learned from the classroom and apply it in the real world. The University of New Orleans Service Learning and Institutional Community Engagement (SLICE) has a mission:

"to serve the region, the nation, and the world at-large by engaging our undergraduate and graduate students in academic work

that intersects with the needs of community organizations. Through programs, research, courses and events, service learning at

UNO endeavors to generate innovative solutions to challenges and achieve sustainable outcomes that benefit our partners and

create a legacy of engagement with the communities we serve." (SLICE, 2015)

A service learning course follows a reflection model where the project plans are developed, completed, evaluated, and modified with a

continuous feedback loop throughout and after the project phases have been completed. This course used the "Gibbs Model of

Reflection" which also used qualitative ('how are you feeling') and quantitative ('what is our schedule? Time tracking) measures to

evaluate our progress and process throughout the course. This course used the Gibbs (1988) Model of Reflection below:

Figure 3: Service Learning Model of Reflection (Gibbs, 1988)

The class held multiple 'circle' discussions and wrote independent and formal reflections at three stages of the project. Reflection 1 was completed at the end of the *Project Planning* on March 10th while Reflection 2 was submitted on March 31st after the *Data Collection & Data Analysis* tasks were completed. The final course Reflection was submitted on April 28th when project mapping, analysis, peer evaluations and final presentations were completed for the community client. All of the student reflections were provided to the UNO PLUS Department and SLICE. Outlined below is the questionnaire and a selection of student reflections submitted at each phase of the project. Student quotes are differentiated by the font style.

Reflection 1: *Project Planning*

How did this experience help you better understand your responsibilities and roles as a citizen?

The project makes me understand how to work in a group, divide tasks, plan and organize a project. As one similar project was present in class, the class could see that this work that we do can help the community to improve some characteristics by having all the information together, represented in maps.

What skills and knowledge did you acquire through this experience?

Work in group, communication, organization, development of specific skills in the GIS software.

How did your experience impact your school or community? How do you know?

This experience will provide information that can be used by community organizations and government. The uses and how this can affect a community were present in class, with an example of an old project similar to the one that is being done in this class.

How did this experience help you better understand ideas or subjects you have been studying?

This experience made me understand how organizing a project is important, to follow steps. The ability of using the software GIS was improve and working in a group and having the acknowledge that the result of this experience will provide important information for a community encourages the group to seek more knowledge and better ways to represent these information.

Give an example of how your experience in UNO's SLICE (Service Learning & Institutional Community Engagement) program changed you. Comment on at least two character traits you have further developed during this experience.

The experience made me feel anxious and nervous about putting in practice for the society the knowledge that I acquired in class. The ability to organize my work and work in group, communicating my doubts and helping the others in the group were developed in this experience.

How did this experience help you better understand your responsibilities and roles as a citizen?

In the planning portion of this assignment, I learned that through this role as a citizen (data collection, analysis, & presentation) I have a responsibility to display accurate information on behalf of the community I'm studying.

This experience helped me better understand my responsibilities and roles as a citizen by showing me that it is important to involve the public in planner decisions. One of the goals of PPGIS is to empower the community through including them in the planning process by them using GIS (Schlossberg and Wyss, 2008).

What skills and knowledge did you acquire through this experience?

For this project to be successful, communication and collaboration will be our keys to success. I will look to improve upon these skills while working on this assignment.

Through the first phase of the project, I better understand what is expected from completing this project. Now I understand what service learning is and it is meant to enhance learning through service to the community. This experience showed me what PPGIS is and how it can be used to improve community involvement.

How did your experience impact your school or community? How do you know?

This project is impacting our school and community by activating our (the students) efforts toward community service. Through this experience we will have a greater understanding of what it means to be both an active member of a community and an outsider providing service to a community. We will carry this for the rest of our lives.

The first phase of the project explained how the service learning project will impact the school and the community. Through this group project we will learn how PPGIS can strengthen the community's involvement in the planning process. One way we will know if the project worked is if the community continues to use the application to update or collect data on their neighborhood. This would mean that the community is to some extent self-sufficient.

How did this experience help you better understand ideas or subjects you have been studying?

Up until now I've been taught what to be mindful of when studying a community. Topics such as gentrification, historic significance, economic development, community & resident identity will all apply to our study of the Uptown Triangle (Black Pearl) neighborhood. This project will further strengthen my ArcGIS competence through repetition, exposure to new techniques and real world application.

Give an example of how your experience in UNO's SLICE (Service Learning & Institutional Community Engagement) program changed you. Comment on at least two character traits you have further developed during this experience.

Usually, I enjoy stepping up and taking the lead of a group; although, I've had a rough semester thus far. When it came time to pick a group leader last Tuesday night I immediately deferred to my other group members. I took it upon myself to follow and make valuable contributions to my team in that role. UNO's SLICE program presented me with the opportunity to make a mature, responsible decision and I snatched it.

I will use what I learned in my future goal career of becoming a city planner. After this service learning project I will be able to better communicate will the community. Now I understand how to involve the community in planning decisions and that the community's involvement is even more important to planning decisions.

How will you use what you learned in other situations?

I hold leadership positions in two other organizations on campus. My ability to delegate responsibility will improve with UNO's SLICE program which I'll use in my other roles on campus and beyond.

This project will help develop my skills working in a team setting and ArcGIS skills. This project is divided into smaller groups, but we are working as a larger team together as a class to better the community. Working in my smaller group to complete our part of the project helps develop team work and communication. Part of the project is using ArcGIS to make maps of the data for the community, so this will develop those skills too.

Please provide any other comments. Use the *UNO Reflection Guide* for topic suggestions.

I am looking forward to engaging with the Uptown Triangle/Black Peal community in this way. It will be a learning experience for me and I'll garner applicable, real world skills at the same time presenting the residents of this neighborhood a perspective of it that they previously haven't seen.

Reflection 2: *Data Collection & Data Analysis*

How did this experience help you better understand your responsibilities and roles as a citizen?

I understood how I can influence the whole group regarding doing or not doing my work. But more important than that, the experience is making me understand how I can help a community using the knowledge that I learned in class.

Collecting the data was a great experience. The Uptown Triangle Neighborhood is really situated in a beautiful area. It's one thing to walk through the space but to study it as we did gave me a sense of belonging and purpose in the neighborhood and New Orleans. And I'm not a local! This made me feel more responsible for activating growth in my town.

What skills and knowledge did you acquire through this experience?

I developed my skills regarding to work in group and organizing my work.

Though collecting the data, and later through analyzing it, I've definitely made leaps and bounds with my Microsoft Excel knowledge and organizational skills.

The best thing about this whole experience is the actual experience to be working on a real life project. This is not a typical textbook assignment. It was an eye opener to see how projects can go and how much work is involved when actually working with a client. It also made me get a better understanding of ArcMap and how to use it in a real life situation. I can honestly say that I have gained more knowledge from this one course then in any other course I have ever taken. It is nice to know that while taking a class, one can gain real world experience and apply it to a future job. It has also helped me to understand why we put ¼ mile buffers around points of interest on our mid-term.

How did your experience impact your school or community? How do you know?

Bring what we learned, the skills with the GIS 10.1 software to the real world, to help a community to have information about the conditions of the properties and potholes and storm drains to in the future this can be used to make improvements in the community are an interesting way to put in practice what we learn in class. It is important to the community, because than they will have data about their area to ask for future projects and it is important for the students, that are using what they learn, practicing and improving the skills with the program with the understanding that this will not only be an academic work that will only be transformed in a grade, but it will help a community, have a real impact.

Though collecting the data, and later through analyzing it, I've definitely made leaps and bounds with my Microsoft Excel knowledge and organizational skills.

I believe that the experience had an impact on the class itself. The challenges of coordinating complex activities built a sense of community among the different groups. The project has also given the class a sense of purpose, largely due to the students seeing the community which we are surveying up close and in person, and establishing a connection with the resident. This helped the survey to become less of a chore and more of a tangible contribution to the city and neighborhood. Hopefully, the Uptown Triangle will also receive a positive benefit from this project as well. I believe that some already have gained a sense of appreciation that others have taken an interest in their community.

How did this experience help you better understand ideas or subjects you have been studying?

As a way to put in practice all the tools that we learned in the class regarding the GIS 10.1 program, the service learning is being really helpful. To see how data collected in field can be transformed in maps and digital data that can be shared with other people and most important, the community, and so be used to make the neighborhood environment better is really a great experience to a student.

Before I began this portion of the project, I would have immediately said that data collection is my least favorite part. After having done this and had the experience of soaking up the information of a space, I can't wait to do it in my hometown. I want other people to have these experiences too! I think its important to know a little bit about the place you live. Slowing down to take a hard look at something you pass up every day will undoubtedly learn something new.

Give an example of how your experience in UNO's SLICE (Service Learning & Institutional Community Engagement) program changed you. Comment on at least two character traits you have further developed during this experience.

This experience changed the way that I do my work, becoming more organized and paying more attention to complete all the tasks given in the right due date, realizing when I don't do my work in time, this can affect the whole production.

I believe that the experience had an impact on the class itself. The challenges of coordinating complex activities built a sense of community among the different groups. The project has also given the class a sense of purpose, largely due to the students seeing the community which we are surveying up close and in person, and establishing a connection with the resident. This helped the survey to become less of a chore and more of a tangible contribution to the city and neighborhood.

Hopefully, the Uptown Triangle will also receive a positive benefit from this project as well. I believe that some already have gained a sense of appreciation that others have taken an interest in their community.

How will you use what you learned in other situations?

Work in a group is a really difficult situation. People work in different ways and sometimes it doesn't flow as easy as you though it was going to be in the beginning. Besides that, this situation is helping me to learn how to deal with these because I know that

in a real job situation, we are going to work in groups and difficult situations, communication problems can happen. Talking about

the skills directed learn in class and in field (collecting data), I am learning and learned how to organize my work and improving

my knowledge developed in the first months of the class, and all of these can be use later in a job.

Please provide any other comments. Use the *UNO Reflection Guide* for topic suggestions.

I'm grateful for this program. It feels like a lot of work but I feel that at the end of it students are much more impacted

than in a normal class.

This experience was valuable and taught me a lot about the very time-consuming and meticulous nature of data collection and analysis, which is

something I had taken for granted before.

I would appreciate more opportunities for individual service-oriented projects. I understand the goals driving group-work.

But the professional and personal obligations of most UNO students are not conducive to extensive group coordination,

and projects are often compromised by the weakest link. It's very difficult to schedule meetings which even a fraction of

the group can attend.

This class has heightened my awareness of the impact research and study can have on the civic environment. I am combining academic

performance with a greater understanding of the community and the city I live in.

Reflection 3: *Final Reflection*

How did this experience help you better understand your responsibilities and roles as a citizen?

This assignment has given me a sense of responsibility as a citizen. After this project, I am trained and equipped to help make positive change wherever I live or work. I would like to apply the skills I've learned through this project to my hometown, which could use them immediately.

This experience showed me that as a future planner, planning isn't always about creating new communities. As a planner, we have to work with the conditions as they are and try create atmospheres that reflect those who live there. Planners also have to sensitive, understanding, and knowledgeable about the client demographics to involve them and present them with the documents that they asked for.

This experience helped me better understand my responsibilities and roles as a citizen by showing me that it is important to involve the public in planning decisions. One of the goals of PPGIS is to empower the community through including them in the planning process by them using GIS (Schlossberg and Wyss, 2008). Data collection was true community involvement. Many of the residents were curious and asked questions about what we were doing in their neighborhood. Creating the map that reflects the data we collected will hopefully be useful to the community.

What skills and knowledge did you acquire through this experience?

I was given leadership of my team about halfway through the project. Thinking of these added responsibilities along with my normal responsibilities, I feel as though I have learned a great deal about effective and efficient communication and organizational skills. My time management has improved and of course my knowledge of ArcGIS and PPGIS processes.

Project Management- This was one of the biggest skill sets to be learned from this course. One might think that the class is only about geographic information systems, but learning how to communicate with teams is a big part of the course. When you have so many different personality types this can be a big challenge. As a team leader and team player, I learned how to delegate assignments and mediate any issues that popped up.

GIS- (Geographic Information Systems) Actually using GIS through ArcMap in a real world situation makes this course stand above most other courses. I feel fully prepared and knowledgeable in bringing the skills that I learned to a real job.

Throughout my college experience, I have done my best to avoid group work. Through the duration of this project I was required to work in a group. This time was different because I was not only responsible to my other group members but to a community as well. I had to be organized, I had to be proactive. These are the areas I have changed the most since I was given a leadership position and was expected to provide leadership. Having this opportunity in a safe environment such as school (with the added pressure of a real world product) was invaluable to my development as a professional.

How did your experience impact your school or community? How do you know?

This project is impacting our school and community by activating our (the students) efforts toward community service and personal/professional development. Through this experience I've gained a larger understanding of what it means to be both an active member of a community and an outsider providing service to a community. I will carry this with me for the rest of my life.

This experience impacted students studying urban planning at UNO and the community of the Uptown Triangle Neighborhood (UTNA). Working for and giving back a set of deliverables to the UTNA in order for them to use for future neighborhood analysis showed how UNO can change communities. It also fosters a sense of partnership by allowing UNO to work for a neighborhood and give students the tools to participate in meaningful work.

How did this experience help you better understand ideas or subjects you have been studying?

In my History and Theory of Urban Planning class, there was much discussion on using public participation and the common good of everyone. These two ideas can be interpreted in many different ways and participating in a service learning course helped to see it in action. With a contract with the client (UTNA), I was able to identify what was asked for and how it can help the "common good" of those living there. After analyzing data that was asked for such as condition of storm drains, it was identified that only 24% of the UTNA has storm drains. These leaves an analysis for community members of the UTNA to decide if it's in their interest to understand why there are so few storm drains and if there is a need to create a water management plan.

This project helped me understand that this service learning project is meant to be meaningful and useful to the community (Schlossberg and Wyss, 2008). This project will help me get more experience doing research and using ArcGIS. Data collection was true community involvement. Many of the residents were curious and asked questions about what we were doing in their neighborhood. Applying the data we collected to make a map in ArcGIS helped develop my GIS skills. This process better helped me understand mapping with ArcGIS and community involvement with data collection process. Sharing this information with the community through the presentation will develop communication skills with the public.

Give an example of how your experience in UNO's SLICE (Service Learning & Institutional Community Engagement) program changed you. Comment on at least two character traits you have further developed during this experience.

This project will help develop my skills working in a team setting and ArcGIS skills. This project is divided into smaller groups, but we are working as a larger team together as a class to better the community. Working in the smaller group to complete our part of the project helps develop team work and communication. This involvement with the community is experience of what being a city planner could be like and being involved with people in the community. Part of the project is using ArcGIS to make maps of the data for the community, so this will develop my ArcGIS skills too. Using the data we collected to create a map for the community helped develop my ArcGIS skills.

How will you use what you learned in other situations?

I will use what I learned in my future goal career of becoming a city planner. After this service learning project I will be able to better communicate with the community. Now I understand how to involve the community in planning decisions and that the community's involvement is even more important to planning decisions. After this project I also know how to use ArcGIS and this will better prepare me for my future career.

Please provide any other comments. Use the *UNO Reflection Guide* for topic suggestions.

Everything that I have learned about GIS has helped me to obtain my first internship. I will take all my new skills and apply them to my summer job.

After graduation, I see myself in similar roles as the one I held in this project. I want to help people better understand their communities using the techniques I've learned and building upon them. The skills I've learned in this project add to a foundation that my professional career will build upon.

Project Overview

      The primary goal of this project and of our client, The Uptown Triangle Neighborhood Association, was to create a set of tools for the neighborhood to have the capability to do their own future analysis. This objective was achieved by documenting the methodologies and the creation of walking maps, property survey cards, and an excel spreadsheet to input all of the data. These walking maps highlight each parcel that is contained within a block and are tied to property survey cards that collect data about the neighborhood. In this particular project, the UTNA was interested in documenting property conditions, road conditions, and storm drain conditions. The property cards can be altered to fit the needs of the neighborhood and be used for future analysis. This was done so that the neighborhood can document, advocate, and identify items they want to change and be able to show city officials.

      The study that was conducted by the MURP 4081/5081 students who evaluated property, storm drain, and road conditions. This data was then analyzed against other data such as vacant buildings, overgrown lots, or lot status. The secondary set of data was summarized including information on historic properties, neighborhood history, demographics, and (from a prior study) street lights. A secondary goal of this project was to provide novice GIS Analysts with the opportunity to immediately utilize their technical skills and apply them to a community GIS project. As a service learning course, a deliberate method for project reflection was integrated within the course which helped with evaluating areas that needed to change or remain the same. The tracking of time was a new and important feature. The ability to conduct community-university projects is time-consuming, non-linear and complicated in many areas. The experience of managing a fast-paced, team-oriented technical project was as important as the results obtained in the data collection and mapping.

Project History

    In fall 2013, research was begun on the neighborhood known as the Black Pearl, located in New Orleans, LA. This research included a historical overview, demographics, points of interest, and various other facts and details regarding the neighborhood. As part of the project's research base, the Uptown Triangle Neighborhood Association (UTNA) president was interviewed and the annual association meeting was attended by University of New Orleans Undergraduate Planning student, Graham Hayes.

    In spring 2014, under the guidance of WhoData, work was begun on collecting all publicly available data on the Black Pearl/Uptown Triangle by then WhoData Intern Graham Hayes. This data included census reports as well as Geographic Information System (GIS) data provided by the city of New Orleans through their online portal (data.nola.gov). In addition, data was pursued through the offices of the City Council Member, which led to the acquisition of the streetlights database from the New Orleans Department of Public Works. In conjunction with this data acquisition project, the groundwork was laid for a Public Participation GIS workshop (PPGIS), which would be held in the first week of September 2014, as part of the annual GIS-Pro convention held by the Urban & Regional Information Systems Association (URISA). The goal of this workshop was to collect property and street conditions in the Black Pearl in the area surrounding a former public elementary school, now turned charter school.

    During the summer 2014, development of a data collection workshop that focused on school place-based development strategies was completed. In addition, a 100% survey of the status of neighborhood streetlights was conducted. On September 8, 2014, the Black Pearl PPGIS property condition survey workshop was held and was attended by 31 URISA volunteers. Data was collected for all parcels surrounding the school grounds.

In spring of 2015, Graham Hayes, as a representative for the Uptown Triangle Neighborhood Association (UTNA), met with Dr. Michelle Thompson's GIS for the Planning Profession class to create an analysis of the Uptown Triangle Neighborhood. This analysis included the lot conditions, the building usages, the condition of the storm drains, the road conditions (potholes, lots that may be overgrown, amount of homes for sale and crime statistics of the neighborhood. The class did this by separating into four teams of 4-6 students. Each team was responsible for a particular aspect of the analysis. The teams would then organize their methodologies, collect data, analyze the data and create a series of maps to represent the data, with the overview from Dr. Thompson, and present it to the Uptown Triangle neighborhood at the end of the semester.
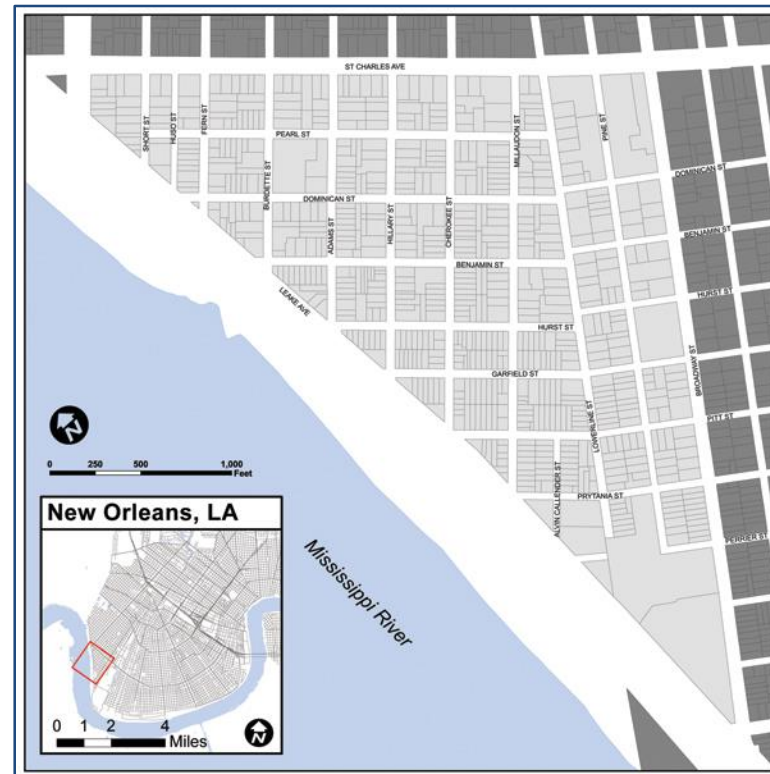

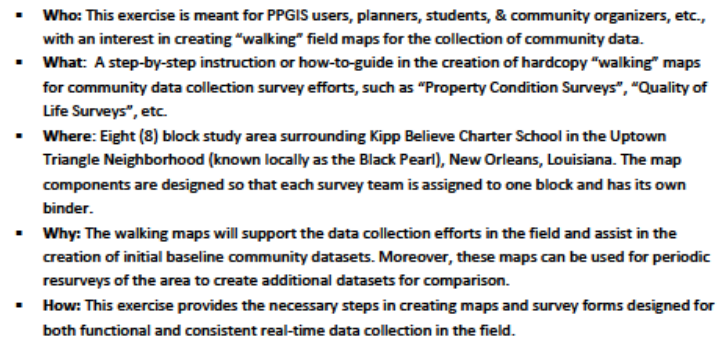Figure 4: Uptown Triangle Neighborhood (Hayes, 2014)

Data Collection Orientation, Methodology, Limiting Conditions & Data Limitations

The data collection methodology began with a project Orientation provided by Dr. Thompson, a Client Roundtable led by Graham Hayes and WhoData survey prep/training provided separately by Philip Gilmore and Dr. Thompson. The data collection consisted of creating walking map from a guide developed by the WhoData Team of Phillip Gilmore, Graham Hayes, Brittany Arceneaux and Dr. Michelle Thompson. Each group followed Philip Gilmore's guide (see Figure below) on how to create a walking map to assist in the data collection. The property condition survey training provided students with how to rank building conditions according either good, fair or poor, how to depict number of units (counting the meters), evaluate potholes and how to determine if a storm drain is open, semi-blocked or blocked. To assist in the prep for the field work, Dr. Thompson developed a project info sheet to hand out to any residents that may have needed further information on what the students were doing. A letter of identification was provided to all GIS Analysts as part of their survey toolkit. Dr. Thompson contacted the police, neighborhood organizations and local security in the neighborhood to let them know the students would be in the neighborhood on certain dates to collect the data.

