Greater New Orleans Pedestrian and Bicycle Count Report, 2017

Final Report

Prepared for:

Regional Planning Commission for Jefferson, Orleans, Plaquemines,
St. Bernard, St. Charles, St. John the Baptist, St. Tammany, and Tangipahoa Parishes
and the Louisiana Department of Transportation and Development

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Greater New Orleans Pedestrian & Bicycle Program

PBRI
PEDESTRIAN BICYCLE RESOURCE INITIATIVE

UNO TRANSPORTATION INSTITUTE

RPC REGIONAL PLANNING COMMISSION FOR THE PARISHES OF LOUISIANA

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EXECUTIVE SUMMARY

Throughout the Greater New Orleans area's three-hundred-year history, visitors and residents have navigated the city by all modes of transport: on foot, by boat, by horse or carriage, by train and streetcar, by bicycle, and by bus and automobile. Over the last decade, the region has experienced renewed interest and investment in the human-powered modes of walking and bicycling, resulting in incremental investments in pedestrian infrastructure and a bikeway network that has expanded from less than 13 miles in 2005 to over 118 in August, 2017.

In recent years, parishes outside the City of New Orleans have likewise begun to plan for and invest in active transportation options for their citizens. As the region has gradually rebuilt its roadways as an integral part of the Hurricane Katrina recovery process, ADA-compliant accessibility features have become a default element of project delivery while other improvements for pedestrians (e.g. high-visibility crosswalks) are implemented in select locations. In addition, opportunities to add or improve bicycle infrastructure are now considered on most major projects. In addition, the state and region have adopted a more holistic approach to transportation planning through the adoption and implementation of state, regional, and local Complete Streets policies to codify the accommodation of a variety of existing and potential road users.

As a result of this investment in the built environment, as well as efforts by all levels of government and advocacy groups to provide education and encouragement for walking and bicycling, improve safety, and promote more sustainable and healthy modes of transport for the region, the New Orleans Metropolitan area has emerged as a regional and national leader in active transportation, with an active transportation mode share that ranks highly among peer cities in the south and/or nationally.

In order to document and evaluate gains and trends in walking and bicycling, the Pedestrian Bicycle Resource Initiative, a partnership of the Regional Planning Commission and the University of New Orleans Transportation Institute, has conducted pedestrian and bicycle counts since 2010 at a variety of locations in Orleans, Jefferson, and (beginning in 2017), St. Bernard Parishes. During this time, this annual count program has expanded from twelve locations to a total of seventy-one, plus the deployment of automated count equipment for both continuous year-round monitoring and strategic short-duration counts to collect supplemental data on roads and trails for further evaluation of trends and infrastructure impacts.

Bikeway Network has grown from 12.5 Miles to 119 Miles
(August 2005 - August 2017)

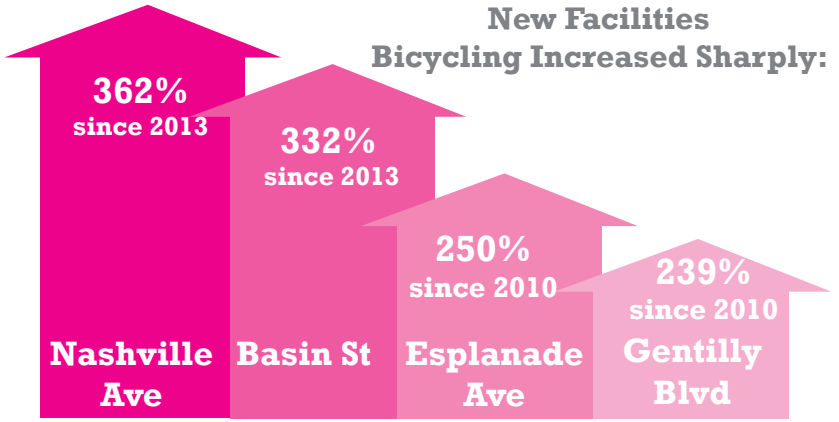
The data in this report expands on previous count studies conducted each spring from 2010 through 2015, documenting active transportation demand and its relationship to new facility development in the region. In total, 46 locations were observed during the 2017 count period, including 12 manual count locations which have been observed each year since 2010,[1] eight count sites observed from 2013-2017, thirteen locations that were initiated in 2014 and/or 2015, and sixteen new 2017 count locations. In addition, this report documents data collected from an electronic count station which has been collecting data on the Jefferson Davis Parkway Trail since May 2010, electronic count data from a count device installed on the Tammany Trace in May 2014, and data from two counters positioned at key locations along the Lafitte Greenway, a shared-use path completed in 2015 (see section 1.2 for information on site selection).

This report provides data suggesting that investments in the built environment for pedestrians and bicyclists have resulted in citywide increases in the prevalence of active transportation, particularly in areas where these investments have occurred. This report also provides benchmark data for a variety of count locations that can be used to inform investment priorities and evaluate post-intervention outcomes in safety and usage.

Overall, this report demonstrates that walking and bicycling are integral to the region's transportation network and its citizens. Although year to year volatility exists, the data suggests pronounced trends toward increasing numbers of pedestrians and/or bicyclists at many count locations, particularly those where new facilities have been installed or improved. In other locations, the presence of people walking and bicycling despite plainly inadequate infrastructure reveals latent demand and opportunities to address the needs of our most vulnerable road users.

In total, among existing count sites, the number of bicyclists observed has increased by 51% since 2010 at a sample of 12 longitudinal count locations. The most notable gains and highest observed volumes for bicycles have been on major arterial corridors that include dedicated bicycle facilities (i.e. bike lanes), including Basin Street, Esplanade Avenue, Gentilly Boulevard, and Nashville Avenue.

Following the Installation of New Facilities Bicycling Increased Sharply:



1 *No manual counts were conducted in 2016*

Among all 2017 count sites, the total number of bicyclists observed was found to be 63-74% greater at count locations with shared or dedicated bike lanes than at sites with no bicycle facility, and the proportion of bicyclists who were female, wore helmets, and who traveled legally was markedly higher at such locations. These travel behaviors and demographic trends, aligned with findings from previous study years, are useful indicators of safety and suggest opportunities for spatially targeted education efforts.

Total Bicyclists, % of Women, % Helmet Users, and % Traveling Legally: All Higher at Locations with Bike Facilities than Those Without

Changes in pedestrian activity, while highly sensitive to a variety of external factors, confirm that New Orleans is a city where walking—whether to work, for errands, to recreation, or purely as exercise—is popular and feasible in many neighborhoods and among a diverse range of demographic groups. At the 12-site core sample observed since 2010, total pedestrian activity has increased by 73%, with net gains at all but one of those locations.

PBRI has also collected continuous data via short and long-term electronic monitoring devices in several locations. On the Jefferson Davis Parkway Trail, a multi-use trail connecting several neighborhoods, this data, collected over the last seven years, demonstrate a strong and consistent upward trend in overall use of this facility at an average rate of 14% per year, as well as highly predictable data illustrating year-round use and trends in the temporal distribution of those users. On the Tammany Trace, over two years of comparable data illustrate usage patterns for a trail facility in a completely different context as a largely recreational facility which also provides a direct active transportation connection between several suburban communities in the region. Long-term continuous data collection was also initiated on the Lafitte Greenway, providing 18 months of baseline data establishing general usage patterns and volumes (an average of over 750 users per day and rising, with daily totals as high as 3,200), reflecting the critical role this new facility immediately filled as a key connection for walking and bicycling. All of these data sets are now also being used to initiate the development of regionally relevant and context-specific adjustment factors for enhanced evaluation and extrapolation of short-duration counts in the future.

This report also includes the latest updates the from US Census Bureau's national American Community Survey Data (2016 1-year estimates and 2015 5-year estimates, as data availability by level of geography permits) to show that even as active transportation investment and activity has surged in many cities, New Orleans retains its position among the top cities nationally for bicycling and as a regional leader for walking. This status is highlighted by New Orleans' selection as a People for Bikes "Big Jump" project city, a competitive program aimed at spurring transformative change awarded to only ten communities nationwide, as well as New Orleans' selection as host of the 2018 Walk/Bike/Places conference, a major international event which will bring up to 1,500 public health, placemaking, and transportation professionals and advocates to the city and put its streets and other public spaces under a spotlight.

However, in order to build upon the progress in policy and infrastructure achieved over the last decade, achieve adopted goals for increased active transportation mode share (e.g. the Climate Action for a Resilient New Orleans plan) and/or improved safety outcomes (e.g. the state's Strategic Highway Safety Plan), and ensure the success of ongoing initiatives to enhance opportunities for walking and bicycling (such as the impending launch of the City of New Orleans' bike share program), much work remains to be done. The city, region, and state must continue to address persistent

and emerging challenges for active users and institutionalize new perspectives on transportation policy and planning. Actions which future research and/or government action should address include:

- Updating the regional New Orleans Metropolitan Bicycle and Pedestrian Plan (2006), and/or continuing the development of multi-modal transportation plans at the parish level that specifically guide the implementation of complete streets policy, prioritize critical projects, holistically address right-of-way function, promote integrated regional connections, and establish open, inclusive processes to guide transportation decision-making, infrastructure design, and project evaluation.
- Developing and increasing funding of an ongoing program for the collection of multimodal counts and mode-share analysis at strategic locations across the metro area, including motor vehicles and transit users, as well as integrating the collection of multimodal data as a routine component of project development.
- Promoting and expanding use of open data platforms to facilitate in-depth statistical analysis of the impacts of pedestrian and/or bicycling engineering interventions on safety, public health, economic outcomes, and more.
- Supporting the implementation of the Jefferson Parish Bicycle Plan, the St. Bernard Parish Pedestrian and Bikeway Plan, and the St. Charles Parish Bicycle & Pedestrian Master Plan (in development), and facilitate the development of active transportation-focused plans and policies, including linkages to public transportation, in other parishes and cities within the region.
- Identifying and securing dedicated local, state, and/or federal funding for the continued development and routine maintenance of high-quality active transportation infrastructure, education, enforcement, encouragement, and evaluation projects and programs.
- Developing holistic, safety and equity-focused evaluation tools with which to assess existing conditions in regional active transportation networks, identify needs, influence project prioritization, and measure progress toward goals and objectives identified in planning processes and documents.

In summary, the data collected by the Pedestrian Bicycle Resource Initiative in partnership with the Regional Planning Commission's Pedestrian and Bicycle Program demonstrates that the New Orleans region has made significant progress toward becoming a community where people of all backgrounds in neighborhoods throughout the region walk and bike regularly, and that the presence and quality of infrastructure influences the volume, characteristics, and behaviors of users.

The investments and policies made over the last decade appear to have encouraged and facilitated increased active transportation use in many communities, and interest in bicycling and walking has expanded throughout the region. However, these investments have not necessarily been evenly distributed, nor the potential benefits equitably accrued. Challenges remain in planning, funding, implementing an integrated regional network of low-stress bikeways and safe, seamless spaces for walking and accessing transit, particularly to forge connections across physical and political barriers.

The region must harness its existing momentum and progress and commit to improving active transportation safety, connectivity, and access in order to advance toward becoming a leader in growing healthy, sustainable, economically competitive communities for all.

1.0 INTRODUCTION

Initiated in 2010, the Pedestrian and Bicycle Resource Initiative (PBRI) is a joint partnership of the New Orleans Regional Planning Commission and the University of New Orleans Transportation Institute, supported by the Louisiana Department of Transportation and Development. Over the last eight years, PBRI has overseen a pedestrian and bicycle count program aimed at gauging active transportation use around the New Orleans area. During this time, the program has grown to include a total of seventy-one manual count locations, and several count locations using both permanent and portable electronic monitoring equipment for continuous year-round monitoring and the strategic deployment of temporary electronic counters to collect supplemental data on roads and trails for further evaluation of trends and infrastructure impacts.

The goals of the count program are:

1. To evaluate the impact of recent and planned investments in pedestrian and/or bicycle infrastructure on active transportation trends in the region over time

2. To provide baseline and post-intervention benchmarks by which to evaluate progress toward achieving higher rates of walking and bicycling in our communities

3. To provide insight into user demographics and behaviors that may impact safety outcomes, public policy, and/or educational campaigns in the region.

The 2017 count study findings support and expand previous years' data, providing a substantial database for evaluating longitudinal trends and supporting continued analysis of infrastructure investments and policy implementation in the region. This report documents the results of the 2017 count program, including 46 manual and four electronic count locations in the New Orleans metropolitan region, and summarizes findings and trends from the last 8 years of this program.[2] As in previous reports, this document also makes recommendations for future research and analysis that will allow the New Orleans region to effectively prioritize its efforts to complete its streets and expand and improve its active transportation infrastructure.

2 *Manual counts were suspended in 2016, although long-term monitoring was continued at two locations and initiated at two additional sites.*

1.1 Growth of New Orleans' Bicycle Facility Network, 2005-2017

Since Hurricane Katrina in 2005, the City of New Orleans' bicycle infrastructure network has grown from about 12.5 miles to approximately 119 miles as of August 2017 (Figure 1) as the city has taken advantage of opportunities to better accommodate all users while rebuilding its roadways. The range of bicycle facility types implemented has also expanded, including exclusive bike lanes (44.8 miles), shared lanes (45.75 miles), mixed shared and dedicated lanes (4.2 miles), bike boulevards (.8 miles) and off-street shared-use paths or levee-top trails (21.3 miles) as of August 2017. In addition, since the last iteration of this report, the City has begun to develop physically protected on-street bikeways (2 miles), representing advancement in innovative and high-quality infrastructure and reflecting national research indicating the significant safety benefits of such facilities for both bicyclists and pedestrians.[3]

In addition, bicycle infrastructure enhancements have begun to spread throughout the region. In jefferson Parish, there are currently 53 miles of bikeways, with 29 miles of new bicycle facilities funded and in development in accordance with the Jefferson Parish Bicycle Master Plan.[4] Similarly, St. Bernard Parish has recently completed an updated Bicycle and Pedestrian plan[5] and has developed its first on-street dedicated bikeways, with plans to enhance transportation networks for active users in years to come. Figures 2 through 5 illustrate the network's growth over time.

3 *Monsere, C., Dill, J., McNeil, N., Clifton, K., Foster, N., Goddard, T., Berkow,M., Gilpin, J., Voros, K., van Hengel, D., and Parks, J. (2014). Lessons from the Green Lanes: Evaluating Protected Bike Lanes in the U.S. National Institute for Transportation and Communities. RR-583.* http://ppms.trec.pdx.edu/media/project_files/NITC-RR-583_ProtectedLanes_FinalReport.pdf *; NYC DOT (2013), Making Safer Streets.* http://www.nyc.gov/html/dot/downloads/pdf/dot-making-safer-streets.pdf

4 *GCR, Inc., Alta Planning + Design, Villavaso & Associates, Dana Brown and Associates, Jemison & Partners (2013). Jefferson Parish Bicycle Master Plan.* http://www.jeffparish.net/modules/showdocument.aspx?documentid=11505

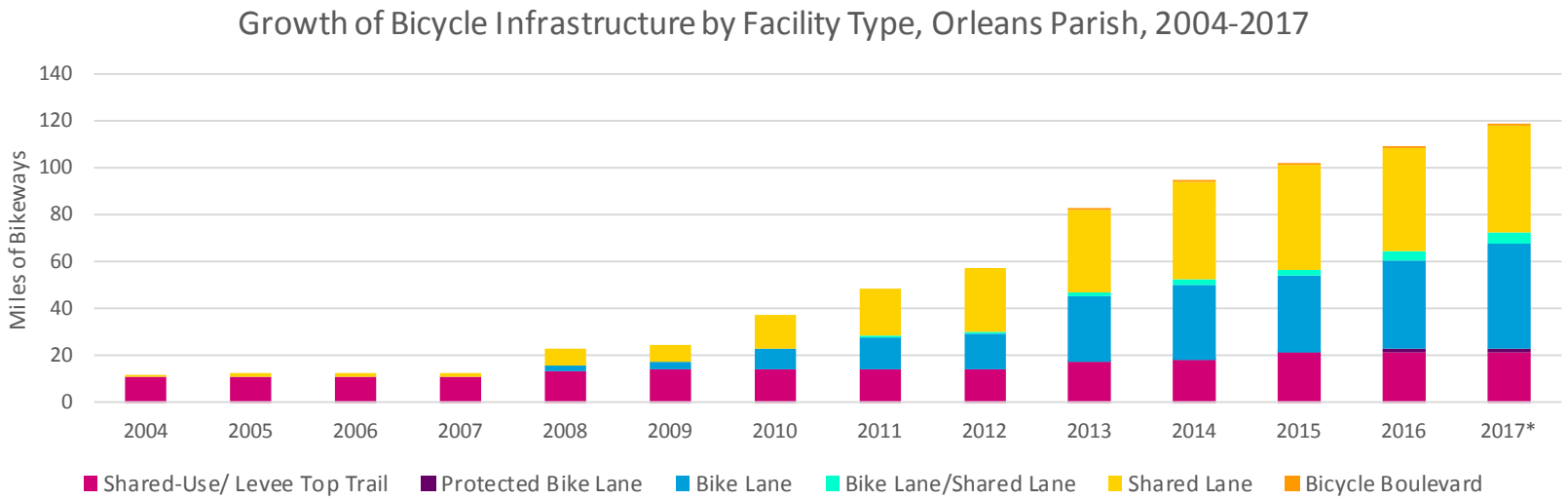
5 *To be fully adopted into the January 2018 Comprehensive Plan update*

This expansion of the bicycle network (and in many cases, concurrent enhancement to pedestrian facilities) has provided an opportunity to monitor the impact of these investments on both overall active transportation activity as well as specific sites where new facilities have been installed. Approximately 21 miles of new bicycle facilities were installed in the Orleans Parish between the production of the last PBRI Count Report in 2015 (for which mileage was reported through August) and August 2017 (Figure 1), including a protected bike lane on Berhman Highway, dedicated bike lanes on portions of Jackson Avenue, Napoleon Avenue, Tulane Avenue, Desaix Boulevard, Banks Street, LB Landry Avenue, St. Bernard Avenue, Lake Forest Boulevard, and the inbound side of Rampart Street, as well as the Fall 2015 completion of the Lafitte Greenway, a shared-use trail connecting several New Orleans neighborhoods from the French Quarter to Mid-City. In addition, on-street bikeways were completed in St. Bernard Parish on Colonial Boulevard, Hannan Boulevard, and Palmisano Boulevard.

The 2017 count study included continued post-intervention counts at several locations where new infrastructure was previously installed, new count locations where future interventions are planned or have been proposed, and sites which expand the general scope of the count program by providing data in neighborhoods where a need for additional data has been identified, particularly including new locations in Jefferson Parish, St. Bernard Parish, and New Orleans East.

With up to seven years of data for some sites, longitudinal trends in usage and behavior may become clearer and better substantiated, and, in some cases, complicated by new factors impacting active transportation observations. It is important to continue to periodically collect data from new and existing count locations in order to evaluate demand, the impacts of new facility installation, shifts in user demographics or behaviors, as well as, potentially, route choice.

Figure 1: Growth of Bicycle Infrastructure by Facility Type, Orleans Parish, 2004-2017



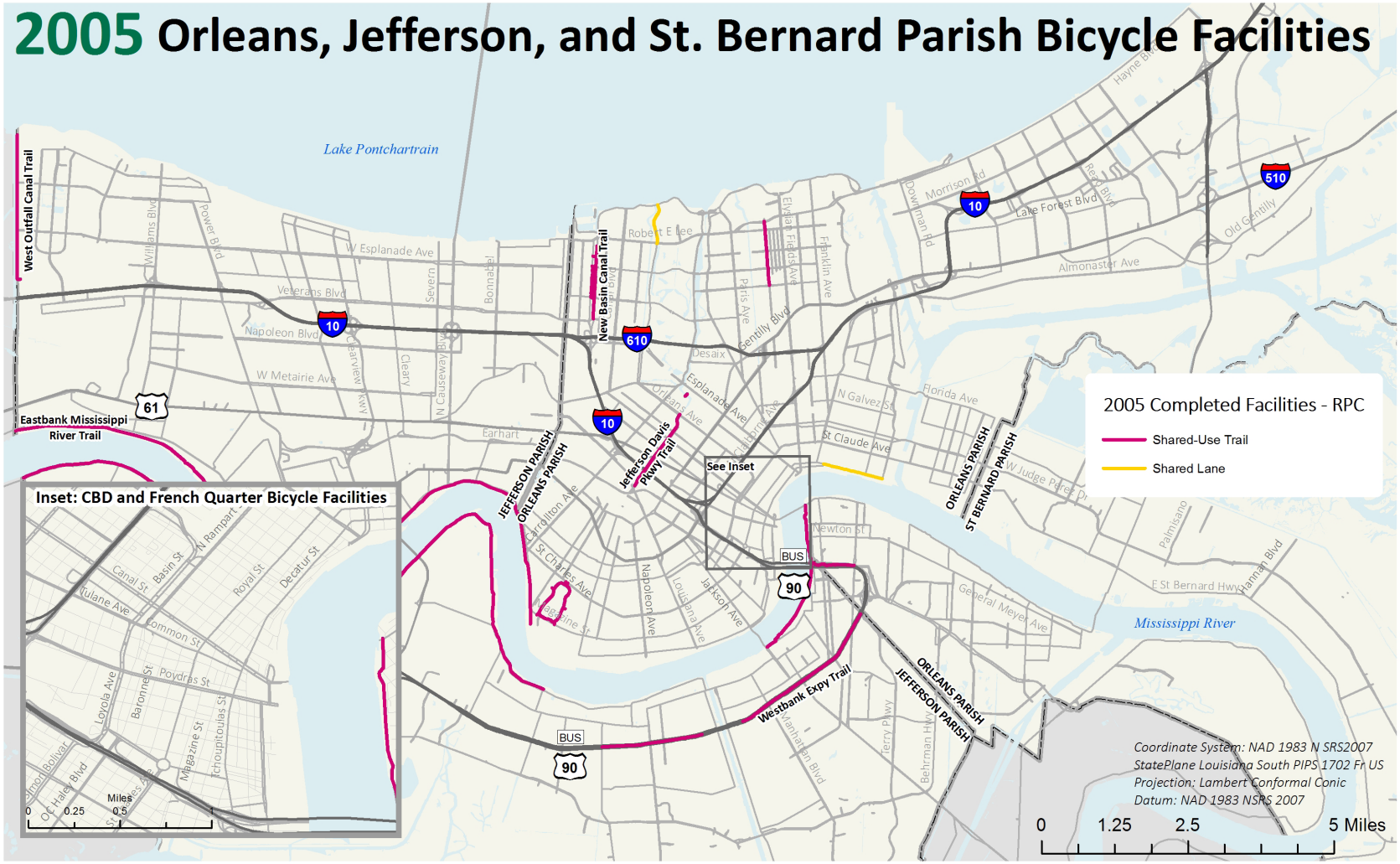
As of August, 2017

As a count program matures, methods should be refined in light of new guidance on best practices, and specific count locations may shift from year to year. For example, where capacity for manual counts is constrained by budget, human resources, or environmental conditions, it may be appropriate to conduct counts at some locations biennially, to expand the data collection period (e.g. both a fall and spring count), and/or invest additional resources in automated data collection. However, institutionalization of a consistent, ongoing count program, including both expanding and inclusive short duration (manual and automated) and continuous (automated) counts remains the most effective way to monitor long-term change while supporting effective short-term planning, decision-making, and evaluation efforts.

Notably, state-level support for non-motorized data collection is increasing as the state seeks to fully implement and evaluate its own Complete Streets policy. A research effort is currently underway (LTRC Research Project 16-4SA Pedestrians and Bicyclists Count: Developing a Statewide Multimodal Count Program) which seeks to build upon the New Orleans Region's investments in active transportation monitoring and develop guidelines for expanding such efforts across the state. In particular, institutionalization of routine, automated non-motorized data collection will significantly expand our ability to understand and extrapolate short-term manual counts by permitting the development of regionally specific adjustment factors and, therefore, greatly improving the accuracy of average daily traffic and mode share estimates.

As observed in previous iterations of this report, it is also important that the New Orleans region collect and utilize multi-modal transportation data as an input informing project prioritization and investment decisions so that new facilities may have maximum impact on the safety of vulnerable road users and support goals for developing sustainable, equitable, economically vibrant communities.

Figure 2: Orleans, Jefferson, and St. Bernard Parish Bicycle Facilities, 2005



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Map prepared September 2017 Pedestrian Bicycle Resource Initiative, New Orleans 2017 Pedestrian and Bicycle Count Report www.pbriLA.org

Data Sources: Basemap Created using 2016 TIGER/Line shapefiles for Orleans, Jefferson, and St. Bernard parish roads and water features. Manual and electronic count locations by University of New Orleans, 2017. Orleans Parish On-Street Bike Routes, Orleans Parish Shared Use Trail Network, Jefferson Parish On-Street Bike Routes, Jefferson Parish Shared Use Trail Network, St. Bernard Parish On-Street Bike Routes, and St. Bernard Parish Shared Use Trail Network shapefiles by RPC, 2017. Any use of the data must be accompanied with this citation and accompanying seals and logos.

Figure 3: Orleans, Jefferson, and St. Bernard Parish Bicycle Facilities, 2010

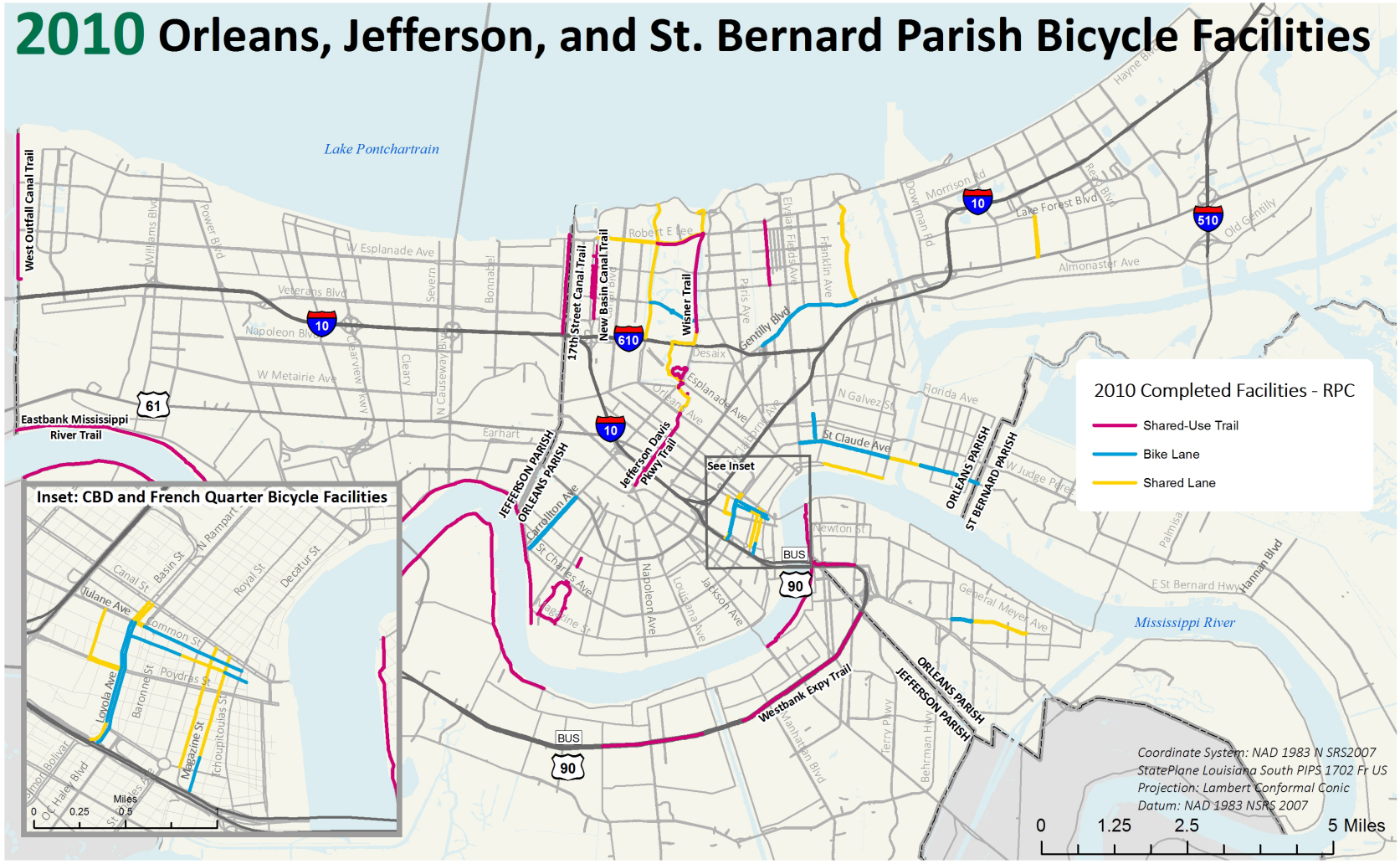

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Figure 4: Orleans, Jefferson, and St. Bernard Parish Bicycle Facilities, 2015