VARIABLE	OPTIONS	MARK	WHAT IT MEANS
	FIRST – MARK LOT STATUS ON ALL PROPERTIES		
	Building	B	STRUCTURE: A standing building is present on the property
	Empty Lot	EL	NO STRUCTURE: Demolished building/slab/debris/grass/soil
Lot Status	Parking Lot	PL	Self-explanatory
	Open/Rec Space	OR	Public parks, playgrounds, or green spaces like community gardens
	Other	O	For example: Private schoolyards, cemeteries, neutral ground, etc.
	THEN - MARK THESE COLUMNS FOR BUILDINGS ONLY		
	Mark ALL columns, even if building is vacant - - N/A should be marked for empty lots, parking lots, open/rec space, other		
	Commercial	C	Business, non-profit, factory, etc.
Building Use	Residential	R	Single family homes, double shot-guns, apartments, condos, etc.
	Mixed Use	MU	Includes both commercial and residential in one building
	Other	O	Schools, churches, government buildings, etc.
Number of Units	1	1	Clearly only one household (look for entrances and mailboxes)
	2	2	2 units - usually a double shot-gun
	3+	3+	Large multi-family, also look to side for other unit entrances
Open to Elements?	Yes	Y	UNCOVERED windows or doors, or other openings; one could enter easily, without breaking a window or forcing a door
	No	N	ALL windows, doors and other openings are reasonably secured with glass, plywood, or other strong material
Occupied or Vacant	Occupied	O	Look for: • New mail arriving in mailbox • Trashcan, plants, cars, and pets • Functioning utility meter • Includes partial occupancy (only one unit occupied)
	Vacant	V	Look for: • Yellowing advertisements in door handles • Blight notifications • NO trashcan, plants, cars, or pets • NO utility meter
Building Condition	Good	G	Factors: 1. NO structural damage; NO major repairs needed 2. May need minor cosmetic work
	Fair	F	Factors: 1. NO MAJOR structural damage; May need minor repairs 2. Building secured – all windows and doors covered
	Poor	P	Factors: 1. Structural Damage 2. Extensive Vegetation 3. Not Secured/Open to the Elements
	FINALLY – MARK THESE COLUMNS FOR ALL PROPERTIES		
Lot or Yard Overgrown?	Yes	Y	OVER 18" of grass or MAJOR DUMPED DEBRIS (tires, cars, furniture, etc.)
	No	N	UNDER 18" of grass and is FREE of any major dumped debris
Under Construction?	Yes	Y	Obvious signs of CURRENT WORK on the building or NEW CONSTRUCTION
	No	N	NO obvious signs of work being done on the building or property
For Sale Sign?	Yes	Y	For sale sign visible
	No	N	NO for sale sign visible
No Change	(unmarked)		You made changes or added info to blank/white boxes for this property
	No Change	X	All current data on the property is accurate
	99 = NOT SURVEYED in 2010 – Please Fill In		

Figure 5: Survey Data Dictionary (WhoData, 2010)

Walking Map Step-by-Step Instructions: How to Create a PPGIS Walking Map in ArcGIS

- **Who:** This exercise is meant for PPGIS users, planners, students, & community organizers, etc., with an interest in creating "walking" field maps for the collection of community data.
- **What:** A step-by-step instruction or how-to-guide in the creation of hardcopy "walking" maps for community data collection survey efforts, such as "Property Condition Surveys", "Quality of Life Surveys", etc.
- **Where:** Eight (8) block study area surrounding Kipp Believe Charter School in the Uptown Triangle Neighborhood (known locally as the Black Pearl), New Orleans, Louisiana. The map components are designed so that each survey team is assigned to one block and has its own binder.
- **Why:** The walking maps will support the data collection efforts in the field and assist in the creation of initial baseline community datasets. Moreover, these maps can be used for periodic resurveys of the area to create additional datasets for comparison.
- **How:** This exercise provides the necessary steps in creating maps and survey forms designed for both functional and consistent real-time data collection in the field.

By Philip Gilmore, Spring 2015 UNO MURP 4081.5081 students, Graham Hayes, Brittany Arceneaux, & Michelle M. Thompson, Ph. D., 8 May 2015

1

Figure 6: WhoData Guide to Walking Maps (Gilmore et al, 2015)

Welcome Back to the Black Pearl, New Orleans!

So where y'at? The study area blocks are shown in blue in the top right map. The center map shows the whole Black Pearl neighborhood, while the bottom map shows the area highlighted in cyan in the context of the larger city.

Data Sources

City of New Orleans: data.nola.gov
Losco Data Catalog:
http://www.map.la.gov/losco_2007_Zip.html
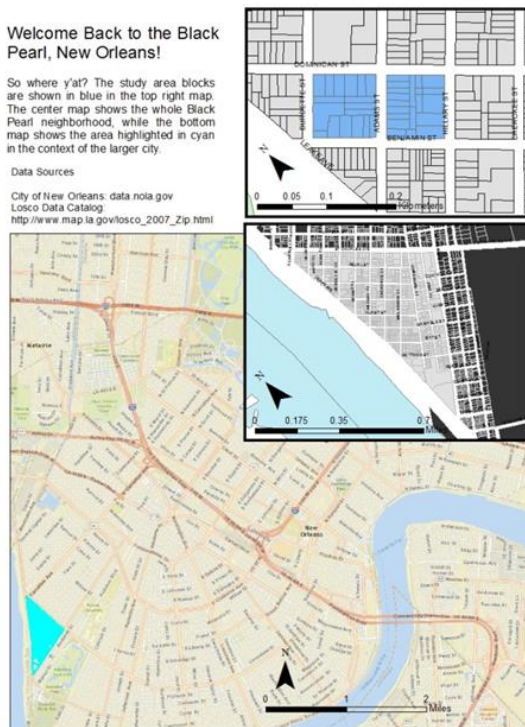
The results of the walking map exercise is displayed below in a map series. The instructions for the walking map were created specifically for the MURP 4081/5081 course by WhoData. WhoData provides the walking maps as part of the ongoing PPGIS services. In an effort to create documents that will allow community organizations to create the maps and for other advocates or academic units to increase capacity of these organizations, the goal for WhoData is to provide and leave resources that can accomplish this. The beta walking map directions were tested by the GIS Analysts (GAs). Each GA provided a reflection and/or feedback on the walking map directions. The required updates were completed by WhoData and have subsequently been sent to our first community partner who will use them to set up a 2015 property condition survey in Central City.

Figures (counter clockwise) 7-10: Walking Map Series (WhoData 2015)
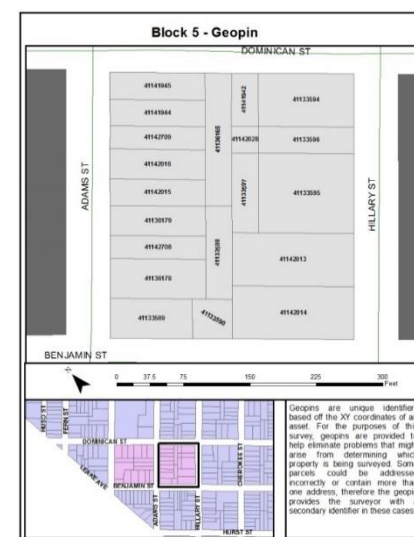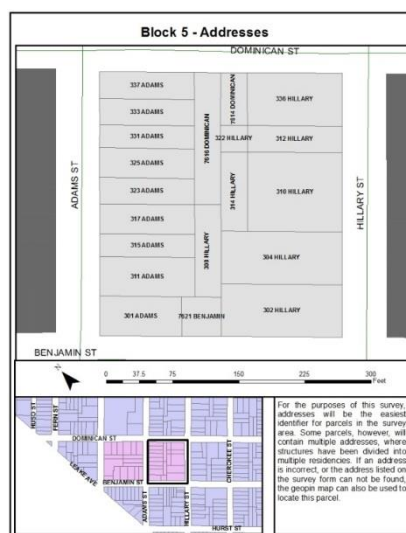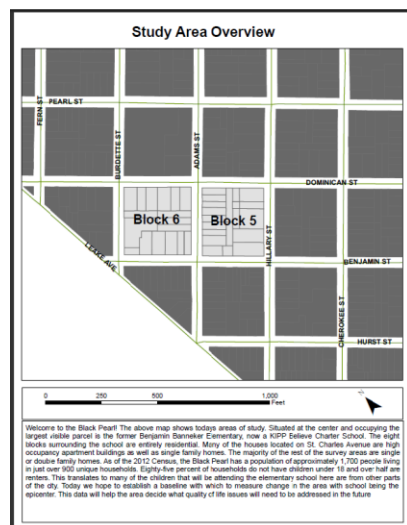
March 18, 2015

Who: Uptown Triangle Neighborhood Association (UTNA), WhoData.org & the University of New Orleans Department of Planning & Urban Studies (UNO PLUS) Geographic Information Analysts

What: The UNO PLUS Geographic Information Analysts will be conducting quality of life neighborhood surveys which include evaluating property conditions, location of potholes and storm drains.

Where: UNO PLUS Geographic Information Analysts (GIAs) will walk the neighborhood of the Black Pearl using the UTNA neighborhood boundaries. There will be multiple team members collecting data using the Sector layout below.

When: GIAs will survey from Weds/18 March to Monday/23 March 2015 during daylight hours.

How: All GIAs will conduct the surveys from the sidewalk and are not allowed to enter buildings or trespass on properties.

For More Information contact:

Michelle M. Thompson, Ph.D.
Associate Professor
Department of Planning and Urban Studies
University of New Orleans
2000 Lakeshore Drive, 301 Milneburg Hall
New Orleans, LA 70148
mmthomp1@uno.edu
504-280-6593

Uptown Triangle Neighborhood Association:
http://www.uptowntriangle.com/

WhoData.org:
www.whodata.net

University of New Orleans
Department of Planning & Urban Studies:
http://www.uno.edu/cola/planning-and-urban-studies/

Figure 11: UTN Survey Introduction Letter (Thompson, 2015)

29

Four teams were created with each team to survey a sector (1-4). Below is a table illustrating the various sectors, the boundaries and number of parcels surveyed.

Sector	Boundaries	Parcels Surveyed
1	St Charles Avenue, Leake Avenue, Hillary Street, and Benjamin Street	185
2	St Charles Avenue, Broadway Street, Benjamin/ Hurst Street and Hillary Street	173
3	Benjamin Street, Leake Avenue, Pitt Street, and Lowerline Street	201
4	Hurst Street, Lowerline/Millaudon Street, Leake Avenue, and Broadway Street	168
Total		727

Table 1: Summary of Survey Sectors by Street Boundary and Total Parcels (UTN GA, 2015)

Each group was given a sector with the Uptown Triangle for their initial data collection of the Quality of Life indicators required. The sector map below indicates the location within the neighborhood that each group was responsible for collecting data in. GIS Analysts (Gas) conducted their field surveys during the week of March 16-22, 2015 to collect the data for their respective sectors. After each group had collected the data for their sectors, the data was entered into the sub-master data spreadsheet template then it was submitted to the Admin group or *Level 4.* Level 4, Matt Loftis and Dr. Thompson conducted a quality assurance/quality control (QA/QC) routine then updated all of the data into a master spreadsheet. All teams used the same master data for their individual maps and summaries.

Cross
hatch
with
parcel
layer
below

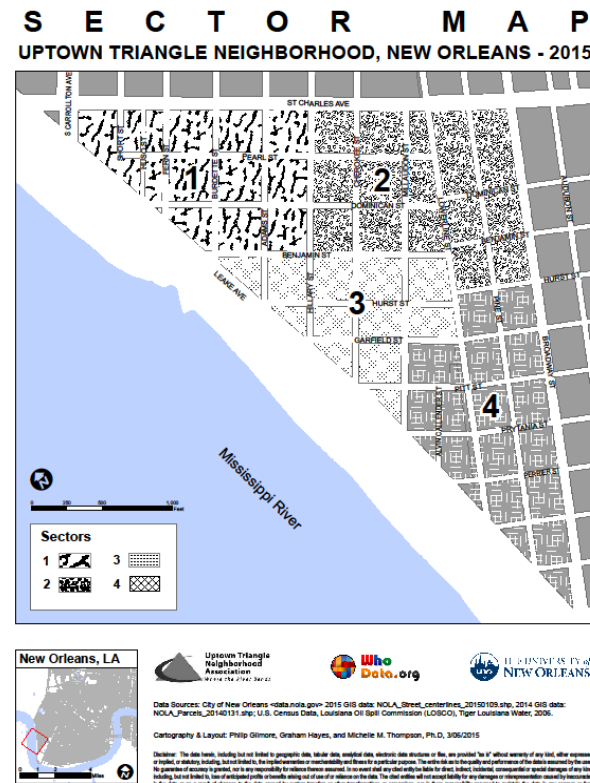Figure 12: Uptown Triangle Sector Map (Gilmore, 2015)

GEOPIN	ADDRESS	LOT STATUS	BUILDING USE	# of UNITS	METERS	BLDG CONDITION
41018534	900	☐ Building	☐ Residential	☐ 1	☐ Yes	☐ 1
	N CLAIBORNE AVE	☐ Parking Lot	☐ Commercial	☐ 2	☐ No	☐ 2
		☐ Empty Lot	☐ Mixed Use	☐ 3+		☐ 3
			☐ Other			
If any of the building conditions below are true, place an "X" in the appropriate box.						
		☐ Occupied	☐ Vacant	☐ Not Secured	☐ Under Construction	
		☐ For Sale Sign	☐ For Rent Sign	☐ Trailer	☐ Yard/ Lot Overgrown	
Comment:						

Table 2: Sample Community Survey Form with GeoPin and Address (WhoData, 2010)

The WhoData property condition survey training was used to establish the baseline metrics for determining if a property was in 'good', 'fair' or 'poor' condition. The rating system and data collection methods follow the Federal Geographic Data Committee guidelines and are compatible with datasets generated from the City of New Orleans; specifically the parcel layer database.

GOOD   FAIR   POOR

When using data from multiple databases which may, or may not be, evaluated using more than one means of validation, there are always data gaps and errors. As part of the pre-field preparation, some properties could be identified by their address only. They did not have a geopin. The geopin is the unique identifier that is assigned by the City of New Orleans as a way of delineated each parcel (with or without a structure) in the spatial data layer. After address matching, if a property cannot be found by address or geopin then it cannot be included in the GIS database. It can, however, be added to the property condition survey form and evaluated in the field.

The GAs found that some geopins had multiple addresses, some addresses had multiple geopins, some properties from the city data no longer existed or could not accessed, and some properties were never found. Each group "cleaned" their data and resubmitted it for QA/QC. Each group tried to locate the missing data or, if they still could not find the addresses where data was missing put together a memorandum of how they attempted to find the required property. GAs checked the City of New Orleans database, City Planning Commission records, and Google Earth to find the addresses. If there were multiple geopins for addresses, the data from each address was copied to match the geopins, if there were multiple addresses for geopins that data was copied over to match each geopin. If there were just some addresses that were just missed, the GAs went back out the field and updated the data for each particular missed address. Once the complete "clean" data was updated, a new spreadsheet was created and the spreadsheet was used to map and analyze the data.

MEMORANDUM

To: Darin Acosta, City of New Orleans GIS Department

From: Michelle M. Thompson $\mathcal{MMT}$

Date: May 6, 2015

RE: Problem with Identifying Properties in the Black Pearl/Uptown Triangle Neighborhood
_____

Outlined below are a number of properties that the MURP 4081/5081 Applied GIS analysts could not find in the Black

Pearl/Uptown Triangle Neighborhood. We are now completing a PPGIS/Service Learning course this spring 2015. We

conducted additional research such as using the 2014 and 2015 City of New Orleans (CNO) parcel layer, data.nola.gov,

google and other address look-up tools, the assessors' website and, in some cases, a second field survey. Could you let us

know if these properties are in the CNO database? The sector map is located on the last page of this memo.

Sector 1

- Geopin 41136327 – listed twice duplex 428/430 Short Street
- Geopin 41136328 – listed twice duplex 432/434 Short Street
- Geopin 41136330 – listed twice duplex 436/438 Short Street
- Geopin 41141930 – listed twice duplex 503/505 Carrollton (1 mailbox 503 displayed)
- Geopin 41136332 – listed twice duplex 508/510 Short Street
- Geopin 41141883 – listed twice duplex 512/514 Short

- Geopin 41141930 – address not found on building (same building as Cooter Brown Restaurant different address [509] and Geopin [41141928])

- Geopin 41136333 – listed twice duplex 520/522 Short

- Geopin 41136326 – 524 Short Street same Geopin as 8000 Street Charles

- Geopin 41141931- listed four times 2 story building 573/575/577/579 Carrollton Ave

- Geopin 41141913 – listed twice duplex 8014/8016 Street Charles

- Geopin 41141914 – listed twice duplex 8020/822 Street Charles vacant lot with ceramic potted::

- Geopin 41136310 – 501 Huso Street address/building not found during survey & not included in

- Geopin 41141996 – listed twice duplex 507/509 Short

- Geopin 41141992 – listed 3 times 519 Short Street has 1 building and 1 address on the building

- 523 Short St was not found during the survey and is not included on the UTNA; 520 Huso St has the same Geopin

- Geopin 0 – 530 Huso St building attached to 7922 Street Charles (courtyard apt) not included in

- Geopin 41141968 – listed as a 4plex 502/504/506/508 Fern St

- Geopin 41141972 – listed twice 520/522 Fern St 1 mailbox for 522

- Geopin 41136299- 7620 Pearl Street The two addresses on the Walking Map for the matching; Geopin are 7622 and 7635 Pearl Street, but neither of these addresses were visible
- Geopin 41141941-7611-7613/7609-7601 all have same Geopin

- Geopin 41142034-300 Benjamin did not exist, Sector 2

- Geopin 41027010-340 Milaudon Parcel has the same Geopin as 342 Millaudon St

- Geopin 41027631- part of 517 Cherokee. 551 Cherokee cannot be found on the Orleans Parish Assessors' database, Sector 3

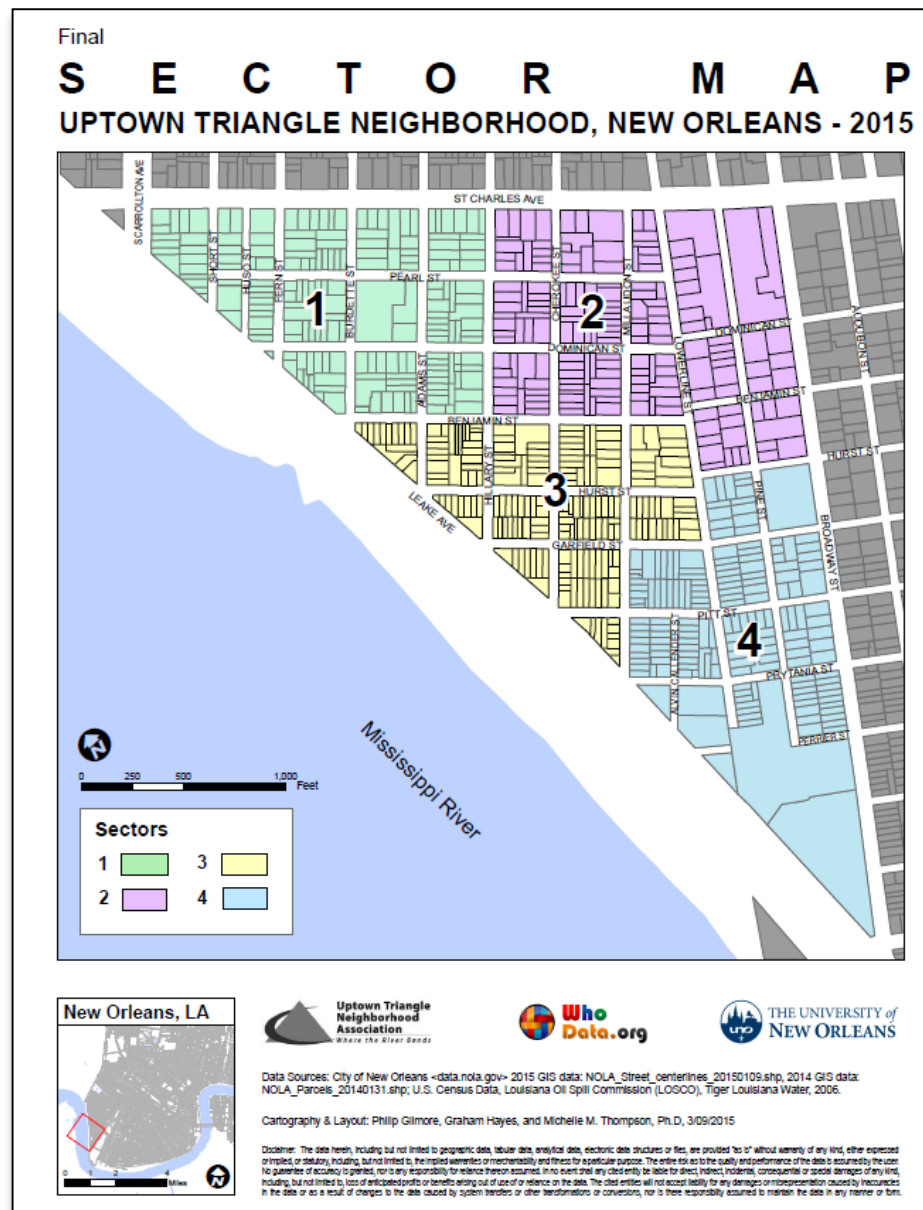- Geopin 41142024-No address Labeled data fields as 0 and Non and Building Conditions as Poor

Figure 13: Uptown Triangle Neighborhood Sector Map (Gilmore, 2015)

Pothole and Storm Drain Training Guide

The following "*Pothole and Storm Drain Training Guide*" (3/20/15) was provided as part of the field survey toolkit by Dr. Thompson.