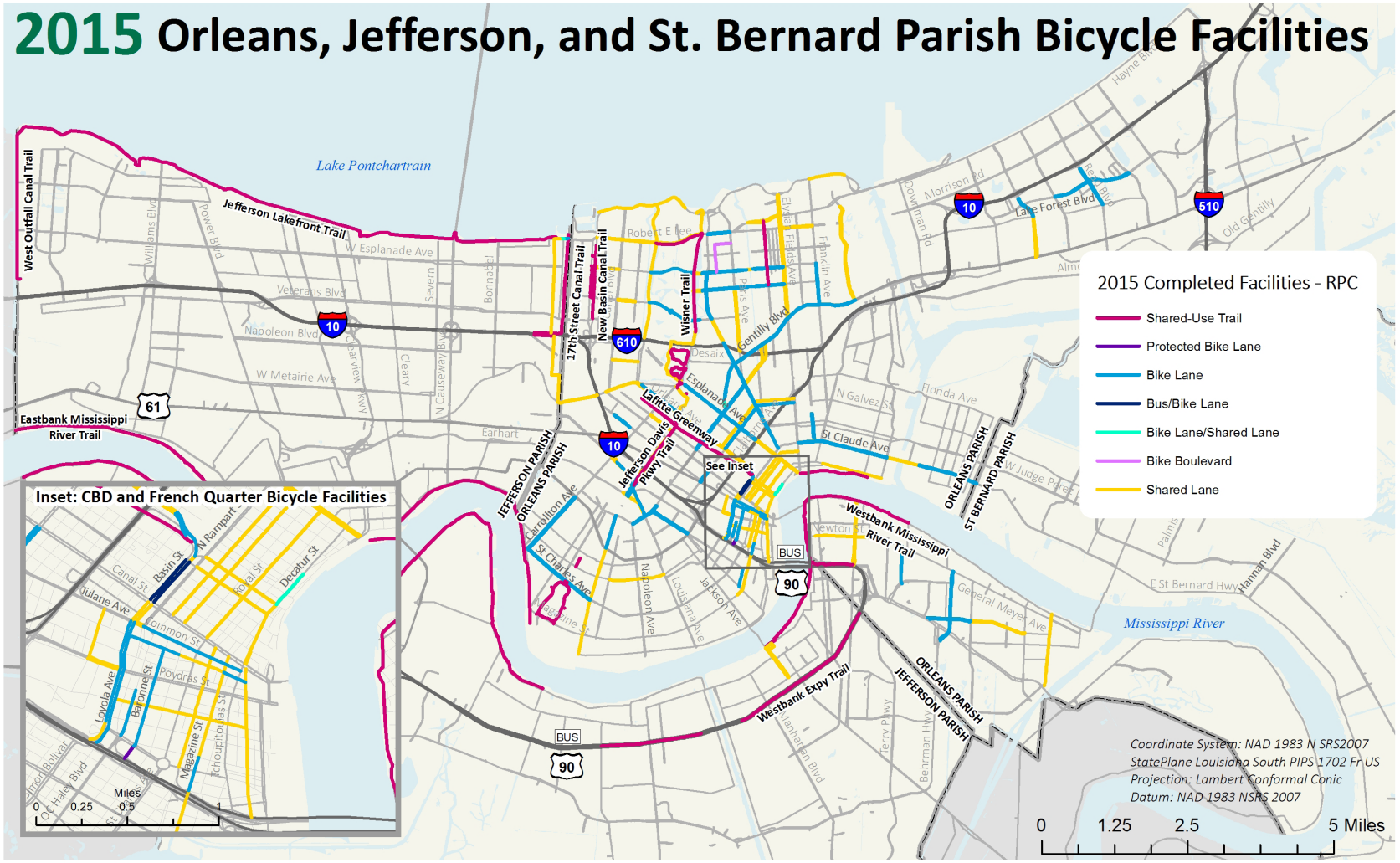

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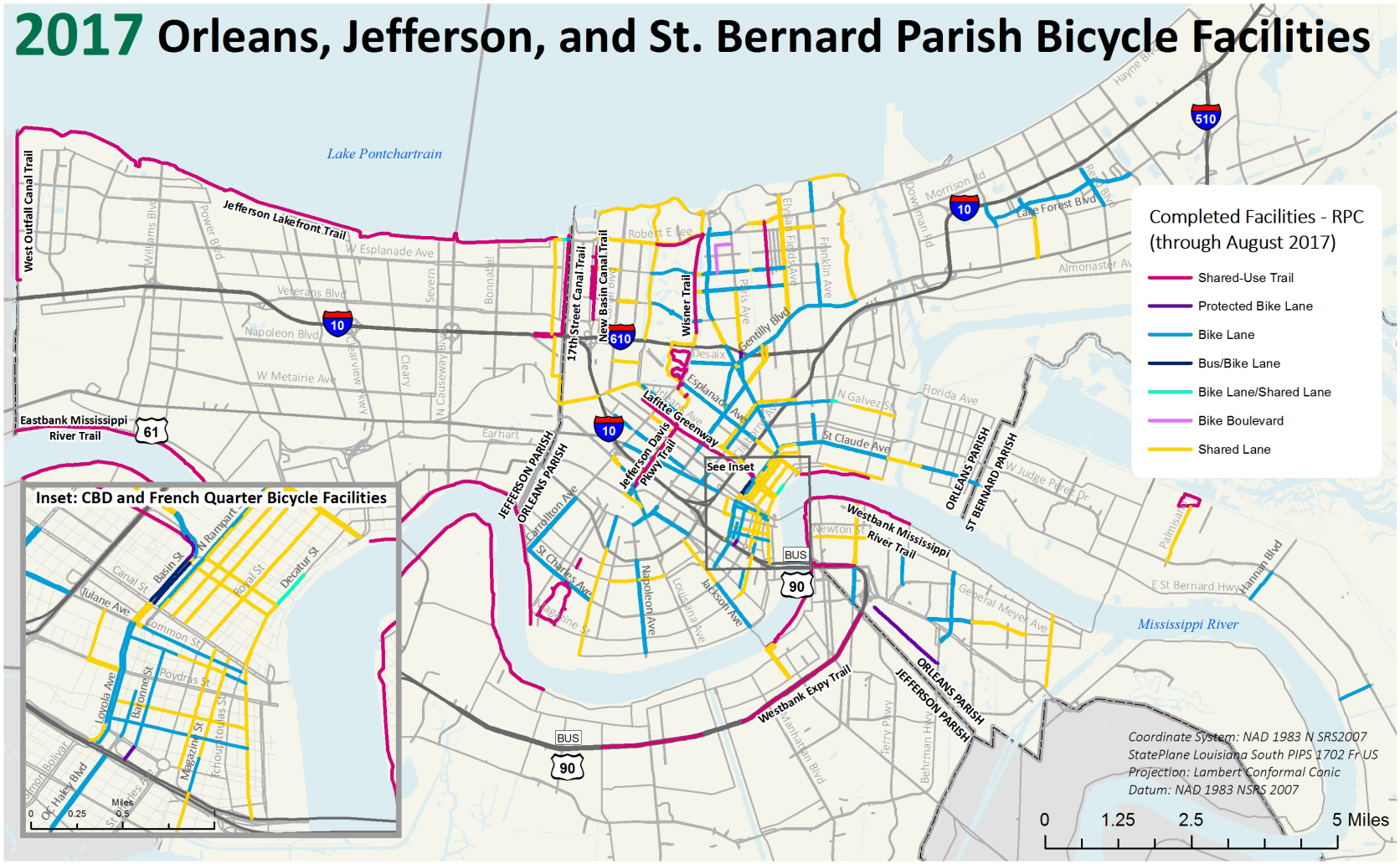
Figure 5: Orleans, Jefferson, and St. Bernard Parish Bicycle Facilities, 2017



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1.2 Count Location Selection

The PBRI count program began in 2010 with thirteen locations in Orleans Parish. Twelve of these locations have continued to be observed annually each subsequent year. Additional count locations have been added each year since 2013 as the scale of the count program has expanded. Site selection is determined each year prior to commencement of the count program through discussions between RPC, UNO Transportation Institute staff, and local government stakeholders to understand current data needs and anticipated infrastructure projects. From these discussions, count program priority locations for the year are developed. In 2017, stakeholders from the City of New Orleans, Jefferson Parish, and DOTD were included in this discussion.

Many count locations were selected based on their proximity to existing bicycle facilities, or on corridors where construction projects involving potential pedestrian and/or bicycle improvements are planned, including at locations that are historically under-represented in the count program such as Jefferson Parish and New Orleans East. In addition, select count locations in census tracts with high active transportation mode share or which correspond to high pedestrian or bicycle crash incidence have been identified, as have several count locations at key connection points (e.g., bridges, underpasses, and overpasses that function as "bottlenecks"). This includes the series of count locations aligned with the Pontchartrain Expressway which divides uptown New Orleans from the Central Business District and French Quarter, serving as a "gateway" to downtown through which many active commuters are likely to pass to access the city's largest employment hubs (Figure 6).

The geographic scope of the program was expanded this year to include the first counts in St. Bernard Parish. Finally, the 2017 count program included several locations aligned with current or pending Safe Routes to School projects.

In total, 85 potential count locations were identified for consideration in the 2017 count program. These were further evaluated by RPC staff and categorized by level of priority, including 40 high priority locations, 6 medium priority locations, 10 low priority locations, and 30 locations eliminated from consideration for this year. Of this list, counts were completed at all 40 high priority locations and five medium priority locations, plus one low priority location. Fifteen count locations were new, while the remaining 31 have been previously counted in one or more program years.

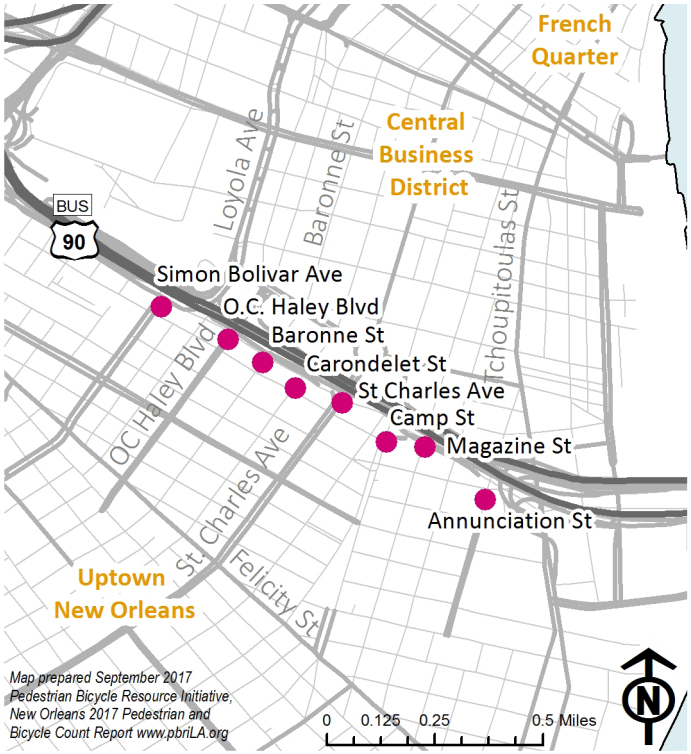
Fifteen New Count Locations in 2017

As the program has matured, processes to identify and prioritize sites have evolved to promote a balanced and comprehensive view of overall walking and bicycling patterns in the New Orleans region and provide needed data for a variety of stakeholder organizations and agencies, while acknowledging the temporal, environmental, and human resource constraints of manual data collection.

Table 1 lists the manual count sites observed in 2017 by assigned site number,[6] and Figure 7 maps these locations. For a detailed breakdown of count site characteristics for all 2017 manual count locations, including the type of bicycle facility present (if applicable) and its installation date, please refer to Appendix A.

6 *Site number is a static identifier assigned to each count location included in PBRI manual counts since 2010. For a complete list of all count locations from 2010-2017, please see Appendix Tables F-1 and F-2*

Figure 6: Downtown "Gateway" Count Locations



Data Sources: Basemap Created using 2016 TIGER/Line shapefiles for Orleans, Jefferson, and St. Bernard parish roads and water features. Manual and electronic count locations by University of New Orleans, 2017.

In addition, this report documents data collected from four electronic long-term count stations which provide critical longitudinal data with which to contextualize short-term manual or electronic count data and to track long-range trends at key facilities in the region. PBRI has been collecting data on use of the Jefferson Davis Parkway Trail since May 2010.[7] The Jefferson Davis Trail count location is located on the median of Jefferson Davis Parkway at Conti Street in the Mid-City neighborhood (see Figure 7 and Table 2 for electronic count locations). This trail was selected for continuous electronic data collection due to its connectivity in linking multiple neighborhoods for commuting, its proximity to recreational facilities, and its intersection with the Lafitte Greenway, a new active transportation facility which opened in fall 2015.

In June 2014, this device was upgraded with an in-ground loop detector used in combination with the infrared sensor to differentiate pedestrian and cyclist users in cooperation with the Rails-to-Trails Conservancy's Trail Modeling and Assessment Platform (T-MAP) program, a $1.2 million, three-year initiative intended to create new tools for planning and evaluating trails. This more advanced equipment permits an additional layer of analysis of trail use patterns for the most recent year of available data. This report updates this dataset with data from July 2015 through June 2017.

A second T-MAP program counter was installed in St. Tammany Parish, along the Tammany Trace in 2014. This report updates this dataset with data from July 2015 through September 2016.[8]

Finally, this report also documents data collected at a pair of infrared count device locations near key intersections of the Lafitte Greenway, a new shared-use trail which connects to the Jefferson Davis Parkway Trail and links a diverse range of neighborhoods from the French Quarter to Mid-City, providing a new artery for active commuting, transportation, and recreation. These sensors, provided on loan by Tulane University School of Public Health and Tropical Medicine, collect continuous, combined user counts near the intersections of North Galvez St and Jefferson Davis Parkway, illuminating overall growth in usership since the trail's opening in late 2015 as well as variation in usage patterns throughout the year.

The locations of these devices are indicated on Figure 7, and Table 2 identifies the dates for which continuous count data is reported in this document.

7 *Excluding an approximately 3-month gap in data collection from April-June 2013 as a result of a disruption to the pole to which the device was mounted, and a cessation of accurate pedestrian data in May-June 2017 due to equipment malfunction. In May 2014, the device was replaced with an upgraded model without interruption in data collection.*

8 *This unit is still installed but is currently not collecting data pending installation of replacement components.*

Table 1: 2017 Manual Count Site Locations

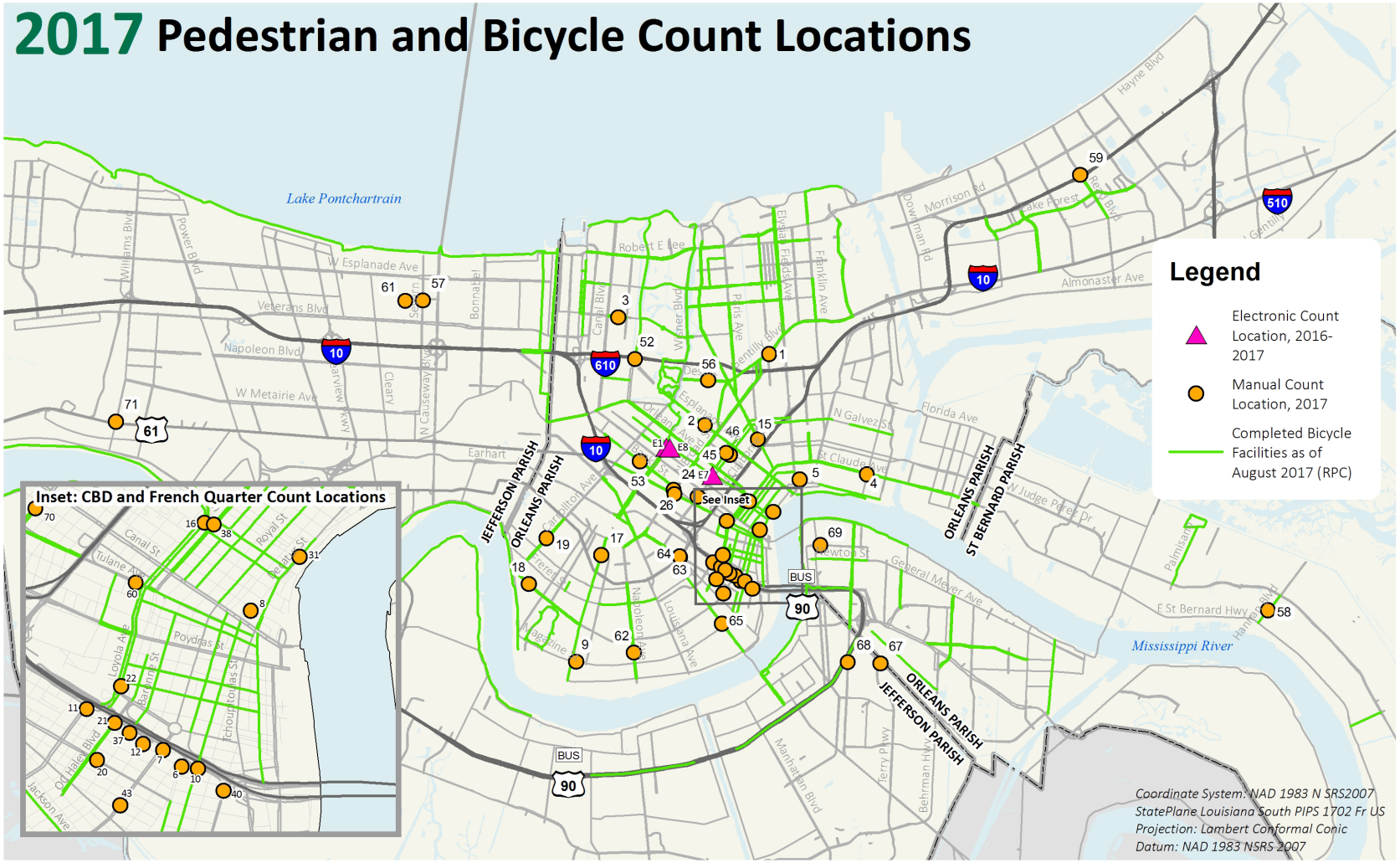
Site #	Site Name	Boundary Streets	Years Counted						
			2010	2011	2012	2013	2014	2015	2017
1	Gentilly Blvd	St. Denis St & Milton St	x	x	x	x	x	x	x
2	Esplanade Ave	N. White St & N. Dupre St	x	x	x	x	x	x	x
3	Harrison Ave	Gen. Diaz St & Harrison Ct	x	x	x	x	x	x	x
4	St. Claude Ave (Bywater)	Pauline St & Independence St	x	x	x	x	x	x	x
5	Royal St (Marigny)	Mandeville St & Marigny St	x	x	x	x	x	x	x
6	Camp St (Gateway)	Clio St & Calliope St	x	x	x	x	x	x	x
7	St. Charles Ave (Gateway)	Clio St & Calliope St	x	x	x	x	x	x	x
8	Decatur St (Iberville)	Iberville St & Canal St	x	x	x	x	x	x	x
9	Magazine St (Uptown)	Arabella St & Joseph St	x	x	x	x	x	x	x
10	Magazine St (Gateway)	Erato St & Calliope St	x	x	x	x	x	x	x
11	Simon Bolivar Ave (Gateway)	Clio St & Calliope St	x	x	x	x	x	x	x
12	Carondelet St (Gateway)	Clio St & Calliope St	x	x	x	x	x	x	x
15	St. Bernard Ave	N. Roman St & N. Derbigny St				x	x	x	x
16	Basin St	St. Louis St & Toulouse St				x	x	x	x
17	Nashville Ave	S. Rocheblave St & S. Tonti St				x	x	x	x
18	St. Charles Ave (Uptown)	Adams St & Hillary St				x	x	x	x
19	S. Carrollton Ave	Green St & Birch St				x	x	x	x
20	Oretha Castle Haley Blvd	Clio St & Calliope St					x		x
22	Loyola Ave	Howard Ave & Julia St				x	x	x	x
23	Broad St	Tulane Ave & Banks St				x	x	x	x
24	Tulane Ave	S. Dorgenois St & S. Broad St				x	x	x	x
31	Decatur St (Jackson Square)	St. Peter St & St. Ann St					x	x	x
37	Baronne St (Gateway)	Clio St & Calliope St					x	x	x
38	N. Rampart St	Toulouse St & St. Louis St					x		x
40	Annunciation St	Erato St & Thalia St					x	x	x
43	St. Charles Ave (LGD)	Polymnia St & Euterpe St						x	x

Site #	Site Name	Boundary Streets	Years Counted						
			2010	2011	2012	2013	2014	2015	2017
45	N. Galvez St	Ursulines St & Governor Nichols St						x	x
46	N. Miro St	Ursulines St & Governor Nichols St						x	x
52	Marconi Dr	I-610 & Railroad Tracks						x	x
53	Banks St	S. Telemachus St & S. Cortez St						x	x
56	Desaix Blvd	Castine St & Winthrop Pl							x
57	Severn Ave	17th St & 18th St							x
58	Hannan Blvd	Judge Perez Dr & St. Bernard Hwy							x
59	Read Blvd	I-10							x
60	Tulane Ave (Medical District)	S. Liberty St & S. Saratoga St							x
61	18th St	Division St & Hessmer Ave							x
62	Napoleon Ave	Coliseum St & Chestnut St							x
63	Martin Luther King Blvd (Claiborne)	Claiborne Neutral Ground							x
64	S. Claiborne Ave	MLK Neutral Ground							x
65	Jackson Ave	Camp St & Magazine St							x
66	Martin Luther King Blvd (Central)	OC Haley Blvd & Baronne St							x
67	Holmes Blvd	Terry Pkwy & Appletree Ln							x
68	Whitney Ave	Westbank Expy & Porter St							x
69	Opelousas Ave	Valette St & Olivier St							x
70	S. Galvez St	Tulane Ave & Canal St							x
71	Williams Blvd	Airline Dr & 9th St				x			x

Table 2: 2015 - 2017 Electronic Count Site Locations

Site #	Site Name	Location	Dates Recorded, 2015-2017
E1	Jefferson Davis Parkway Trail	Between Conti St & Lafitte St	7/1/15 - 6/30/17
E6	Tammany Trace	North of Koop Drive Trailhead	7/1/15 - 9/30/16
E7	Lafitte Greenway #1	North of N. Galvez St	1/1/16 - 6/30/17
E8	Lafitte Greenway #2	South of Jeff Davis Pkwy	1/1/16 - 6/30/17

Figure 7: 2017 Pedestrian and Bicycle Count Locations



2.0 METHODOLOGY

This section explains the methodologies utilized by PBRI in performing manual and electronic counts and attempts to qualify their accuracy and effectiveness. For detailed methodology information, please see Appendix B.

2.1 Manual Counts

Manual counts for this study were completed between March 21st and June 15th of 2017. PBRI recruited student workers from The University of New Orleans, as well as volunteers via outreach to a variety of partner organizations including Bike Easy, Ride New Orleans, and the Tulane University School of Public Health. Students and volunteers were trained by UNO Transportation Institute staff on observation protocol, and were required to satisfactorily perform a practice count to gain certification. The Observation Protocol, developed by Kathryn Parker, Assistant Director of the Tulane Prevention Research Center at the Tulane School of Public Health, can be found in Appendix B. PBRI methodology follows (with minor variations as described in appendix) the Tulane protocol, which reflects adoption of national best practices (most notably the National Bicycle and Pedestrian Documentation Project's guidelines) but is customized to address the specific context of the New Orleans metro area and to meet the needs of the RPC Pedestrian and Bicycle Program.

All counts were mid-block screenline counts, during which two student or volunteer counters sat in view of each other on opposite sides of the street, creating a visual "plane of observation" for users to cross and be counted.[9] On streets with a neutral ground,[10] each counter tallied users on their side of the street and their sidewalk, while one counter was designated to count users on the neutral ground. If there was no neutral ground at the count site, both counters were responsible for counting all users of the street and both sidewalks. In the case of discrepancies, an average was taken.

Counters tallied pedestrians and bicyclists and categorized them by gender, race, and general age group (adult vs. child). Counters also distinguished pedestrians and bicyclists by their travel orientation, i.e. whether they were observed on the street, sidewalk, or neutral ground. For bicyclists, counters also noted helmet usage (categorizable by race and gender, but not age or travel orientation) and right-way vs. wrong-way use, as well as use of a bike lane where applicable. Wrong way use was defined as on-street bicyclists traveling in the opposite direction of traffic. For copies of the materials used by observers, see Appendix C.

Counts were performed on two days for each site, either on a

9 *In select instances, only one counter was available to conduct the count and observed the entire plane of observation.*

10 *"Neutral ground" is a colloquial phrase for a median separating street traffic; this term is used throughout this report.*

Tuesday, Wednesday, or Thursday. Each day included counts from 7:00-9:00 AM and from 4:00-6:00 PM. These time periods and days of the week are based on recommendations by the National Bicycle and Pedestrian Documentation (NBPD) Project.[11]

Counts were generally only performed under reasonably good weather conditions (i.e. no heavy rain), although several observations took place on days of inclement weather (Appendix D). Notably, the 2017 count season was marked by frequent rain events which impacted program implementation and may impact overall observations. For example, during the 2017 count program, rain was recorded in New Orleans on 38 of 92 count days (41%), compared to 27 of 96 count days in 2015 (28%), and 30 out of 70 count days in 2014 (28%). While this does not necessarily indicate that a rain event occurred at a given count location during the hours in which counts were conducted, previous PBRI reports have observed that people walking and bicycling are often highly sensitive to precipitation and the high proportion of rainy days likely influenced mode choice and/or the decision to travel for many.

In order to estimate daily, monthly, and yearly volumes of pedestrians and bicyclists at the observed manual count sites, observed user volumes were extrapolated to daily, monthly, and annual estimates based on the methods provided by the National Bicycle and Pedestrian Documentation (NBPD) Project. NBPD methodology classifies count sites as either Multi-Use Paths or Pedestrian Districts. Manual Counts are therefore classified as Pedestrian Districts, defined by the NBPD Project as "higher density pedestrian areas with some entertainment uses such as restaurants," descriptive of the majority of 2017 count locations. Estimates for a few low-volume count locations in mostly residential areas may have a higher margin of error as a result. For more information on this extrapolation methodology, please refer to Appendix E.[12]

It should be noted that the extrapolation methodology provided by the NBPD Project is based on patterns of use by climate region. These patterns of use influence how much weight any given count will have depending on: the hour of the day, day of the week, and month of the year. NBPD Project methodology provides three climates to choose from, of which New Orleans is categorized into the "Very hot summer, Mild winter" category. While this climate category is the most appropriate selection available, observed trends of use from the continuous electronic counts did not precisely fit this national formula. Extrapolations for manual counts have not been comprehensively tested for reliability and actual daily traffic volumes may vary based on land uses or user groups that deviate from NBPD's model or circumstances unique to the New Orleans area that impact local travel patterns. The New Orleans Pedestrian and Bicycle Count Report, 2010-2011 initially discusses the divergence between the NBPD Project's patterns of use and the patterns of use observed by Eco-Counters in New Orleans in detail, and concludes that patterns of use in New Orleans differ from all three climates modeled. During the 2015 PBRI study period, expanded use of electronic counters facilitated a preliminary evaluation of the efficacy of the extrapolation technique and adjustment factors used in order to better understand local patterns of use, concluding that estimates derived from NBPD factoring methodology should be used for comparative purposes only, as margins of error are likely to be too high to produce reliable estimates at most locations.[13]

11 *See http://bikepeddocumentation.org/ for more information*

12 *The development of this methodology and relevant literature is discussed in greater depth in the 2010 State of Active Transportation Report and the New Orleans Pedestrian and Bicycle Count Report, 2010-2011, available at http://pbriLA.org under "Research + Resources"*

13 *Tolford, T. (2015). New Orleans Pedestrian and Bicycle Count Report, 2015. Pedestrian Bicycle Resource Initiative for the New Orleans Regional Planning Commission.* http://norpc.org/assets/pdf-documents/studies-and-plans/PBRI%20Count%20Report%202015_FINAL_compressed.pdf

In this report, Estimated Daily Traffic figures for pedestrians and bicyclists are provided for illustrative purposes only where needed, such as to assess the relative significance of people walking and bicycling to motorized road users. However, this method of developing average annual daily traffic estimates represents the current best practice given the data available, while efforts to develop robust regionally-specific alternatives progress, including the work noted above that is currently underway through the Louisiana Transportation Research Center (project 16-4SA) to publish guidelines for implementing long-term automated counts statewide and developing regionally and context-specific adjustment factors with which to better understand and extrapolate short term automated and manual count data.

2.2 Electronic Counts

As noted above, the Jefferson Davis Trail electronic count site was equipped with an automated count device (called an Eco-Counter) that was installed in May 2010, and that recorded trail use continuously (excluding April, May, and June 2013 when the device was temporarily removed due to the dislocation of the city infrastructure on which it was installed). The Eco-Counter uses passive infrared sensor technology to record all users. Two directional sensors (IN and OUT) count all users within a distance of 4 meters (approximately 13 feet) and record that information in a data box from which it may be retrieved via infrared or Bluetooth technology.

Two key limitations to the Eco-Counters are important to note: its inability to distinguish between types of users (bicyclists vs. pedestrians) and potential undercounting due to parallel movement of users. In order to address these issues and the possibility of other observational error, PBRI staff calibrated the Jefferson Davis Trail machine upon installation, and has performed periodic calibration

Figure 7: Eco-Multi Counter, Jefferson Davis Parkway Trail at Conti St

Figure 8: Eco-Counter Installation on Lafitte Greenway at N. Galvez St

checks in the subsequent four years to evaluate accuracy. Overall, this device has been found to provide highly accurate and reliable data.[14]

In June 2014, the original Eco-PYRO sensor was replaced with an Eco-MULTI device (Figure 7), which utilizes an in-ground loop detector used in combination with an infrared sensor to differentiate pedestrian and cyclist users. One month of data was collected with both counters installed in order to ensure data compatibility. The data were found to be slightly higher (about 5% per day) on the new count equipment, likely reflecting the new sensor's more advanced technology, which reduces the device's tendency to undercount trail users traveling side by side. An additional Eco-MULTI sensor was installed on the Tammany Trace, similarly collecting continuous data about bicyclist and pedestrian users on that trail facility through September, 2016.[15]

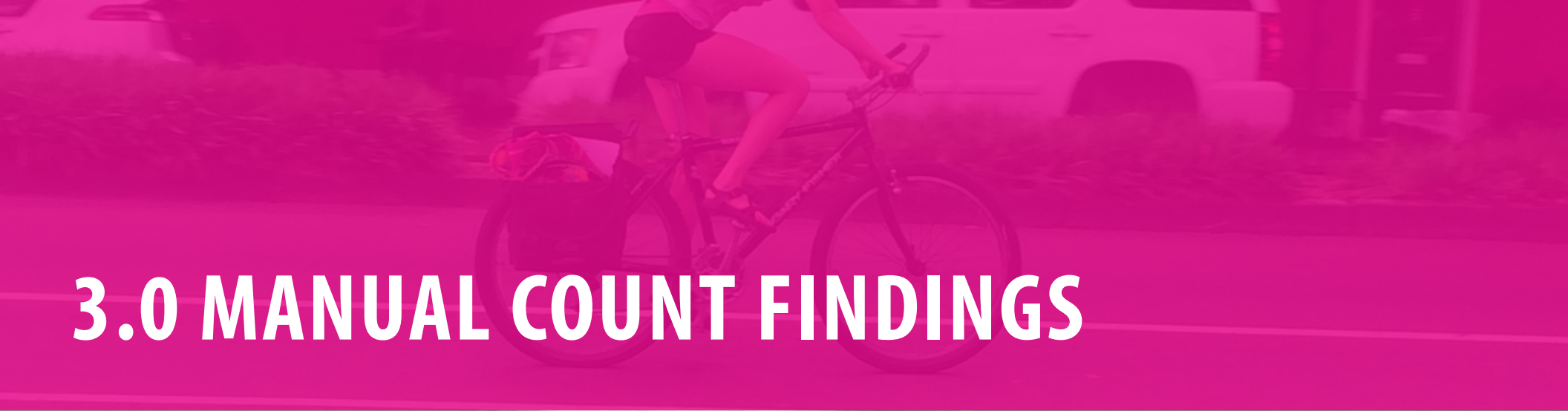
Two additional infrared sensors and one set of pneumatic tube counters for short-term counts were provided on loan from the Tulane University School of Public Health and Tropical Medicine to expand PBRI's data collection capacity. Two of these sensors were installed in late 2015 along the Lafitte Greenway in order to develop longitudinal data about this key new active transportation connection (Figure 9). These sensors, manufactured in 2009, do not differentiate among user types or by direction of travel, providing a simple volume total, aggregated in 15-minute intervals or greater, for all users. Two-hour validation tests indicate accuracy of about 90%, with undercounts due to occlusion found to be the primary error type.

The continued strategic deployment of portable automated count equipment, including units currently in use in support of projects led by Louisiana Transportation Research Center and the City of New Orleans, allows PBRI to conduct data collection in response to immediate planning needs (e.g., by assisting local government agencies with non-motorized data collection in conjunction with project planning or evaluation), as well as enabling continued calibration and reliability testing of manual count extrapolation techniques. Future on-street and trail-based electronic counts at previous and new locations should continue and expand efforts to develop context-specific adjustment factors for regional data, pending development of state-level guidance for implementing or expanding electronic non-motorized traffic monitoring, including through use of new types of data collection technology, a field of rapid development with promise to unlock significantly enhanced travel monitoring at reduced cost.

This report provides an analysis of the last two years of the continuous stream of data from the Jefferson Davis Trail to analyze temporal patterns and variability and understand patterns of use in relation to the first five years of data collected. It also presents previously un-reported data from the Eco-MULTI counter on the Tammany Trace, and the first 18 months of data collected using the Eco-PYRO infrared sensors on the Lafitte Greenway.

14 *Greater than 95% total accuracy rate over four tests. Directional accuracy for the Eco-Twin infrared device declined in 2013 for unknown reasons following damage to the installation which forced the device's temporary removal, but total accuracy has remained very high.*

15 *A replacement battery, and re-calibration of the equipment are currently needed to re-engage this dataset*



3.0 MANUAL COUNT FINDINGS

In 2017, over 368 hours of manual count data were collected across 46 locations. This section summarizes these data and compares the data to previous findings where applicable. In most cases, the number indicated represents the total number of pedestrians or bicyclists actually observed over a period of eight hours per location. In select instances, figures for Estimated Daily Traffic (EDT) figures are presented, derived from National Pedestrian and Bicycle Documentation Project methodology for factoring and extrapolating short-term data (see Section 2 for additional detail). In addition, this section discusses estimated active transportation mode share, perceived demographic characteristics of users, and behavioral observations (e.g. travel orientation and helmet use).

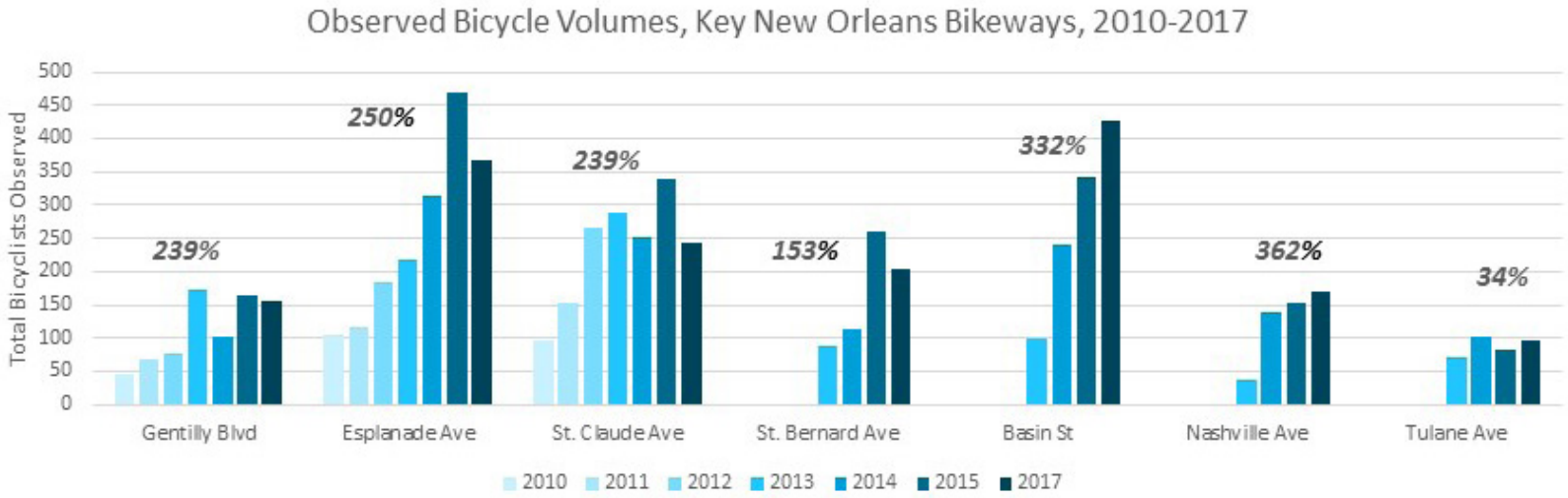
3.1 Observed Count Totals: Existing Count Locations

Between 2010 and 2017, the total number of bicyclists observed at the twelve original annual count locations (Figure 11) increased by 51% overall, with substantially higher totals observed in three intervening years and the number of pedestrians observed increased by 73% during the same period, with 2017 representing the highest total figure. Although the number of users observed at some locations has fluctuated over the course of seven years of observations, it is clear that at most of these locations, the number of active users has increased, with pronounced increases at select locations, notably those where dedicated bicycle infrastructure has been developed (Figure 10). A summary of all manual count totals (reflecting 8 hours of data per location) for all sites and years, is available in Appendix F.

Bicyclists

The most dramatic increase in bicycle ridership among these locations was observed on Esplanade Avenue, where the number of users increased every year from 2010 to a 2015 peak of 468 bicyclists observed (Table 3). This figure decreased somewhat in 2017, but remains 250% higher than the 2010 count, and 70% higher than observed ridership prior to the installation of dedicated bicycle lanes in 2013. Importantly, it is likely that the decrease observed this year is in part due to the late 2015 opening of the Lafitte Greenway, which runs parallel to Esplanade Avenue approximately ½ mile away. A dramatic increase of bicyclists observed on Basin Street near the entrance to the Lafitte Greenway (up 332% since 2013 and 78% since the first dedicated facilities were installed in 2014), in addition to data collected on the greenway itself, supports the suggestion that some users have replaced trips on Esplanade Avenue with Greenway use.

Figure 10: Observed Bicycle Volumes, Key New Orleans Bikeways, 2010-2017

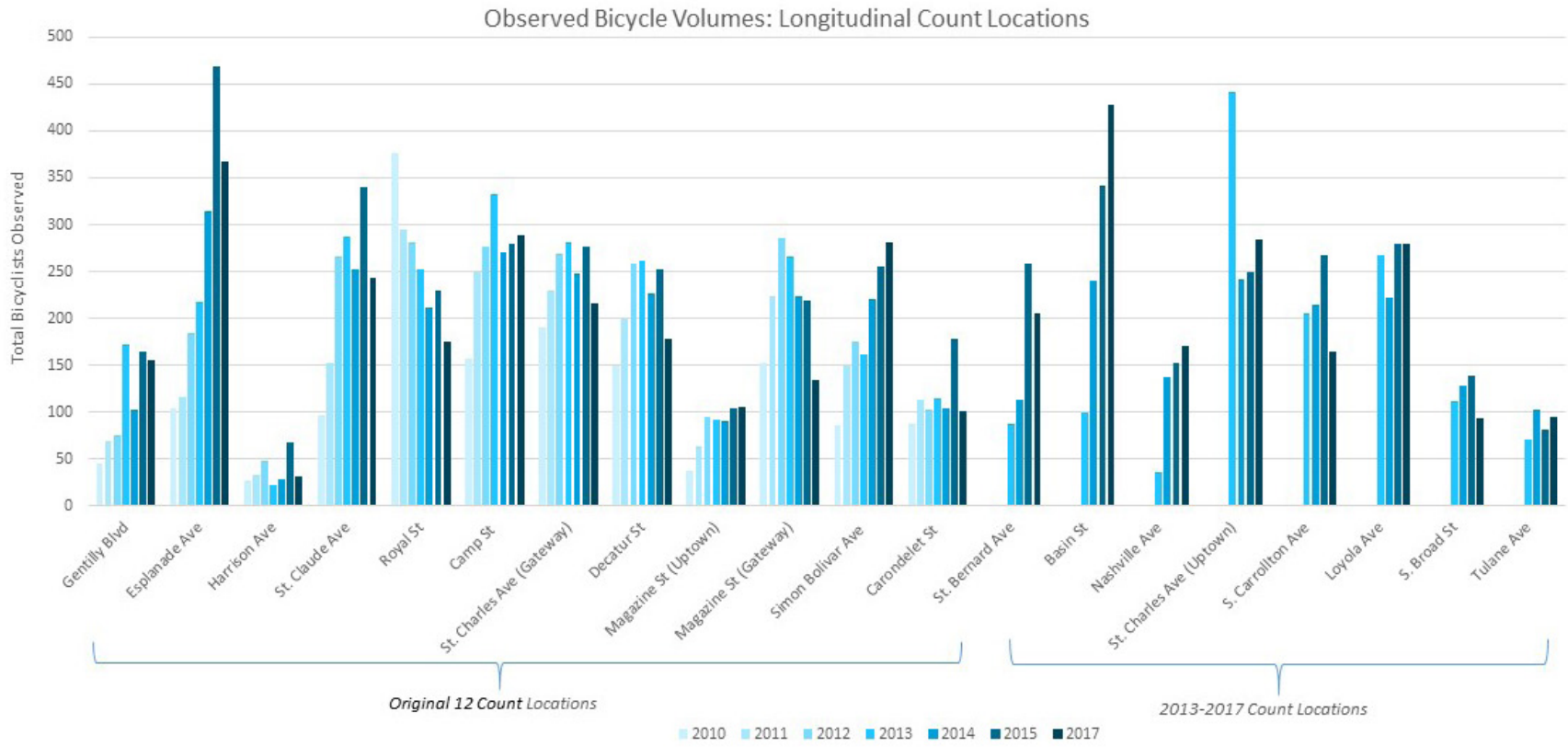


Total bicyclists observed have also increased dramatically since 2010 on Gentilly Boulevard (239%) and St. Claude Avenue (153%), both of which have dedicated bicycle lanes, although these locations too experienced a decline in observed bicyclist volumes in 2017 compared to a 2015 peak. Similarly, substantial increases in bicyclists were observed between 2013 (when counts were initiated) and 2017 following the installation of dedicated bikeways on St. Bernard Avenue (133% increase), Tulane Avenue (34% increase) and Nashville Avenue (362% increase, although pre-installation very few bicyclists used this route) (Figure 11).

Notably, user totals continued to climb on Simon Bolivar Avenue, where no dedicated or marked bicycle facility yet exists for a total increase of 227% since 2010 (Figure 12). This is indicative of significant existing bicycling activity in the Central City neighborhood, despite the fact that few dedicated bikeways have been constructed, suggesting unmet demand and an important opportunity to improve the safety and comfort of vulnerable road users in this area. In addition, the portion of Magazine Street observed Uptown, which does not have dedicated bike lanes and is located in a neighborhood with very limited bicycle infrastructure, has experienced significant growth (179%).

Of the handful of locations where a net decrease in bicyclists were observed, two of these (Magazine Street - Gateway and S. Carrollton Avenue) are likely the result of unusually poor weather during the days observed in 2017 and additional observation is needed to assess any overall shift in previously documented trends. At a third location, St. Charles Avenue (Uptown), steadily increasing count totals over the last three years suggest that the first year of data, significantly higher than any subsequent observation period, may represent an outlier from typical usage. Finally, the one location where a steady, marked decline over time has been observed occurs on Royal Street in the Marigny, often a neighborhood noted for high rates of bicycling. However, this is also a neighborhood that has experienced rapid transition over the last several years, including

Figure 11: Observed Bicycle Volumes, Longitudinal Count Locations



rising property values and increased tourism activity, which, although American Community Survey data indicates that rates of bicycle commuting to work remain relatively high, may be contributing to shifting demographics and fewer residents who use bicycles as their primary means of transportation.

Table 3: Observed Bicycle Volumes, Longitudinal Count Locations

Original 12 Count Locations

Site #	Site Name	2010	2011	2012	2013	2014	2015	2017	Change, 2010-2017 #	Change, 2010-2017 %
1	Gentilly Blvd	46	69	76	173	103	165	156	*110*	*239%*
2	Esplanade Ave	105	117	185	217	314	468	368	*263*	*250%*
3	Harrison Ave	27	33	48	23	29	68	31	*4*	*15%*
4	St. Claude Ave	96	153	266	287	252	340	243	*147*	*153%*
5	Royal St	377	295	281	253	212	229	175	*-202*	*-54%*
6	Camp St	157	249	276	332	270	280	288	*131*	*83%*
7	St. Charles Ave (Gateway)	191	229	269	281	248	276	216	*25*	*13%*
8	Decatur St	150	199	258	262	226	253	178	*28*	*19%*
9	Magazine St (Uptown)	38	63	95	92	90	104	106	*68*	*179%*
10	Magazine St (Gateway)	153	223	285	266	223	219	134	*-19*	*-12%*
11	Simon Bolivar Ave	86	150	175	161	221	256	281	*195*	*227%*
12	Carondelet St	87	114	103	115	105	179	101	*14*	*16%*
	Total	**1,513**	**1,894**	**2,317**	**2,462**	**2,293**	**2,837**	**2,278**	***765***	***51%***

2013-2017 Count Locations

Site #	Site Name	2013	2014	2015	2017	Change, 2013-2017 #	Change, 2013-2017 %
15	St. Bernard Ave	88	114	259	205	*117*	*133%*
16	Basin St	99	241	341	428	*329*	*332%*
17	Nashville Ave	37	138	153	171	*134*	*362%*
18	St. Charles Ave (Uptown)	441	242	250	284	*-157*	*-36%*
19	S. Carrollton Ave	206	214	268	165	*-41*	*-20%*
22	Loyola Ave	267	222	279	279	*12*	*4%*
23	S. Broad St	112	128	139	93	*-19*	*-17%*
24	Tulane Ave	71	102	82	95	*24*	*34%*
	Total	**1,378**	**1,460**	**1,851**	**1,720**	***342***	***25%***

Table 4: Observed Pedestrian Volumes, Longitudinal Count Locations

Original 12 Count Locations

Site #	Site Name	2010	2011	2012	2013	2014	2015	2017	Change, 2010-2017 #	Change, 2010-2017 %
1	Gentilly Blvd	126	140	127	121	93	112	92	-34	-27%
2	Esplanade Ave	230	289	607	573	490	503	512	282	123%
3	Harrison Ave	124	117	164	285	234	282	250	126	102%
4	St. Claude Ave	230	205	536	325	560	538	508	278	121%
5	Royal St	324	314	371	376	357	525	455	131	40%
6	Camp St	144	183	189	199	287	241	173	29	20%
7	St. Charles Ave	550	501	460	603	659	941	880	330	60%
8	Decatur St	1,313	1,902	2,547	3,053	2,540	2,558	2,652	1,339	102%
9	Magazine St (Uptown)	330	269	321	338	356	385	607	277	84%
10	Magazine St (Gateway)	159	187	229	334	241	309	264	105	66%
11	Simon Bolivar Ave	608	433	494	692	505	430	647	39	6%
12	Carondelet St	81	101	92	140	119	222	191	110	136%
	Total	**4,219**	**4,641**	**6,137**	**7,039**	**6,441**	**7,046**	**7,281**	**3,062**	**73%**

2013-2017 Count Locations

Site #	Site Name	2013	2014	2015	2017	Change, 2013-2017 #	Change, 2013-2017 %
15	St. Bernard Ave	247	312	302	250	3	1%
16	Basin St	413	415	694	533	120	29%
17	Nashville Ave	53	63	87	69	16	30%
18	St. Charles Ave (Uptown)	430	398	342	400	-30	-7%
19	S. Carrollton Ave	309	422	464	406	97	31%
22	Loyola Ave	485	543	635	384	-101	-21%
23	S. Broad St	492	529	505	348	-144	-29%
24	Tulane Ave	468	396	458	287	-181	-39%
	Total	**2,928**	**3,123**	**3,535**	**2,677**	**-251**	**-9%**

Pedestrians

Despite apparently more rapid rates of growth for bicycling, particularly at locations where new bikeways have been developed, pedestrians continue to make up a majority of the total active users observed at all longitudinal count locations (Figure 12).

For pedestrian activity (Figure 13 and Table 4), the most pronounced increases in observed users among longitudinal count locations occurred on Carondelet Street (136%), Esplanade Avenue (123%), and St. Claude Avenue (121%). Observed user totals also doubled since 2010 on Harrison Avenue and Decatur Street, and increased 84% on Magazine Street (Uptown). It is notable that pedestrian infrastructure improvements have been made during this period at Esplanade Avenue, Harrison Avenue, a connecting segment of Decatur Street, and Magazine Street.

More modest increases in activity have been observed at other longitudinal count locations, while five of these sites have experienced overall decreases since counts began in either 2010 or 2013, in some cases despite road resurfacing projects that have included some pedestrian improvements, reflecting to some degree the sensitive nature of people on foot to a variety of temporal, social, and environmental factors.

Figure 12: Observed Pedestrians and Bicyclists by Volume, Longitudinal Count Locations, 2017

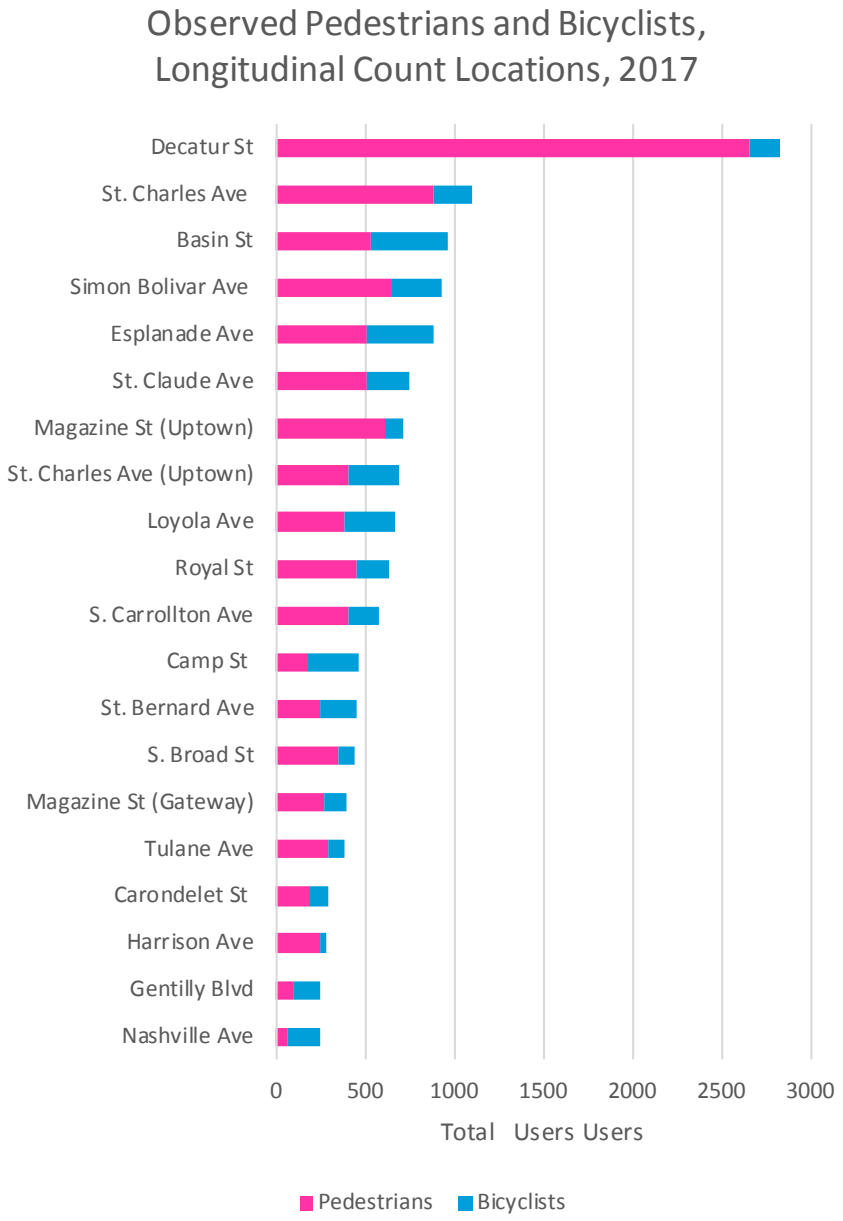
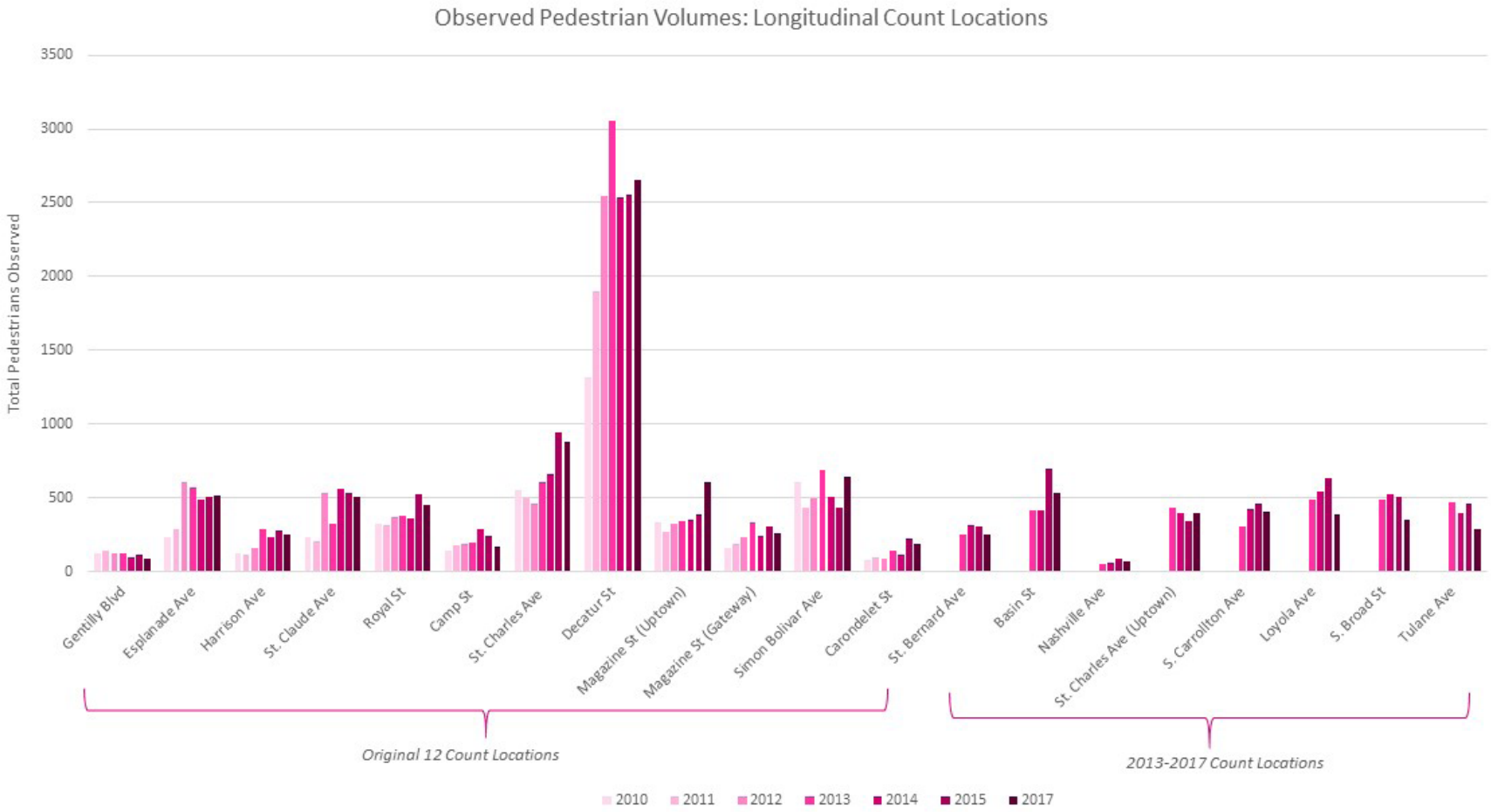


Figure 13: Observed Pedestrian Volumes: Longitudinal Count Locations



3.2 Observed Count Totals: New Count Locations

In addition to the 20 sites listed above which have four or more years of data, allowing potential evaluation of long-term changes and which, representing a variety of facility types and land use contexts serve for the purposes of this report as indicators of overall trends, PBRI has continued to expand the scope of the count project each year with new count locations, providing a cross-sectional snapshot of activity at one or more points in time throughout the region. This includes ten 2017 count locations where Counts were initiated in either 2014 or 2015, as well as fifteen new count locations. In addition, one count location where data was collected in 2013, Williams Boulevard, was observed again this year.

Bicyclists

Among locations where counts were previously conducted, only four locations reflected increasing observed bicyclist totals (Table 5). Three of these (North Rampart Street - 124% increase; Oretha Castle Haley Boulevard - 23% increase; and Banks Street - 42% increase) have received dedicated bicycle facilities during the last two years, while the third, while no bicycle facility exists, connects to a protected bike lane just one block further along the same corridor (Baronne Street - 82% increase). Interestingly, bicycling activity appears to have increased sharply on Williams Boulevard since a count was last conducted at that location in 2013 (having been identified as a pedestrian crash hot spot of interest), from just nine bicyclists observed to 88, despite previously identified barriers to active transportation in this area and a lack of dedicated infrastructure. As elsewhere in Jefferson Parish, which is experiencing increased interest in active transportation, additional attention should be paid to the needs of non-motorized users in this location (and other areas with physical characteristics that are hostile to people walking and bicycling), 83% of whom were identified as people of color (see Section 3.6).

Among locations with decreases in activity, one of these (Decatur Street at Jackson Square - 14% decrease) may be influenced by the fact that a previously installed bike lane on one side of the street, and shared lane markings on the other, have been all but eliminated through wear and the segment no longer functions clearly as a dedicated bikeway. At another, St. Charles Avenue in the Lower Garden District, decreased activity likely reflects the impact of a major road resurfacing project affecting a portion of the corridor a short distance away from the observation location. At only one location where new bicycle facilities were installed during this period was a decrease in bicyclists observed (North Galvez Street - 20% decrease from 2015), although count totals decreased at several other locations where a limited number of data points exist. At these locations, additional data is needed to identify whether these changes are consistent with overall changing usage patterns, or attributable largely to specific conditions during the observation period.

Importantly, both increases and decreases in observed activity may reflect changes in route preferences among riders, as well as the impacts of modal shifts toward or away from bicycling. As new roadways are resurfaced and/or new bikeways are developed, individual bicyclists may adapt trip choices to better meet their needs and/or to feel safe on the road. Moreover, although marked increases in activity at locations where new facilities have been added indicates that they are drawing increased ridership (whether new or existing bicyclists), additional data is needed (including, potentially, rider surveys and/or a series of control location counts) to evaluate the degree to which new facilities draw riders from alternative routes.

Among the fifteen new count locations, some of these reflect locations where bicycle facilities are under development or have been identified in planning documents as priority bicycle connections (including those identified in the Jefferson Parish Master Plan, potential new bikeways in Westbank Orleans Parish, and critical connections to existing facilities such as Tulane Avenue in the Medical District and Martin Luther King Boulevard), while several (Napoleon Avenue, and Jackson Avenue, Desaix Boulevard, South Galvez Street, and Hannan Boulevard in St. Bernard Parish) have already experienced new bikeway investment. Counts should be repeated at each of these locations, either following changes in the built environment or on a cyclical basis to permit evaluation of changes.

Notably, although no bicyclists were observed during the 8-hour observation period on Hannan Boulevard, St. Bernard Parish's first dedicated on-street bikeway, the update and implementation of that parish's pedestrian and bicycle master plan marks an important moment for the regional expansion of active transportation connections and this, as well as other St. Bernard Parish bikeways or future bikeways, should continue to be monitored to establish baseline user volumes and characteristics.

Table 5: Observed Bicyclist Volumes, New and Cross-Sectional Count Locations

Site #	Site Name	2014	2015	2017	Change*
20	Oretha Castle Haley Blvd	163	n/a	200	23%
31	Decatur St (Jackson Square)	556	559	478	-14%
37	Baronne St (Gateway)	102	180	186	82%
38	N. Rampart St	105	n/a	235	124%
40	Annunciation St	118	87	58	-51%
43	St. Charles Ave (LGD)		249	176	-29%
45	N. Galvez St		82	66	-20%
46	N. Miro St		51	37	-27%
52	Marconi Dr		83	67	-19%
53	Banks St		53	75	42%
56	Desaix Blvd			48	
57	Severn Ave			8	
58	Hannan Blvd			0	
59	Read Blvd			39	
60	Tulane Ave (Medical District)			111	
61	18th St			101	
62	Napoleon Ave			110	
63	Martin Luther King Blvd (Claiborne)			71	
64	S. Claiborne Ave			91	
65	Jackson Ave			114	
66	Martin Luther King Blvd (Central)			50	
67	Holmes Blvd			20	
68	Whitney Ave			15	
69	Opelousas Ave			21	
70	S. Galvez St			54	
71	Williams Blvd	9 *(2013 count)*		88	878%

**Since first count date, if applicable*

Pedestrians

For pedestrians, this set of count locations with two or three years of data available yielded similarly mixed results, with the most marked increases observed on Decatur Street at Jackson Square (34%) and North Rampart Street (29%), and the greatest decreases occurring at North Galvez Street (-66%) and North Miro Street (-58%) (Table 6). As noted above, high sensitivity of pedestrians to a multitude of variables suggests that additional data may be needed to make conclusive inferences about these trends, although the completion of the Rampart Streetcar and concurrent pedestrian and landscaping improvements on that corridor are a likely contributing factor to increased activity. Notable, given the significant increase in bicycling activity observed above, counts remained nearly constant at Williams Boulevard relative to the 2013 observed user total.

Among new count locations, several of which were selected specifically for their relationship to new or expanding pedestrian activity generators, projects in school areas, or identified pedestrian high-crash locations, user volume totals provide a baseline for evaluation and/or a basis for better understanding the characteristics of people walking in these areas. The data from two sites in particular, at Martin Luther King Boulevard and South Claiborne Avenue, collected concurrently, can be combined to provide a total count of pedestrian crossings at that intersection, which may be useful in evaluating outcomes from future safety improvements relative to the amount of pedestrian exposure generated at that location.

For all new and cross-sectional count locations, additional periodic monitoring will help inform general conclusions about usage trends and facilitate more robust analysis of the impacts of specific contextual variables.

Table 6: Observed Pedestrian Volumes, New and Cross-Sectional Count Locations

Site #	Site Name	2014	2015	2017	Change*
20	Oretha Castle Haley Blvd	466	n/a	287	-38%
31	Decatur St (Jackson Square)	4,773	4,597	6,387	34%
37	Baronne St (Gateway)	149	176	174	17%
38	N. Rampart St	770	n/a	994	29%
40	Annunciation St	130	182	92	-29%
43	St. Charles Ave (LGD)		944	901	-5%
45	N. Galvez St		144	49	-66%
46	N. Miro St		171	72	-58%
52	Marconi Dr		55	40	-27%
53	Banks St		193	216	12%
56	Desaix Blvd			68	
57	Severn Ave			71	
58	Hannan Blvd			9	
59	Read Blvd			70	
60	Tulane Ave (Medical District)			579	
61	18th St			137	
62	Napoleon Ave			242	
63	Martin Luther King Blvd (Claiborne)			135	
64	S. Claiborne Ave			213	
65	Jackson Ave			365	
66	Martin Luther King Blvd (Central)			136	
67	Holmes Blvd			84	
68	Whitney Ave			65	
69	Opelousas Ave			55	
70	S. Galvez St			177	
71	Williams Blvd	68 *(2013 Count)*		69	1%

**Since first count date, if applicable*

3.3 Estimated Daily Bicycle and Pedestrian Traffic, All 2017 Count Locations

As noted in Section 2, PBRI has used National Pedestrian and Bicycle Documentation Project (NPBD) methodology to extrapolate the 8 hours of observed user volumes into Pedestrian and Bicycle Estimated Daily Traffic (EDT) averages in order to provide context to the numbers and allow for comparison of data with other count studies. Extrapolation of the data to a 24-hour period, while revealing trends parallel to those described above, somewhat reduces the impact of fluctuations observed during the eight hours of count collection on overall percent change, as higher usage rates during typical peak morning and afternoon hours would not necessarily translate to correspondingly higher rates of use at off-peak times. In addition, the formula for extrapolating EDT is impacted by shifting proportions in the ratio of bicyclists to pedestrians. Though limited in precision, this extrapolation provides a useful metric for estimating potential daily demand beyond the eight-hours of morning and afternoon peak-period counts.