Black Pearl / Uptown Triangle Neighborhood Property Condition Survey: *Potholes and Storm Drains: Definitions and Survey Protocol*

What is a pothole?

"A pothole, or chuckhole, is a defect in a roadway caused by environmental factors such as ice, heat, and rain. Natural forces eat away at the roadway, creating a series of cracks. As the cracks start to grow deeper, chunks of pavement material separate, and are pulled out by the wheels of passing vehicles. The resulting hole in the surface of the road is known as a pothole: if it overtakes the boundaries of the roadway and starts to erode the dirt below, it is known as a sinkhole. Potholes negatively affect driving conditions, because they make the road more coarse and bumpy. As chunks of pavement are pulled out, the pothole will grow every larger and deeper, and can spread quickly across the entire roadway if it is not quickly addressed. For this reason, road crews regularly inspect the road to monitor signs of potholes and arrest their growth if they are discovered."

Documenting Pothole Location in the survey spreadsheet:

When identifying the location of a pothole, be sure to make a note in the comment section of the property condition survey form.

If a pothole is in the **middle of the street**, associate the location of the pothole to the address *closest* to the pothole.

If a pothole is in a street where a dwelling is facing a different street, (where the building front is on another street & address) make a note on the location of the pothole **adjacent to a corner lot** then associate the address to the ***closest parcel*** on the *same street* as the pothole.

Storm Drains

"Storm drains are specialized drainage systems which are designed to handle an excess of water as a result of flooding or heavy rainfall. They are frequently found in major cities, especially in flood prone areas. A number of systems are used for the collection and ultimate discharge of water from these drains, and if there are drains of this kind in your area, it may be interesting for you to learn about how the water is processed before it is discharged." (WiseGeek, 2015) When identifying the location of a storm drain, be sure to make a note existence in the comment section of the property condition survey form. Associate the location of the storm drain to the address *closest* to the pothole. If the storm drain is **adjacent to a corner lot** (where the building front is on another street & address) then associate the address to the ***closest parcel*** on the *same street* as the storm drain. The ratings will be used for data entry include a rating 4 which signifies that no drain is present.

Storm Drain (rating 2) semi-blocked   Storm Drain (rating 2) semi-blocked

Storm Drain (rating 1) open/un-blocked   Storm Drain (rating 3) blocked

As part of the pre-field survey training, the WhoData field survey powerpoint included examples of the property survey items including meters.

These are the images provided so that GAs were clear on what constituted a rating of meter present (yes) or no meter.

Note: The images provided in these guides were provided by Michelle M. Thompson (pothole/storm drain) and WhoData.

History of the Neighborhood

At one time the Black Pearl was part of Carrollton, a "suburb" of New Orleans established around 1835. The New Orleans and Carrollton Railroad, which ferried commuters from Carrollton to New Orleans, was a significant contributor to the rapid growth of the area. Carrollton was incorporated by an Act of the legislature in 1845, and had an independent city government. In 1853, the levee was built to protect Carrollton from the Mississippi River. In 1874, Carrollton was annexed to New Orleans and became the 7th District of New Orleans. (GNOCDC, 2005) Black Pearl was sparsely populated until after New Orleans fell to Union troops early in the Civil War. Black Pearl historically was inhabited by both domestic workers and the affluent families for whom they worked. The Uptown Triangle Neighborhood, formerly the Black Pearl, has a long history in New Orleans. In 1895, the neighborhood began to develop with new corner stores and public markets intermixed with residences. The Uptown Triangle has a unique history pertaining to commercial establishments. Stores, bars, and markets were plentiful in the neighborhood, catering towards the working class. The working class were often employed by wealthy homeowners located on St. Charles Avenue. In the early 1900's, 13 different markets existed in the Uptown Triangle.

The property located at 337 Burdette St, according to Sanborn maps available through New Orleans Public Library, has historical records as far back as 1895 (New Orleans Public Library, 2009). Originally housing residential dwellings, this property has been 4 different grocery stores, a residential property, and was also vacant for a time. Many addresses in the Black Pearl have similar histories. Sanborn maps have located over 20 addresses with historical records of grocery stores, corner stores, laundry stores, and

bars. Not all of these structures still stand, but those that do (301 Adams Street, 303 Burdette, 227 Cherokee Street) are all currently residential properties.

Historically, the Uptown Triangle has seen a drastic shift in property use. Since the 1890's through the late 1900's, there were many stores located within historical properties. Since 2000, the Black Pearl neighborhood is primarily residential now, with a few schools, Churches, and mixed-use residences. These historical properties, once active grocers, are now all residential structures.

Historic Landmark

Figures 14 & 15: Mahalia Jackson (L) & singing *"How I Got Over"* and "*I Been 'Buked and I Been Scorned"* at Lincoln Memorial, *March on Washington* - August 28, 1963.

The adjacent map shows the general vicinity in which the shanty town where Mahalia Jackson (above) was raised, along with her numerous siblings, was located before it was demolished. The area is now the location of the U.S. Army Corps of Engineers Facility. Mahalia Jackson began singing when she was a child at Mt. Moriah Baptist Church located in the Uptown Triangle. Her career as a world famous gospel singer allowed her to become one of the key voices of the civil rights movement in the United States.
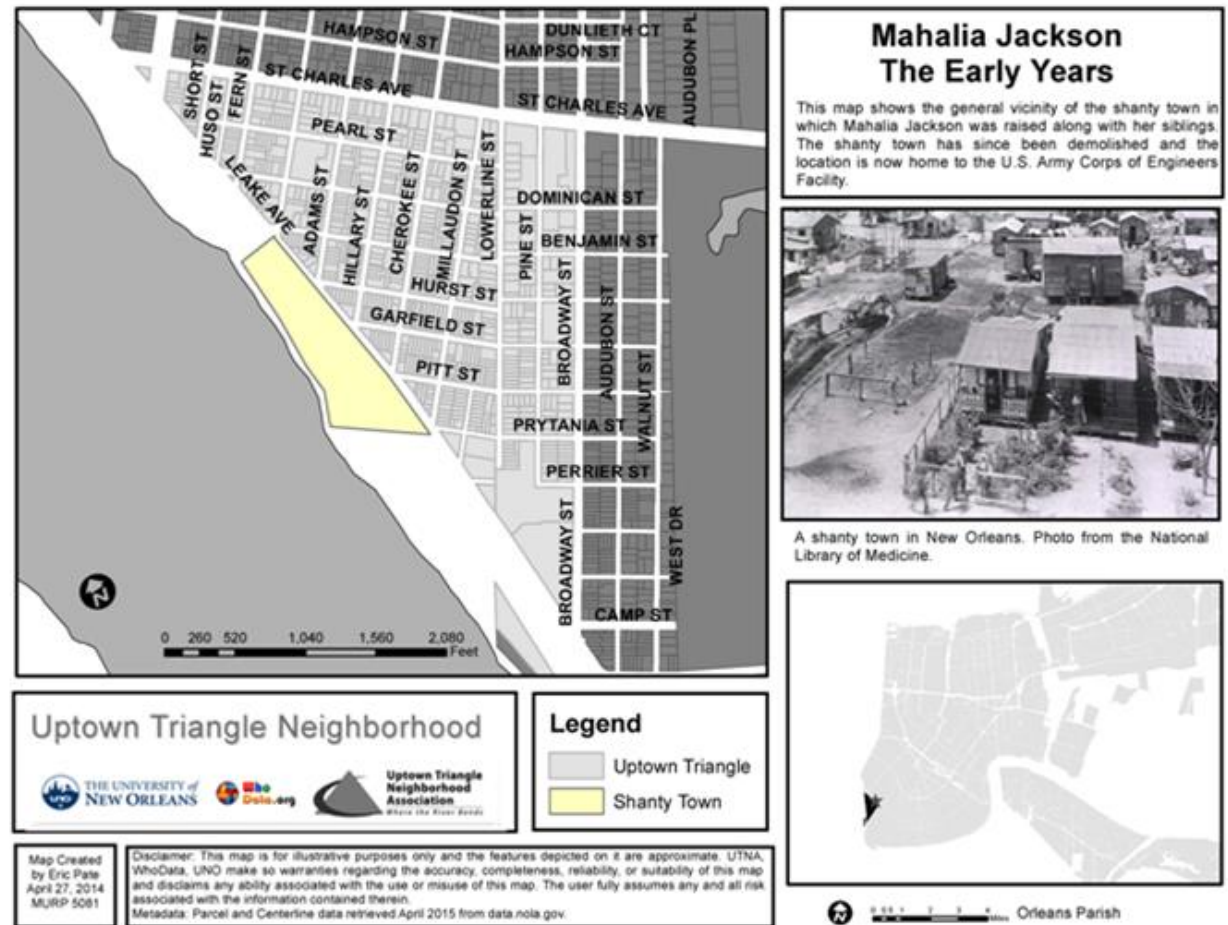

Figure 16: Mahalia Jackson: The Early Years (Pate, 2015)

Neighborhood Demographics

This section of the report focuses on the demographic information of the Black Pearl neighborhood as well as the changes that were seen in the neighborhood from 2000-2010. By analyzing the change from 2000 to 2010 we are able to look at how this

neighborhood changed during a defining period for the city of New Orleans. Data was pulled from the United States Census, American Community Survey for census tract 125.

The total population in the year 2000, according to the U.S. Census, was 1,772 for both genders. In that year, there were 807 males (of all ages) and 965 females (also of all ages). In the year 2010, also according to Census data, the total population was 1,734. That year, there were 833 males (across ages) and 910 females (also across ages). There was a decrease of 38 people from the total population, a decrease of 64 females and an increase in 26 males.

Population by Age and Sex in Census Tract 125, 2000 and 2010								
	2000				**2010**			
Age Groups	Total	Male	Female	%	Total	Male	Female	%
<5 to 19 years	302	146	156	17	235	109	126	14
20 to 39 years	717	349	368	40	682	362	320	39
40 to 59 years	386	179	207	22	422	232	190	24
60+ years	367	133	234	21	395	130	265	23
Total population	1,772	807	965		1,734	833	901	
Source: American Community Survey, SF100% 2000 and 2010								

Table 3: Population by Age and Gender for Census Tract 125 for 2000 & 2010 (UTN GA, 2015)

The housing stock in the Black Pearl neighborhood did not experience a dramatic change during this time period, going from 1,111 units in 2000 to 1,070 in 2010. The area did see a marginal decrease of vacant housing units as well as a slight shift in owner-occupied units, which jumped from roughly 38% in 2000 to 41% in 2010. Overall, however, the housing landscape did not experience any significant changes during this time period.

Housing Characteristics in Census Tract 125, 2000 and 2010				
	2000		**2010**	
Total housing units	1,111	100%	1,070	100%
Vacant Housing	144	12.96%	134	12.52%
Occupied Housing	967	87.04%	936	87.48%
Owner-Occupied	*368*	*38.06%*	*384*	*41.03%*
Renter-Occupied	*599*	*61.94%*	*552*	*58.97%*
Source: American Community Survey, SF100% 2000 and 2010				

Table 4: Housing Characteristics in Census Tract 125 for 2000 and 2010 (UTN GA, 2015)

The overall population in the Black Pearl neighborhood experienced a slight decrease during our study period (1,772 in 2000 to 1,734 in 2010), this phenomenon is supported by the fact that housing stock in the area fell marginally at the same time. The most dramatic population shift that can be seen is that of the racial composition in this area during our study period. In 2000, 661 residents of the Black Pearl identified as Black or African American, this number fell to 384 in 2010. In addition, the number of residents that identified as White alone grew from 1,029 to 1,219 during our study period.

Population by Race in Census Tract 125, 2000 and 2010				
Race	**2000**		**2010**	
White alone	1,029	58.1%	1,219	70.3%
Black or African American alone	661	37.3%	384	22.1%
American Indian and Alaska Native alone	2	0.1%	3	0.2%
Asian alone	47	2.7%	63	3.6%
Native Hawaiian and Other Pacific Islander alone	0	0.0%	1	0.1%
Some Other Race alone	13	0.7%	13	0.7%
Two or More Races	20	1.1%	51	2.9%
Total Population	1,772		1,734	

Table 5: Population by Race in Census Tract 125 for 2000 and 2010 (US Census, 2010)

Crime Analysis

This table represents the top 911 calls for service so far this year (2015) in the Uptown Triangle Neighborhood. Sourced from

data.nola.gov, this information is based off of data for the 70118 zip code. The data was then filtered down to only include calls made

from inside the neighborhood boundaries and the top ten calls were chosen. This data is also comparable to the zip code as a whole in

terms of incidence calls (i.e.- traffic incidents always high).

2015 Top 10 911 Calls for Service		
Incident	Calls	Percent
Traffic Incident	57	18%
Complaint, Other	55	17%
Silent Burglar Alarm	42	13%
Auto Accident	33	10%
Hit and Run	13	4%
Suspicious Person	13	4%
Disturbance	9	3%
Noise Complaint	9	3%
Fugitive Attachment	7	2%
Warrant Stop with Release	6	2%
Total Calls	319	100%

Table 6: Uptown Triangle Top *911* Calls for Service in 2015 (Crimestat.gov, 2015)

2014 Real Estate Listings

The 2014 real estate listings map data for the Uptown Triangle Neighborhood was provided by the New Orleans Metropolitan Association of Realtors. There are 14 properties that are listed amongst the total of 726 properties in the neighborhood. A total of 79% of the properties listed were sold with property listed between $150,000 - $865,000 and appraised values ranged $79,900 - $923,000. The average listing price and appraised value in the Uptown Triangle Neighborhood is $392,000 and $307,664. The average selling price of the 11 sold properties is $344,227.
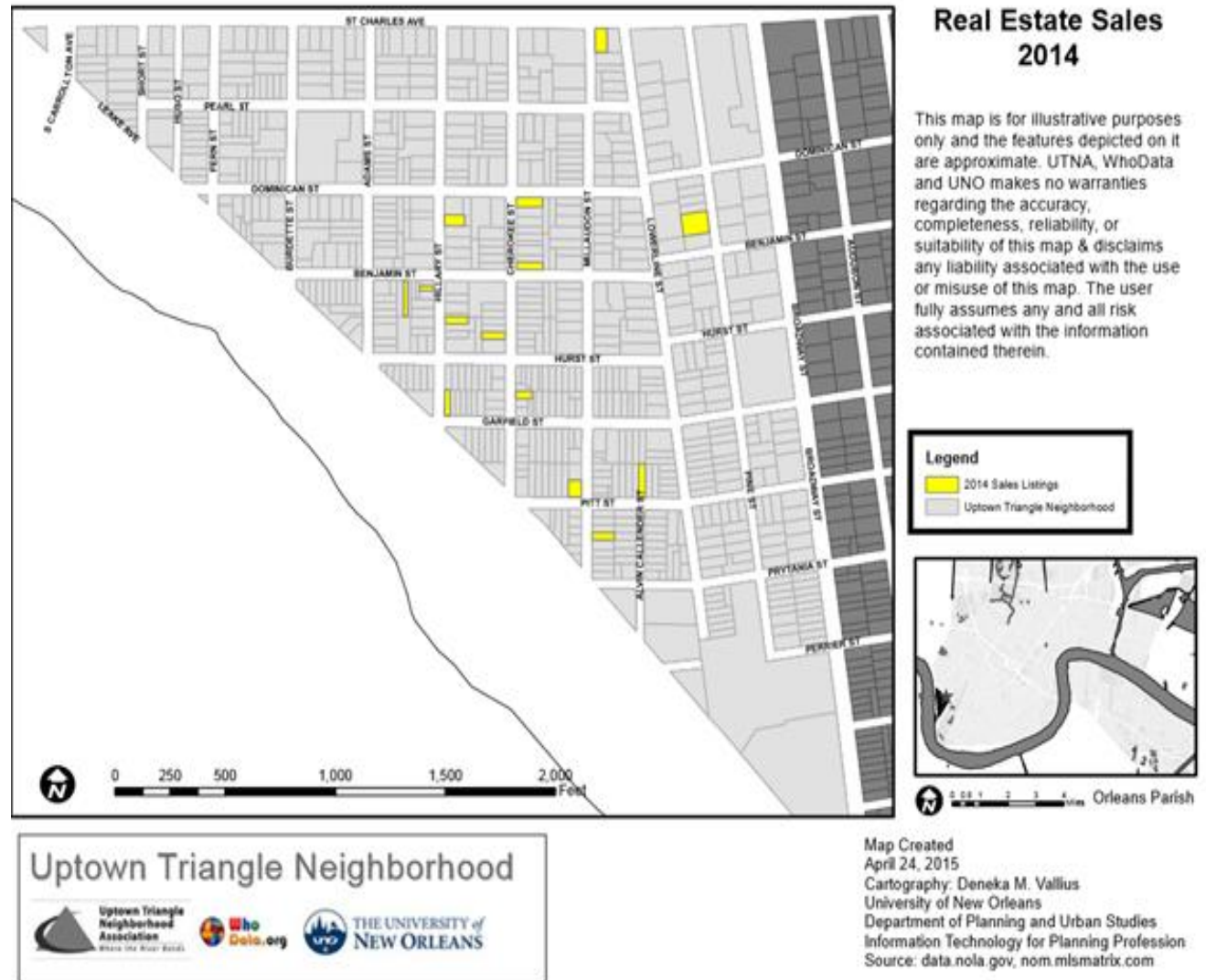
Figure 16: 2014 Uptown Triangle Real Estate Listings (Vallius, 2015)

. As shown in the map, listed properties are condensed to the area surrounding Dominican St and Pitt Street There are several blocks were there has not been any real estate activity for years. The listed properties are located in the area of the neighborhood where there is an abundance of fair and poor property conditions. The purpose of this map is to highlight and locate 2014 listed properties throughout the Uptown Triangle Neighborhood.

2015 Real Estate Listings

This individual map displays all of the 2015 real estate listings in the Uptown Triangle Neighborhood provided by the New Orleans Metropolitan Association of Realtors. There are 11 properties that are listed amongst the total of 726 properties in the neighborhood. Four of the properties listed are now under contract. There have not been any sales in the neighborhood during the 1st quarter of the year. The properties are listed between $199,900 - $1,289,900 and appraised values ranged $120,000 - $846,000. The average listing price and appraised value in the Uptown Triangle Neighborhood is $539,004 and $324,318.