As discussed above, preliminary research indicates that many count locations observed do not closely align with the underlying assumptions of this method, due to a variety of factors. These include a climate that diverges from the three models described by NPBD, a large number of service industry and other types of jobs that do not include commutes during morning and afternoon "peak" periods, social factors, etc. As a result, EDT figures provided, intended to smooth over daily and seasonal variations and provide a sense of typical user volumes averaged over the course of a year, should be assumed to be a rough estimate intended for comparative purposes.

Additional research is needed to develop adjustment factors for short term counts that better fit local usage patterns and a wider variety of urban and suburban contexts. For additional information about the methodology used to calculate EDT, see Appendix E.

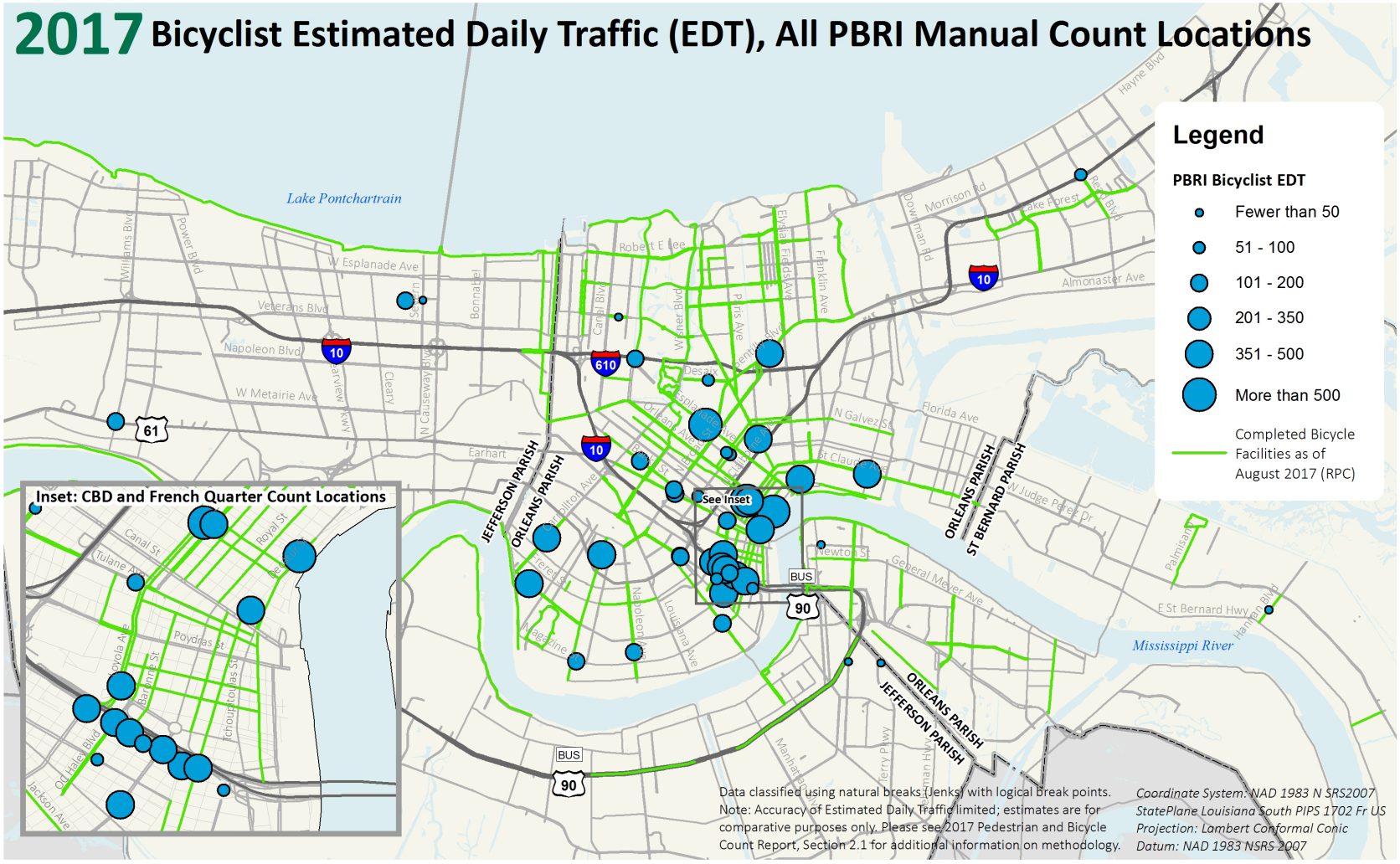
Looking at all 46 2017 count locations together, the sites with the highest overall observed bicyclist estimated daily traffic (EDT) include Basin Street (at the Lafitte Greenway trailhead), Decatur Street at Jackson Square, and Esplanade Avenue. Of the top fifteen bicycle EDT locations, all of which are in Eastbank Orleans Parish, ten have dedicated bikeways (Table 7, Figure 14). Of the remainder, four are "gateway" locations along the Pontchartrain Expressway corridor linking uptown New Orleans to the downtown business core, highlighting the demand for improved connections underneath this critical barrier.

For people walking, the highest Pedestrian EDT figures are in the French Quarter (both Decatur Street count locations, and North Rampart Street), and along St. Charles Avenue (Table 8, Figure 15). The top 15 EDPT locations include key commercial and service corridors (e.g. Magazine Street, Tulane Avenue, St. Claude Avenue, and Loyola Avenue), residential areas along key transit lines (e.g. Esplanade Avenue, Simon Bolivar Avenue, St. Charles Avenue, South Carrollton Avenue), and in historic districts, particularly those with nearby neighborhood commercial activity (e.g. Esplanade Avenue, Royal Street).

Table 7: Bicycle Estimated Daily Traffic (EDT), All 2017 Count Locations

Site #	Site Name	2017 Bicycle EDT
16	Basin St	664
31	Decatur St (Jackson Square)	619
2	Esplanade Ave	607
11	Simon Bolivar Ave (Gateway)	479
6	Camp St (Gateway)	472
22	Loyola Ave	462
18	St. Charles Ave (Uptown)	429
4	St. Claude Ave (Bywater)	377
38	N. Rampart St	335
43	St. Charles Ave (LGD)	313
20	Oretha Castle Haley Blvd	310
15	St. Bernard Ave	309
7	St. Charles Ave (Gateway)	287
37	Baronne St (Gateway)	251
17	Nashville Ave	251
1	Gentilly Blvd	246
5	Royal St (Marigny)	241
19	S. Carrollton Ave	234
8	Decatur St (Iberville)	225
10	Magazine St (Gateway)	213
62	Napoleon Ave	179
61	18th St	176
60	Tulane Ave (Medical District)	175
24	Tulane Ave	168
12	Carondelet St (Gateway)	158
71	Williams Blvd	145
23	S. Broad St	145
65	Jackson Ave	140
9	Magazine St (Uptown)	139
64	S. Claiborne Ave	125
63	Martin Luther King Blvd (Claiborne)	117
53	Banks St	115
52	Marconi Dr	103
45	N. Galvez St	99
40	Annunciation St	96
70	S. Galvez St	91
59	Read Blvd	72
66	Martin Luther King Blvd (Central)	68
56	Desaix Blvd	61
46	N. Miro St	60
3	Harrison Ave	46
67	Holmes Blvd	33
69	Opelousas Ave	31
68	Whitney Ave	24
57	Severn Ave	12
58	Hannan Blvd	0

Figure 14: 2017 Bicycle Estimated Daily Traffic, All 2017 Manual Count Locations



0 1.25 2.5 5 Miles

PBRI PEDESTRIAN BICYCLE RESOURCE INITIATIVE

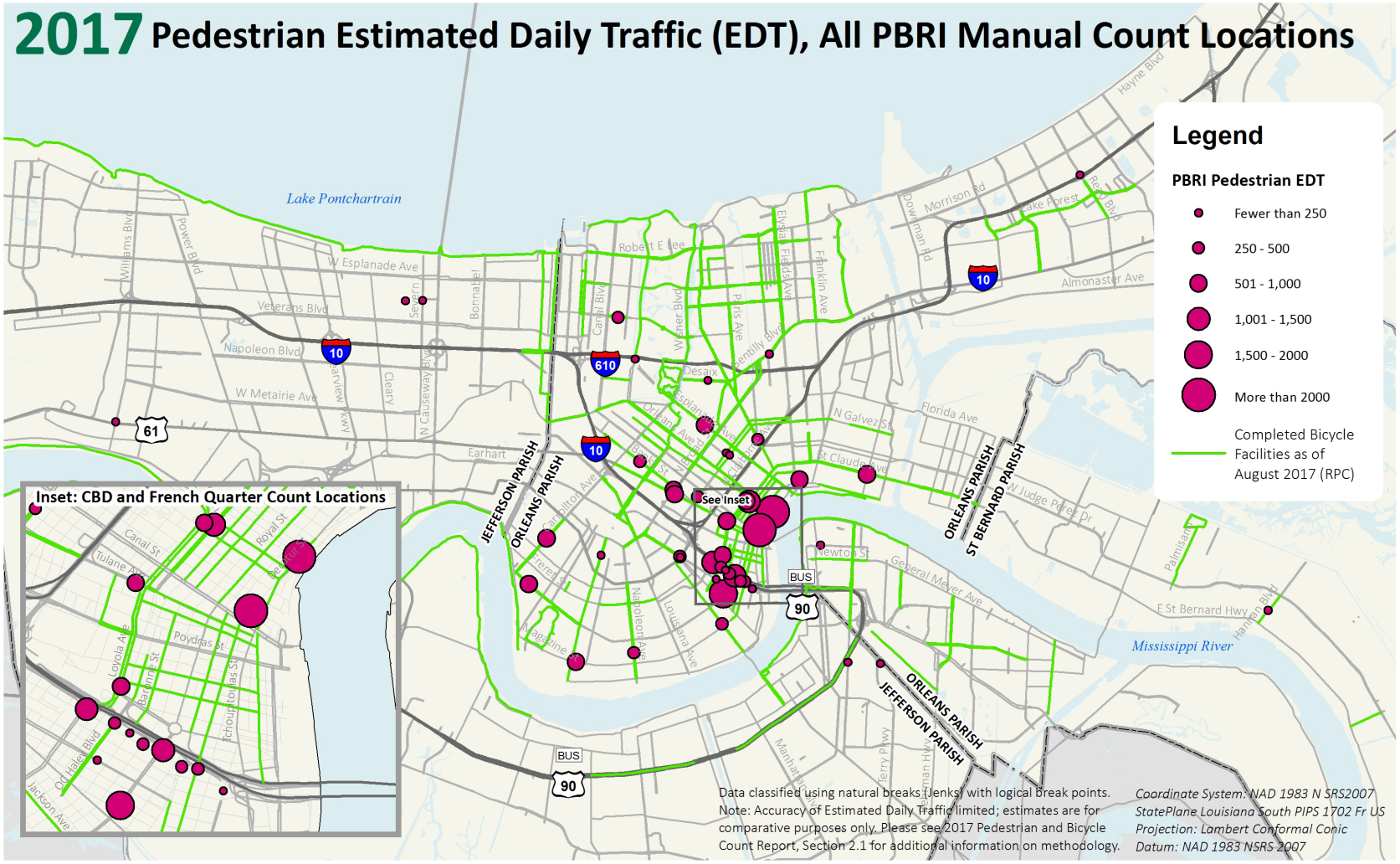
Map prepared September 2017 Pedestrian Bicycle Resource Initiative, New Orleans 2017 Pedestrian and Bicycle Count Report www.pbriLA.org

Data Sources: Basemap Created using 2016 TIGER/Line shapefiles for Orleans, Jefferson, and St. Bernard parish roads and water features. Manual and electronic count locations by University of New Orleans, 2017. Orleans Parish On-Street Bike Routes, Orleans Parish Shared Use Trail Network, Jefferson Parish On-Street Bike Routes, Jefferson Parish Shared Use Trail Network, St. Bernard Parish On-Street Bike Routes, and St. Bernard Parish Shared Use Trail Network shapefiles by RPC, 2017. Any use of the data must be accompanied with this citation and accompanying seals and logos.

Table 8: Pedestrian Estimated Daily Traffic (EDT), All 2017 Count Locations

Site #	Site Name	2017 Pedestrian EDT
31	Decatur St (Jackson Square)	8,266
8	Decatur St (Iberville)	3,350
43	St. Charles Ave (LGD)	1,601
38	N. Rampart St	1,417
7	St. Charles Ave (Gateway)	1,169
11	Simon Bolivar Ave (Gateway)	1,102
60	Tulane Ave (Medical District)	915
9	Magazine St (Uptown)	861
2	Esplanade Ave	845
16	Basin St	827
4	St. Claude Ave (Bywater)	788
22	Loyola Ave	636
5	Royal St (Marigny)	627
18	St. Charles Ave (Uptown)	604
19	S. Carrollton Ave	576
23	S. Broad St	536
24	Tulane Ave	508
65	Jackson Ave	447
20	Oretha Castle Haley Blvd	445
10	Magazine St (Gateway)	420
62	Napoleon Ave	394
15	St. Bernard Ave	377
3	Harrison Ave	370
53	Banks St	330
70	S. Galvez St	299
12	Carondelet St (Gateway)	296
64	S. Claiborne Ave	292
6	Camp St (Gateway)	283
61	18th St	239
37	Baronne St (Gateway)	235
63	Martin Luther King Blvd (Claiborne)	222
66	Martin Luther King Blvd (Central)	185
40	Annunciation St	152
1	Gentilly Blvd	145
67	Holmes Blvd	139
59	Read Blvd	129
46	N. Miro St	116
71	Williams Blvd	114
68	Whitney Ave	104
57	Severn Ave	103
17	Nashville Ave	101
56	Desaix Blvd	87
69	Opelousas Ave	82
45	N. Galvez St	74
52	Marconi Dr	61
58	Hannan Blvd	13

Figure 15: 2017 Pedestrian Estimated Daily Traffic, All 2017 Manual Count Locations



3.4 Commuting Patterns near Manual Count Locations

Utilizing census tract-level data from the American Community Survey 2011-2015 five year estimates, commuting patterns were mapped in Figures 16 and 17. Active transportation commuting has increased slightly overall citywide from the previous dataset (see Section 5 for additional information on citywide and regional trends), but census-tract level patterns remain relatively stable.[16] As in previous years evaluated, the highest rates of active transportation are in downtown neighborhoods, with high rates of bicycle use in the Marigny, Bywater, Treme, and Seventh Ward neighborhoods, and the highest share of walking commutes in the French Quarter, CBD, and Treme. There are also pockets of high walking and/or bicycling commute rates throughout Uptown New Orleans, and select tracts in Kenner, Gretna, St. Bernard Parish, and New Orleans East.

Low rates of active commuting are found in more suburban portions of the region including Gentilly, Lakeview, Algiers, New Orleans East, and most of St. Bernard and Jefferson Parishes. Although the relationship is imperfect (as many people walk and especially bicycle outside of the neighborhoods in which they live, many walk or bicycle for reasons other than commuting, and ACS data itself is known to tend to underestimate certain populations, particularly the low income, immigrant, and minority communities more likely to lack reliable motor vehicle access), count locations with high observed user volumes tend to be located in or near census tracts with higher rates of active transportation commuting. The manual count sites with the highest 2017 Bicyclist EDT (e.g. Basin Street, Decatur Street, Esplanade Avenue, and several CBD "Gateway" count locations), tend to be within or adjacent to census tracts with high rates (6% or greater) of 2011-2015 5-year estimated bicycle commuting. Conversely, the lowest Bicyclist EDT sites tend to be near census tracts with low rates of commuting by bicycle (less than 2%).

As noted in previous studies, correlations between pedestrian commute mode and observed use are complicated by variables including but not limited to land uses, neighborhood demographics, infrastructure, and tourism. Broadly speaking, robust pedestrian activity is observed at locations where infrastructure is adequate and there are businesses, institutions, transit stops, and/or other destinations nearby, regardless of commute mode share statistics. Meanwhile, high rates of pedestrian commuting are found primarily where residential and commercial land uses are most mixed, such as the French Quarter and CBD, as well as in University areas.

Also, as previous iterations of this study have observed, the relationship between facility construction and overall mode share is complex, and correlations between new infrastructure and commute behavior can be difficult to isolate. It is worth noting, however, that geographic reach of census tracts reporting at least some number of bicycle commuters, however small, has expanded, suggesting that, in part, the construction of new bicycle facilities--particularly in areas where infrastructure is currently lacking but demographics suggest likely potential active transportation users-- is likely to have a long-term impact on overall mode share. In Orleans Parish, the number of census tracts with zero bicycle commuters estimated has declined from 101 in 2010 to 60 in 2015, while there are roughly half as many census tracts without residents who commute on foot (Table 9). In addition, the share of census tracts where greater than five percent of commuters use bicycles has increased to over a quarter of the parish. In more suburban Jefferson Parish, more modest expansion of active commuting is observed, with a steadily declining

16 *Note that due to limited sample sizes, margins of error for census tract-level commute data can be very high (i.e., at the 90% confidence interval, coefficients of variation may be greater than 30%, indicating that data should be used with caution). Five-year estimates provide estimates at smaller levels of geography by aggregating samples from multiple years to provide a moving average estimate, however, these figures are used for comparative purposes only to illustrate likely trends and do not describe specific numbers of users for any given geography or year.*

share of tracts with zero active commuters estimated, and a marginal increase in the (still limited) number of tracts where greater than 5% commute on foot or by bicycle. Finally, in considerably more sparsely populated St. Bernard Parish, there are still no census tracts with a 5% or greater share of active commuters, however, the share of tracts where there are more than zero estimated pedestrian or bicyclist commuters has increased.

Although there are myriad economic, demographic, and context-specific factors influencing the decision to bicycle regularly, this trend suggests, as asserted in previous reports, that as the region's bicycle infrastructure network has become more integrated, viability of bicycling for transportation has expanded into new neighborhoods further from the downtown core.

Importantly, while general correlations appear to exist between higher observed rates of use and higher reported rates of active transportation commuting in the American Community Survey, discrepancies may exist as both datasets represent limited sample sizes. This study does not evaluate usership on all possible routes within a neighborhood, and ACS samples for this data are relatively small with high margins of error (i.e., coefficients of variation at the 90% confidence interval greater than 30%), particularly during the first few years after Hurricane Katrina. As five-year estimates are the only dataset available at the census tract level, changes in commute trends may not be quickly reflected in ACS estimates.

Table 9: Census Tract-Level Active Commuting Summary Statistics, Orleans, Jefferson, and St. Bernard Parishes

	2006-2010		2009-2013		2011-2015		Percentage Point Change, 2010 Estimates to 2015 Estimates
Orleans	**#**	**%**	**#**	**%**	**#**	**%**	
Total tracts*	173		172		172		
Zero Bicyclists	101	58.0%	71	41.0%	60	34.9%	*-23.5%*
Zero Pedestrians	62	36.0%	35	20.0%	30	17.4%	*-18.4%*
>5% Bicyclists	24	14.0%	38	22.0%	45	26.2%	*12.3%*
>5% Pedestrians	60	35.0%	67	39.0%	62	36.0%	*1.4%*
Jefferson	**#**	**%**	**#**	**%**	**#**	**%**	
Total tracts*	124		124		124		
Zero Bicyclists	91	73.0%	88	71.0%	83	66.9%	*-6.5%*
Zero Pedestrians	43	35.0%	32	26.0%	28	22.6%	*-12.1%*
>5% Bicyclists	0	0.0%	1	1.0%	2	1.6%	*1.6%*
>5% Pedestrians	6	5.0%	11	9.0%	11	8.9%	*4.0%*
St Bernard	**#**	**%**	**#**	**%**	**#**	**%**	
Total tracts*	17		17		17		
Zero Bicyclists	17	100.0%	14	82.0%	14	82.4%	*-17.6%*
Zero Pedestrians	13	76.0%	9	53.0%	8	47.1%	*-29.4%*
>5% Bicyclists	0	0.0%	0	0.0%	0	0.0%	*0.0%*
>5% Pedestrians	0	0.0%	0	0.0%	0	0.0%	*0.0%*

Data Source: ACS 5-Year Estimates (Table B08301)

**(for which data is available and population of commuters is greater than zero)*

Figure 16: Bicycle Commuters by Census Tract, Jefferson, Orleans, and St. Bernard Parishes (ACS 2011-2015 5-Year Estimates)

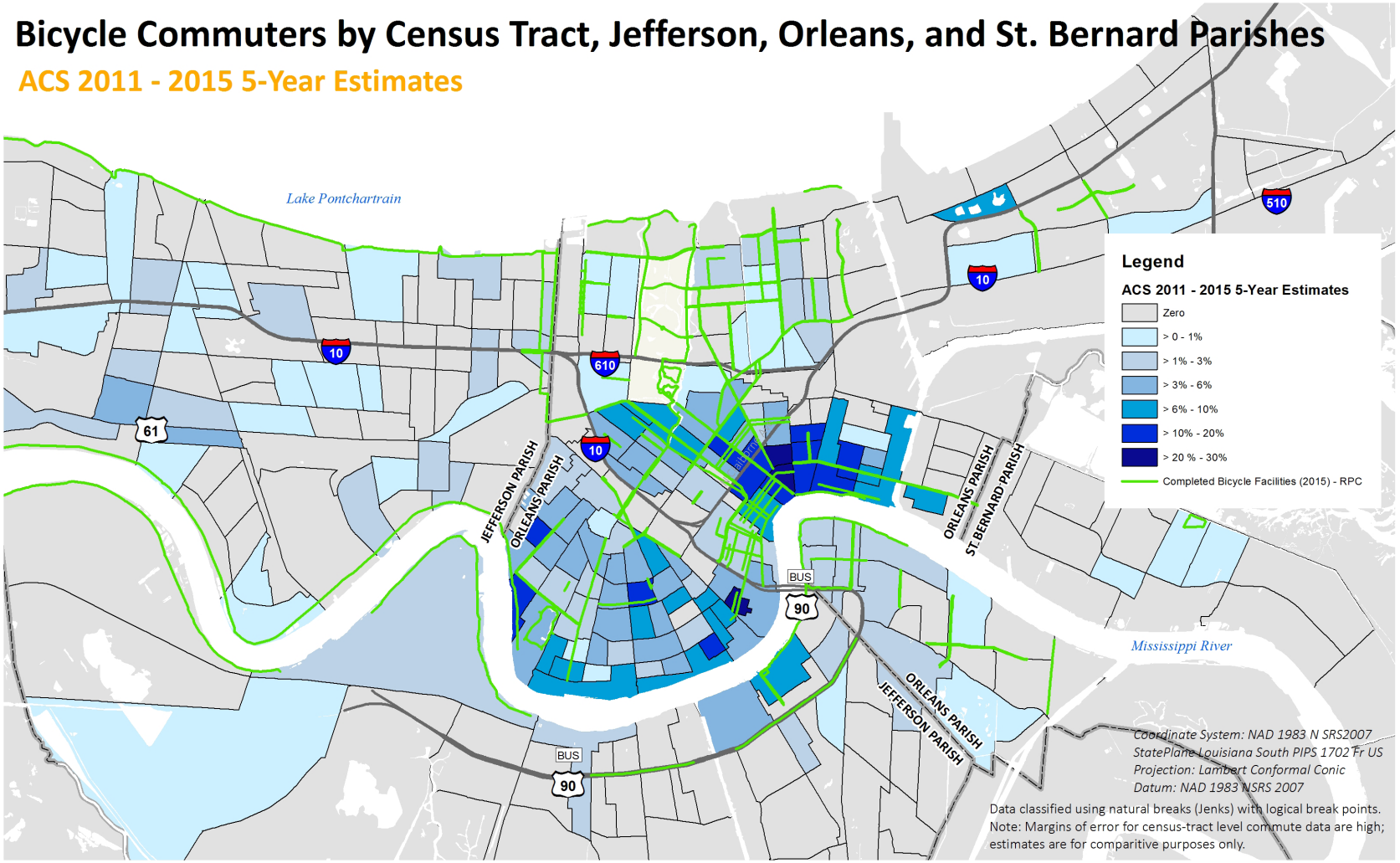


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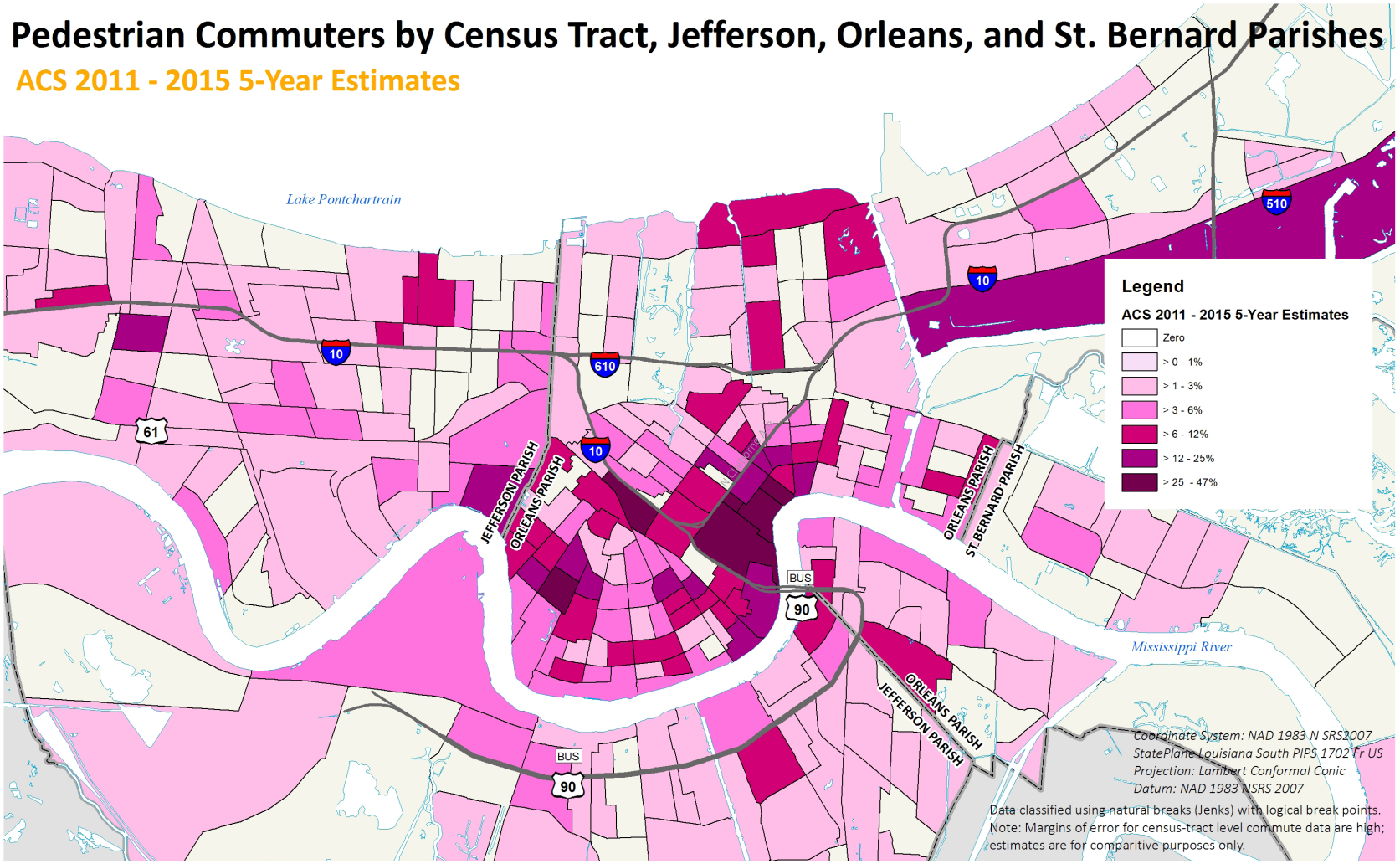
Figure 17: Pedestrian Commuters by Census Tract, Jefferson, Orleans, and St. Bernard Parishes (ACS 2011-2015 5-Year Estimates)



RPC REGIONAL PLANNING COMMISSION FOR THE PARISHES OF LOUISIANA

0 1.25 2.5 5 Miles

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3.5 Estimating Active Transportation Mode Share

Previous PBRI count reports have examined mode share by comparing active transportation count data with automobile Average Daily Traffic (ADT) data collected by the New Orleans RPC and the Louisiana DOTD at locations proximate to manual count sites. This analysis has been updated to include new count sites as well as more recent automobile count figures from both the Regional Planning Commission and Louisiana Department of Transportation and Development (Table 10). Using this data, we can construct a rough approximation of the mode share of selected facilities.

Notably, transit riders are not accounted for in this analysis, as at present, ridership data is not available at a level of disaggregation conducive to segment-based mode share evaluation. In addition, the pedestrian and bicycle EDT figures have an innate margin of error as discussed above, and motor vehicle counts are not necessarily from the same year as pedestrian and bicycle counts, dating as far back as 2008 where more recent counts have not been conducted. Automobile count locations may not, in some cases, accurately reflect traffic volumes at the precise locations where PBRI counts were conducted. Future analyses should incorporate new transit data becoming available through investments in upgraded on-board technology along with both automobile and non-motorized user counts to provide more accurate estimates. Expanded use of automated pedestrian and bicycle counts at the state, local, and regional levels will facilitate more accurate and integrated multimodal data analysis.

Even given the important limitations inherent in using imperfectly aligned data from multiple sources and time periods, combining EDT for walking and bicycling with automobile ADT reveals that active transportation may account for a substantial percentage of overall daily traffic, particularly at points of entry and exit to the CBD and in downtown neighborhoods. As observed in previous years, a substantial percentage of commuters into and out of the downtown area also arrive via active transportation, particularly at Simon Bolivar Avenue, Camp Street, and St. Charles Avenue, while active users (principally pedestrians) make up over a third of total volumes at the heart of the French Quarter, and exceed 5% on several corridors bordering the French Quarter, within the Medical District, Uptown, and on Esplanade and St. Bernard Avenues.

Notably, motorized vehicle ADT is a useful tool for evaluating potential opportunities for and limitations of active transportation infrastructure investment. While low vehicle volumes and high active user counts indicate prime opportunities for reallocation of existing right-of-way to better accommodate people walking and bicycling, demand for walking and bicycling also exists along corridors with more traffic. In such cases, popular approaches such as road diets and increased pedestrian signalization may be less palatable and at the same time, simple, low-cost interventions such as striping bicycle lanes and crosswalks may be insufficient to increase comfort and safety for non-motorized users. In these instances, (e.g. South Claiborne Avenue, South Broad St), a more comprehensive strategy is needed to either invest in high-quality, protected spaces for active users or to develop alternatives which connect the network for active users via nearby, alternative routes and mitigate demand on difficult thoroughfares (e.g. by developing bicycle boulevards on low-volume streets parallel to busier roads).

Importantly, however, characteristics of the built environment such as land use and street connectivity often compel people bicycling and walking to use or cross high-volume arterial corridors because no feasible alternatives exist. Evaluation of such barriers and choke-points, as well as strategic planning at the network level, are needed to best identify solutions to connect all road users safely and efficiently to their destinations, regardless of mode.