As shown in the map, listed properties are scattered throughout the neighborhood. There are several blocks were there has not been any real estate activity for years. The listed properties are located in the area of the neighborhood where there is an abundance of good property conditions. The purpose of this map is to highlight and locate 2015 listed properties throughout the Uptown Triangle Neighborhood.
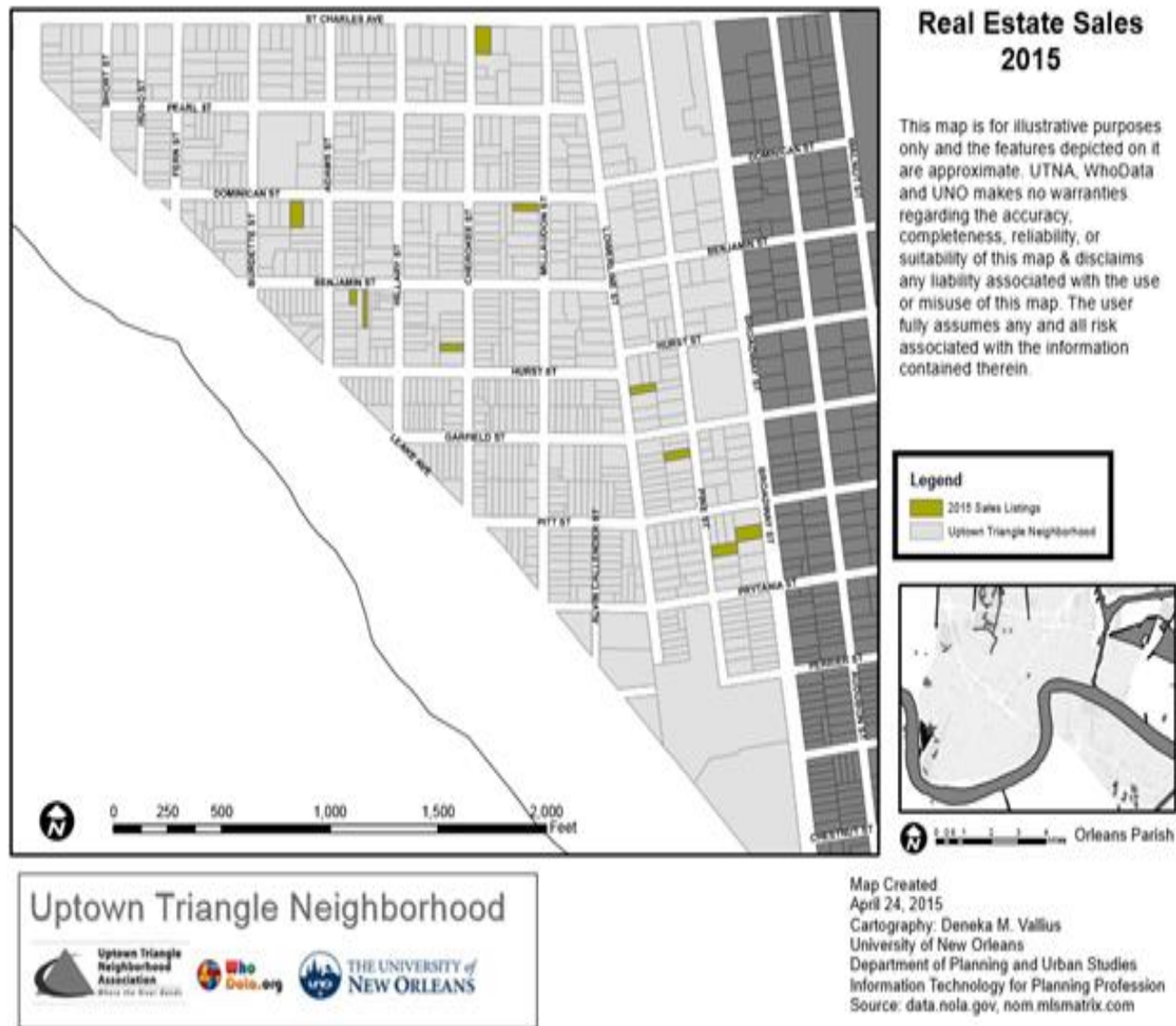
Figure 17: 2015 Uptown Triangle Real Estate Listings (Vallius, 2015)

For Sale and For Rent Map

This map depicts the properties that are for sale and for rent in the Uptown Triangle Neighborhood (UTNA). There are currently six parcels that are for sale and seven that are for rent in the neighborhood. Of the 726 properties in the UTNA .082 percent are for sale and .096 percent are for rent.
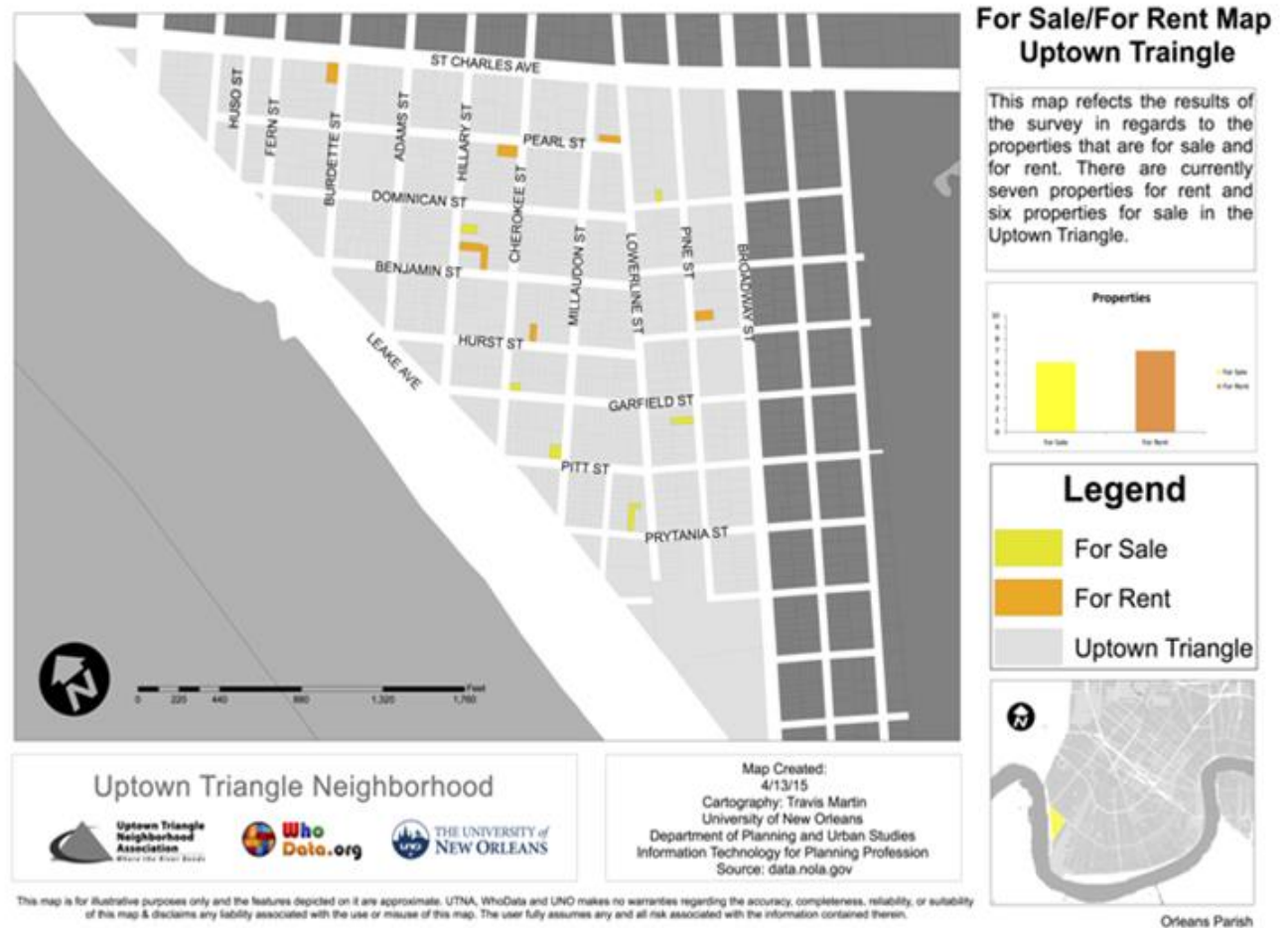

Figure 18: 2014 Uptown Triangle For Sale/For Rent Listings (Vallius, 2015)

Number of Units per Parcel

Out of the 728 geopins we collected data for 457 corresponded with single unit buildings, 162 corresponded with doubles (single

buildings with two apartments, most frequently a shotgun building), and 55 of the geopins contained buildings with three or more units.

The remaining 54 geopins were empty lots with no buildings at all.
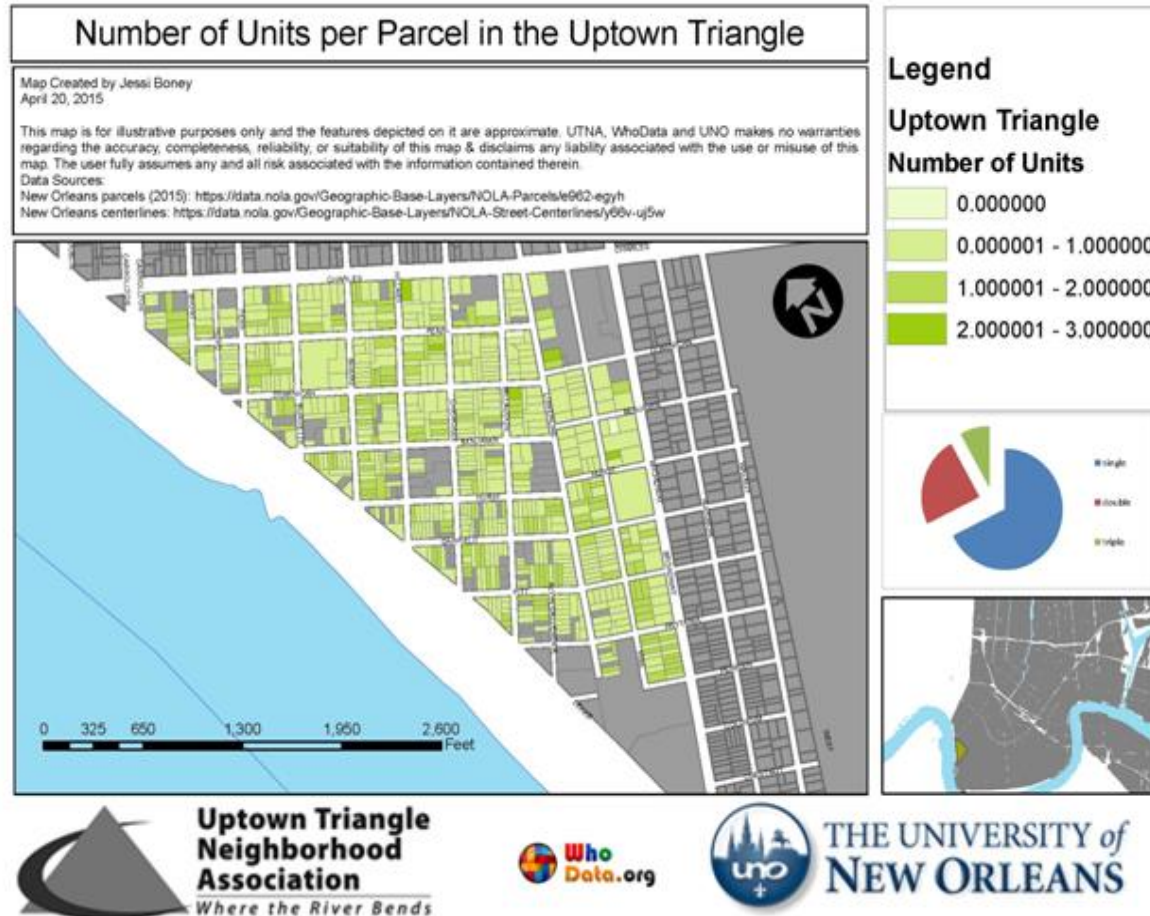
Figure 18: Number of Units per Parcel in the Uptown Triangle (Boney, 2015)

Figure 19 illustrates the Fall 2014 data collection results from the Urban and Regional Information Systems Association Workshop (URISA, 2014). The spring 2015 map series that follows includes the evaluation of the school in the Uptown Triangle Neighborhood. As part of the UTNA strategy for neighborhood maintenance, reinvestment and revitalization, properties around the school were considered a priority to evaluate. The City of New Orleans place-based development strategy focuses on anchor institutions such as schools since they are considered facilities that can promote community engagement, reinvestment and recruit businesses or activities that will aid in neighborhood revitalization.

Figure 19: 2014 Sample Property & Street Conditions Survey in the Uptown Triangle Neighborhood (Hayes, 2014)
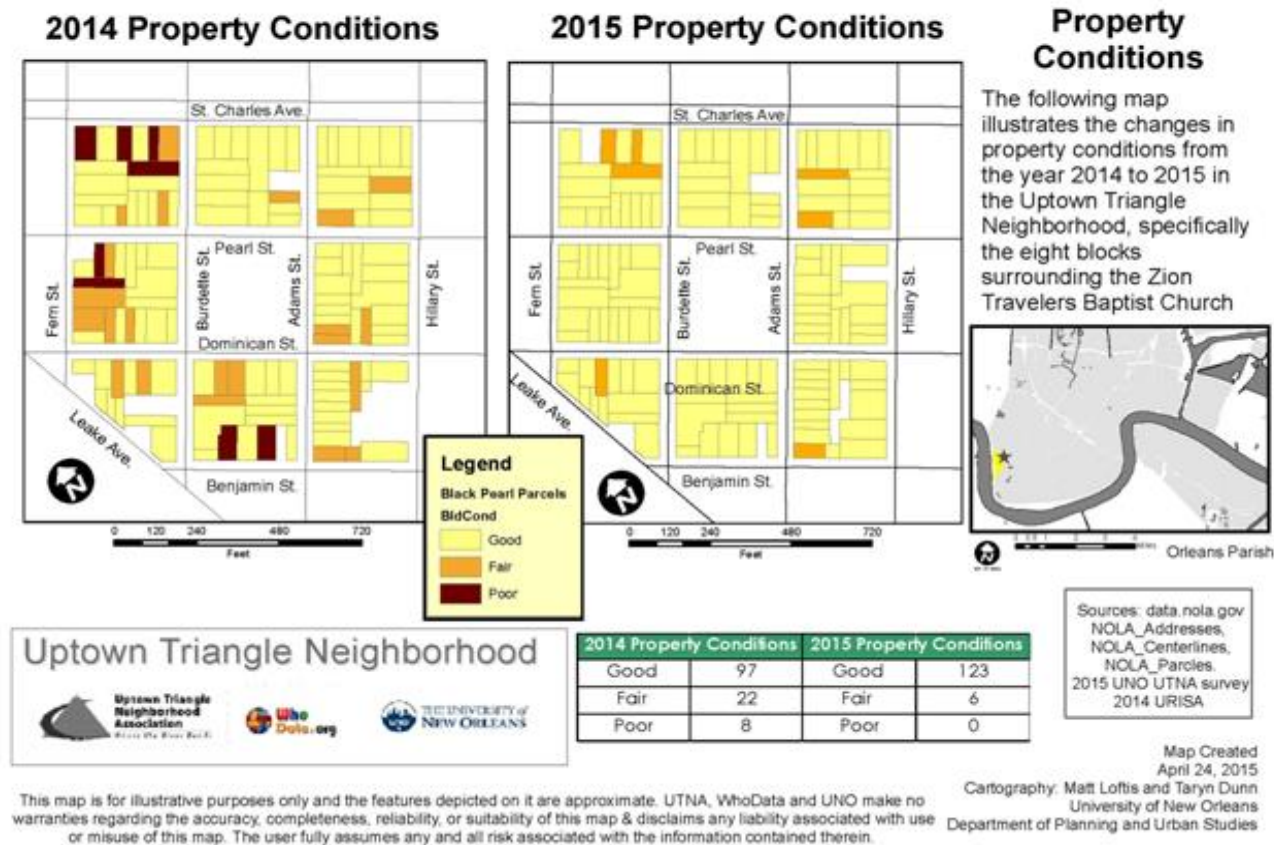
Property Condition Changes from 2014 to 2015

2014 Property Conditions

St. Charles Ave.

Pearl St.

Fern St.

Burdette St.

Adams St.

Hilary St.

Dominican St.

Leake Ave.

Benjamin St.

| 0 | 120 | 240 | 480 | 720 |

Feet

2015 Property Conditions

St. Charles Ave.

Pearl St.

Fern St.

Burdette St.

Adams St.

Hilary St.

Dominican St.

Leake Ave.

Benjamin St.

| 0 | 120 | 240 | 480 | 720 |

Feet

Property Conditions

The following map illustrates the changes in property conditions from the year 2014 to 2015 in the Uptown Triangle Neighborhood, specifically the eight blocks surrounding the Zion Travelers Baptist Church

Orleans Parish

Legend

Black Pearl Parcels

BldCond

- Good
- Fair
- Poor

Uptown Triangle Neighborhood

Uptown Triangle Neighborhood Association

WhoData.org

THE UNIVERSITY of NEW ORLEANS

2014 Property Conditions		2015 Property Conditions	
Good	97	Good	123
Fair	22	Fair	6
Poor	8	Poor	0

Sources: data.nola.gov
NOLA_Addresses,
NOLA_Centerlines,
NOLA_Parcels.
2015 UNO UTNA survey
2014 URISA

Map Created
April 24, 2015
Cartography: Matt Loftis and Taryn Dunn
University of New Orleans
Department of Planning and Urban Studies

This map is for illustrative purposes only and the features depicted on it are approximate. UTNA, WhoData and UNO make no warranties regarding the accuracy, completeness, reliability, or suitability of this map & disclaims any liability associated with use or misuse of this map. The user fully assumes any and all risk associated with the information contained therein.

Figure 20: Uptown Triangle Property Condition Changes from 2014 – 2015 (Loftis/Dunn, 2015)

Through our in-depth geospatial analysis of the Black Pearl neighborhood, we were able to look at the change in property conditions from 2014 to 2015. This was made possible by a 2014 property condition study performed by URISA on the 8 blocks that surround the Zion Travelers Baptist Church. Our analysis indicates a healthy improvement in property conditions from 2014 to 2015. In 2014, 97 properties were classified as in "good condition" compared to 123 which matched the "good condition" metric in 2015.

53

Additionally the number of "fair" properties decreased from 22 to 6 from 2014 to 2015 and the number of "poor" properties decreased from 8 to zero during this time.
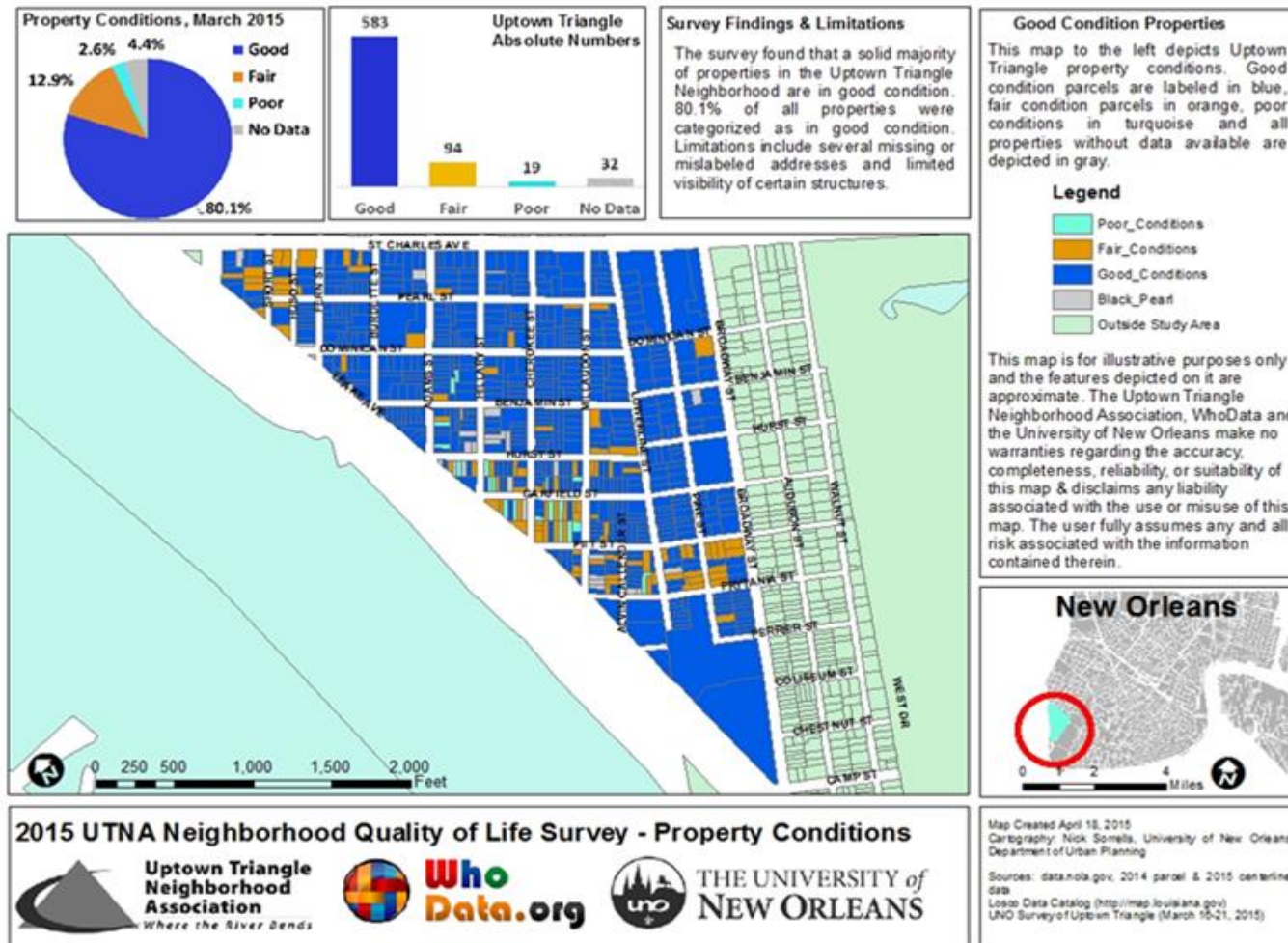
Property Conditions

Figure 21: 2015 UTNA Quality of Life Survey – Property Conditions (Sorrells, 2015)

The "2015 UTNA Neighborhood Quality of Life Survey – Building Conditions" map created by Team 3 of MURP 4081 depicts the building conditions of properties in the Uptown Triangle Neighborhood. The buildings in "good" condition are labeled in royal blue, "fair" condition labeled in orange, "poor" condition labeled in aqua and "no data" labeled in grey. Limitations include several missing or mislabeled addresses and limited visibility of certain structures. Buildings considered "good" are those with no structural damage and no major repairs needed, but may need minor cosmetic work. Buildings considered "fair" are those with no major structural damage, but may need minor repairs, and with all windows and doors covered.