Table 10 : Approximate Active Transportation Mode Share for Select Sites

		2017 Bicycle EDT		2017 Pedestrian EDT		2017 Combined Bicycle/Pedestrian EDT		Motorized Vehicle ADT			Total EDT (excludes transit)
Site #	**Site Name**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**Year**	**%**	**#**
31	Decatur St (Jackson Square)	619	2.5%	8,266	32.8%	8,885	35.3%	16,283	2016	64.7%	25,168
11	Simon Bolivar Ave (Gateway)	479	4.2%	1,102	9.6%	1,581	13.7%	9,956	2008	86.3%	11,537
6	Camp St (Gateway)	472	8.3%	283	5.0%	755	13.2%	4,960	2009	86.8%	5,715
22	Loyola Ave	462	4.8%	636	6.6%	1,098	11.5%	8,476	2016	88.5%	9,574
2	Esplanade Ave	607	4.3%	845	5.9%	1,452	10.2%	12,780	2016	89.8%	14,232
16	Basin St	664	4.2%	827	5.3%	1,491	9.5%	14,249	2016	90.5%	15,740
60	Tulane Ave (Medical District)	175	1.4%	915	7.3%	1,090	8.7%	11,454	2008	91.3%	12,544
43	St. Charles Ave (LGD)	313	1.4%	1,601	7.1%	1,914	8.5%	20,662	2011	91.5%	22,576
38	N. Rampart St	335	1.5%	1,417	6.4%	1,752	7.9%	20,481	2012	92.1%	22,233
69	S. Galvez St	91	1.7%	299	5.5%	390	7.1%	5,095	2008	92.9%	5,485
15	St. Bernard Ave	309	3.2%	377	3.9%	686	7.1%	9,028	2016	92.9%	9,714
7	St. Charles Ave (Gateway)	287	1.3%	1,169	5.3%	1,456	6.6%	20,662	2011	93.4%	22,118
10	Magazine St (Gateway)	213	2.0%	420	3.8%	633	5.8%	10,287	2009	94.2%	10,920
18	St. Charles Ave (Uptown)	429	2.3%	604	3.2%	1,033	5.5%	17,839	2008	94.5%	18,872
62	Napoleon Ave	176	1.7%	394	3.7%	570	5.3%	10,087	2008	94.7%	10,657
65	Jackson Ave	140	1.3%	447	4.0%	587	5.3%	10,466	2008	94.7%	11,053
4	St. Claude Ave (Bywater)	377	1.6%	788	3.3%	1,165	4.9%	22,750	2013	95.1%	23,915
24	Tulane Ave	168	1.0%	508	2.9%	676	3.9%	16,667	2013	96.1%	17,343
52	Marconi Dr	103	2.2%	61	1.3%	164	3.6%	4,445	2008	96.4%	4,609
63	Martin Luther King Blvd (Claiborne)	117	1.0%	222	2.0%	339	3.0%	10,979	2008	97.0%	11,318
19	S. Carrollton Ave	234	0.8%	576	2.0%	810	2.7%	28,653	2012	97.3%	29,463
1	Gentilly Blvd	246	1.7%	145	1.0%	391	2.6%	14,480	2016	97.4%	14,871
23	S. Broad St	145	0.4%	536	1.6%	681	2.0%	33,877	2014	98.0%	34,558
56	Desaix Blvd	61	0.7%	87	1.0%	148	1.7%	8,431	2008	98.3%	8,579
70	Williams Blvd	145	0.7%	114	0.6%	259	1.3%	19,949	2014	98.7%	20,208
59	Read Blvd	72	0.4%	129	0.8%	201	1.2%	16,464	2016	98.8%	16,665
67	Holmes Blvd	33	0.2%	139	1.0%	172	1.2%	14,300	2011	98.8%	14,472
68	Whitney Ave	24	0.2%	104	0.9%	128	1.1%	11,500	2011	98.9%	11,628
58	Hannan Blvd	-	0.0%	13	0.6%	13	0.6%	2,137	2008	99.4%	2,150
64	S. Claiborne Ave	125	0.2%	292	0.4%	417	0.6%	69,963	2016	99.4%	70,380

Selected Sites are locations with motor vehicle ADT data available from RPC or DOTD. Most recent counts used where multiple available; closest count location on corridor utilized where no boundary streets for estimate indicated. Data Source: http://www.norpc.org/traffic_counts.html; http://wwwapps.dotd.la.gov/engineering/tatv/

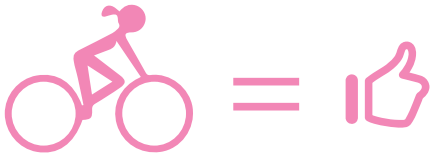
3.6 Demographic and Behavioral Characteristics of Users

In addition to counting the total number of pedestrians and bicyclists, the PBRI count study also aims to capture critical information about who is using our streets and sidewalks, and how. This section summarizes the user characteristics of pedestrians and bicyclists observed in 2017, including gender, age category (i.e., adult versus child), race, travel orientation, and helmet use for bicyclists (Tables 12 and 13, pages 48 and 49). Gender, helmet use, and travel orientation are important indicators of bicyclist safety and perceptions toward bicycling, while age group and race illustrate demographic variances in usership and highlight potential opportunities to target future safety and educational campaigns to the groups and neighborhoods that could best benefit from them.

Appendix G breaks down these attributes for pedestrians and bicyclists by count site, highlighting how various characteristics shift dramatically by location.

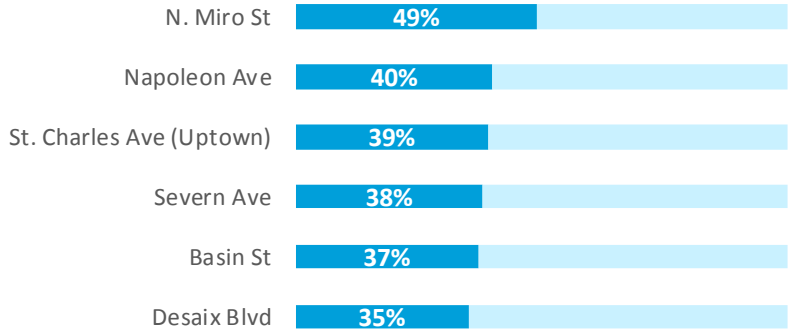
Gender

As has been widely documented in the literature and in previous iterations of this report, the proportion of female bicyclists is a strong indicator of the perceived safety and bicycle-friendliness of a location.[17] HHigher percentages of women and girls indicate a more comfortable cycling environment for all users. To some extent, this may also be true of high female pedestrian activity in a given area, although less research exists documenting this subject. In the New Orleans region, the percentage of bicyclists who are female observed at the 12 core count locations has trended upward slightly over the seven years of this study, although this is belied by a notable decrease in their proportion (though not absolute number) in 2017. This may be attributable to any number of factors, including generally greater sensitivity to inclement weather, more rapid shifts in route choice along with new facility construction (e.g., choosing the Lafitte Greenway over Esplanade Avenue, or Oretha Castle Haley Boulevard over Simon Bolivar Avenue), or may reflect a plateau in the rate of growth experienced in recent years. Additional study is needed to determine any causation in this case. Notably, the overall percent of women observed at all 2017 count locations--and indeed, most other demographic and behavioral variables-tracks closely with summary totals for the original 12 longitudinal locations, suggesting that this limited set of long-term data provides a reasonably representative subset for the study area.



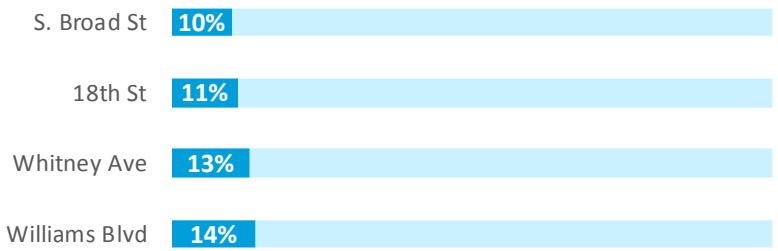
A higher proportion of female bicyclists indicates a bike-friendly street.

Sites with the highest female bicyclist percentage (greater than 35%) include:



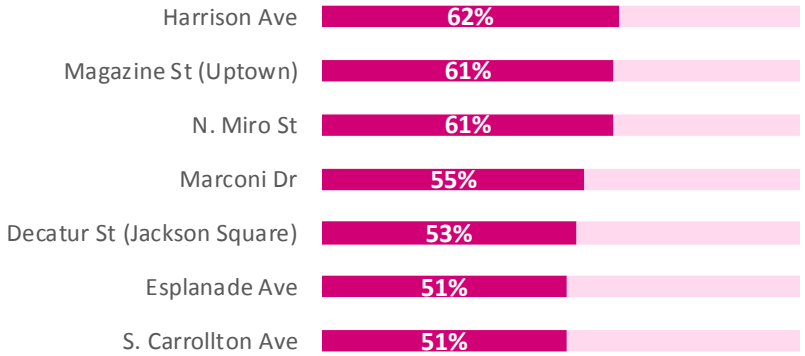
17 *Garrard, J., Dill, J., Handy, S. (2012). Women and Cycling. In Pucher, J., Buehler, R. (Eds.), City Cycling (211-234). Cambridge, MA: MIT Press*

Very low percentages of women bicyclists (less than 15%) were observed at the following locations:

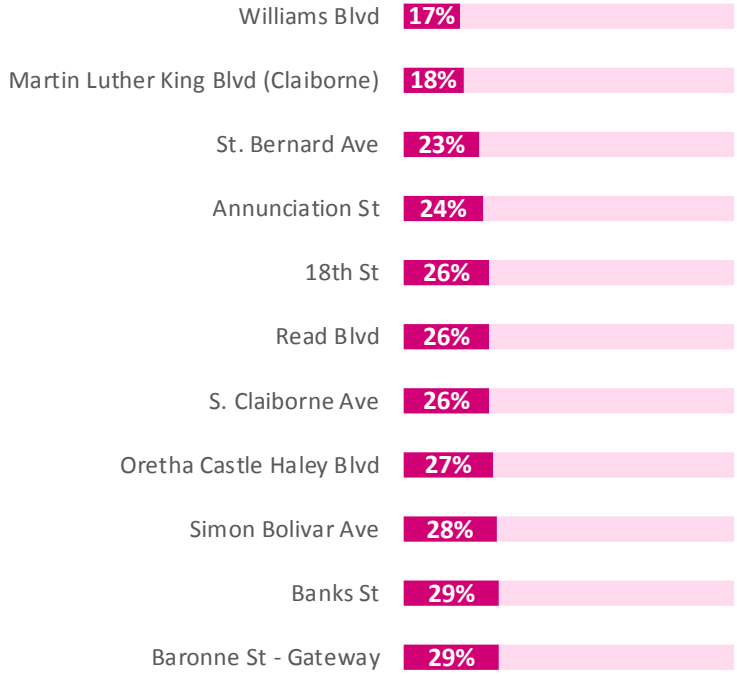


It is important to note that the proportion of female cyclists at some locations (e.g. North Miro Street, Severn Avenue) is high, however the total number of cyclists observed is quite low. Furthermore, as noted above, lack of observed total as well as female cyclists on a specific corridor does not necessarily indicate lack of latent demand for access to these areas.

Among pedestrians, there has been a slow but steady increase in the share observed who are female, from 40% to 45%. At all 46 count locations, the total share was 44% in 2017. The highest proportions of female pedestrians (greater than 50%) were observed at:



Meanwhile the lowest (less than 30%) were documented at the following:



As discussed above, while some of these trends are likely related to facility presence and quality, and four off the locations with the highest shares of female bicyclists do have dedicated bike facilities, it is likely that other factors influence perceived safety and women's willingness to bike or walk in a given location, including land use mix, traffic volumes, and personal safety (as from crime). Other factors such as commercial activity, transit access, tree cover, and the presence of many other pedestrians likely contribute to women's (and everyone's) choices whether and where to walk.

Figure 18: Demographic Summary of Bicyclists, All 2017 Manual Count Locations

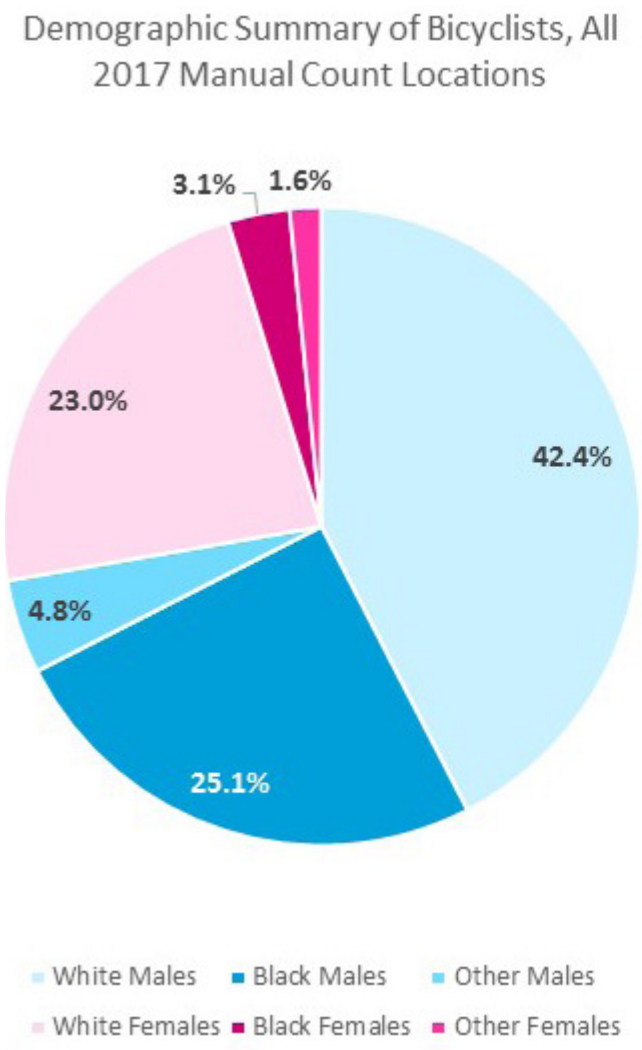
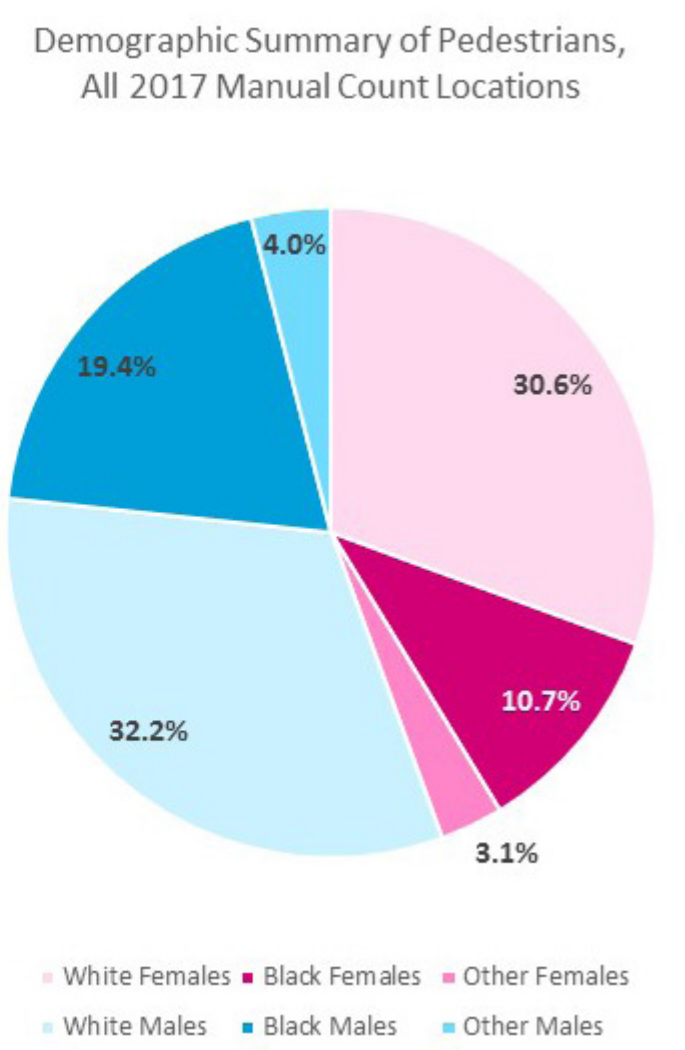


Figure 19: Demographic Summary of Pedestrians, All 2017 Manual Count Locations



Race

The general racial characteristics of users, categorized as "black," "white," or "other," assigned by the student and volunteer observers, are inherently subjective and used here for descriptive purposes only. In 2017, approximately 66% of bicyclists at the core continuing count locations were identified as white, 29% as black, and 5% as other (Figure 18). The share of bicyclists perceived to be black has increased the most substantially, rising from 19% to 29% since 2010. These percentages diverge only slightly for the wider set of all 2017 count locations, with 28% of bicyclists identified as black.

As noted in previous count reports, the racial composition of users has been found to principally reflect the demographic makeup of the neighborhood in which counts are conducted, except on corridors that are heavily traveled by bicycle commuters, or areas with high concentrations of tourism activity (e.g. the French Quarter). However, as in previous years, the composition of people walking and bicycling does not quite align with the demographic makeup of the broader area. In Orleans Parish, the share of both women (as noted above) and African Americans observed during manual counts are not proportionate to the larger shares they represent of the overall population (Table 11).

Notably, the racial composition of people walking and bicycling varies widely by count location. The highest percentages of bicyclists identified as black were observed at Whitney Avenue (73%), Simon Bolivar Avenue (67%), and Read Boulevard (67%), while high rates of non-black bicyclists of color were observed in Jefferson Parish at 18th Street (54%) and Williams Boulevard (25%).

Similarly, the share of pedestrians identified as black rises as high as 87% at select locations (Figure 19, See Appendix G for full demographic composition by site) while once again, non-black people of color were observed in the greatest proportion (up to 53% at 18th Street) at four (of five) Jefferson Parish locations. Additional study should investigate the relationships between corridors that have--and more importantly lack--dedicated bicycle infrastructure and where minority and low income populations live to identify potential disparities in investment and opportunities to promote more equitable access to active transportation throughout the region.

Table 11: Demographic Composition of Pedestrians and Bicyclists Relative to Area Population

	% of Pedestrians Observed (All 2017 Orleans Parish Count Locations)	% of Bicyclists Observed (All 2017 Orleans Parish Count Locations)	ACS 2015 1-year Estimates, Orleans Parish
Gender			
Male	55.3%	71.8%	47.7%
Female	44.7%	28.2%	52.3%
Race			
Black	29.7%	66.9%	60.2%
White	63.6%	27.7%	36.0%
Other	6.6%	5.4%	3.8%

Source: 2015 ACS 1-year estimates, Table DP05

Age

Observers are instructed in techniques for assessing age classification to identify pedestrians and bicyclists who are likely to be 14 years of age or younger, however this too remains a subjective determination. As in previous years of data, the percentage of non-motorized users identified as youths remains very small, at 1.4% of bicyclists and 4.5% of pedestrians among the 12 original count locations, and a comparable 1.8% and 4.4% respectively at all 46 locations.

The highest proportions of youth were observed walking at North Miro Street (32%), Whitney Avenue (19%, Opelousas Avenue (18%), and Desaix Boulevard (18%), all of which are within walking distance of one or more schools. Opelousas Avenue and Whitney Avenue also were noted to have the highest share of bicyclists observed to be age 14 or younger (19% and 13% respectively), followed by Harrison Avenue (13%) and Nashville Avenue (11%), and South Claiborne Avenue (10%), the latter notable for its high traffic volumes and speeds, and relatedly, a very poor safety record for all modes, particularly for non-motorized users. The presence of multiple schools nearby and relatively high share of young bicyclists observed suggests a heightened need to address long-identified safety concerns along this corridor.

The parameters of this study (e.g. afternoon count periods beginning after most schools have released for the day) may make it of limited utility for evaluating bicycling and walking among children. However, additional data to supplement these observations (e.g. student/parent surveys and identification of walking or bicycling routes around schools) can help measure the success of regional efforts to promote active transportation to and from schools and identify where improvements for safety and access are most needed.

Helmet Use

Although helmet use is not mandatory among adults in Louisiana, helmet use remains an important indicator of bicyclist safety. While in many cities across the world, low helmet use rates actually reflect increased safety due to the normalization of cycling as a mode of transportation, in most U.S. cities, helmet use is perceived as an encouraging indicator of conscientious bicycling habits. Since 2010, helmet use in New Orleans has more than doubled from 10.4% in 2010 to 22.3% in 2017 at the 12 core count locations. At all 46 count 2017 locations, this figure is slightly higher at 25.4%. These numbers are still well below leading bicycling cities in the United States (e.g., Portland, OR reports 80% helmet use[18]), but approaches estimates indicating that approximately 29% of adult riders consistently wear helmets nationwide.[19] This increase suggests an increasing number of safety-conscious bicyclists.

Over 6 years, observed helmet use has more than doubled from 10% to 22%

Notably, this year's study facilitation of evaluation whether helmet use varies substantially by gender, finding that 35% of women and girls were observed wearing helmets, compared to only 22% of men and boys (Figure 20)

The highest rates of helmet use (above 35%) were observed at count locations on Marconi Drive, Nashville Avenue, Holmes Boulevard, Baronne Street, Martin Luther King Boulevard (Claiborne Ave), North Miro Street, and Basin Street. Although there were

18 *Portland Bureau of Transportation (*https://www.portlandoregon.gov/transportation/article/407660)

19 *Jewett, A., Beck, L. F., Taylor, C., & Baldwin, G. (2016). Bicycle helmet use among persons 5 years and older in the United States, 2012. Journal of Safety Research, 59, 1–7.* http://doi.org/10.1016/j.jsr.2016.09.001 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5189688/

relatively few bicyclists observed at these locations, it is notable that at Severn Avenue, Whitney Avenue, and Opelousas Avenue, no bicyclists wore helmets at all.

Low rates of helmet usage were also observed at the following locations with more substantial bicycling observations, possibly representing opportunities for targeted safety outreach among vulnerable populations, including children, for whom helmet use is obligatory:

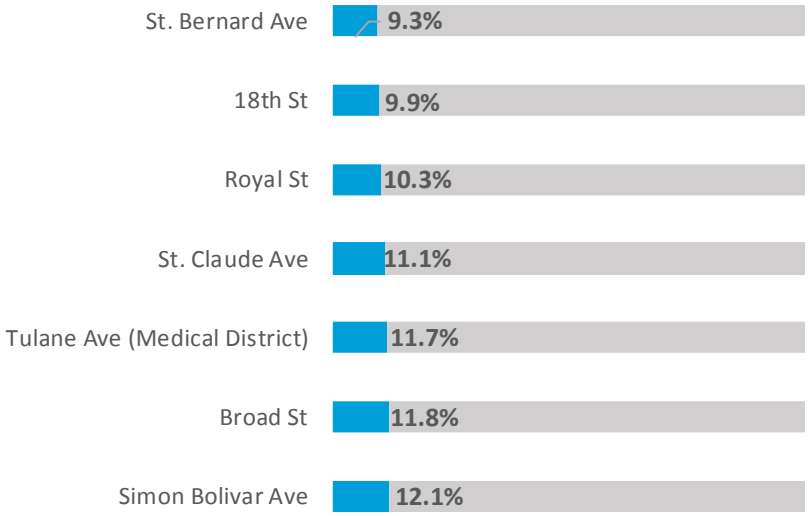


Figure 20: Helmet Use by Gender, All 2017 Manual Count Locations

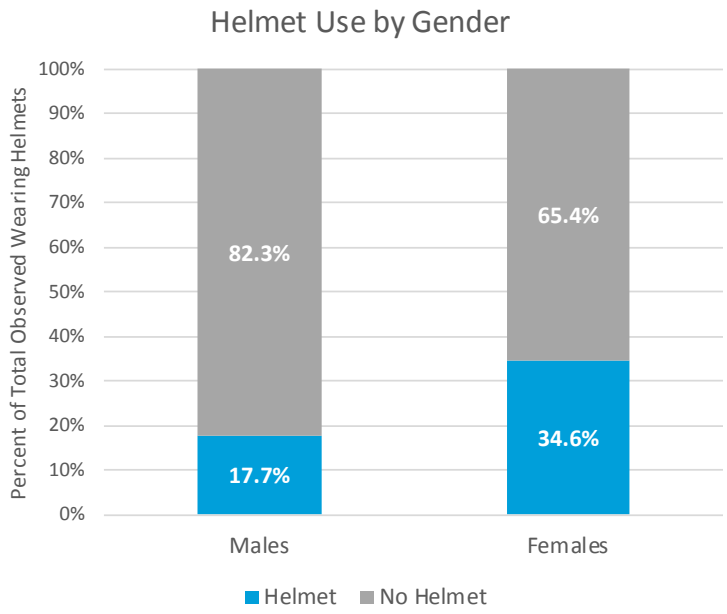


Table 12: Overall Bicyclist Composition, 2010-2017

	Percent of Total, Continuing 12 Count Locations, 2010-2017							*Percentage Point Change, 2010-2017*	All 2017 Count Sites: Percent of Total
	2010	2011	2012	2013	2014	2015	2017		
Gender									
Male Bicyclists	72.9%	72.1%	72.3%	69.0%	68.5%	67.7%	73.6%	*0.7%*	72.3%
Female Bicyclists	27.1%	27.9%	28.0%	31.1%	31.5%	32.3%	26.4%	*-0.7%*	27.7%
Race									
White Bicyclists	70.3%	72.5%	73.1%	73.9%	74.2%	69.0%	65.8%	*-4.5%*	65.4%
Black Bicyclists	19.3%	20.5%	21.7%	21.5%	21.9%	26.1%	29.1%	*9.8%*	28.2%
Other Bicyclists	8.7%	7.0%	5.2%	4.6%	3.9%	4.9%	5.1%	*-3.6%*	6.4%
Age									
Adult Bicyclists	n/a	98.7%	98.4%	98.1%	99.3%	98.6%	98.6%	*-0.1%*	98.2%
Youth Bicyclists	n/a	1.3%	1.6%	1.5%	0.7%	1.4%	1.4%	*0.1%*	1.8%
Helmet Users	10.4%	16.3%	15.8%	20.9%	19.3%	23.6%	22.3%	*11.9%*	25.4%
Travel Orientation:									
Street - Right Way	75.5%	73.9%	80.2%	82.1%	86.7%	84.3%	82.2%	*6.7%*	83.2%
Street - Wrong Way	11.6%	9.7%	7.9%	7.3%	4.3%	4.5%	7.3%	*-4.3%*	5.4%
Sidewalk	12.6%	16.1%	11.6%	10.4%	9.0%	11.1%	10.2%	*-2.4%*	10.9%
Neutral Ground	0.4%	0.3%	0.3%	0.2%	0.0%	0.0%	0.3%	*-0.1%*	5.0%

Table 13: Overall Pedestrian Composition, 2010-2017

	Percent of Total, Continuing 12 Count Locations, 2010-2017							*Percentage Value Change, 2010-2017*	All 2017 Count Sites: Percent of Total
	2010	**2011**	**2012**	**2013**	**2014**	**2015**	**2017**		
Gender									
Male Pedestrians	60.0%	60.3%	57.6%	58.1%	58.2%	57.5%	55.1%	*-4.9%*	55.6%
Female Pedestrians	40.0%	39.7%	42.4%	41.9%	41.8%	42.5%	44.9%	*4.9%*	44.4%
Race									
White Pedestrians	57.1%	65.5%	62.0%	67.0%	65.1%	65.4%	64.2%	*7.1%*	62.9%
Black Pedestrians	32.0%	28.1%	31.2%	27.6%	29.4%	27.8%	29.3%	*-2.7%*	30.1%
Other Pedestrians	8.1%	6.3%	6.8%	5.4%	5.5%	6.8%	6.4%	*-1.7%*	7.1%
Age									
Adult Pedestrians	n/a	96.4%	96.1%	96.2%	97.1%	98.1%	95.5%	*-0.9%*	95.6%
Youth Pedestrians	n/a	3.6%	3.9%	3.8%	2.9%	1.9%	4.5%	*0.9%*	4.4%
Travel Orientation:									
Sidewalk	n/a	92.6%	92.9%	92.7%	93.1%	93.1%	95.4%	*2.8%*	94.0%
Street	n/a	4.7%	4.8%	4.9%	4.4%	3.5%	2.4%	*-2.3%*	2.6%
Neutral Ground	n/a	2.8%	2.3%	2.4%	2.5%	3.4%	2.1%	*-0.7%*	3.4%

Travel Orientation

Travel orientation refers to the direction and surface on which pedestrians and bicyclists are traveling. Ideally, pedestrians should travel on sidewalks, and bicyclists should travel on the roadway (unless a separate bicycle or multi-use trail is available, in which case they may utilize either the trail or the roadway, or the user is 14 years or younger) in the direction of traffic. Bicycling in the wrong direction or on the sidewalk or neutral ground, in addition to being in many cases illegal,[20] significantly reduces safety for cyclists, drivers, and pedestrians alike. On the other hand, the presence of bicyclists who use facilities inappropriately, as well as pedestrians observed walking in the street, often indicates gaps or inadequacies in the existing infrastructure in the area. For example, high rates of wrong-way use on a one-way street with a bicycle lane suggests demand for paired bicycle accommodation in the opposite direction of travel, and cases where many adults bicycle on the sidewalk may indicate that the roadway is perceived as unsafe or hostile for bicycling.

Among bicyclists at the 12 original longitudinal count sites, 81% of users were observed traveling on-street, in the direction of traffic. This represents a slight decline compared to a peak of 87% in 2014, but remains well above a baseline of 76% in 2010 and low of 74% in 2011. Both on-street, wrong way riding and sidewalk riding have declined. If sidewalk bicyclists observed to be under the age of 15 (for whom sidewalk riding is legal in Orleans Parish) are accounted for, legal travel orientation increases to 83%.

Among all 46 2017 count locations, the rate of legal on-street bicycle travel was 83% (84% if sidewalk-riding youth are included). Of the remainder, wrong way on-street riding for all locations represents 5% of users, another 5% were observed to be riding on traversable neutral grounds, and 11% on sidewalks (including youth riders).

In 2017, 84% of bicyclists were observed riding legally, in the direction of traffic.

Additional analysis is recommended to further evaluate the relationships among correct riding and specific contexts and facility types in order to identify interventions to improved perceived and measured safety for all road users.

Corridors with right-way, on-street bicycling rates above 90% in 2017 included:

- St. Charles Avenue (Uptown)
- Nashville Avenue
- Decatur Street (Jackson Square)
- Esplanade Avenue
- Napoleon Avenue
- Decatur Street
- Basin Street
- Magazine Street (Gateway)
- Jackson Avenue
- Banks Street
- Oretha Castle Haley Boulevard
- North Rampart Street
- Royal Street

20 Sidewalk riding in New Orleans is illegal for anyone 15 and older (Sec. 154-1416). In Jefferson Parish, it is prohibited in business districts and other areas determined by the Sherriff's Office (Sec. 32-253). In St. Bernard Parish, sidewalk bicycling is permitted unless signed otherwise by the Parish (Sec. 20-204).

Conversely, the lowest rates of legal on-street riding (less than 40%) were observed on:

- Severn Avenue
- Read Boulevard
- Holmes Boulevard
- Williams Boulevard
- 18th Street

In each of these locations in suburban portions of the region, the majority of bicyclists were observed riding on the sidewalk, a clear indicator that the sidewalk is perceived as a safer space to ride than the roadway.

Where dedicated bike lanes exist, nearly all bicyclists were observed utilizing them unless preparing for a left turn (e.g. Basin Street, where many bicyclists exit the protected bikeway before its terminus in order to proceed toward downriver neighborhoods) or in cases where the lanes were obstructed by construction, automobiles, or other disruptions (e.g. Gentilly Boulevard, where many bicyclists were observed riding in the buffered space outside of the bike lane to avoid debris near the curb). Notably, although directionality of travel (i.e. inbound vs. outbound) is not currently recorded in most instances, the fact that over 65% of bicyclists were observed in the bike lane on North Rampart Street--which only has a dedicated bike lane on one side of the roadway--indicates that the side with that facility is more attractive to bicyclists than the outbound side, which only has a shared lane marking.[21]

Among pedestrians, travel orientation trends have varied only slightly since 2010, though the proportion of users on the sidewalk increased to the highest total observed this year at over 95% among the original 12 count locations. Regionwide, 2017 counts indicated that 94% of pedestrians were observed on the sidewalk, with approximately 3% each observed on the sidewalk and neutral ground (the latter of which principally accounted for by recreational activity on the neutral grounds of St. Charles Avenue, South Carrollton Avenue, and South Claiborne Avenue).

21 A similar effect was observed on Decatur Street in 2015. Because dedicated bikeway markings have eroded nearly completely, this count location was observed as a non-bike lane corridor in 2017.

3.7 Impact of Bicycle Facilities on Ridership and Behavior

As per previous PBRI publications, this report provides updates to a few key indicators of the impact of bikeway construction and/or improvement on ridership and behavior. Specifically, differences in the total number of bicyclists observed, helmet use, the proportion of cyclists who are female, and legal, right-way travel at locations with and without bicycle facilities.

Figures 21 through 24 illustrate overall differences in these key metrics among 45 count sites[22] either with 1) dedicated bikeways (including painted and protected bike lanes or cycletracks) (n=18), 2) with marked shared lanes, bike/bus lanes, or some combination of dedicated and shared facility types (n=7), or 3)no marked bicycle facilities present (n=21) during the 2017 count period.

The total number of bicyclists observed was found to be substantially greater (63 - 74%) at count locations with dedicated or marked, shared bikeways than at sites with no bicycle facility present (Figure 21).

23-25% more bicyclists observed at locations with bike lanes than where no facility present

22 Due to a lack of data (zero bicyclists observed), the Hannan Boulevard count location is excluded from these averages.

Over 30% of bicyclists were identified as female at locations with bike lanes or shared lanes, respectively, compared to less than 22% at locations with no bikeway (Figure 22). Helmet use was observed at the greatest rates where bike lanes or shared lanes are present (26-29%) and markedly lower where no facilities have been installed (20%) (Figure 23).

Finally, while 89-92% of bicyclists traveled legally on roadways where bikeways are present, only 69% of users were observed doing so on roadways with no facility (Figure 24). Taken together, these figures suggest that not only are there likely to be more bicyclists present where facilities exist, but that those users will tend to practice safer cycling behaviors and are more likely to be female. These figures also closely correspond with those reported for the 2014 and 2015 observations, although the differences are slightly more pronounced than in those datasets.

With seven years of data across 71 total count locations, additional detailed analysis of longitudinal and cross-sectional trends beyond the scope of this summary document is possible and recommended for future evaluation, particularly in regard to additional variables that impact ridership characteristics and behaviors beyond simple facility type category, including land use, traffic characteristics (e.g. volume and speed), and other features of the built and social environment. In-depth compilation and evaluation of all seven years of data could lead to new insights about how to successfully encourage active transportation as a viable option for many residents and visitors in the New Orleans region, as well as how to ensure the safety of all who share our roadways.

As noted in previous iterations of this report, the relationship of the presence or absence of bicycle facilities and increases in pedestrian activity is unclear. Pedestrian activity appears to be far

Figure 21: Average Total Bicyclists Observed Per Site by Facility Type, All 2017 Manual Count Locations

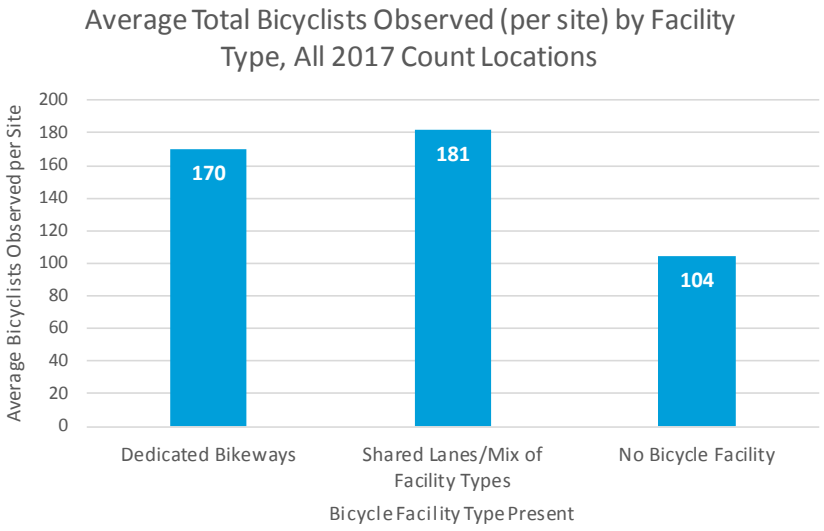
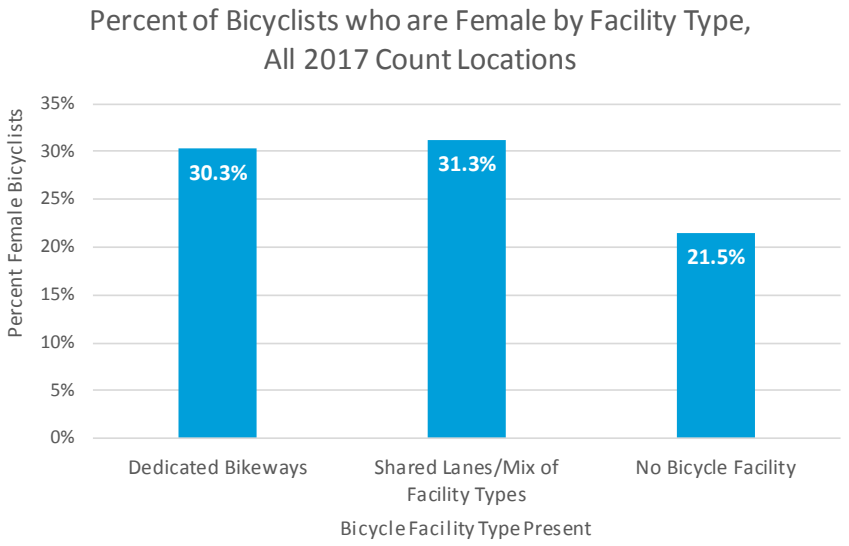


Figure 22: Percent of Bicyclists who are Female by Facility Type, All 2017 Manual Count Locations



more closely correlated with land use and other factors, and thus is omitted from this analysis. However, most of the city's bicycle infrastructure improvements have been installed concurrently with moderate improvements in pedestrian accessibility, e.g. curb ramps at intersections and crosswalks, which improve conditions for existing users and support the development of an integrated and accessible pedestrian network throughout the region.

More detailed evaluation of how various factors impact the pedestrian experience and attract or deter activity is recommended, for which PBRI datasets can serve as a valuable resource.

Figure 23: Percent of Bicyclists Wearing Helmets by Facility Type, All 2017 Manual Count Locations

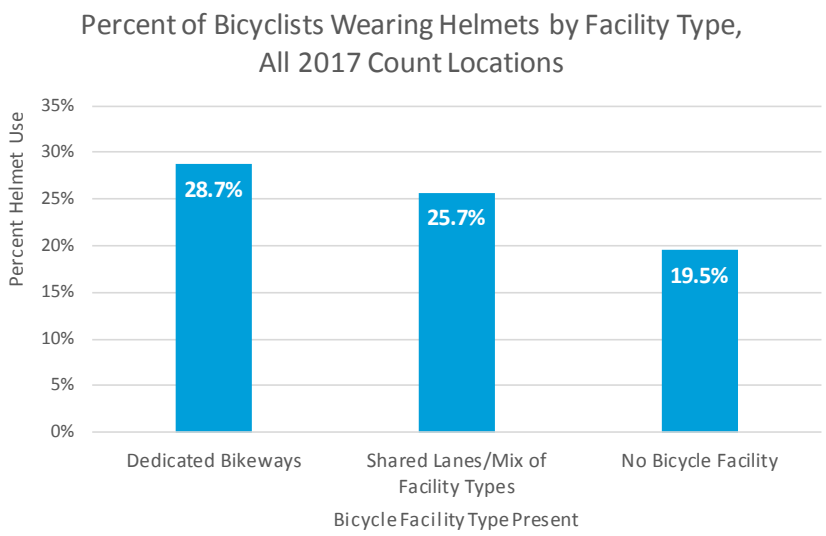


Figure 24: Percent of Bicyclists Traveling Correctly by Facility Type, All 2017 Manual Count Locations

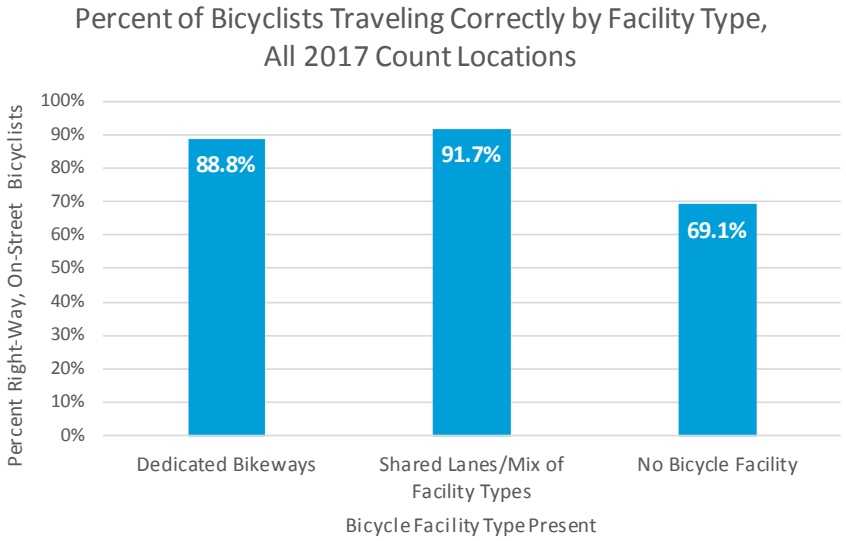
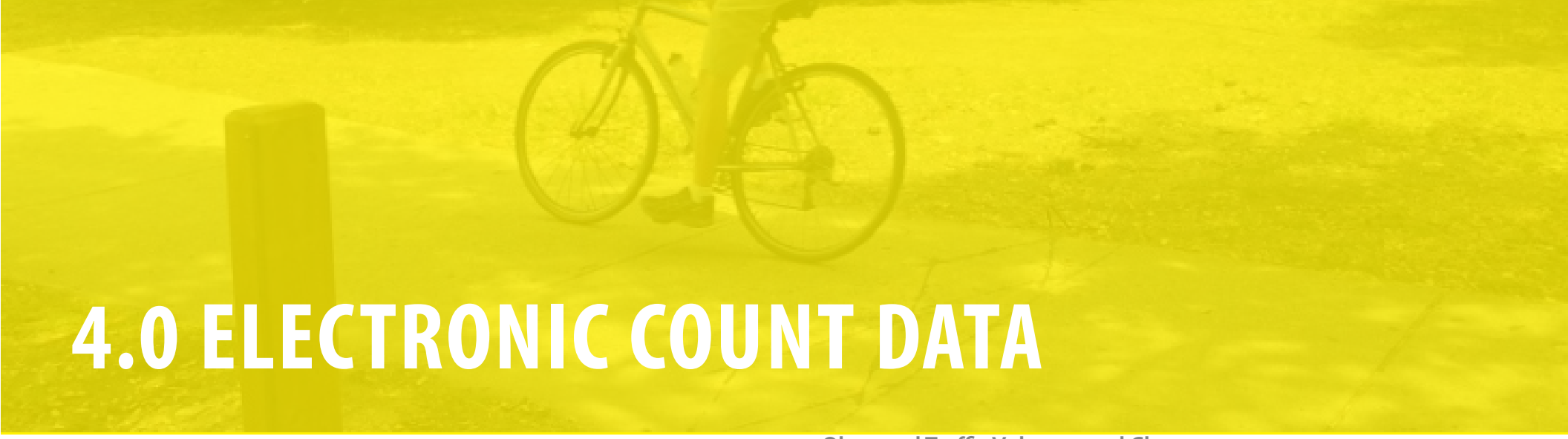


Figure 25: Crosstown Connections: Jefferson Davis Trail and the Lafitte Greenway



4.0 ELECTRONIC COUNT DATA

This section summarizes data retrieved from the Jefferson Davis Trail Eco-Counter from June 2010 through June 2017, as well as 18 months of summary findings from two count devices installed at key gateways to the Lafitte Greenway, a new off-street facility linking several New Orleans neighborhoods from the French Quarter to Mid-City (and connecting to the Jeff Davis Trail, Figure 25).[23] It also includes 28 months of data from a trail counter installed on the Tammany Trace in Mandeville, LA, in May, 2014. The ongoing, gradual expansion of New Orleans' capacity for electronic data collection greatly improves our ability to evaluate trends and will facilitate more detailed future analysis of active transportation behaviors that can improve the accuracy of Estimated Daily Traffic estimates derived from manual counts.

4.1 Jefferson Davis Trail, 2010-2017

This data represents findings from New Orleans' longest continuously operating active transportation monitor, which provides valuable information about long term trends and the temporal and meteorological variables that impact people who walk and bike. For additional detailed data tables, please refer to Appendix H.

23 These two facilities form an axis of active transportation access currently being leveraged by the City of New Orleans "Crosstown Gateways" project, an official initiative of People for Bikes' Big Jump Project which aims to double or triple bicycle ridership in specific neighborhoods within each of ten focus areas

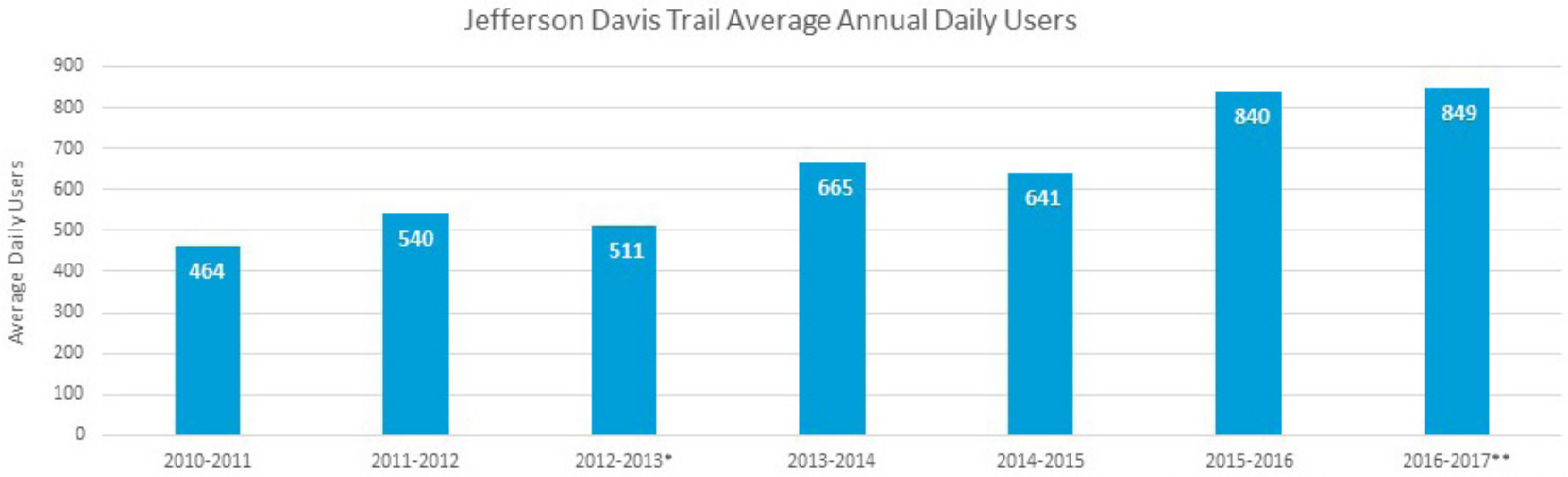
Observed Traffic Volumes and Change

Figure 26 shows the annual average monthly daily traffic volumes observed on the Jefferson Davis Trail from July 2010 through June 2017. Since 2010, years, average annual daily usership has increased from an average of 464 users per day to 849—an 83% total increase (Figure 26). Between June 2015, the last period reported, and one year later alone, usage jumped by 26%, likely reflecting impacts of the completion of the Lafitte Greenway, which intersects the Jefferson Davis Trail on the adjacent block, as well as completion of construction on the Jefferson Davis Trail itself, which underwent crossing improvements and for which a temporary detour was implemented at the I-10 overpass during the 2014-2015 study period.

Over the last two years, as in previous years, user volumes tended to be highest in spring and autumn months, with a peak of over 37,000 users in May 2016, although in 2016-2017 (for which May and June user totals are unavailable), the highest total usage occurred in February (over 33,000 users).

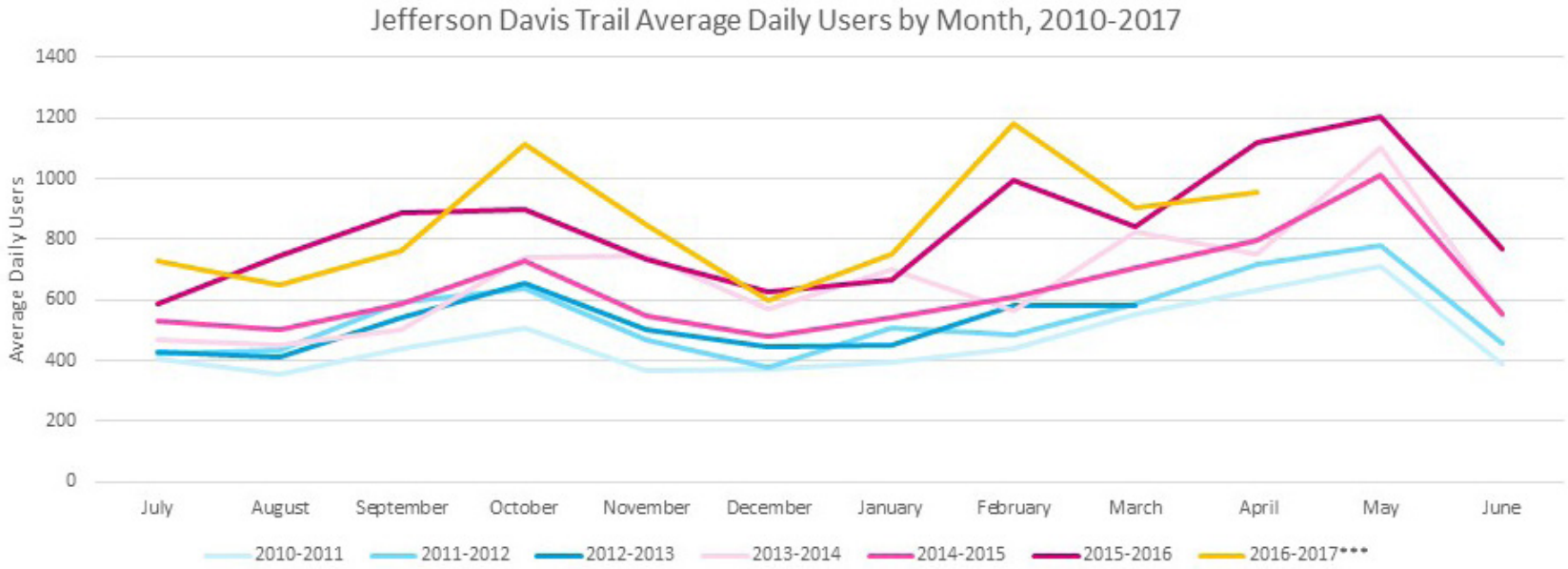
The lowest volumes were recorded in December, July, and August (Figure 27). These patterns generally align with previous years of data, which indicate higher usage in temperate spring and autumn

Figure 26: Jefferson Davis Trail Average Annual Daily Users



* 9-month average excluding April, May, and June 2012
**10-month average excluding May and June 2017

Figure 27: Jefferson Davis Trail Average Daily Users by Month, 2010-2017



*** May and June 2017 data not available

months as well as during special events, e.g. nearby festivals, sporting events, and carnival season. Although this counter only reflects usership on one facility of many in the New Orleans region, strong gains in usership over the last five years are likely indicative of a steady trend toward increased rates of walking and bicycling among New Orleans' population, and the degree to which the city's trail facilities have become more effectively linked to form the spine of a low-stress bikeway network efficiently connecting neighborhoods to one another and to regional destinations.

Trail Use Distribution

Since the installation of a new, user-type differentiating sensor at the count location in 2014, usership on the Jefferson Davis Trail has remained split roughly evenly between pedestrians and bicyclists, although the overall share of bicyclists has shifted upward slightly during this time from an average of 50.1% in 2014/15 to 51.8% in 2016/2017, with a peak of 62% bicyclist mode share in April 2017, indicating that slightly more of the growth in total user volumes is attributable to this mode (Figure 28). Bicyclists make up a slightly smaller share of total users in winter months, and a markedly lower proportion during May, where figures are likely impacted by several days of festivals with very high pedestrian activity. This suggests that the decision to bicycle, whether for recreation or transportation, may be impacted slightly more by colder temperatures than the decisions of those who walk or run along the trail.

Electronic counts by hour, day of the week, and season for all five years of data are also documented, allowing evaluation of usage patterns at various levels of detail. The following figures summarize these patterns. Percentages of total usership, rather than absolute totals, are sometimes used in order to more clearly compare the seven years of data, as overall usership has increased substantially during this period.

Figure 28: Jefferson Davis Trail Bicyclists as Proportion of All Users

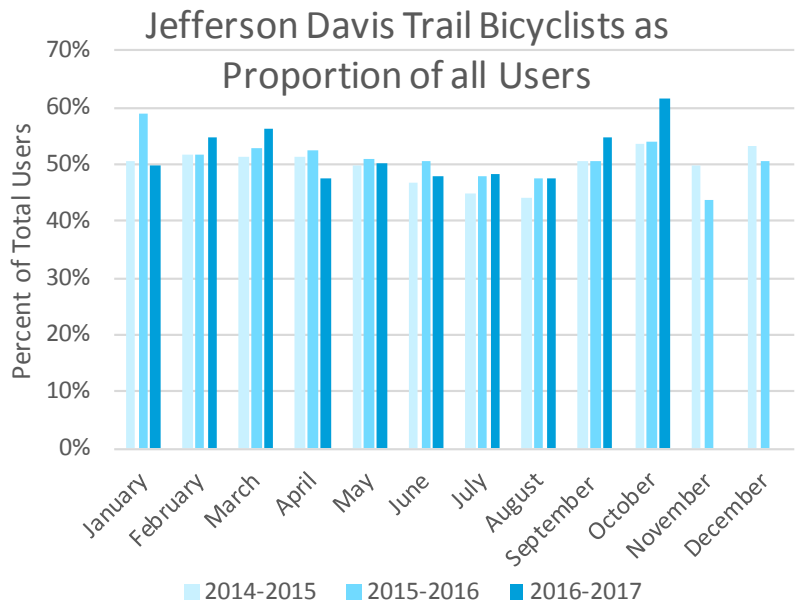


Figure 29 illustrates trail usage by hour at this count location. Hourly patterns of use appear to be highly consistent from year to year with relatively steady use throughout the morning and early afternoon. The highest volume and percentage of users, as in previous years, were in the evening peak hours of 4:00 to 7:00 pm. This usership pattern, lacking pronounced AM and PM peaks and consistent use throughout the day, suggests that this trail serves a variety of users for both recreational and transportation needs, including commuters with non-standard employment hours. Pedestrian and bicyclist user patterns are also similar, with a slightly later, post-commute evening peak for the former user group (Figure 30).

Figure 29: Jefferson Davis Trail User Volumes by Hour of Day

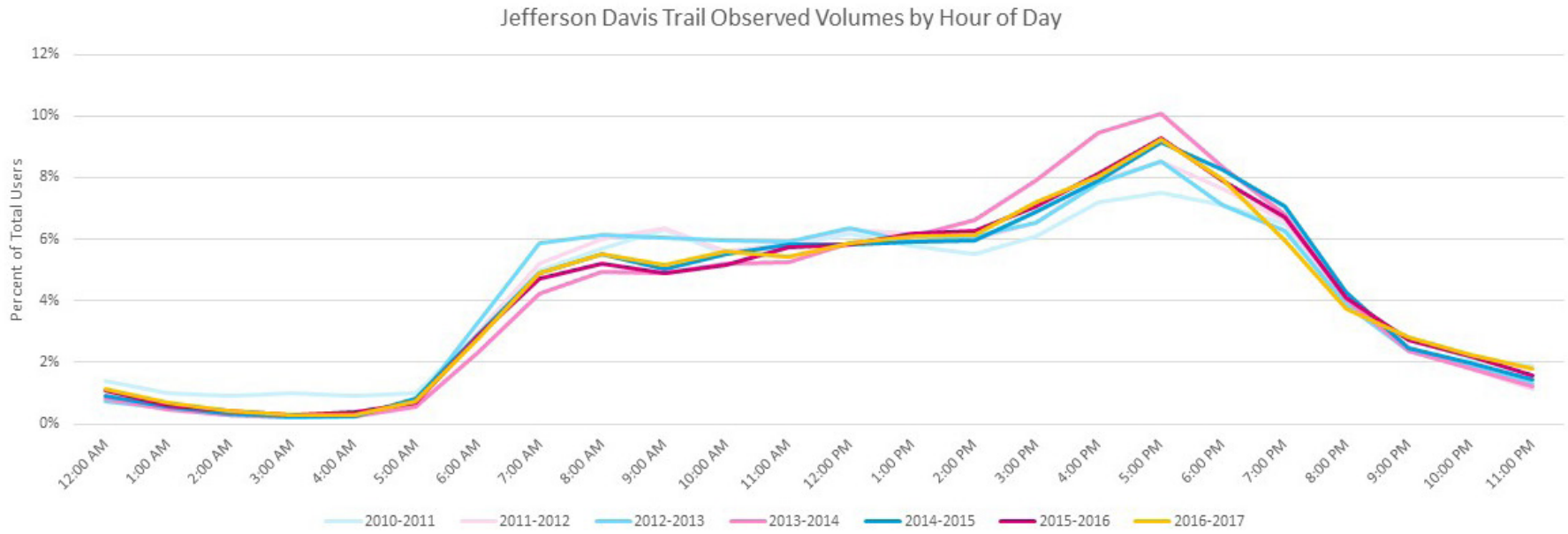


Figure 30: Jefferson Davis Trail Hourly Users, Bicyclists v. Pedestrians, 2015-2017

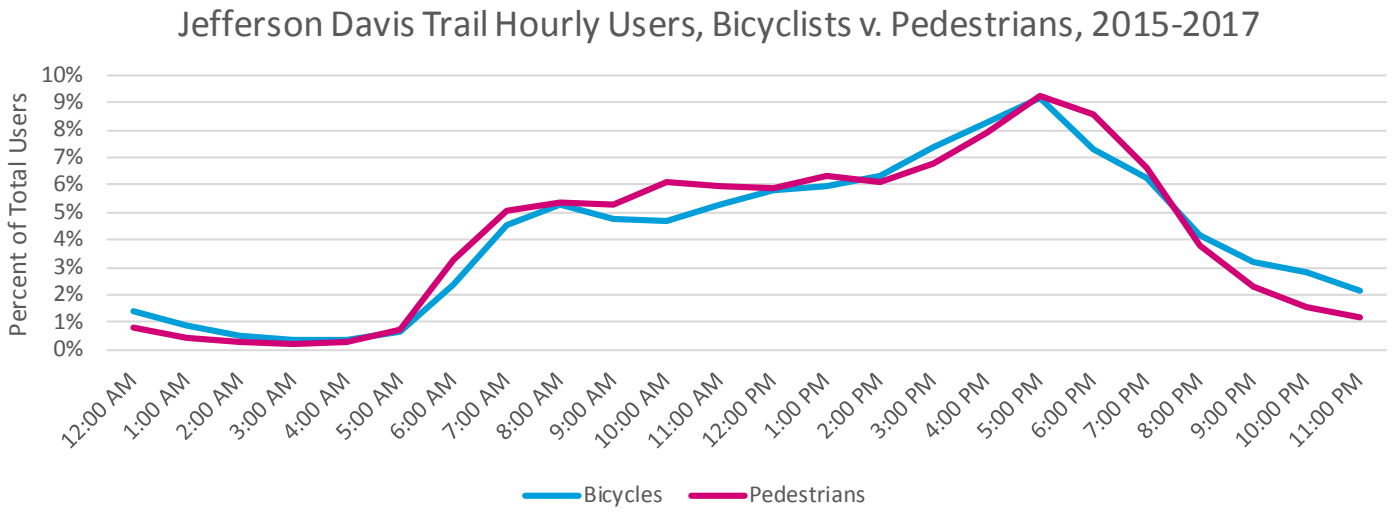
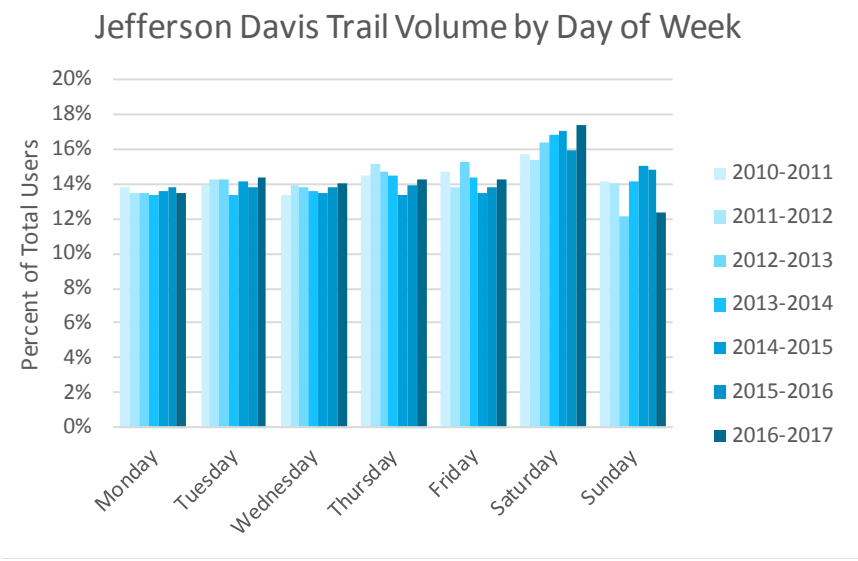


Table 14: Highest Volume Days, Jefferson Davis Parkway Trail, 2015-2017

Date	Total Users	Pedestrians	Bicyclists	Notes
Sat, Feb 25, 2017	5,128	3,742	1,386	Endymion Parade
Sat, Oct 8, 2016	4,859	4,313	546	
Sat, Feb 6, 2016	3,797	2,766	1,031	Endymion Parade
Sat, May 21, 2016	3,424	2,440	984	Bayou Boogaloo
Sun, May 22, 2016	2,978	2,068	910	Bayou Boogaloo
Sun, May 29, 2016	2,932	2,441	491	Memorial Day Weekend
Sat, Apr 23, 2016	2,399	988	1,411	Jazz Fest
Sun, Apr 24, 2016	2,361	1,010	1,351	Jazz Fest
Sun, May 8, 2016	2,260	1,735	525	Mothers Day
Sat, Apr 29, 2017	1,996	879	1,117	Jazz Fest

Figure 31: Jefferson Davis Trail Volume by Day of Week



As in previous years, 2015-2017 data also indicates a relatively even distribution of use across each day of the week, with a slight incline leading into the weekend and a Saturday peak, which has become slightly more pronounced compared to previous years (Figure 31).