Figure: Property Conditions (absolute numbers)

Source: UNO & WhoData Survey of Uptown Triangle
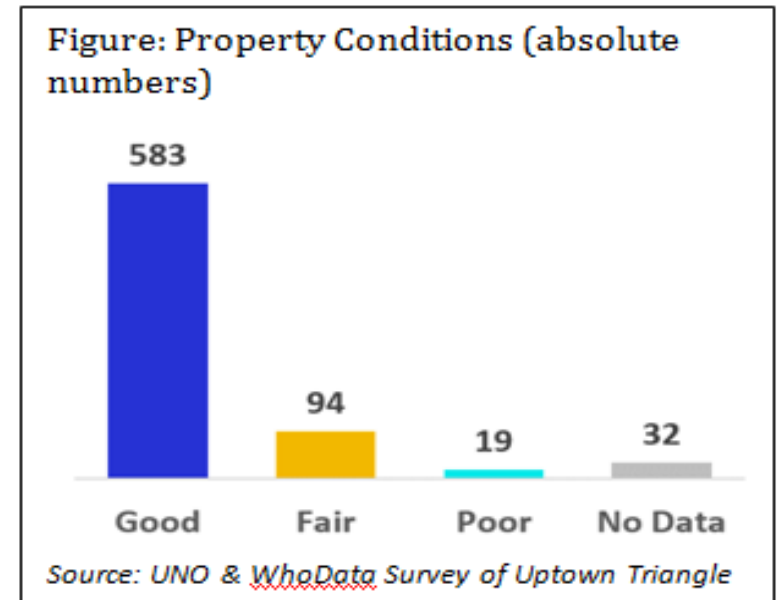
Table 7: UTN Property Conditions from spring 2015 Survey (Sorrells, 2015)

Buildings considered "poor" are those with structural damage, extensive vegetation and not secured/open to the elements.

Figure: Property Conditions (percentage)

Source: UNO & WhoData Survey of Uptown Triangle
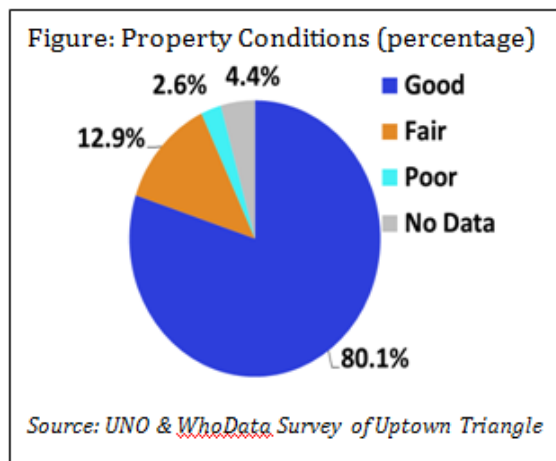
The survey found that a solid majority of buildings in the Uptown Triangle Neighborhood are in "good" condition. The survey found that of the 726 parcels that form the UTNA, 583 buildings, or 79.6% of all buildings are categorized as in "good" condition. The parcels containing buildings rated "good" dominate the neighborhood except for a few clusters along Leake Avenue and Broadway Street.

Table 8: UTN Property Conditions from spring 2015 Survey (Sorrells, 2015)

55

The survey found that of the 726 parcels that form the UTNA, 94 buildings, or 12.9% of all buildings are rated as "fair" condition. The parcels containing buildings rated "fair" are clustered along Leake Avenue to the far north and central sections of the boulevard. Additionally, another cluster of "fair" rated buildings are clustered in between Pitt and Prytania Streets.

The survey found that of the 726 parcels that form the UTNA, only 19, or 2.6%, of the total properties were rated "poor" in condition. The parcels containing buildings rated "poor" are clustered in the center of the area near Leake Avenue with most being bound by Adams Street to the west, Dominican Street to the north, Millaudon Street on the east, and Leake Avenue to the south.
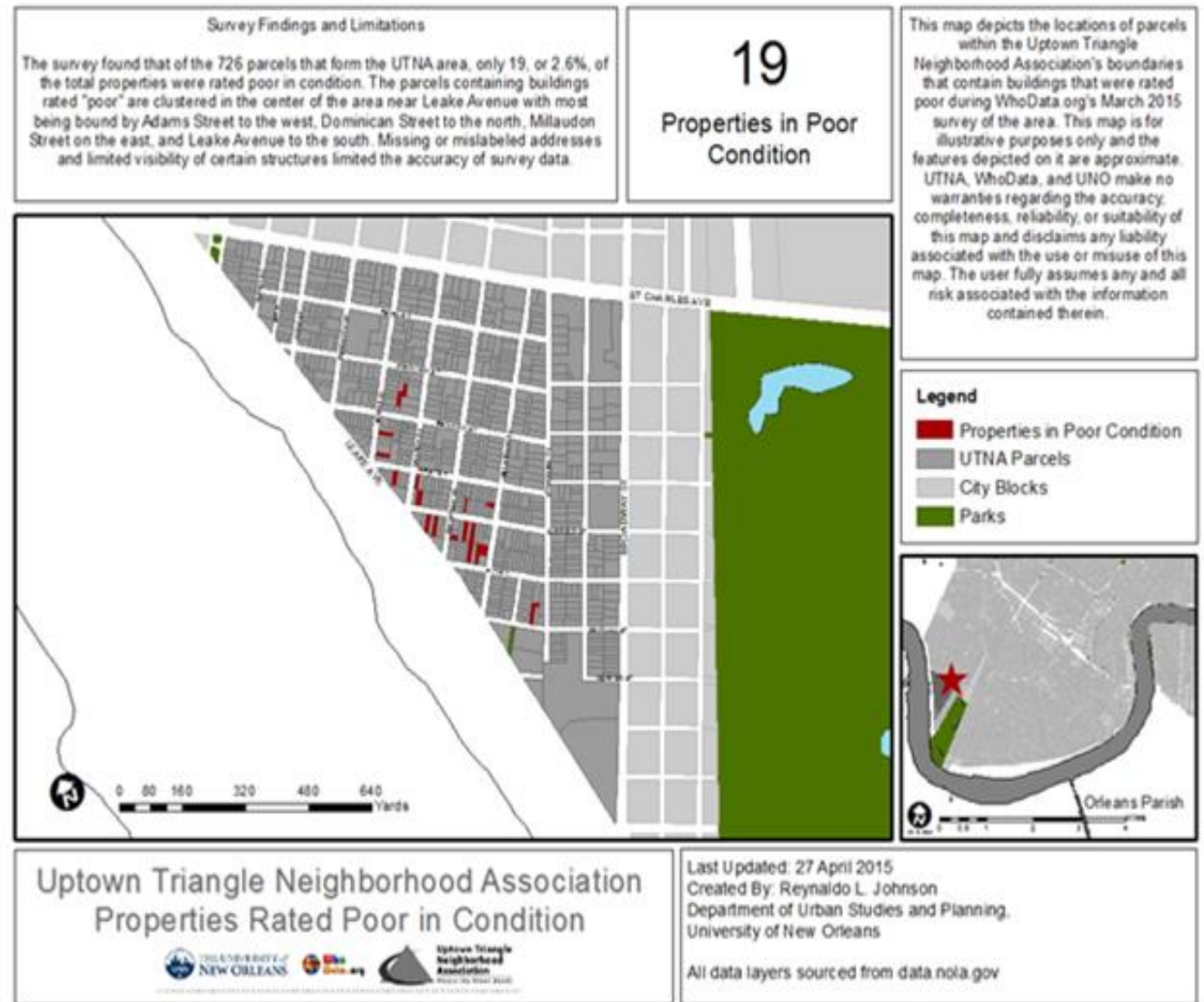
Properties in Good Condition

The survey found that a solid majority of properties in the Uptown Triangle are in good condition. 583, or 80.1% of all properties were categorized by the survey as being in good condition, and this rises to 83.8% of all parcels with data available.
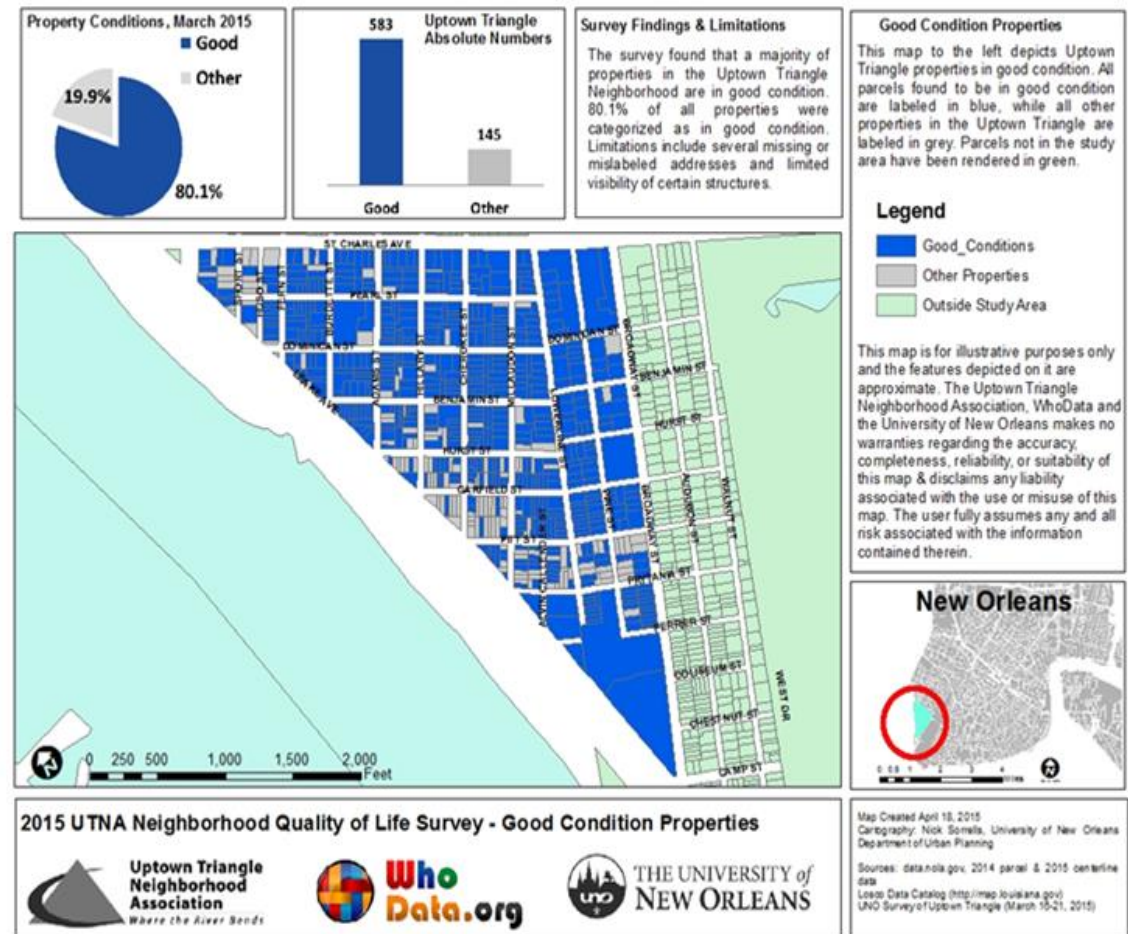
Figure 21: 2015 UTNA Neighborhood Quality of Life Survey – Good Condition Properties (Sorrells, 2015)

Generally blocks further from the river contained higher percentages of properties in good condition, whereas several properties near Leake Avenue by the riverfront actually featured a minority of parcels in good condition.

Properties in Fair Condition
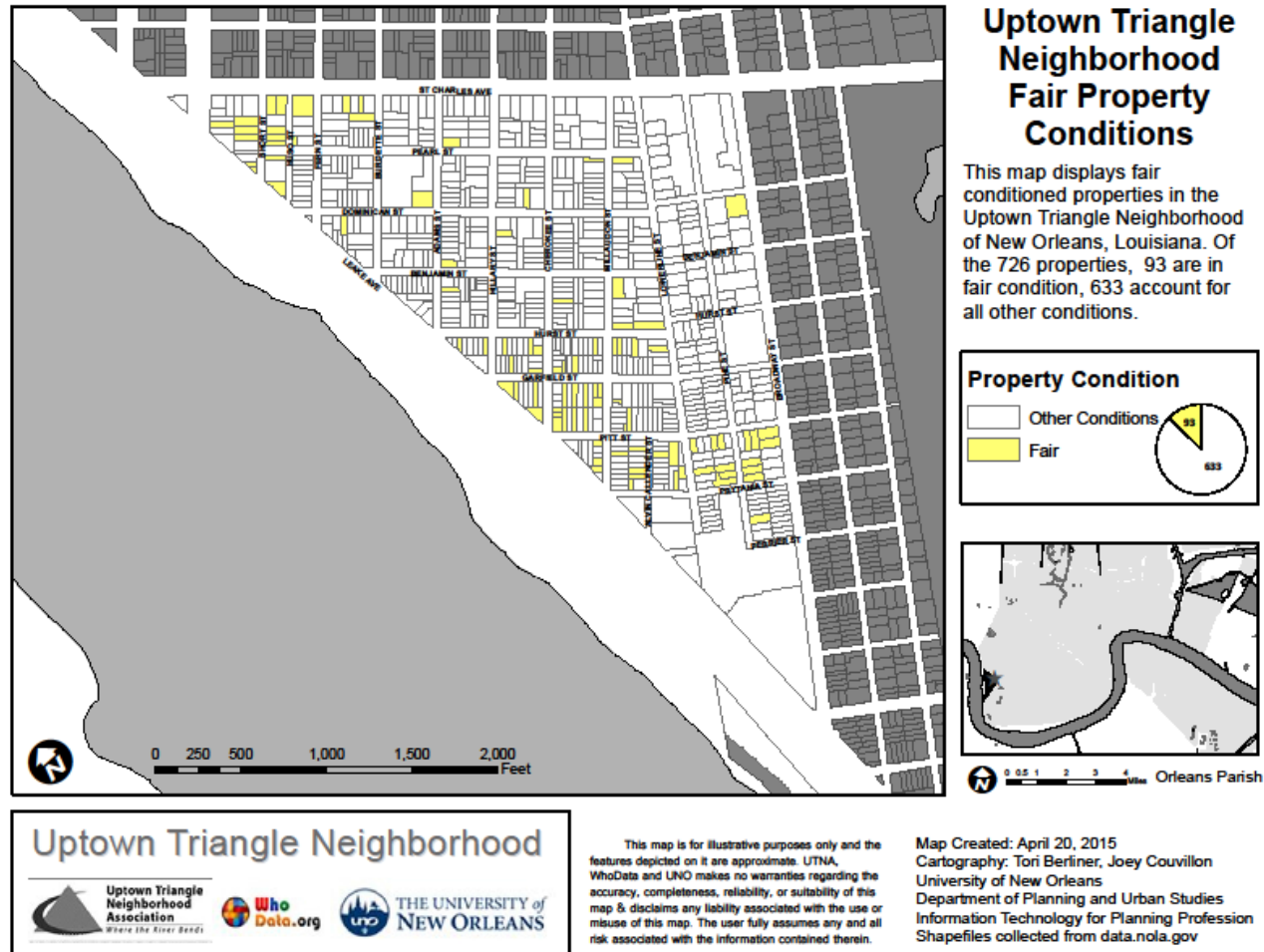
Figure 22: 2015 Uptown Triangle Neighborhood– Fair Property Conditions (Berliner/Couvillon, 2015)

Properties in Poor Condition

This map displays fair conditioned properties in the Uptown Triangle Neighborhood. Of the 726 Properties, 93 are in fair condition, 633 account for all other conditions. The properties were categorized by 1(good), 2(fair), and 3(poor). The survey found that of the 726 parcels that form the UTNA area only 19, or 2.6%, of the total properties were rated poor in condition. The parcels containing buildings rated "poor" are clustered in the center of the area near Leake Avenue with most being bound by Adams Street to the west, Dominican Street to the north, Millaudon Street on the east, and Leake Avenue to the south.

Survey Findings and Limitations

The survey found that of the 726 parcels that form the UTNA area, only 19, or 2.6%, of the total properties were rated poor in condition. The parcels containing buildings rated "poor" are clustered in the center of the area near Leake Avenue with most being bound by Adams Street to the west, Dominican Street to the north, Millaudon Street on the east, and Leake Avenue to the south. Missing or mislabeled addresses and limited visibility of certain structures limited the accuracy of survey data.

19
Properties in Poor Condition

This map depicts the locations of parcels within the Uptown Triangle Neighborhood Association's boundaries that contain buildings that were rated poor during WhoData.org's March 2015 survey of the area. This map is for illustrative purposes only and the features depicted on it are approximate. UTNA, WhoData, and UNO make no warrantees regarding the accuracy, completeness, reliability, or suitability of this map and disclaims any liability associated with the use or misuse of this map. The user fully assumes any and all risk associated with the information contained therein.

Legend
- Properties in Poor Condition
- UTNA Parcels
- City Blocks
- Parks

Uptown Triangle Neighborhood Association Properties Rated Poor in Condition

Last Updated: 27 April 2015
Created By: Reynaldo L. Johnson
Department of Urban Studies and Planning,
University of New Orleans

All data layers sourced from data.nola.gov

Figure 23: 2015 UTNA Quality of Life Survey – Poor Property Conditions (Johnson, 2015)

Building Use
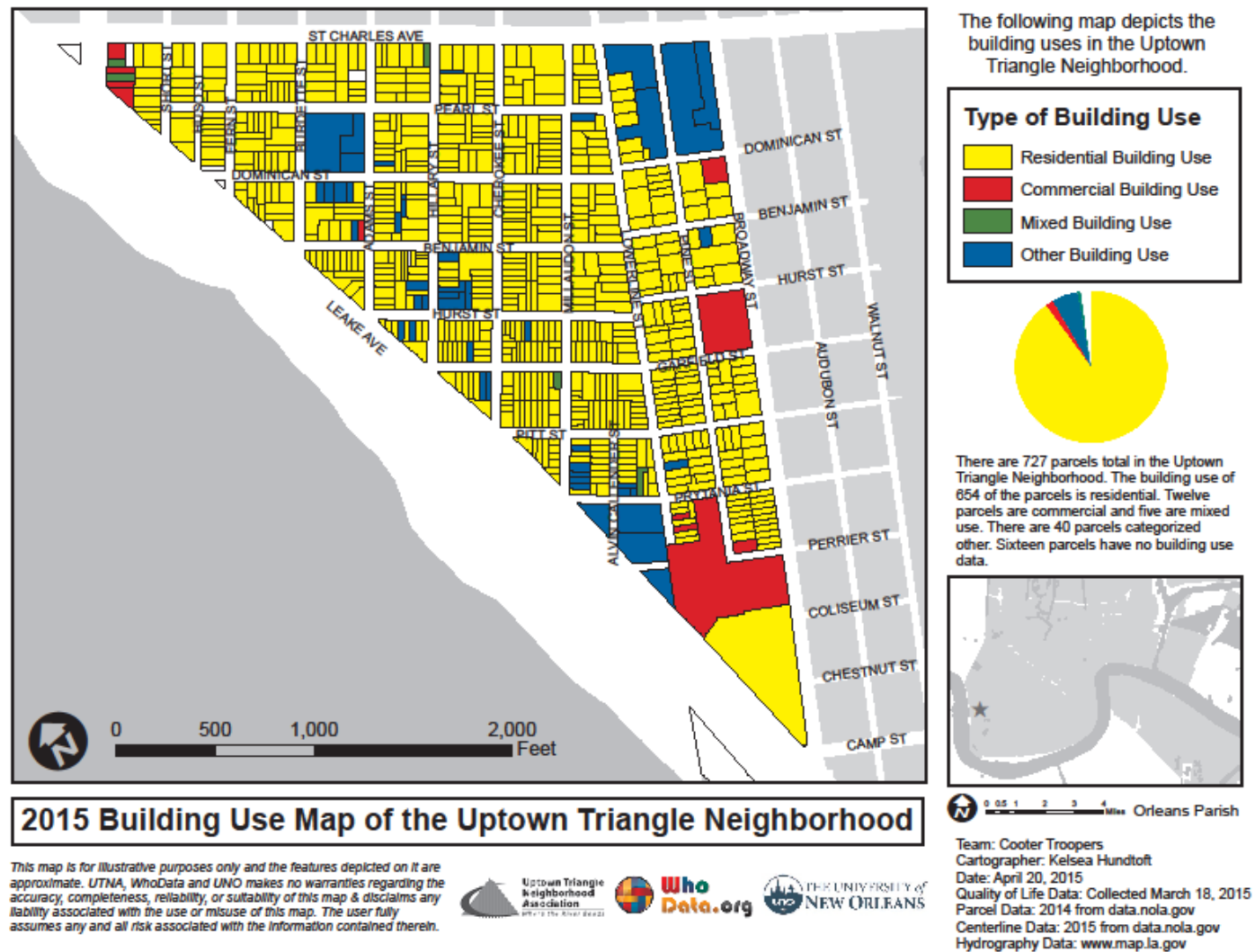
Figure 24: 2015 UTNA Quality of Life Survey – Building Use (Hundtoft, 2015)