As identified in previous iterations of this report, though use of this facility is strong year-round, significant correlations appear to exist between temperature, precipitation, and active transportation activity, with high precipitation and very cold temperatures most closely linked to low usership days.[24] In contrast, high users counts are frequently associated with festivals, athletic events, and other activities that encourage trail use. Table 14 highlights the top usership days for the 2015-2017 evaluation period (keeping in mind that total user volume data is not available for May, 2017).

Overall, findings from seven years of continuous data collection on this facility indicate stable trends—including overall usership growth—on this critical urban trail facility which links multiple neighborhoods and now, with the completion of the Lafitte Greenway, links these neighborhoods via trail and on-street bicycle facilities network directly to New Orleans' French Quarter and CBD. The trail experiences both recreational and commuter/transportation use by a roughly equal number of pedestrians and bicyclists year-round, although daily and seasonal variation is apparent. This trail continues to provide valuable insight as an indicator of long-term active transportation trends.

24 *For illustration of these relationships, please see New Orleans Pedestrian and Bicycle Count Report 2015 and earlier, www.pbriLA.org*

4.2 Lafitte Greenway, 2016-2017

The Lafitte Greenway, a 2.6-mile multi-use trail and park corridor along a former rail corridor and canal that connect a diverse array of neighborhoods from the French Quarter to City Park, was completed in November of 2015. The Greenway connects to the Jeff Davis Parkway Trail (Figure 25, page 54), creating New Orleans' spine for off-street active transportation and recreation. Two infrared counters were installed at key intersections of North Galvez Street and Jefferson Davis Parkway along the greenway in January, 2016. This section summarizes the first 18 months of activity along this new and well-used facility.

Observed Traffic Volumes and Change

User volumes tend to be similar at both count locations along this facility, possibly reflecting the Greenway's utility for longer trip distances spanning multiple neighborhoods. Exceptions to this general trend include specific high-volume days when an activity takes place near one count location or the other, as well as generally higher usage at Jeff Davis during the Autumn months of 2016 (Figure 32).

The highest usage days overall during both 2016 and the first six months of 2017 were during the Carnival season, with a usership peak of 2,798 near Jeff Davis Parkway on the day of the Endymion parade, and a high of 3,298 users near North Galvez St on Mardi Gras day. Notably, average usership was higher during the first six months of 2017 relative to the same months of the previous year, with 11% more users near North Galvez St, and 16% more users near Jeff Davis Parkway (Table 15).

Trail Use Distribution

As with the connecting Jefferson Davis Parkway Trail, usership tends to be higher on this facility during spring and autumn months, and dip during summer and winter months (with the notable exception of certain days during Carnival) (Figure 33). The highest total month of trail use to date occurred during October, 2016, when more than 35,000 users frequented the trail. Also similar to Jeff Davis Parkway Trail, although there are slightly more users on Saturdays than any other day, usership remains rela-tively consistent throughout the week (Figure 34), and throughout the day, with a similarly modest evening peak (Figure 35).

The count devices currently installed on this facility do not differentiate be-tween bicyclists and pedestrians, so the composition of users by mode is not currently available. As a key feature of the active transportation network in New Orleans, this facility makes an ideal candidate for installation of a permanent count device which can continue this dataset and provide additional insight into user characteristics.

Table 15: Lafitte Greenway Change in Average Daily Usership, 2016 - 2017

	Jan-June, 2016	Jan-June, 2017	*Change*
Lafitte Greenway at N. Galvez St	749	833	*11.2%*
Lafitte Greenway at Jeff Davis Pkwy	723	839	*16.0%*

Figure 32: Lafitte Greenway Total Daily Users

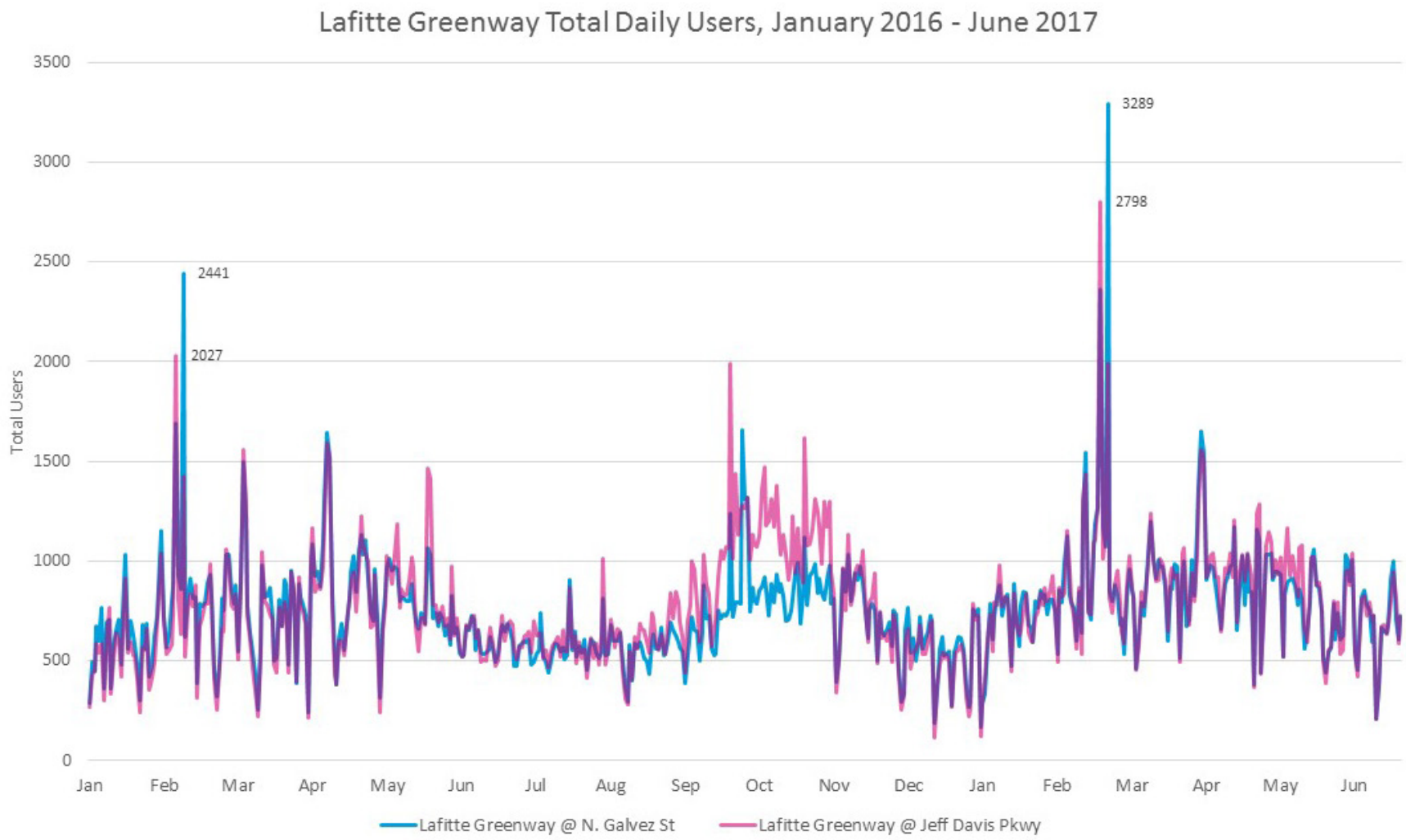


Figure 33: Lafitte Greenway Total Monthly Users

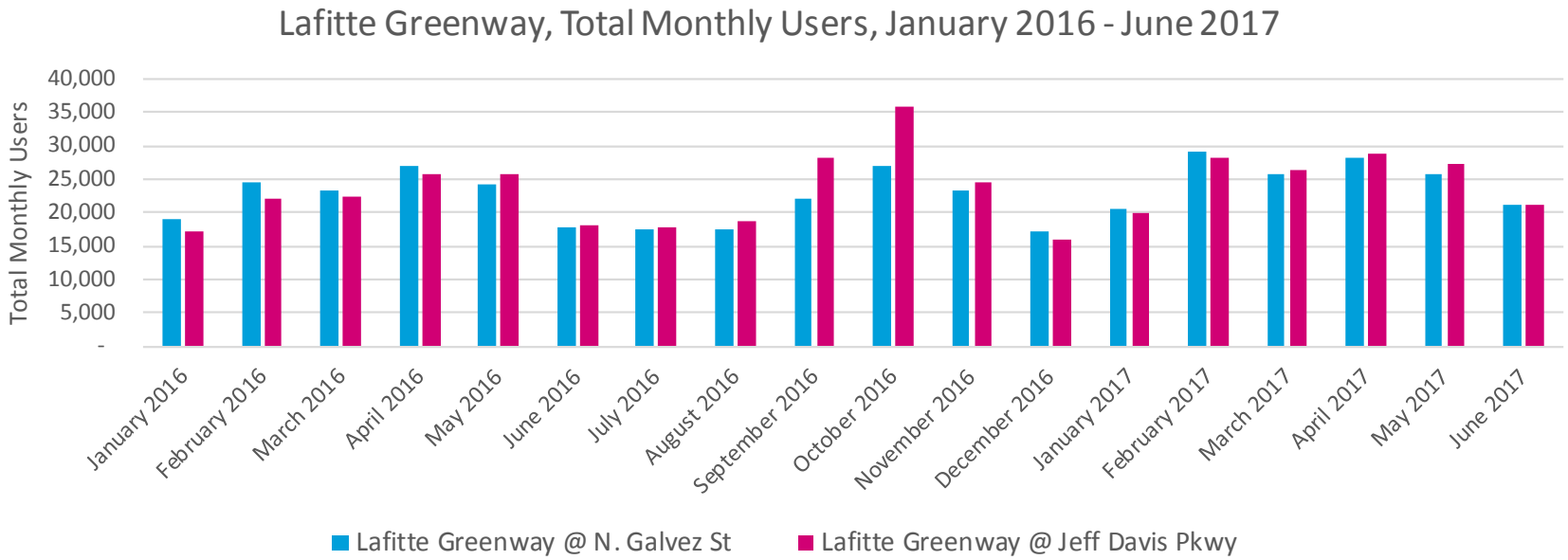


Figure 34: Lafitte Greenway User Volumes by Day of the Week

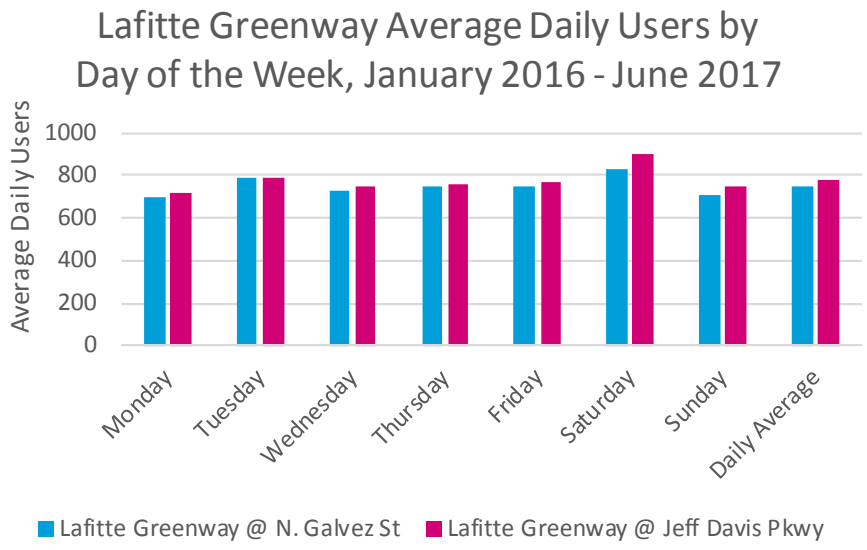
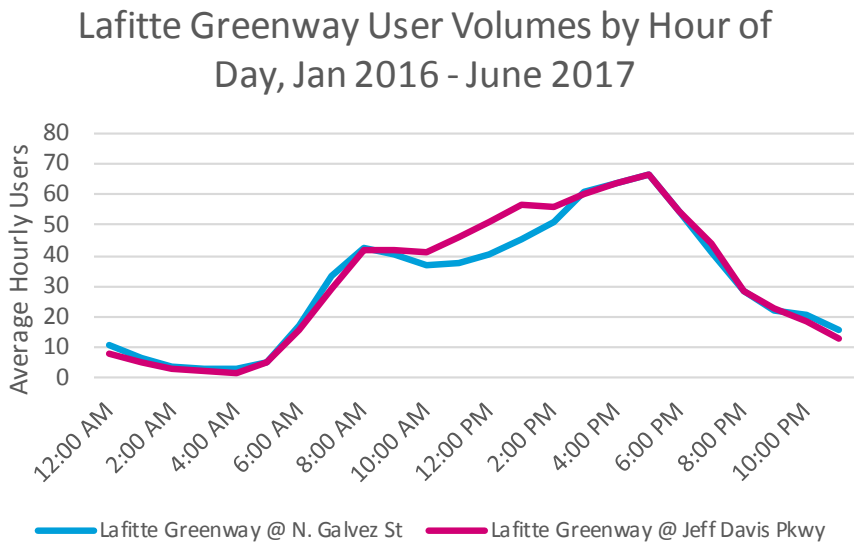


Figure 35: Lafitte Greenway User Volumes by Hour of the Day



4.3 Tammany Trace, 2014-2016

Installation and calibration of a second Eco-Multi counter was completed on May 17th, 2014, in partnership with the Rails to Trails Conservancy and the Tammany Trace Foundation. The Trace is Louisiana's first and only rail-to-trail conversion project, connecting Slidell, LA to Covington, LA, via a former Illinois Central Railroad corridor. The 31-mile trail spans urban, suburban, and rural portions of St. Tammany Parish, and is accessible to bicyclists, pedestrians, and equestrians. The count device is installed near the Mandeville trail head near the midpoint of the facility. This section documents findings for the entire 28.5 months during which this counter was active[25] (May 2014 - September 2016), providing baseline data and overall usership trends for this regional facility.

Figure 36: Tammany Trace Average Daily Users by Month

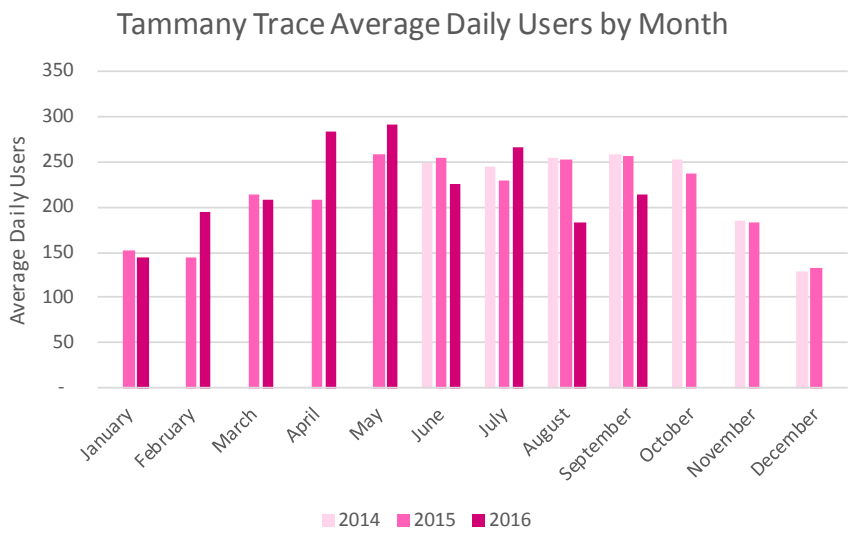
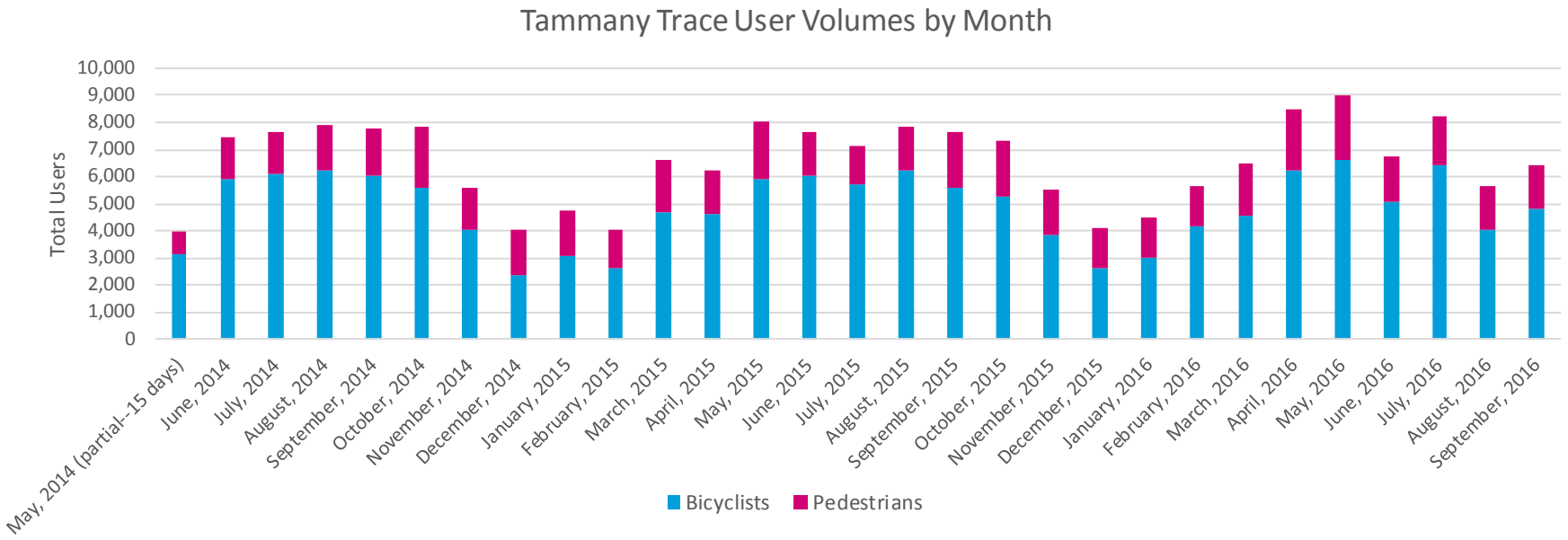


Figure 37: Tammany Trace User Volumes by Month



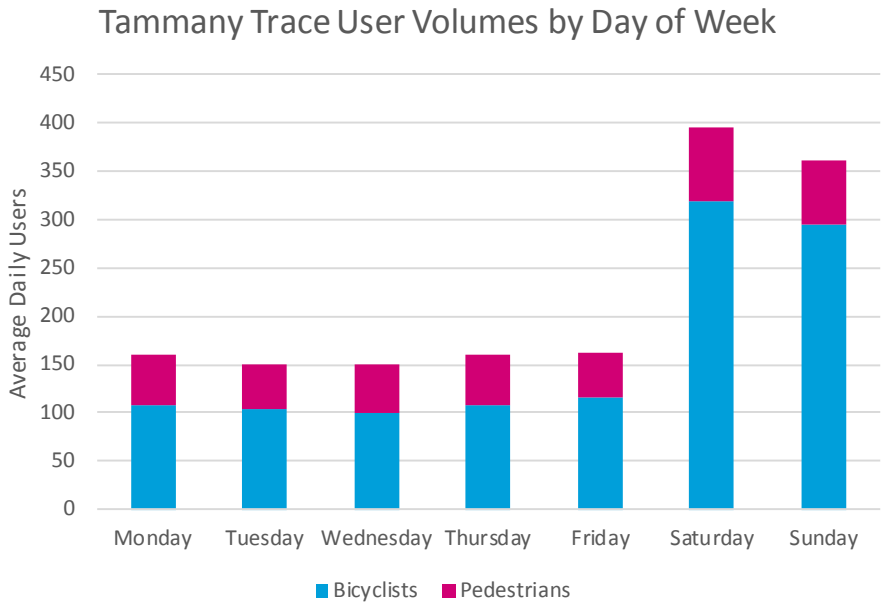
25 *The counter is currently not operational due to a need for replacement components*

Observed Traffic Volumes

Although a very popular facility, overall user volumes are substantially lower than those recorded on the urban Jefferson Davis Trail, with an overall average of 213 daily users at this count location on the trail during the period of July 2014-September 2016, ranging from a monthly average of 130 to 290 users per day (Figure 36).

Monthly volumes ranged from a low of 4,018 in December, 2014 to a high of 8,999 in May, 2016 (Figure 37), with user volumes dipping substantially in the winter months. Unlike the Jefferson Davis Trail, a greater proportion (74%) of trail users are bicyclists, likely reflecting the Trace's rural and suburban context (i.e., greater distances between destinations) as well as its popularity as a facility for longer-distance rides by recreational and/or competitive bicyclists. Trail use has held relatively steady since 2014, although monthly totals in April, May, and July of 2016 exceeded the previous threshold of 8,000 users per month for the first time since data collection began.

Figure 38: Tammany Trace User Volumes by Day of Week

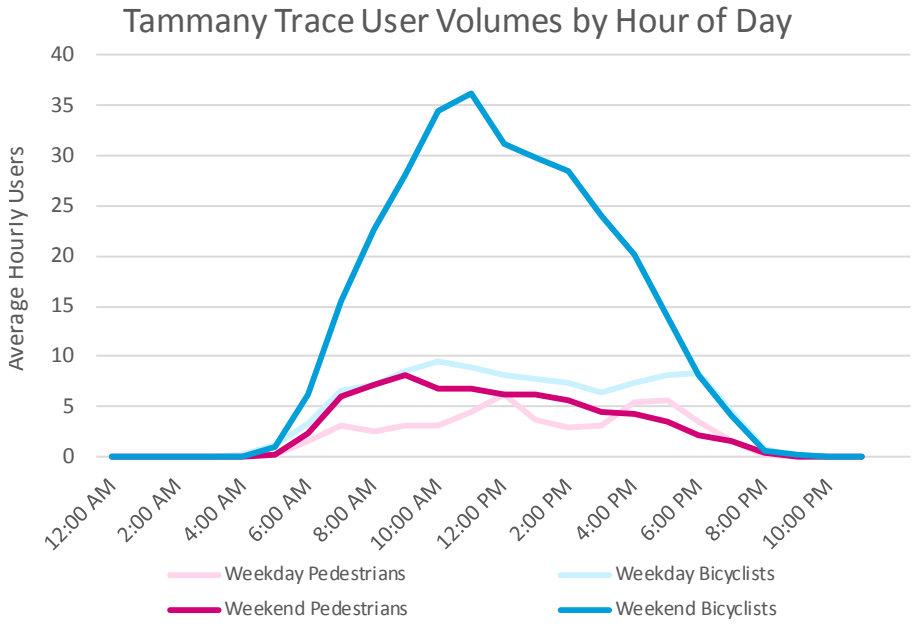


Trail Use Distribution

The Tammany Trace also experiences somewhat different distribution of users, relative to the Jefferson Davis Trail. Notably, user volumes tend to be much higher during the weekend compared to weekdays, reflecting this trail's status as primarily a recreational facility. Weekday average daily user counts of approximately 150 on weekdays more than double to 350-400 on weekends (Figure 38).

This finding is reinforced by the distribution of users throughout the day. Both weekday and weekend pedestrian users tend to be relatively steady throughout the day, with a slight rise in morning use during weekends. Weekday bicyclists are similarly steady throughout the day, while weekend bicyclists, much higher in volume than any other group, curve toward a mid-day peak. No evening increase in either bicyclists or pedestrians, as seen on the Jefferson Davis Trail, is evident (Figure 39).

Figure 39: Tammany Trace User Volumes by Hour of Day



5.0 STATE, REGIONAL, AND NATIONAL CONTEXT:
COMPARING COMMUTER MODE SHARE AND THE GENDER SPLIT FOR PEDESTRIANS AND BICYCLISTS

This section provides an update to evaluations of commute data from the U.S. Census Bureau's American Community Survey (ACS) found in previous PBRI Pedestrian and Bicycle Count Reports, evaluating New Orleans' progress as an active transportation leader relative to its context in the state of Louisiana, the Southern Region of the United States,[26] and the nation overall. This report updates this information with 2015 ACS data, as well as recently released 2016 data, where available.[27]

As noted above, rates of female bicyclists are often examined as an indicator of the overall safety, comfort, and popularity of active transportation (particularly bicycling) for a given area. This section also compares New Orleans' percentages of total and female pedestrian and bicycle commuters respectively to national leaders in active transportation, the South Region, and other cities in Louisiana.

26 Defined by the US Census Bureau as including the states of Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia, Alabama, Kentucky, Mississippi, Tennessee, Arkansas, Louisiana, Oklahoma, Texas, and the District of Columbia

27 2016 ACS estimates were not available at the time of writing for smaller Louisiana cities (5-Year Estimates)

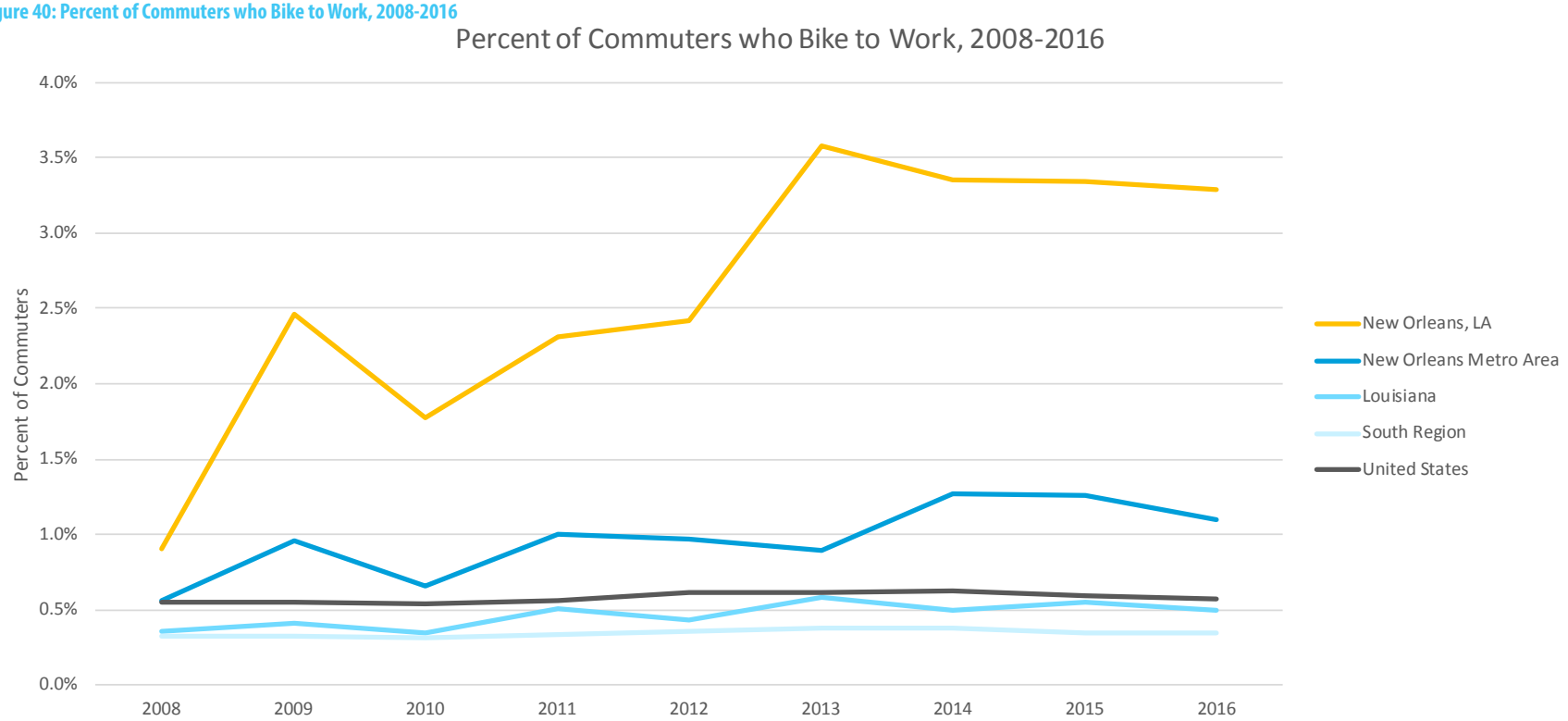
5.1 Bicycle Commuting in New Orleans

In recent years, the city of New Orleans has firmly established itself as a regional leader in bicycling. Figure 40 illustrates New Orleans' bicycle commute mode share relative to the metropolitan region, the state, the South Region, and the nation.

New Orleans consistently ranks among the top ten large cities in the US for bicycling to work.

Nationally, bicycling to work has held fairly steady, but New Orleans' rate of bicycling greatly exceeds this trend, with a peak estimate of more than 3.5% in 2013. The growth rate in this figure appears to have plateaued since that date, hovering around the current estimate of 3.3% commuting to work by bicycle. The trend line for the metro region follows New Orleans lead, albeit with a much lower total bicycle mode share, while Louisiana's rate of bicycle commuting has inched toward the national average.

Figure 40: Percent of Commuters who Bike to Work, 2008-2016



Source: American Community Survey 1-year Estimates, Table B08006

For the last several years, New Orleans has consistently ranked among the top ten large cities (with a population over 250,000) in the country for its rate of bicycling to work at over 3% (Table 16). Approximately 40% of estimated bicycle commuters were identified as female in 2016, exceeding PBRI's estimates of 28% female bicyclists at 46 manual count locations (which includes all types of trip purposes, not solely work commutes).

Clearly, although the City's previous rapid rate of growth has slowed, New Orleans continues to maintain a strong position as a national leader in bicycling, even as many cities around the nation have made significant investments in infrastructure and policy in support of safe, accessible active transportation options.

The South Region as a whole continues to lag behind other regions of the country for rates of bicycling (Table 17). However, within this region, New Orleans remains a clear leader among major cities, behind only Washington, D.C. in 2016 for both the overall rate of bicycle commuting and the share of those bicyclists who are women.