Blight Study

There are 727 parcels total in the Uptown Triangle Neighborhood. The building use of 654 of the parcels is residential. Twelve parcels are commercial and five are mixed use. There are 40 parcels categorized other. Sixteen parcels have no building use data. The properties were categorized as Residential, Commercial, Mixed Use, and Other.
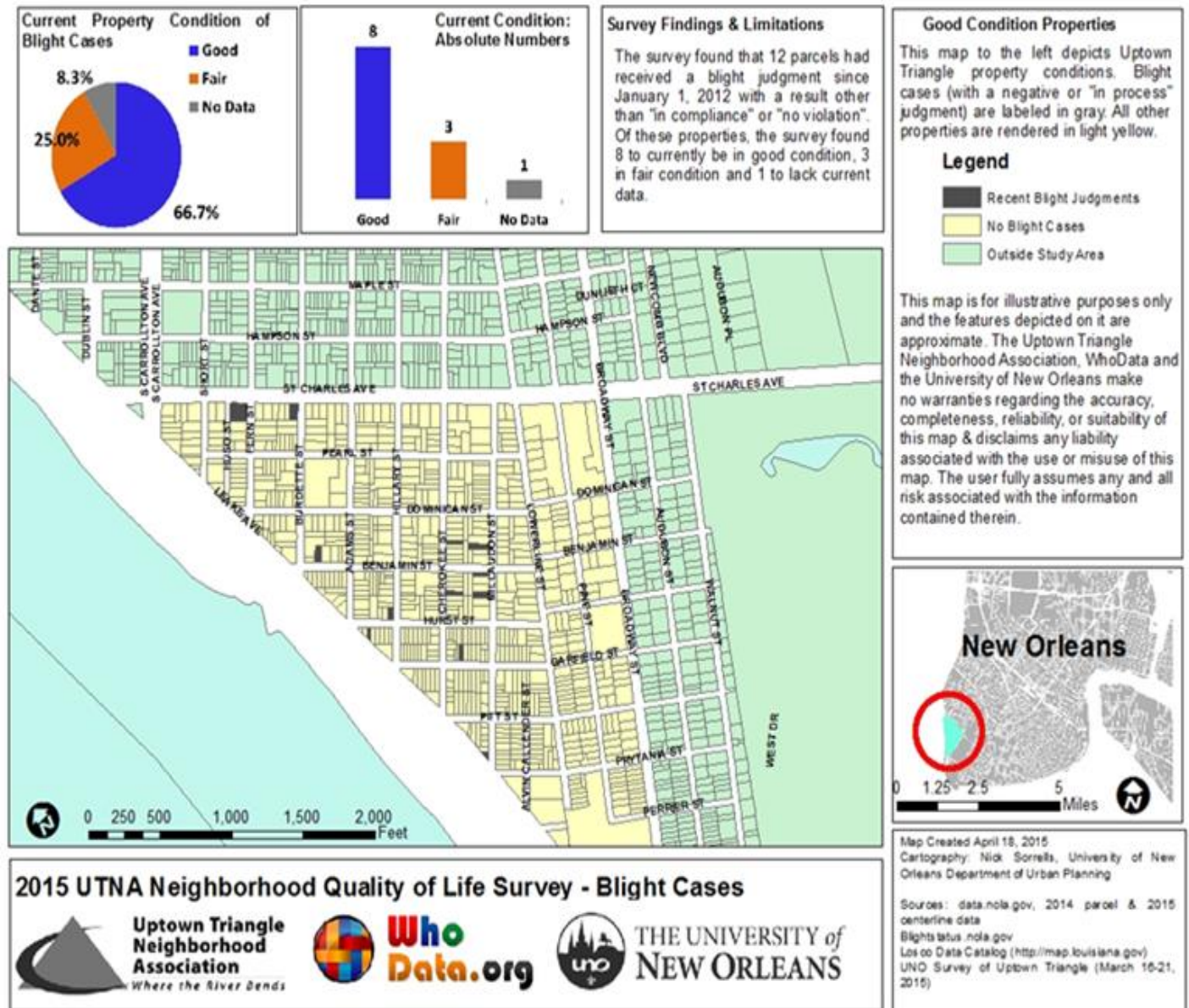
Figure 24: 2015 UTNA Quality of Life Survey – Blight Cases (Sorrells, 2015)

To find blight statistics, the team utilized Blightstatus.nola.gov. Using the sites query function, all blight cases in the Black Pearl neighborhood dating back to January 1, 2012 were searched. Those properties whose cases had not been resolved or found in compliance (e.g. "violation" or "in process") were added to a modified form of the master address list by creating a new data field. This file was joined to the Uptown Triangle layer and mapped. Of the 12 properties, 8 were found to be currently in good condition and 3 in fair condition. One property had no condition available. Not only were the building conditions generally of good quality, but none of the lots were overgrown, or showed other signs of code violations.

Based on these findings, the team has concluded that most of the blight citations involved temporary lot issues which have been resolved, rather than dilapidated conditions or severe structural damage.
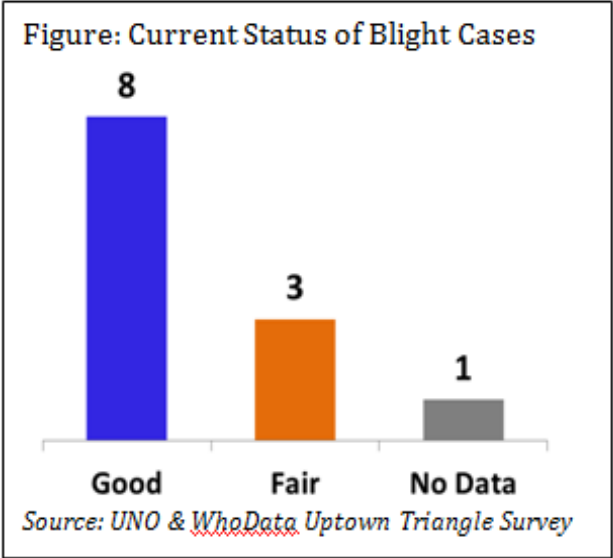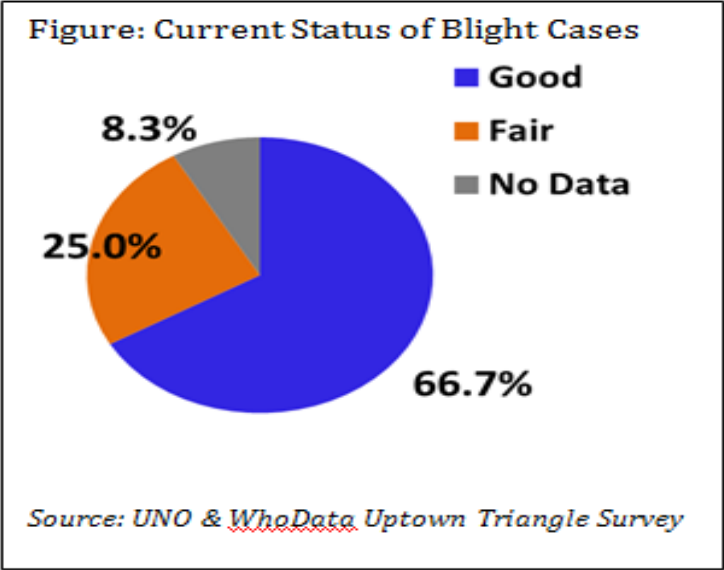
Table 9 & 10: Uptown Triangle Neighborhood Blight Cases – percentage and total number by condition

Lot Status

The survey data collected by GIS Analysts found that a solid majority of parcels in the Uptown Triangle have buildings on property. 682, or 94% of all properties were categorized as having a building on their property. 20 parcels (3%) were categorized as Empty Lots, 9 parcels (1%) were categorized as Parking Lots, 2 (0%) were categorized as Open/Recreation Fields, 1 (0%) was categorized as Other, and 13 properties (2%) had an Unknown Lot Status. The lot categorized as Other housed a community garden.
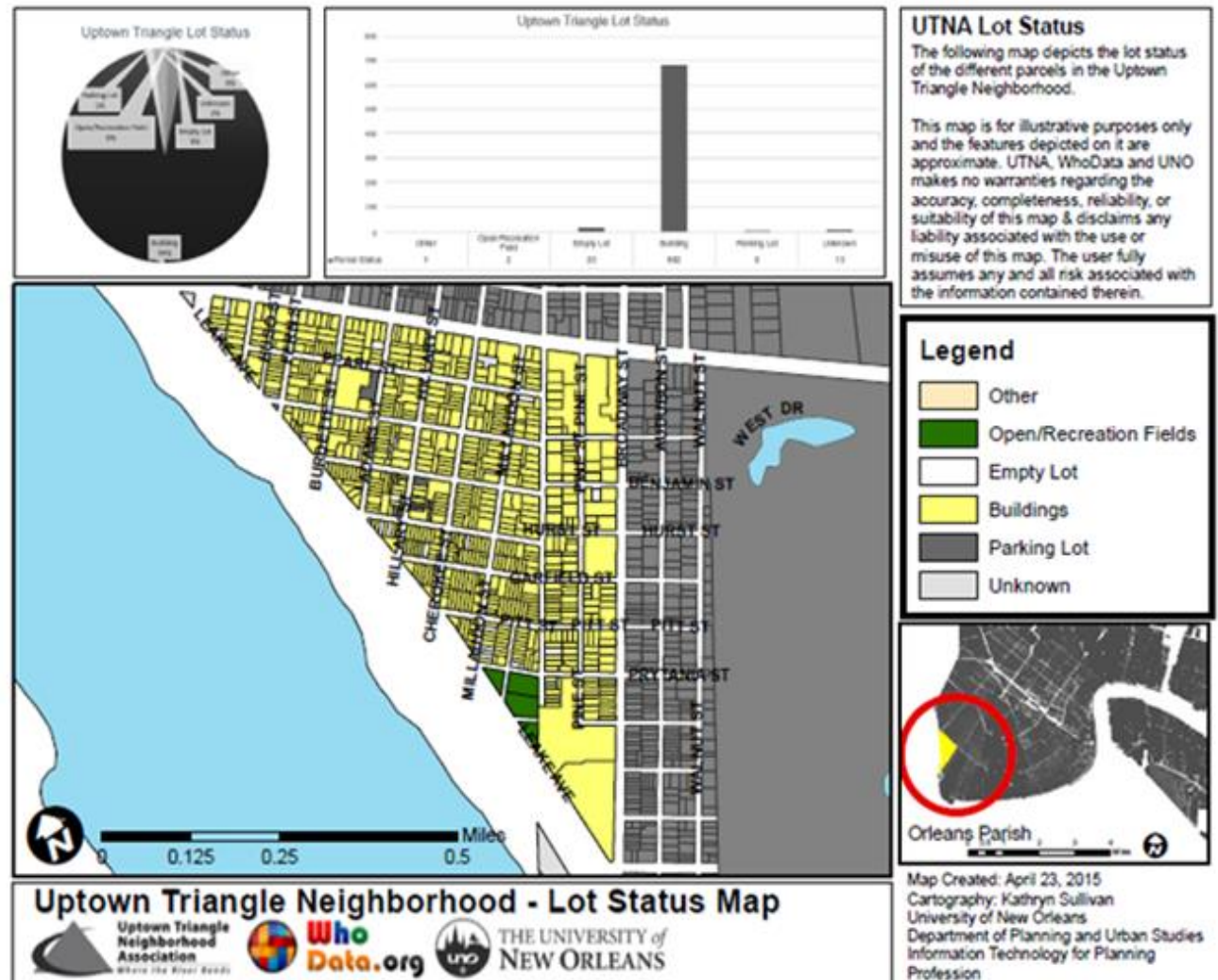
Figure 25: 2015 UTNA Quality of Life Survey – Lot Status (Sullivan, 2015)

Not Secured Properties
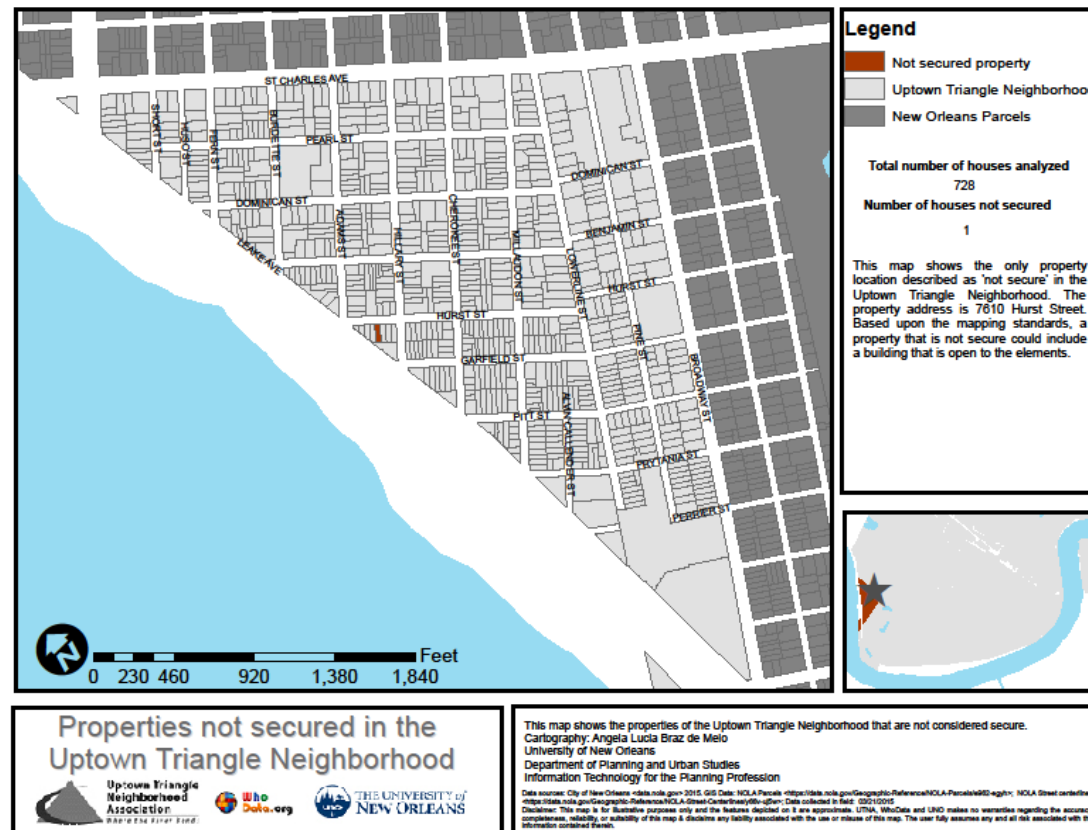
Figure 26: 2015 UTNA Quality of Life Survey – Not Secured (De Melo, 2015)

The "not secured properties" map shows the condition of the properties as secured and not secured – conditions that permit access to the interior of the properties as broken windows and doors. Of the 728 lots surveyed in Uptown Triangle neighborhood, 1 lot, or 0.13% of the total parcels surveyed, was considered not secured.

Metered Properties

This map displays all of the electrical metered properties in the Uptown Triangle Neighborhood. There are 661 properties that have meters of 726 properties in the neighborhood. 91% of the properties in the Uptown Triangle Neighborhood have electrical meters. The properties were categorized by yes or no.

The majority of the properties have visible meters and the 65 properties that do not also include
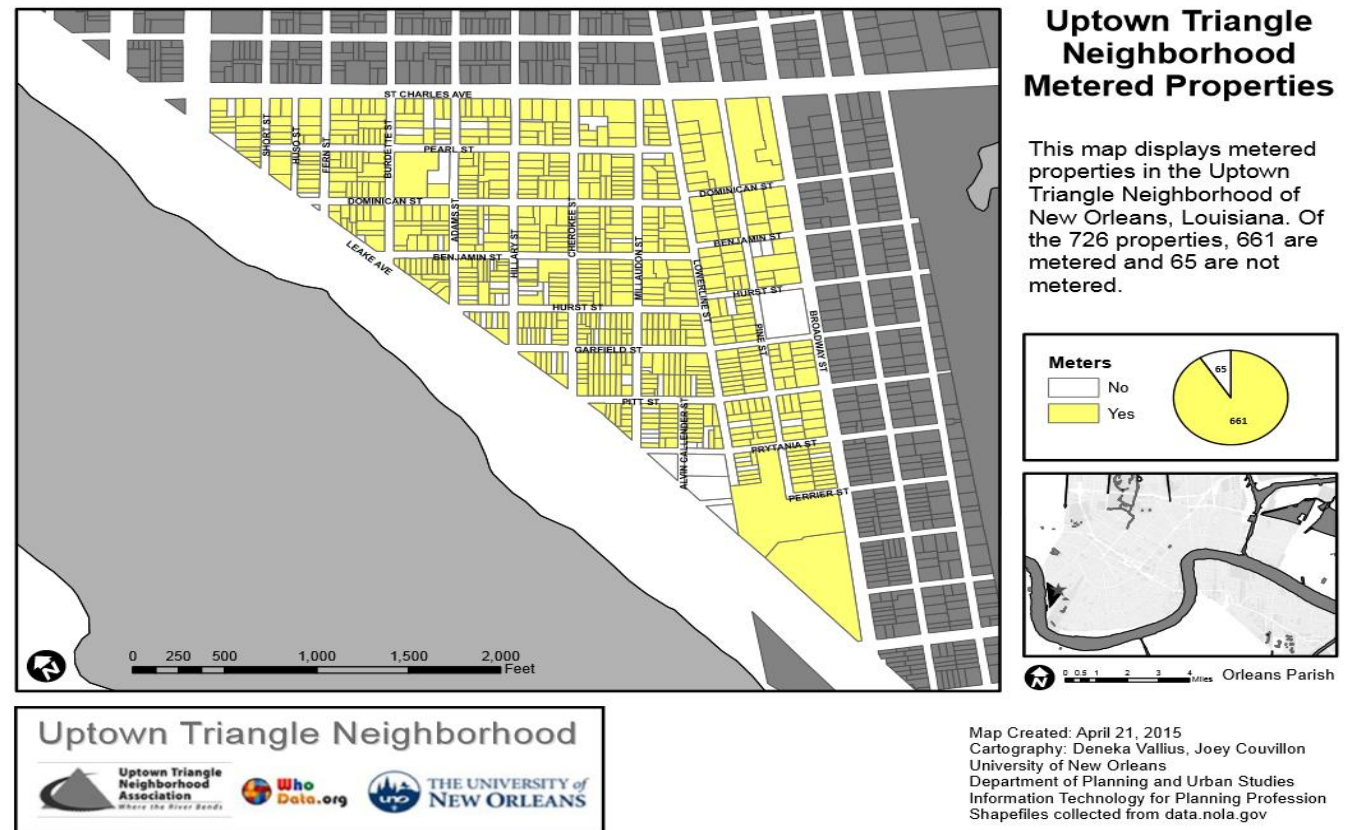
Figure 27: 2015 UTNA Quality of Life Survey – Metered Properties (Vallius/Couvillon 2015)

properties that are not visible. As shown in the map, the properties without meters are scattered throughout the neighborhood and are not condensed into one area. The properties without meters are mostly found in the area where property conditions are poor, located towards the river, with a higher representation along or near Leake Avenue. The purpose of this map is to highlight and locate the properties with and without meters throughout the Uptown Triangle Neighborhood.

Occupied Properties
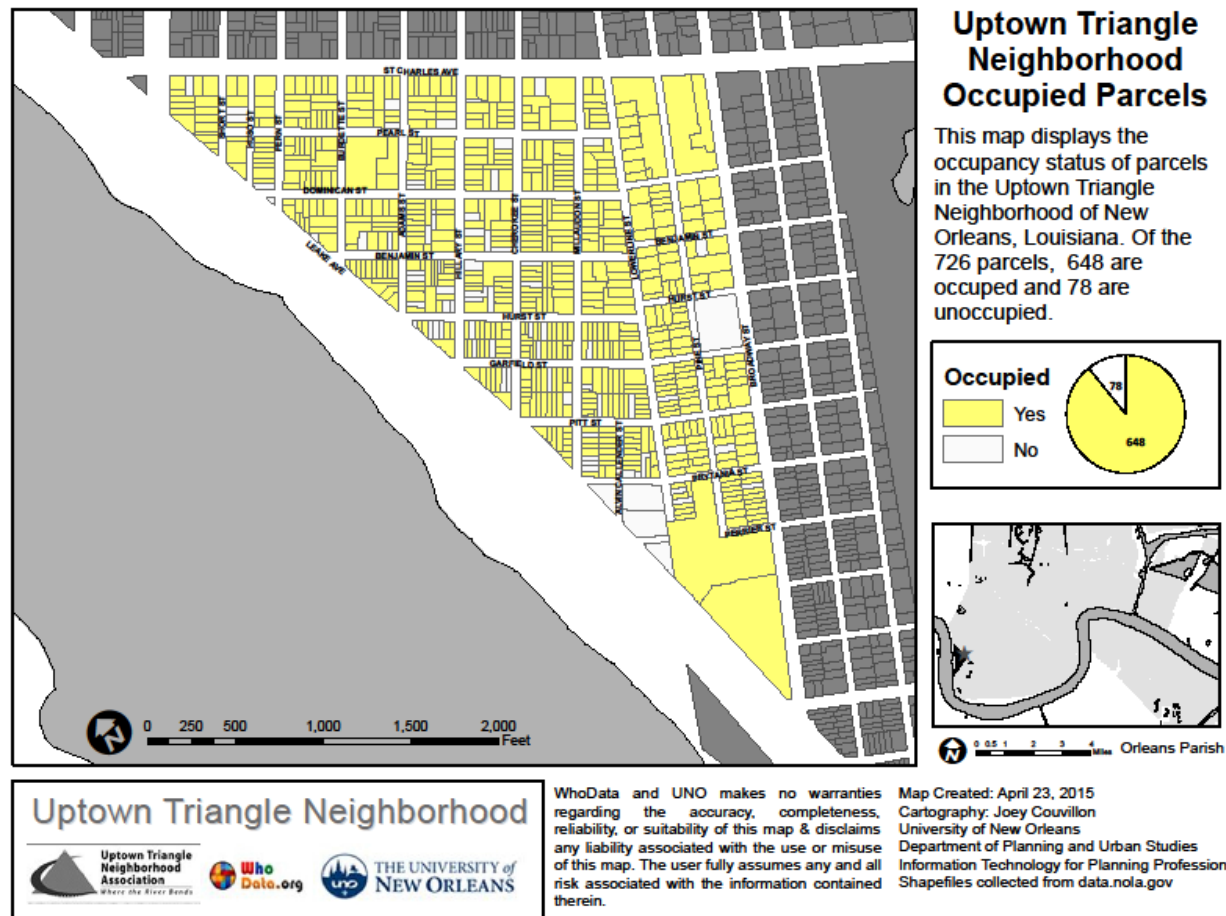
Figure 29: 2015 UTNA Quality of Life Survey – Occupied Parcels (Couvillon 2015)

The map summarizes the occupancy status of parcels in the Uptown Triangle Neighborhood. Of the 726 Parcels, 648 are occupied and 78 are unoccupied. The properties were categorized by yes or no.

Properties Under Construction
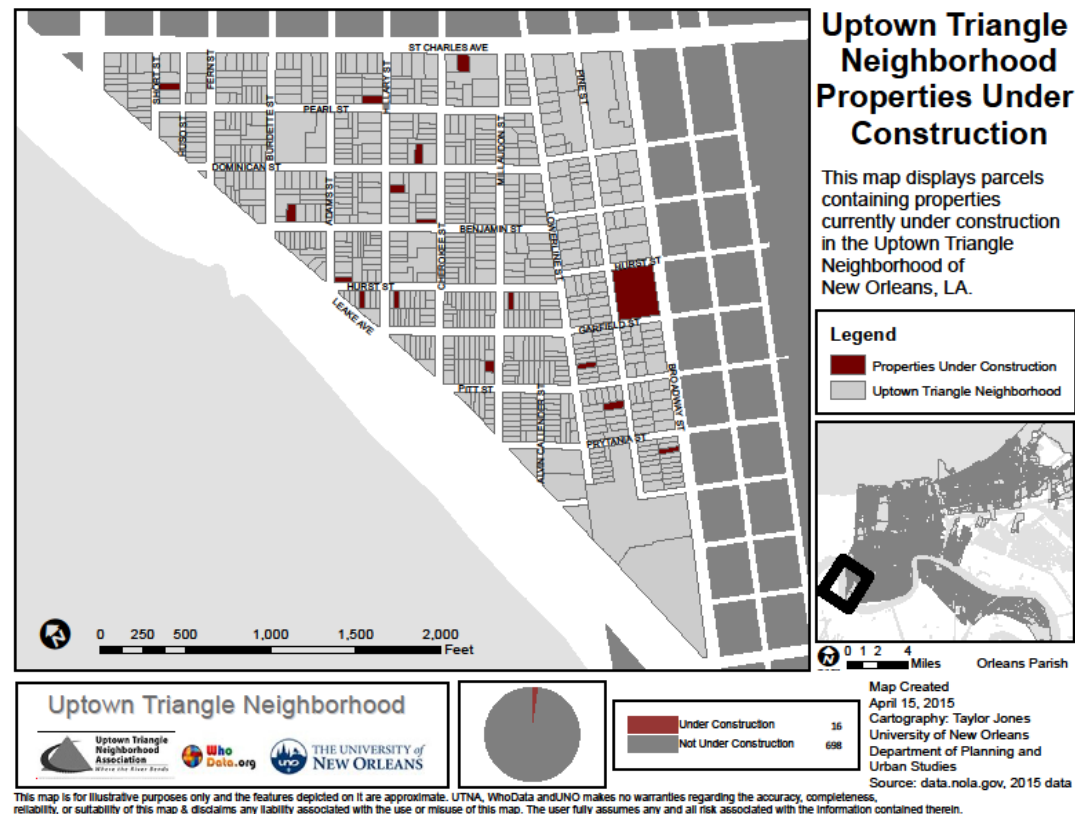
Figure 30: 2015 UTNA Quality of Life Survey –Properties Under Construction (Jones, 2015)

There were 16 properties under construction out of the entire neighborhood. They did not appear to exhibit any pattern of concentration in the distribution and were roughly evenly distributed across the neighborhood. There was only one instance where there were two properties under construction on the same block, but besides this lone block there were no instances where multiple properties were under construction on the same block. A total of 15 of the Uptown Triangle Neighborhood's 54 blocks were under construction or roughly 28%. The properties were categorized by yes or no.

Overgrown Lots

An overgrown lot is defined as a lot that has the landscaping, such as grass, shrubs or ground covers that are up to and over the average person knee length and look to not be maintained in a consistent manner (WhoData, 2010). A lack of overgrown lots can indicate pride of a neighborhood and can make improve the quality of life. Only 5% or 29 of the 727 lots were overgrown.
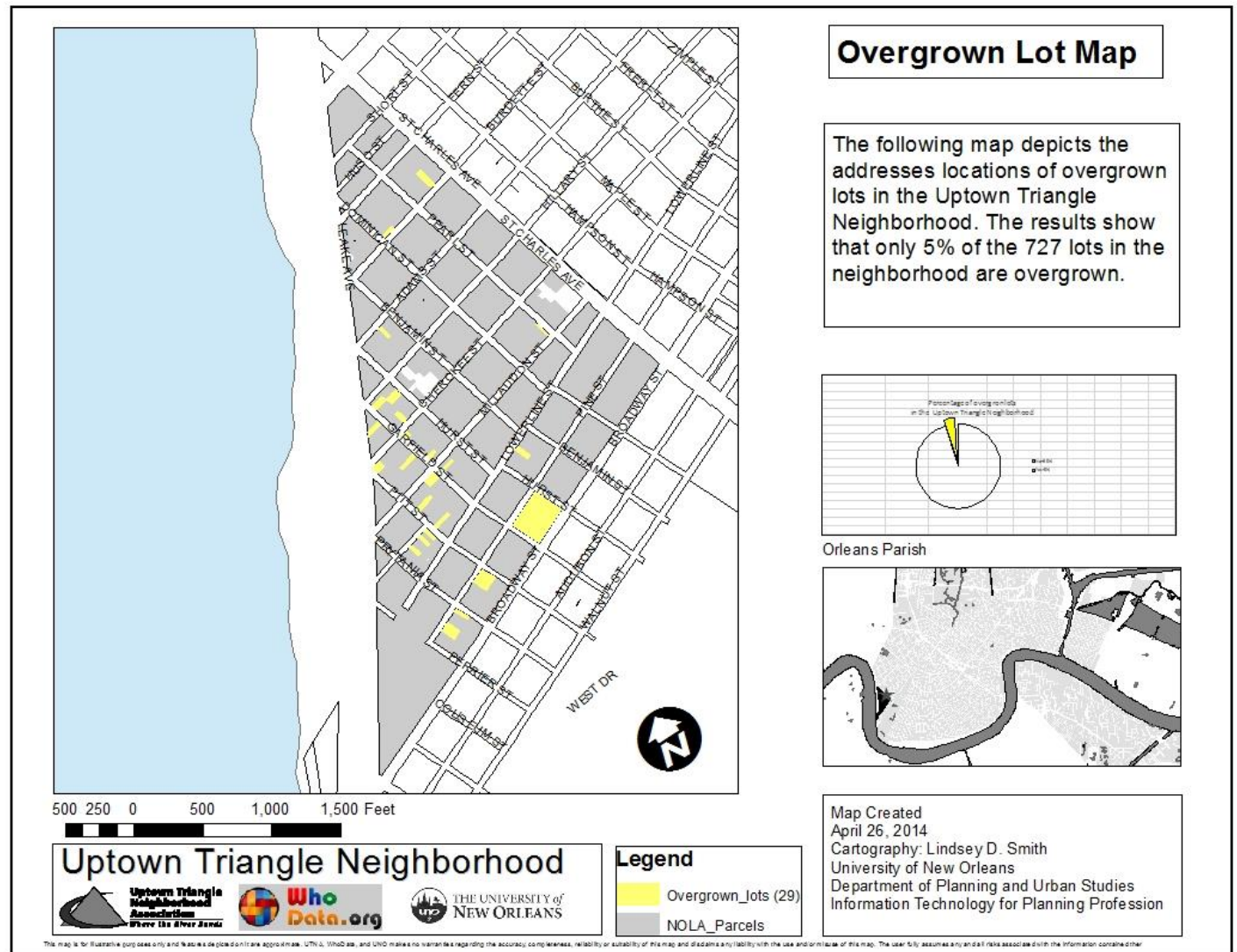
Figure 31: 2015 UTNA Quality of Life Survey – Overgrown Lots (Smith, 2015)

Pothole/Street Condition

Teams identified the location of a pothole, and made a note in the comment section of the property condition survey form. If a pothole is in the middle of the street, data collectors associate the location of the pothole to the address *closest* to the pothole. If a pothole was in a street where a dwelling is facing a different street, (where the building front is on another street & address) the collector made a note on the location of the pothole adjacent to a corner lot then associate the address to the closest parcel on the same street as the pothole. Out of the 727 parcels surveyed in the Uptown Triangle Neighborhood, 14% (100 properties) of the streets had potholes and 86% (627 properties) of the neighborhood streets were without potholes.
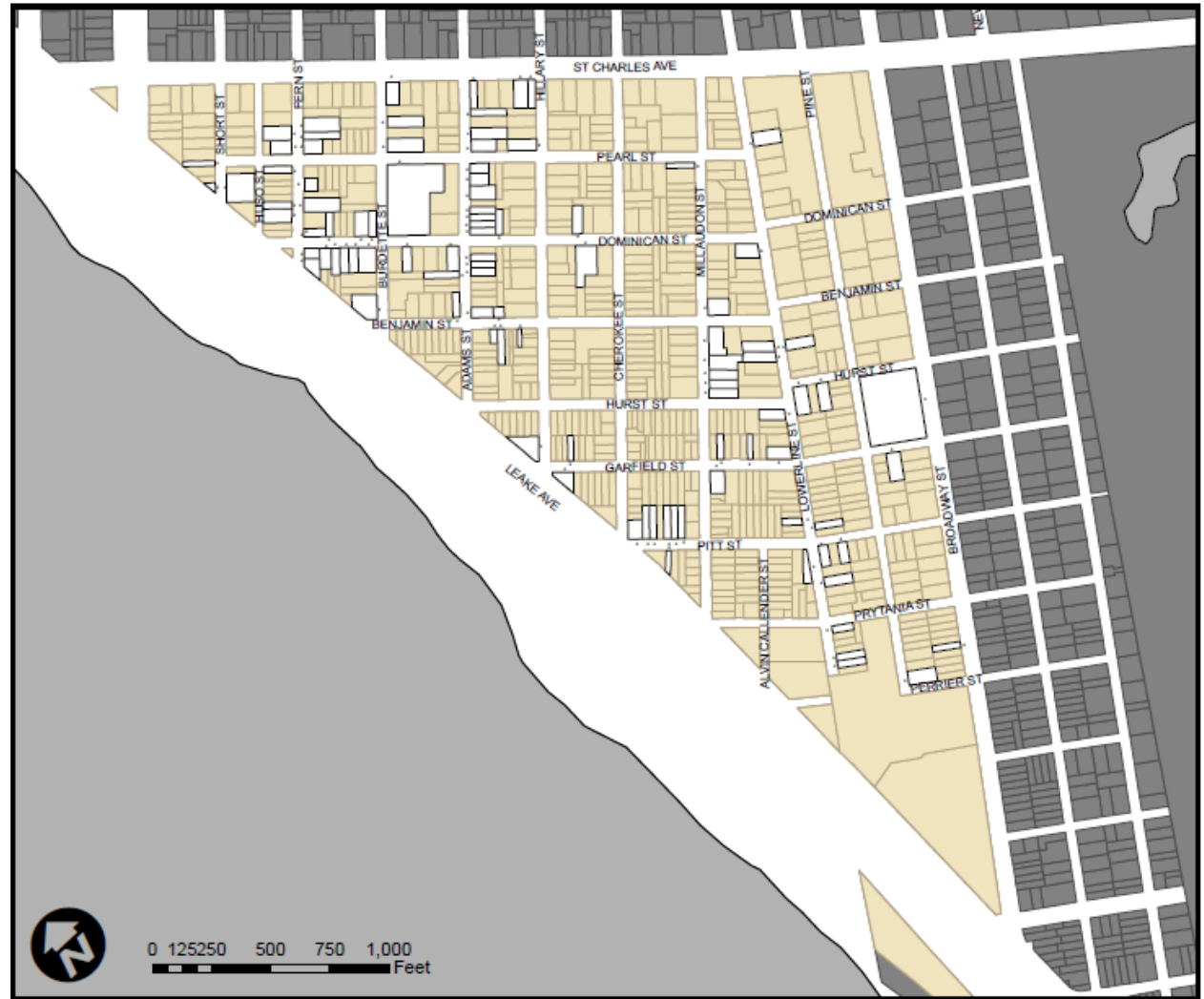
Figure 32: 2015 UTNA Quality of Life Survey – Potholes (Campbell, 2015)

Storm Drain Condition

Storm drains are specialized drainage systems which are designed to handle an excess of water as a result of flooding or heavy rainfall. It is imperative to know how water is collected and discharged from these drains considering that the New Orleans area is prone to floods. For the purposes of this study, the storm drains was classified into four categories and ratings; Open 1(water can run freely), Semi blocked 2 (has debris or mud that can easily be removed), Blocked 3(water cannot run through freely), and None (there is no storm drain). The location of a storm drain was determined by the address closest to the storm drain. Also for storm drains adjacent to corner lots the address to the closest parcel was used. In Sector 1,185 parcels were surveyed and it was observed that 68% (126) had no storm drains, 2% (3) blocked, 7% (13) semi blocked and 23% (43) open. In Sector 2 out of the 173 parcels surveyed, 83% (143) had no storm drains, 1% (2) blocked and 16% (28) open. This was the only sector that did not have semi blocked storm drains. Sector 3 had 201 parcels surveyed with 81% (162) having no storm drains, 3% (6) blocked, 4% (8) semi blocked, and 12% (25) open. In Sector 4 out of the 168 parcels surveyed, 73% (122) had no storm drains, 3% (6) blocked, 6% (10) semi blocked, and 18% (30) open.

Out of the 727 parcels surveyed in the Uptown Triangle Neighborhood, 76% (553) had no storm drains, 3% (17) were blocked, 4% (31) semi blocked and 17% (126) open. Based on the current findings on the storm drain study, the residents of the Uptown Triangle Neighborhood will be able to identify defective storm drains for neighborhood clean-up day and also notify policy makers on the need for improvement and construction of new storm drains. It is also essential to take into account that the area is flood prone and there are also a large percentage of parcels without storm drains.

Figure 33: 2015 UTNA Quality of Life Survey – Storm Drains (Fleischer-Djoleto, 2015)
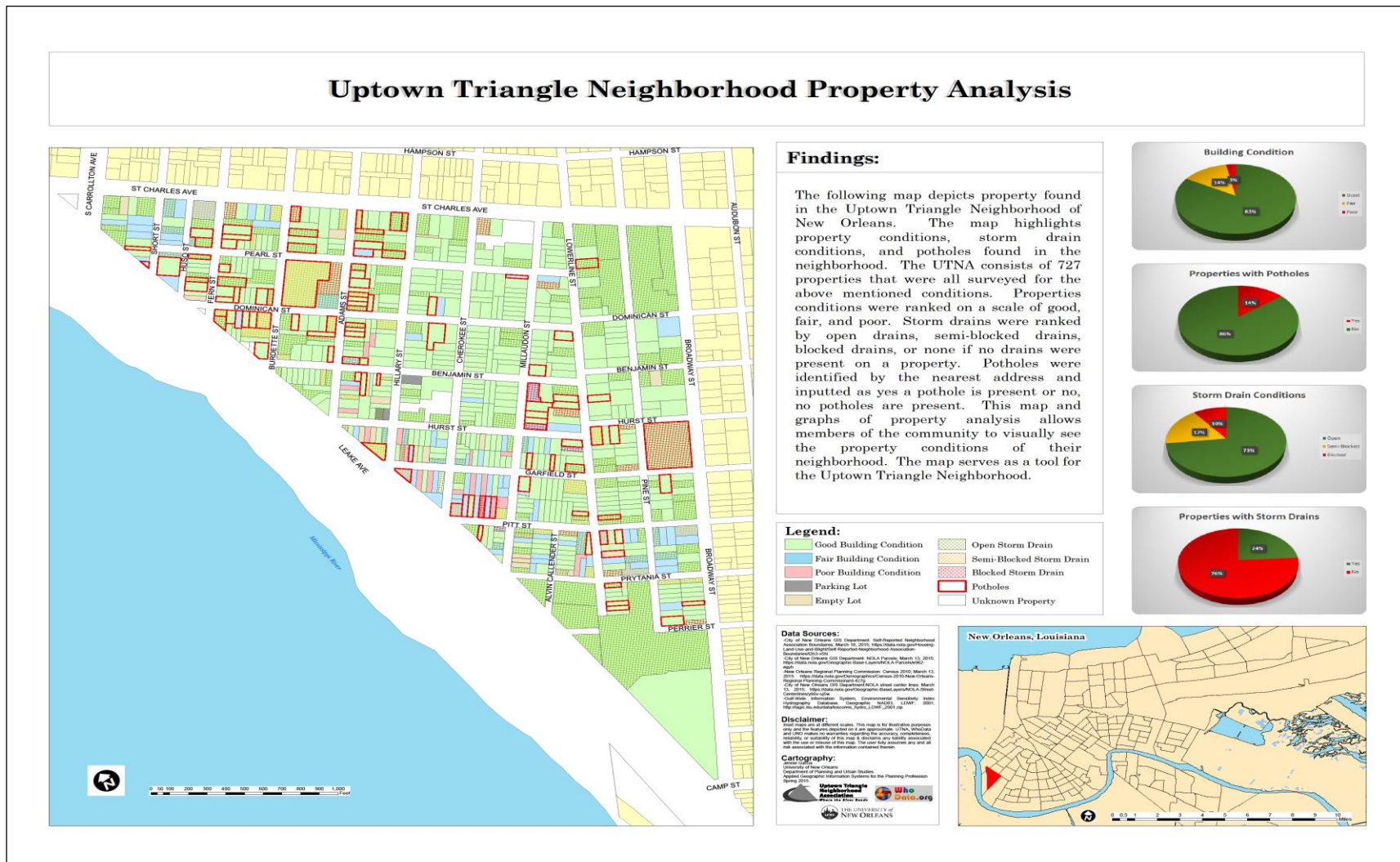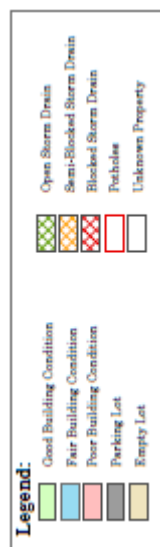
Gumbo Map

Figure 34 (above) & 35 (next page) : 2015 UTNA Quality of Life Survey – Integrated Data "Gumbo" Map (Garcia, 2015)

The above Gumbo Map depicts properties found in the Uptown Triangle Neighborhood of New Orleans. The Gumbo Map highlights conditions of properties, storm drains, and potholes. The survey area of the Uptown Triangle Neighborhood Association (UTNA) consists of 727 parcels. Property conditions were ranked on a scale of good, fair, and poor. Storm drains were ranked by open, semi-blocked, blocked, or none if no storm drains were present in the street. Potholes were identified by the nearest address and ranked as yes if present or no if a pothole was not present.

The map and graphs includes a property analysis which will allow residents to visualize quality of life concerns in the neighborhood. This is a public participation geographic information systems and service learning project in association with UNO PLUS and WhoData.org. Of the 727 parcels surveyed, 576 or 83% are said to be in good condition, 94 or 14 % are in fair condition, and 19 or 3% are in poor condition. In the UTNA, there were only 100 properties with potholes documented. This means that 14% of the neighborhood has potholes with 86% without potholes.
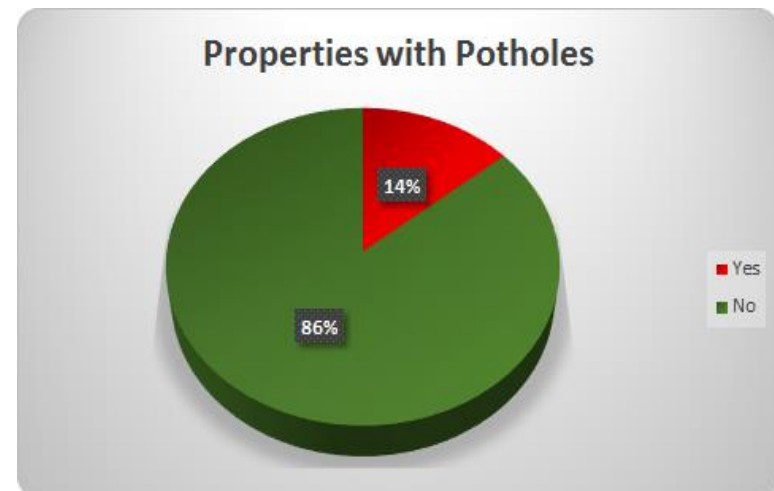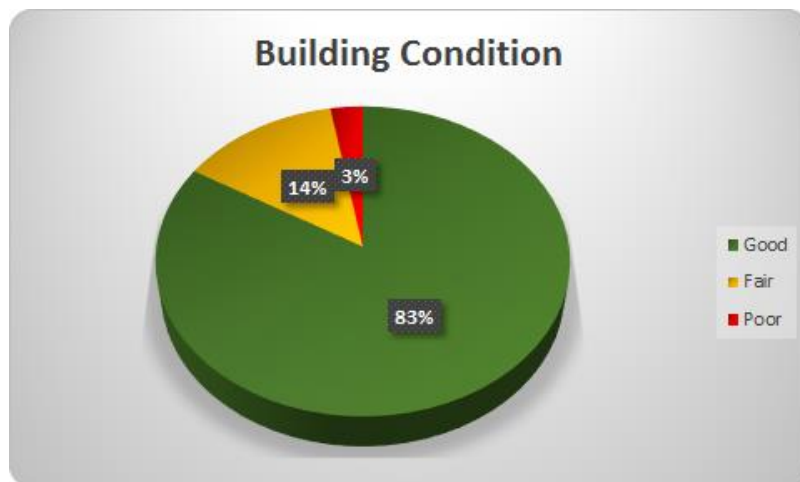
In the client contract, the client (UTNA) wanted to know the conditions of storm drains for "cleanup day" purposes. The client stressed the importance of fully operating storm drains since New Orleans is known for flooding whenever it rains. With storm drain conditions identified, it will make it easier for the UTNA to quickly clean out the storm drains. In the UTNA, there were only 173 documented storm drains. Of the 173 storm drains, 126 or 73% of storm drains are said to be open and free of any blockage, 30 or 17% are semi-blocked with minor debris blockage, and 17 or 10% are blocked making it difficult for water to pass through. While mapping and analyzing storm drain conditions, the lack of storm drains in the UTNA was identified. Only 24% of the neighborhood has storm drains leaving 76% of the neighborhood without storm drains and vulnerable to flooding. This information can alert the UTNA to possibly creating a water management plan and improve the quality of life for its residents.
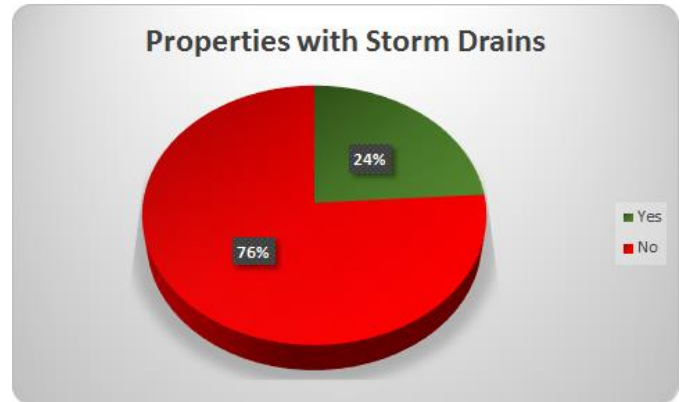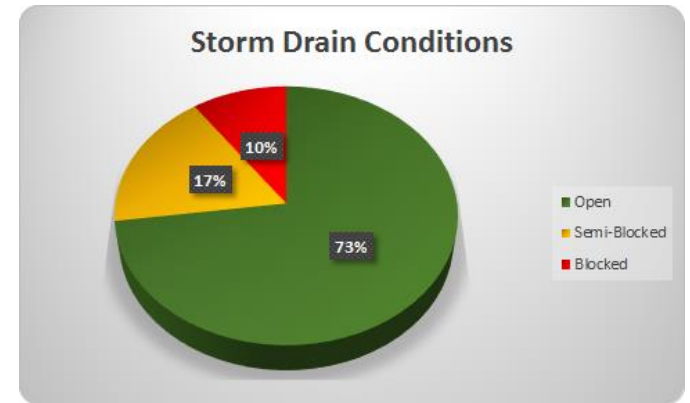
Table 9: Uptown Triangle Map Integrated Data: Gumbo – Building Conditions (Garcia, 2015)

Table 10: Uptown Triangle Map Integrated Data: Gumbo – Properties with Potholes (Garcia, 2015)

Table 11: Uptown Triangle Map Integrated Data: Gumbo – Storm Drain Conditions (Garcia, 2015)

Table 12: Uptown Triangle Map Integrated Data: Gumbo – Properties with Storm Drains (Garcia, 2015)

Who Data Map App

The information provided below is an excerpt from a report on the concept, planning, testing and deployment of the quality of life data collection application developed in MURP 4081/5081 by Johannes Schmid and Syed Islam. Schmid and Islam joined the class with advanced GIS skills and had an interest in service learning. Since these were international student exchange students with a limited opportunity to take advanced GIS classes at UNO, Dr. Thompson added a 3rd tier to the GIS course for this specialized team. The goal of this team was to explore how to develop a 'WhoData Map App' demonstration project. This students worked independently of the GAs in a parallel course then rejoined when the app was ready for beta-testing by the GAs. The app is still in beta but used by a community housing development organization in fall 2015. After this second phase of testing, the tool will be made available for use by community organizations and residents in the near future.

Public participation in the planning process is considered an effective approach by planning professionals and scholars. Ever since the revelation of the inefficiency of a "top down planning approach" (Thompson, 2014), planners have adopted a bottom up approach but the path to ensure public participation is not a rosy one. Several innate challenges of public participation can seem insurmountable. One difficult aspect of public participation is data collection. In the past, in-person interviews were the only way of collecting data. This process is still followed in countries where people do not have Internet access or limited technology. E-mailing survey questionnaires to people is also another way to collect information from community residents. People answering questions

sitting on his/her personal computer may not be able to provide accurate information regarding his/her community. Therefore, real-time data collection is an innovative way to ensure quality data and public participation.

In this era of technological innovation, distance and time dimensions have changed. In future, planners must be able to reduce the hectic job of organizing meetings with the community and conducting in-person interviews in order to improve participatory planning.

In that view, real-time data collection is one step towards that goal of achieving better quality data and stronger public participation. In recent years the Smartphone has changed the dynamics of data dispersion. This same device also can be used to collect data from a wide range of people with lot less physical effort. Smartphone applications can provide the basis of accurate data collection with community participation. The flexibility of Smartphone application is undeniable. In-person interviews can only be conducted at certain times of the day. Again collecting data through e-mailing does have the problem of accuracy. Smartphone application solves both problems by enabling the community to provide real-time data. Applications or shorter "apps" are programs on the smartphone, which helps to communicate, navigate, play, educate and more, ignoring time and space. We expect from them a more easy and fast gain of information and optimally no costs and good functionality. The app of this project shall provide all of that.

Smartphone applications are the platform that serves a specific purpose from a wide range of available activities on the internet. It is a filtered way to allow users to fulfil their demands. It is often designed to ensure convenience in searching for users. The potential of this feature is appreciable and worth exploring. This research thus will focus on creating Smartphone applications and analyze their efficacy in public participation.

Background/ Project Goal

This project mainly focus on two types of users. It is a demonstration of how the planner can use a Smartphone application to his/her advantage. Another goal of the project is to develop an app that can improve and increase community involvement. Through this

research ways to create a helpful applications for planners will be evaluated and for citizen planners, how user friendly the application will be needs testing. For this demonstration project, MURP 4081.5081 students provided the much needed feedback.

Case Study Analysis

At the beginning, it is important to understand the potential of ESRI applications. ESRI simply defines it as way to "Navigate maps, collect and report data, perform GIS analysis, and share maps with others" (ESRI, 2015). This research paper goal is to use these ESRI app to develop a platform that has ease of use and tries to ensure public participation. Outlined is a summary of apps evaluated for this project:

Planetizen annually conduct surveys to collect planners view to identify the most popular planning apps. Planetizen provides an organized way to look into various types of apps at once. Interestingly, most of these applications are map-based. That also proves that data with spatial relationship is the one that is used mostly in the field of planning.

Similar apps are for example "PollDaddy", "I Change My City" and "Seattle in Progress". PollDaddy makes it possible for planners to create and use surveys, but also polls in the field. It does not refer to the location and thus is not a map-app. The advantage of the app in this project is the spatial relation and the involvement of the residents. While PollDaddy still needs time in collecting the data, our app makes it possible for everyone to share their knowledge in an instant.

I Change My City is an app to complain about your city. If, for example, there is a pothole in the street in front of your house, you are able to post a complaint. Approximately 50% of all the complaints get resolved by the city and its planners. Although this app is a great opportunity for citizens to quickly fix deficiencies in their city and work hand in hand with responsible planners, it will not have the same results as our app. While I Change My City concentrates on bad conditions, our app shall also make it possible to map good conditions.

"Seattle in Progress" is a map-app and focuses on Seattle. It locates land use data and shares the project papers. Nevertheless, residents are just able to view this data, but not to edit it. So it is primarily for providing information to residents. The map is therefore not really necessary, but makes it more usable.

Searching explicitly for citizen mapping, map based apps used by the citizens to improve urban planning, many apps can be found, because crowdsourcing gets more and more known and proves itself. Examples of those interactive, vivid and public planning apps are "*Citizen Science Mapping*" by GeoGeo, "*Map Kibera*" and "*Jugendraum*" by PPGIS, "*SeeClickFix*", "*ImpossibleLiving*", by LocalData, "*Edifice*" and *"Chicagobuildings*" by Open City apps, OpenPlans map-apps and "*CitizenGIS*" by Chesterfield.

Local Data looks quite promising, because it has a simple and nice design, collects data which is also needed by WhoData and exports the results quickly as GeoJSON, CSV, KML SHP files. Planetizen chose Local Data app as best public participation planning app 2014. The app of this project shall be quite similar to that app, but we try to improve it with office service, other and more common export files (pdf, doc) and a broader range of editable attributes.Also Edifice looks similar to the app we want to create. However, there are no export options and the design is also better in Local Data.

There is also the question, if it might be better to modify the existing Local Data app instead of creating a new application. It would be less time intensive and corresponds the WhoData requirements. This approach would coincide with the six sigma management system, fast and efficient. Nevertheless, the authors of this application project and WhoData need a report and the experience in creating a public participation map application for planners and residents. Moreover, modifying an app for the own needs requires most likely a permit due to the copyright.

In the end, four applications were chosen which should meet our expectations:

- ArcGIS for Smartphone (ESRI)

- ArcGIS Collector (ESRI)

- GIS Cloud

- WhoDataCollector (Appmakr - Wufoo - ArcGIS)

The following table helps to decide which app is more suitable for the WhoData data collection process. *WhoDataCollector* (WDC) and GIS Cloud can use forms as well as an interactive map, whereas ArcGIS Collector and ArcGIS for Smartphone only provide maps. Whilst the ESRI products and GIS Clouds do not include all devices, either Windows or Blackberry are not supported, the self-made WDC works for every smartphone. However, only Android can use the WDC as an application, whereas iPhone, Windows and Blackberry need their browser to have access to the application. That's the reason why the check-symbols are orange and not green. Also the access of WDC is better than the access of the other apps. While GIS Cloud and the ESRI apps need an organizational account to create the form or map which is necessary for the data collection, WDC is mostly for free. However, the ArcGIS map which is included in WDC also needs an organizational account to be created. Additionally, the *Wufoo* form maker allows only 10 survey questions. More than 10 questions need an account which costs monthly. Nevertheless, 10 questions are enough in this project. For users, every application is free and only needs a free ArcGIS account (not organizational).

Criteria	Content	Applications			
		Appmakr / Wufu / ArcGIS	GIS Cloud	ArcGIS Collector	ArcGIS for Smartphone
Data Collection	Form	✓	✓	✗	✗
	Map	✓	✓	✓	✓
Device	iPhone	✓	✓	✓	✓
	Android	✓	✓	✓	✓
	Windows	✓	✗	✗	✓
	Blackberry	✓	✓	✗	✗
Access (editable)	Developer	for free (limited Form & ArcGIS org. Account)	Organizational Account	Organizational Account	Organizational Account
	User	for free	for free	ESRI Account	for free

Table 13: Web-Enabled Data Collection App Comparison Chart (Schmid/Syed, 2015)

Looking at the summarized results (table), it is obvious that the self-created application has the most advantages and thus, the application was used for Beta-Testing. The demonstration application was named the "WhoDataCollector" (or WhoData Map App), because it is made for the WhoData organization in order to facilitate its data collection process. In order to create a map based application with ArcGIS, an organizational account was required from ESRI. However, this account would be way too expensive (see figure below).

Table 14: Environmental Systems Research Institute App Subscription plan (ESRI, 2015)

To elude that circumstance of high prices, a 60-day trial account was created which has organizational powers. With this account, it is possible to upload own ArcMap data, like shapefiles and create web maps. Those maps can be published subsequently and transformed into a map-based web application. The link to this web app is inserted into the WDC app.

Our title is "WhoDataCollector", the subtitle is "Smart Public Participation" and as logo we created and uploaded a logo (right).

The application has two main parts: The *Data Collection* on top and *Additional Information* on the bottom.The Data Collection can be done using a Form or Map interface (left).
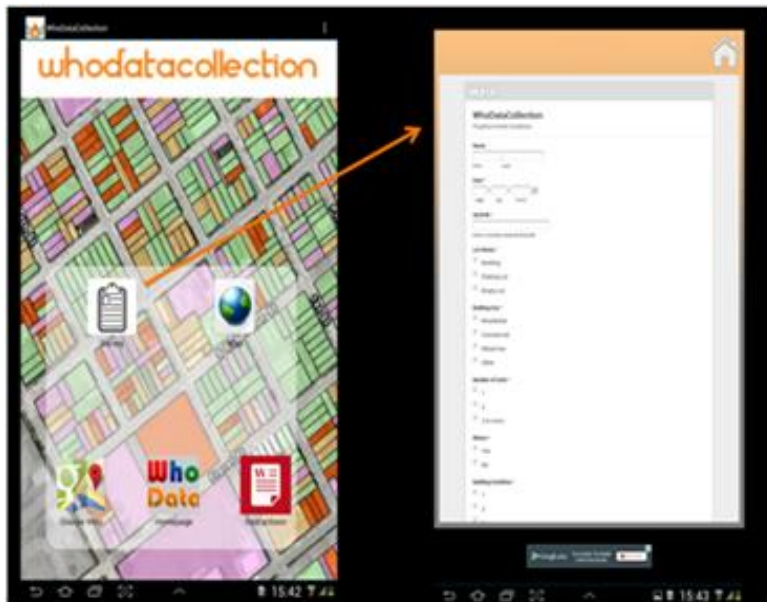
User Manual, App Testing, Application Access, Next Phase

One of the goals of this project was to create a user manual. We tested the preliminary manual with the UTN GAs and received valuable feedback. We updated the manual, created a presentation powerpoint and then modified the guide to meet the needs of novice GIS and community GIS users. One of 'ease of use' features was creating a QR-Code (right) to download the application.

The WhodataCollector will complete another beta test but with a Community Organization who is in the process of developing their next data collection survey. They will use the traditional paper surveys and have a group using the WhoData Map App. We hope to deploy the final version of the app by the end of 2015.

Final Thoughts from Dr. Michelle M. Thompson

The ability to create, deploy, test and refine a smart phone application while conducting a Public Participation Geographic Information Systems (PPGIS) was an excellent way to integrate another aspect to the introduction of GIS and community project service learning course. In order to advance the work of community-based organizations who require data-driven results, there has to be time, talent and technology available to meet those needs. While the MURP 4081/5081 Planning & Urban Studies (PLUS) GIS Analysts (GAs) were able to complete the required tasks, the ability for the community to collect, map and analyze crowdsourced data --– whether by using paper/pen or web app --- remains limited.

The spring 2015 Applied GIS course combines a PPGIS and Praxis (theory and practice combined) pedagogy that I have developed since teaching GIS in 2004 at the Department of City & Regional Planning at Cornell University. Since 2009, this UNO PLUS applied course has received the help of former and current WhoData Interns (many of whom were former students) through technical assistance and training guides. Many of the tools that were developed by WhoData were further refined in the MURP 4081/5081 course. As a result, new ways of providing service by WhoData were created, tested and refined as part of this spring 2015 service learning project. As the inaugural PPGIS and Service Learning PLUS course, we used a dynamic feedback system that helped to solidify applied GIS policy, practice and protocol.

Client service projects in a classroom environment face challenges similar to those in private practice but with more limitations on time, resources and emerging talent. Fortunately prior project management experience and flexible course plans allows the GAs to 'learn by doing.' As is the mantra for the course and WhoData….'deliver what you promise ahead of time because if it is on time…you are already late!' As summarized by many of the student reflections, the challenge most faced was not the use of the technology but communication and coordination. The skills obtained in this course will serve the future planners whether they use this knowledge in the academy or in practice. This collaboration of GIS community-university-public service has been a successful model since 2009. The Uptown Triangle Neighborhood Association (UTNA) has been provided with several phases of quality of life studies, data, maps and capacity building guides. Going forward the work provided to UTNA will serve as yet another example for how to engage citizens and aid in the progress and growth of the *new* New Orleans.

Appendix: **Sample Data Dictionary**

	Data Dictionary - Team 3					
Map Name	Map Type	Map Size	Data type	Data Source	GIS Query Results	Comments
2015 UTNA Neighborhood Quality of Life Survey – Property Conditions	Uptown Triangle with Orleans Parish as Inset Map	8.5" x 11"	**Main Map**: polygons represent various property conditions **Inset Map:** Orleans Parish Boundary	Data.nola.gov 2014,2015 GIS shapefiles (Parcels, Addresses, Centerlines, Parks). URISA 2014 Property Condition survey. Primary data collection collected by GIS Analysts March 20, 2015	Good(583) Fair(94) Poor(19) No Data (32)	None
2015 UTNA Neighborhood Quality of Life Survey – Blight Cases	Uptown Triangle with Orleans Parish as Inset Map	8.5" x 11"	**Main Map**: polygons represent different number of assessed blight cases **Inset Map:** Orleans Parish Boundary	Data.nola.gov 2014,2015 GIS shapefiles (Parcels, Addresses, Centerlines, Parks). Blightstatus.nola.gov (Assessed blight cases) Primary data collection collected by GIS Analysts March 20, 2015	Current condition of assessed blight cases: Good (8) Fair (3) No Data (1)	None
Uptown Triangle Neighborhood – Lot Status Map	Uptown Triangle with Orleans Parish as Inset Map	8.5" x 11"	**Main Map**: polygons represent different lot status **Inset Map:** Orleans Parish Boundary	Data.nola.gov 2014,2015 GIS shapefiles (Parcels, Addresses, Centerlines, Parks). Primary data collection collected by GIS Analysts March 20, 2015	Building (682) Parking Lot (9) Empty Lot (20) Open/Recreation Field (2) Other (1) Unknown (13)	Individual Map – Katy Sullivan
2015 UTNA Neighborhood Quality of Life Survey – Good Condition Properties	Uptown Triangle with Orleans Parish as Inset Map	8.5" x 11"	**Main Map**: polygons represent structures in good condition **Inset Map:** Orleans Parish Boundary	Data.nola.gov 2014,2015 GIS shapefiles (Parcels, Addresses, Centerlines, Parks). Primary data collection collected by GIS Analysts March 20, 2015	Good (583) Other (145)	Individual Map – Nick Sorrells
Uptown Triangle Neighborhood – Mahalia Jackson, the Early Years	Uptown Triangle with Orleans Parish as Inset Map	8.5" x 11"	**Main Map**: polygon represents area of historical importance **Inset Map:** Orleans Parish Boundary	Data.nola.gov 2014,2015 GIS shapefiles (Parcels, Addresses, Centerlines, Parks). Primary data collection collected by GIS Analysts March 20, 2015 Image retrieved from the National Library of Medicine	Location of Shanty Town	Individual Map – Eric Pate
Uptown Triangle Neighborhood – For Sale/For Rent Map	Uptown Triangle with Orleans Parish as Inset Map	8.5" x 11"	**Main Map**: polygons represent for sale/for rent properties **Inset Map:** Orleans Parish Boundary	Data.nola.gov 2014,2015 GIS shapefiles (Parcels, Addresses, Centerlines, Parks). Primary data collection collected by GIS Analysts March 20, 2015	For Sale (60) For Rent (70)	Individual Map – Travis Martin
Uptown Triangle Neighborhood Association Properties	Uptown Triangle with Orleans Parish as Inset Map	8.5" x 11"	**Main Map**: polygons represent properties rated in poor condition	Data.nola.gov 2014,2015 GIS shapefiles (Parcels, Addresses, Centerlines, Parks).	Poor Condition (19)	Individual Map – Reynaldo Johnson

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