Table 16: Top Cities over 250,000 for Bicycle Commuting, 2016

Overall Rank	City	Bicycle Mode Share	Percent of bike commuters who are female
1	Portland, OR	6.33%	39.41%
2	Madison, WI	4.90%	38.16%
3	Washington, DC	4.60%	41.94%
4	San Francisco, CA	3.88%	34.04%
5	Minneapolis, MN	3.66%	28.95%
6	Seattle, WA	3.53%	26.96%
7	New Orleans, LA	3.29%	40.27%
	PBRI Findings, 2017	*n/a*	*27.70%*
8	Oakland, CA	3.03%	40.73%
9	Pittsburgh, PA	2.59%	19.62%
10	Tucson, AZ	2.48%	42.79%
11	Boston, MA	2.45%	29.58%
12	Philadelphia, PA	2.17%	42.21%
13	Denver, CO	2.17%	22.19%
14	Irvine, CA	1.95%	32.14%
15	Sacramento, CA	1.91%	42.89%

Source: U.S. Census Bureau, 2016 American Community Survey 1-yr estimates, Table B08006

Table 17: Bicycle Commuting in the South Region

Geography	Bicycle Mode Share	Percent of bike commuters who are female
West Region	**1.01%**	**28.86%**
Northeast Region	**0.57%**	**30.16%**
Midwest Region	**0.50%**	**29.38%**
South Region	**0.34%**	**26.97%**
Washington, DC	4.60%	41.94%
New Orleans, LA	**3.29%**	**40.27%**
PBRI Findings, 2017	*n/a*	*27.70%*
St. Petersburg, FL	1.76%	32.58%
Austin, TX	1.53%	27.81%
Tampa, FL	1.48%	35.25%
Atlanta, GA	1.36%	25.79%
Baltimore, MD	0.97%	25.84%
Lubbock, TX	0.85%	17.12%
Miami, FL	0.78%	32.35%
Jacksonville, FL	0.68%	21.98%
United States	**0.57%**	**28.78%**

Notes: Selected cities in the South Region represent the 10 highest bicycle commuting rates for cities over 250,000

Source: U.S. Census Bureau, 2016 American Community Survey 1-yr Estimates, Table B08006

Finally, New Orleans also leads the state of Louisiana by a wide margin. To evaluate New Orleans relative to other cities in Louisiana, five-year aggregate ACS estimates from the 2011-2015 period are used. Table 18 summarizes bicycling trends for the top 20 cities for bicycle commuting in Louisiana with a population greater than 10,000 for which such data is available. As in previous years, New Orleans has the highest estimated bicycle commuter mode share, as well as one of the highest estimated percentage of female bike commuters of all Louisiana cities (behind Mandeville). The state's overall rate of bicycle commuting, meanwhile, has held relatively steady at approximately half of one percent.

Table 18: Bicycle Commuting in Louisiana, 2011-2015

Geography	Bicycle Mode Share	Percent of bike commuters who are female
New Orleans	**2.98%**	**36.86%**
Gretna	1.33%	29.79%
Slidell	1.24%	7.24%
Lafayette	0.96%	24.42%
Mandeville	0.93%	65.45%
Hammond	0.90%	25.00%
New Iberia	0.89%	0.00%
West Monroe	0.73%	0.00%
Eunice	0.67%	0.00%
Lake Charles	0.64%	13.04%
Kenner	0.63%	3.98%
Baton Rouge	0.63%	25.08%
Thibodaux	0.63%	34.21%
Jennings	0.57%	0.00%
Alexandria	0.53%	10.75%
Ruston	0.46%	72.73%
Metairie	0.45%	7.83%
Monroe	0.43%	13.75%
Abbeville	0.42%	31.58%
Houma	0.36%	69.81%
Louisiana	**0.50%**	**27.68%**
South Region	**0.36%**	**25.45%**
United States	**0.60%**	**27.65%**

Notes: Louisiana cities selected represent 20 highest bicycle commuting rates for cities with estimated population above 10,000

Source: U.S. Census Bureau, 2011-2015 American Community Survey 5-year estimates, Table B08006

5.2 Pedestrian Commuting in New Orleans

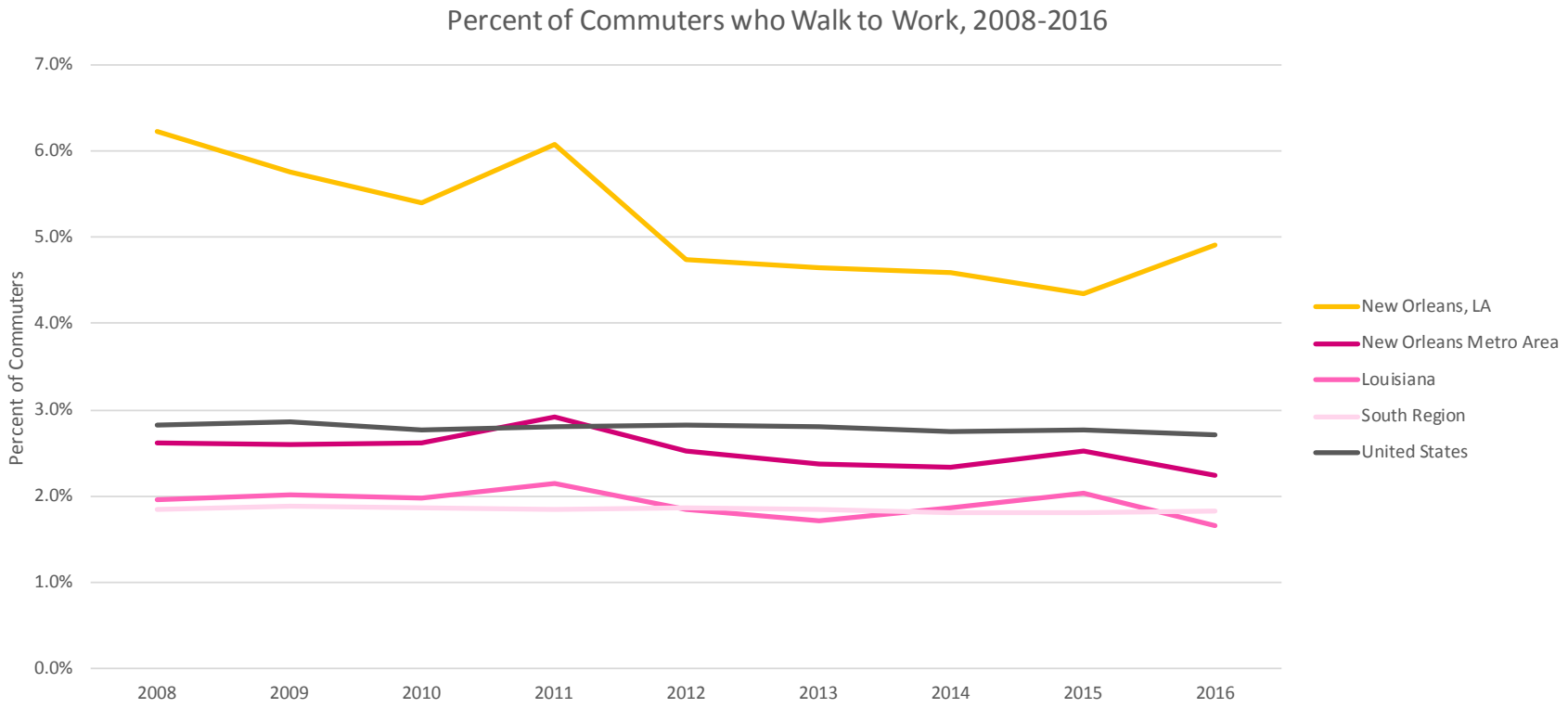
This section compares New Orleans' percentages of total and female pedestrian commuters relative to other cities in Louisiana, the South Region, and the United States as a whole to evaluate progress toward becoming a more active city where residents are able and willing to walk to work, as well as to other destinations for daily needs (including to access transit) and recreation.

Overall, New Orleans has ranked above national, regional, and state averages for the last decade in the rate of commuters who walk to work (Figure 41). After several years of gradual decline, the rate of walk commuting picked up in 2016 to nearly 5%. As noted in previous iterations of this report which have observed this trend, increasing rates of walking—to work or other destinations—involves a complex set of policy decisions to ensure not only safe and comfortable infrastructure, but personal safety, a jobs-housing balance that allows people to live near where they work, and other considerations.

In 2016, New Orleans' status among cities with populations greater than 250,000 held steady compared to 2014 data at 20th in the nation (Table 19). The percent of pedestrian commuters who are female increased compared to 2014 estimates to 52%, again, a higher percentage than was observed by PBRI's 2017 count study (and which included non-commute trips). It is important to remember that these estimates are based on small sample sizes and can fluctuate from year to year. In particular, many people who walk and bicycle also take transit or use multiple modes for any given trip, which are not reflected in ACS data.

Within the South Region, however, New Orleans still ranks relatively high for pedestrian commuting, rising to third among major southern cities behind only Washington DC and Baltimore (Table

Figure 41: Percent of Commuters who Walk to Work, 2008-2016



Source: American Community Survey 1-year Estimates, Table B08006

20). As is the case for bicycling, the South lags behind other regions in overall pedestrian commuters, and New Orleans still significantly exceeds the average for both the South Region and the United States as a whole.

New reporting methods for ACS data at smaller levels of geography, noted above, have resulted in a wider availability of data for commute mode share for smaller Louisiana cities. While New Orleans has the highest rate of pedestrian commuting among major cities, four smaller cities have higher percent-ages of their community walking to work. New Orleans also maintains a slightly above-average rate of female pedestrians relative to the state as a whole. Table 21 summarizes the resulting pedestrian commuting patterns in Louisiana for the top 20 walk-commute rates among cities with a population of at least 10,000. Louisiana's overall rate of pedestrian commuters and female pedestrians, at 1.9% and 44% respectively, is slightly higher than the southern regional average, but again lags behind national averages.

Table 19: Top Cities over 250,000 for Pedestrian Commuting, 2016

Overall Rank	Geography	Walking Mode Share	Percent of pedestrian commuters who are female
1	Washington, DC	13.67%	49.28%
2	Boston, MA	13.55%	52.93%
3	Seattle, WA	11.15%	42.42%
4	San Francisco, CA	11.08%	47.59%
5	Pittsburgh, PA	10.32%	53.21%
6	New York, NY	9.86%	52.31%
7	Honolulu, HI	8.72%	54.11%
8	Madison, WI	8.52%	51.04%
9	Philadelphia, PA	8.28%	52.79%
10	Jersey City, NJ	8.17%	46.25%
11	Minneapolis, MN	7.27%	53.16%
12	Baltimore, MD	6.72%	55.87%
13	Chicago, IL	6.58%	53.02%
14	Newark, NJ	6.45%	*57.17%*
15	Cleveland, OH	5.76%	40.32%
…			
20	New Orleans, LA	4.91%	*52.42%*
	PBRI Findings, 2017	*n/a*	*44.40%*

Source: U.S. Census Bureau, 2016 American Community Survey, Table B08006

Table 20: Pedestrian Commuting in the South Region, 2016

Geography	Walking Mode Share	Percent of pedestrian commuters who are female
Northeast Region	**4.52%**	**50.49%**
West Region	**2.89%**	**45.46%**
Midwest Region	**2.54%**	**46.71%**
South Region	**1.83%**	**41.78%**
Washington, DC	13.67%	49.28%
Baltimore, MD	6.72%	55.87%
New Orleans, LA	**4.91%**	**52.42%**
PBRI Findings, 2017	*n/a*	*44.40%*
Atlanta, GA	4.35%	51.85%
Lexington, KY	3.96%	55.53%
Miami, FL	3.73%	35.11%
Virginia Beach, VA	3.33%	33.84%
Tampa, FL	2.92%	44.80%
Jacksonville, FL	2.69%	33.05%
Durham, NC	2.63%	41.65%
United States	**2.72%**	**46.31%**

Notes: Selected cities in the South Region represent the 10 highest pedestrian commuting rates for cities over 250,000

Source: U.S. Census Bureau, 2016 American Community Survey 1-yr Estimates, Table B08006

Table 21: Pedestrian Commuting in Louisiana, 2011-2015

Geography	Walking Mode Share	Percent of pedestrian commuters who are female
DeRidder	5.42%	26.36%
Ruston	5.40%	50.68%
Hammond	5.09%	69.53%
Morgan City	4.87%	32.64%
New Orleans	**4.81%**	**44.84%**
Natchitoches	4.62%	57.14%
Mandeville	3.92%	43.78%
Opelousas	3.87%	36.92%
Baton Rouge	3.75%	46.37%
Eunice	3.41%	34.06%
Pineville	3.41%	68.11%
Lake Charles	2.82%	46.70%
New Iberia	2.77%	58.06%
Belle Chasse	2.76%	60.89%
Crowley	2.74%	33.61%
Bogalusa	2.59%	82.35%
Thibodaux	2.53%	46.75%
Kenner	2.43%	57.83%
Harvey	2.39%	27.66%
Lafayette	2.30%	43.41%
Louisiana	**1.90%**	**43.75%**
South Region	**1.83%**	**42.92%**
United States	**2.78%**	**46.12%**

Note: Louisiana cities selected represent 20 highest walk commuting rates for cities with estimated population above 10,000

Source: U.S. Census Bureau, 2011-2015 American Community Survey 5-year estimates, Table B08006

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6.0 CONCLUSIONS

This section synthesizes the trends and data presented in this report and evaluates possible directions for future study, in order to promote New Orleans and the metro region as state and national leaders in active transportation.

6.1 Bicycle Activity in New Orleans

The New Orleans region has experienced a rising tide of interest in creating safe, accessible networks for bicycling since this study began in 2010. Seven years of manual and automated count data suggest that demand has increased substantially in the City of New Orleans, and that as new bikeways open, ridership adapts and often swells. This evidence is corroborated by consistent bicycle commuting estimates from the American Community Survey, which clearly positions New Orleans among the top ten major cities in the country for this metric.

After a decade of incremental expansion of the bikeway network with primarily marked shared lanes and conventional bike lanes, in the last two years, New Orleans has expanded its repertoire of bicycle facility types to include protected on-street bikeways, as well as expanded its off-street urban trail network with the Lafitte Greenway. Meanwhile, investment in bicycle infrastructure has expanded regionally, as implementation of Jefferson Parish's Bicycle Master Plan and St. Bernard Parish's Complete Streets policy and

recently updated Bikeway and Pedestrian Plan get underway.

Among longitudinal count sites, the most dramatic increases in bicycle ridership have been observed among sites that have dedicated bicycle infrastructure, such as Esplanade Avenue, Basin Street, Gentilly Boulevard, St. Claude Avenue, St. Bernard Avenue, and Nashville Avenue. Although several years of data are preferable in order to account for inherent variability of non-motorized road user volumes, preliminary post-intervention counts on new facilities also suggest substantial impacts on ridership, e.g. Oretha Castle Haley Boulevard, North Rampart Street, and Banks Street. Moreover, high observed bicyclist totals in neighborhoods with few dedicated bikeways (e.g. Simon Bolivar Avenue) indicate significant demand in neighborhoods which have experienced little active transportation infrastructure investment to-date. Ridership also remains strong--regardless of infrastructure presence or quality--at "gateway" locations that connect uptown neighborhoods to the CBD and beyond under the barrier formed by the Pontchartrain Expressway, particularly when linked (as in Baronne Street) to locations where existing bikeways abruptly end.

Trends in the composition of the region's bicyclists and their behavior have been identified over the course of this count program. After several years of steady gains, the proportion of bicyclists who are women declined notably this year (although absolute numbers still indicate overall growth). While some of this shift likely reflects adaptation of route choices away from longitudinal count locations to newer, more comfortable facilities, it is worth investigating ways in which the built and/or social environment may be inhibiting continued growth of bicycling among women and girls. The share of people of color who are observed bicycling has continued to increase, particularly the share of bicyclists who are identified as black. At some locations, people of color make up a majority of the total observed. Gaps between where bicycle infrastructure exists and where communities of color (as well as low-income populations and households without vehicle access) live and are observed bicycling in large numbers should also be further evaluated to identify priorities for improving equitable access to active transportation.

Helmet use remains well above the baseline established in the early years of this count program, with women and girls proportionally more likely to wear helmets than men and boys. Similarly, the rate of correct on-street travel in the direction of travel has improved over time, with clear links between the presence of two-way bicycle facilities and right-way riding, while locations with the lowest compliance tend to be suburban locations where sidewalks are available and may feel intuitively safer than on streets which inadequately accommodate non-motorized users. Overall, the data consistently suggests that the inclusion of bicycle facilities means more bicyclists will be observed, a greater proportion of them will be women, more people will wear helmets, and more will travel legally. As the total volume of observed data accumulates, additional analysis is possible and recommended to quantify and confirm these apparent correlations.

Trends observed by PBRI tracking New Orleans' emergence as a national bicycling leader are further corroborated by American Community Survey data: shifts in the distribution of bicycle commuters at the census tract level suggest that access to bicycling as a viable and convenient mode of transportation is spreading as the bikeway network expands, and at the citywide scale, bicycling mode share is among the highest in the nation, marking New Orleans as clear leader among other cities in Louisiana and across the South.

6.2 Pedestrian Activity in New Orleans

Although improvements to the pedestrian infrastructure network have accompanied most state and local road projects over the last decade, and at most PBRI count locations pedestrians make up a larger share of active users observed, there has been a lack of organized advocacy and planning for strategically improving walking connections in the City and region. Overall among core longitudinal count locations, the number of pedestrians observed has increased by 73% since 2010.

Pedestrian activity, unsurprisingly, tends to be higher in the downtown core of the city as well as on both established and revitalizing commercial corridors, particularly those which have experienced recent "Complete Streets"-aligned investments which improve the user experience for all who travel along or across the roadway. In and near the French Quarter, active users are allocated a disproportionately small amount of space relative to their overall mode share. Required ADA retrofits that have accompanied road reconstruction and resurfacing projects have provided benefits to pedestrians, but additional improvements to signalized and un-signalized intersections as well as sidewalk repairs are recommended in order to maximize the impact of these investments for all users. More targeted, proactive strategies are needed to accommodate our most vulnerable road users, particularly in more suburban locations and those with large populations of low-income and/or carless households, locations around schools, and where data (e.g. the Pedestrian Safety Action Plan) indicates high crash frequency.

The precise correlations between specific investments and user volumes or characteristics are complex, but it is apparent that increasing pedestrian activity is intrinsically linked to not only availability and adequacy of physical infrastructure but also land use integration, tourism, commercial revitalization, recreation, and more. Promoting places that are safe, accessible, and comfortable for people on foot not only supports efforts to improve public health by facilitating increased physical activity, but also supports a vibrant economy at the neighborhood as well as regional level.

New Orleans continues to rank near the top among southern cities and well above national, regional, and state averages in the rate of commuters who walk to work. In order to encourage and facilitate more walking—whether to work, to other destinations, or simply to promote more physical activity among residents, the region must proactively plan for safer, more active communities by continuing to address pedestrian safety concerns, cultivating comfortable, interesting streetscapes, and pursuing policies that facilitate vibrant, mixed-use neighborhood corridors where people can live, work, and play.

6.3 Evaluating Active Transportation in New Orleans: Policy Implications and Next Steps

Since 2010, PBRI's count program, a partnership between the Regional Planning Commission, UNO Transportation Institute, and Louisiana DOTD, has matured to provide local and regional stakeholders with a diverse array of longitudinal and cross-sectional data inputs for 71 locations across three parishes. Meanwhile, the New Orleans region has made significant progress toward becoming a more walkable, bikeable community for all its residents and visitors. Between the end of 2010 and August 2017, the City of New Orleans more than tripled its bicycle infrastructure network, and as the data in this report indicates, this expansion corresponds with increased bicycling and safer cyclist behavior, particularly on corridors where such improvements have occurred. Concurrently, Jefferson and St. Bernard Parishes have adopted or updated plans

to strategically enhance active transportation options for their jurisdictions, aligned with complete streets principles.

The observations documented through PBRI's manual counts, which provide valuable data about not only how many people are walking and bicycling but also who is using our streets and how, are substantiated and contextualized by automated data collection, an area of considerable expansion opportunity for local, regional, and statewide data collection and analysis. In particular, observed increases in bicycling overall are corroborated by substantial and steady annual gains in ridership on the Jefferson Davis Parkway Trail, and early indications of year-over-year growth on the Lafitte Greenway. On the latter facility, investment in upgraded equipment and/or observational study is recommended to better understand the user composition of this facility.

Moreover, additional analysis is recommended to utilize this valuable data resource in support of developing regionally- and context-specific adjustment factors for short term counts in the New Orleans region so as to provide more accurate models for estimating daily pedestrian and bicycle volumes. The long term data documented in this report, which show highly consistent temporal trends, will form the cornerstone of ongoing and future research to refine and adopt regional and context-appropriate adjustment factors by which to extrapolate short-duration counts, facilitating much-needed evaluation of safety outcomes relative to the exposure of vulnerable road users. While the current estimated daily traffic (EDT) figures included in this report are of use as rough indicators relative to other sites in the dataset, for use by safety advocates for whom precise figures are less important than demonstration of existing demand, these are insufficient for use in models to calculate safety performance with any degree of reliability.

As discussed in previous reports, while in many cases obvious relationships appear to exist between active user volumes and facility investments, the impacts of specific projects are in many cases not limited to user volumes on that particular segment and/or corridor. Rather, impacts on usership (and ultimately, mode share) also depend on the development of a contiguous network of linked facilities, creating safer, more comfortable access to various neighborhoods and destinations. For example, the completion of the Lafitte Greenway is likely related to both a decline in absolute bicyclist totals on parallel Esplanade Avenue (as some riders choose to swap a popular, but unprotected simple bike lane for a protected, off-street trail), and simultaneously linked to continued ridership gains on the Jefferson Davis Parkway Trail, for which the Greenway extends bicyclists' ability to access a large number of neighborhoods and destinations with minimal vehicular interaction and potential conflict.

Development of an integrated, low-stress bikeway network remains a work in progress in the City and the region. More connections need to be made among existing bikeway segments, particularly focusing on critical connections for which non-motorized users have few alternative options (e.g. bridges, overpasses, and underpasses), inter-parish connections, and major boulevards that link neighborhoods or connect pedestrians to transit routes. In addition, additional research is needed to identify opportunities to improve equitable access to active transportation.

Future research utilizing the seven years of data collected by PBRI can and should delve with greater specificity and rigor into precisely whether and how infrastructure change has correlated to demographic change, access to opportunity, and safety outcomes. For bicyclists, this may involve evaluating in greater detail outcomes relative to specific facility types, to identify whether existing facilities are appropriate for the contexts in which they have been

implemented relative to traffic volumes (for all modes).

For pedestrians, a key research need involves addressing the fact insufficient spatial data currently exists to effectively analyze at a regional scale the quality of the pedestrian network and how this relates to rates of walking, health and safety outcomes, etc. Without changing the established count protocol, this study also piloted the use of paired concurrent manual counts as a potential proxy measure for calculating overall bicycling and walking at the intersection level (i.e total crossings of the intersection of Martin Luther King Boulevard and South Claiborne Avenue), which may be of interest for future evaluations as an exposure metric at key periods (for example, school arrival and dismissal times). Even in locations where, at present, little to no activity is observed (e.g. Hannan Boulevard, a new bikeway with limited connectivity to other bicycle facilities or nearby pedestrian attractors), baseline data collected provides the basis for discussion about next steps to maximize the value and impact of individual projects through strategically prioritizing contiguous links in the planned network.

National data indicate that New Orleans leads the state, as well as the South region, in active transportation, and has emerged as a leader nationally, ranked highly in walking and bicycling mode share. At the census tract level, this data indicates that while, predictably, the highest rates of active commuting are found in neighborhoods within the city's historic downtown core (with combined mode shares for these two modes approaching a majority), biking and walking are also on the rise throughout the region, with notable pockets of emerging or growing activity in more suburban locations. Ensuring that future investments consider the needs of existing active transportation users, as well as prioritize providing equitable transportation choices for communities most likely to benefit from improved access (and potentially, less likely to be actively engaged in traditional advocacy activities, such as the high proportion of bicyclists of color observed in Kenner), is key as the region proceeds with implementation of goals identified in the Strategic Highway Safety Plan and local plans focused on bicycling, walking, and/or traffic safety or mobility generally.

On the other hand, participants in this year's study also observed an emerging concern for ongoing progress toward improving active transportation: not all facilities developed over the last decade have been adequately maintained, to the point of being rendered functionally irrelevant (e.g. Decatur Street, portions of St. Claude Avenue). Immediate action is needed to ensure that existing network segments are not lost by dedicating funding, on a routine basis, to the repair (and where feasible, improvement) of vulnerable pedestrian and bicycle facilities, including striping, street repair, and signalization.

Moreover, while continued expansion of and innovation in active transportation infrastructure -- particularly increasing access to the protected facility types which have been identified as providing the greatest impacts for the safety and comfort of people bicycling and walking-- remains a regional need, additional actions are imperative to maintain and advance New Orleans' status as a walkable, bikeable city, with the resultant health, economic, and livability benefits such a status infers. Additional work is needed to advance implementation (and where not yet to that stage, adoption) of the state, regional, and local complete streets policies which impact communities in the study area. This includes not only tracking infrastructure projects themselves, but ensuring that the processes, policies, and design standards which lead to successful projects are fully updated, integrated, and communicated to all parties involved. It also includes continuing efforts to educate and engage citizens, as well as law enforcement officers and other stakeholders in the judicial system, and enforce laws pertaining to pedestrians and bicyclists. Opportunities for public feedback and action (including

but not limited to the state's Complete Streets Advisory Council, the City of New Orleans 2015-2017 Pedestrian Safety Advisory Council, etc) should be institutionalized to ensure open dialogue among stakeholders.

State and local agencies should also support, on a routine basis, the evaluation of their projects and policy implementation progress-- supported by forthcoming guidance for standardizing and funding data collection and analysis-- and identify opportunities for future actions. Decision-making processes regarding the prioritization and placement of future bicycle facilities, as well as improvements to the pedestrian environment, should take quantitative data sources into account, where available. Timely and ongoing collection of multi-modal data to evaluate the effects of individual projects, assess potential demand for various transportation modes, and identify overall trends in usership and behavior is essential to promoting a data-driven planning culture and fostering economically competitive, vibrant communities. Such data collection efforts should be expanded throughout the region in order to more accurately identify network gaps and identify user needs. Critically, the count data collected in this study reflect a limited subset of all current and potential active transportation users in the region, predominantly in Orleans Parish. These findings should not be interpreted to suggest a lack of interest in or opportunity for improving conditions for walking and bicycling elsewhere in the region, where less robust data is currently available.

Increasingly, it is the expectation of federal and state government agencies that data-driven planning and performance evaluation are pre-requisites to access public funds. Decision-making in the New Orleans region regarding active transportation investment has been intrinsically tied to hurricane recovery activities since 2005, but moving forward, comprehensive, multimodal transportation plans and locally-generated revenues will be critical to ensuring that the positive changes in the built environment in support of active transportation opportunity continue. In particular, communities that want to advance goals for increased walking and bicycling (including the City of New Orleans, which has identified increased walking, bicycling, and transit use as a key component of its "Climate Action Plan for a Resilient New Orleans") will emphasize a complete streets policy approach through institutionalization of processes that support multi-modal planning and engineering, prioritize projects that will help to equitably expand access for active users and create more cohesive route networks, integrate multi-modal data in decision-making processes, and identify dedicated funding sources to support the ongoing improvement of walking, bicycling, and transit. Such actions are required to build upon the progress of the last decade and clearly demonstrate commitment to forging a healthier, more sustainable region where all people, including those who walk and bicycle, have safe access to transportation and economic opportunity.

APPENDICES

November 2017

Appendix A: 2017 Manual Count Site Characteristics

Table A-1: 2017 Manual Count Site Characteristics

Site #	Site Name	Neighborhood	Facility Type	On-Street Parking	Bicycle Infrastructure Improvements	Year Installed	CBD Gateway
1	Gentilly Blvd	Gentilly	4-Lane, Divided	None	Bike Lanes	2010	
2	Esplanade Ave	Mid-City	2-Lane, Divided	Both Sides	Bike Lanes	2013	
3	Harrison Ave	Lakeview	4-Lane, Divided	Both Sides	Shared lane markings; Connecting segment with bike lanes	2014; 2009	
4	St. Claude Ave	Bywater	4-Lane, Divided	Both Sides	Bike Lanes	2008	
5	Royal St	Marigny	1-lane, One-Way	Both Sides			
6	Camp St (Gateway)	Lower Garden District	2-Lane, One Way	One Side	Shared lane markings; Connecting segment with Bike Lane	2010	X
7	St. Charles Ave (Gateway)	Central City	4-Lane, Divided	Both Sides			X
8	Decatur St	French Quarter	1-lane, One-Way	One Side	Connecting segment with Bike Lane/Shared Lane Marking	2013	
9	Magazine St (Uptown)	Uptown	2-Lane	None			
10	Magazine St (Gateway)	Lower Garden District	2-Lane, One Way	Both Sides	Shared Lane Markings	2010	X
11	Simon Bolivar Ave (Gateway)	Central City	4-Lane, Divided	Both Sides*	Connecting segment with shared lane markings	2010	X
12	Carondelet St (Gateway)	Central City	2-Lane, One Way	Both Sides**			X
15	St. Bernard Ave	Seventh Ward	2-Lane, Divided	Both Sides	Bike Lanes	2013	
16	Basin St	Treme/Lafitte	4-Lane, Divided	Both Sides	Bike Lane/Shared Lane Markings/ Cycletrack	Improved 2016	
17	Nashville Ave	Fontainebleau	2-Lane, Divided	Both Sides	Bike Lanes	2013	
18	St. Charles Ave (Uptown)	Uptown	2-Lane, Divided	Both Sides	Bike Lanes	2012	
19	S. Carrollton Ave	East Carrollton/Audubon	2-Lane, Divided	Both Sides	Bike Lanes	2010	
20	Oretha Castle Haley Blvd	Central City	2-Lane, Divided	Both Sides	Bike Lanes	2017	X

Site #	Site Name	Neighborhood	Facility Type	On-Street Parking	Bicycle Infrastructure Improvements	Year Installed	CBD Gateway
22	Loyola Ave	Central Business District (CBD)	6-Lane, Divided	One Side	Bike Lanes	2012	X
23	S. Broad St	Tulane/Gravier	6-Lane, Divided	Both Sides	Connecting segment with bike lanes	2015	
24	Tulane Ave	Tulane/Gravier	4-Lane, Divided	Both Sides	Bike Lanes	2017	
31	Decatur St (Jackson Square)	French Quarter	2-Lane	None	Shared Lane/Bike Lane***	2013	
37	Baronne St (Gateway)	Central City	2-Lane, One Way	Both Sides	Connecting segment with protected Bike Lane	2015	X
38	N. Rampart St	French Quarter	4-Lane, Divided	Both Sides	Bike Lane/Shared Lane Markings	2016	
40	Annunciation St	Lower Garden District	2-lane	Both Sides			X
43	St. Charles Ave	Lower Garden District	4-Lane, Divided	Both Sides			
45	N. Galvez St	Treme/Lafitte	1-lane, One-Way	One Side	Bike Lane	2014	
46	N. Miro St	Treme/Lafitte	2-Lane, One Way	One Side	Shared Lane Markings	2013	
52	Marconi Dr	City Park	4-Lane, Divided	None	Shared Lane Markings	2010	
53	Banks St	Midcity	2-Lane, Divided	Both Sides	Bike Lanes	2016	
56	Desaix Blvd	Fairgrounds	4-Lane, Divided	Both Sides	Bike Lanes	2017	
57	Severn Ave	Metairie	6-Lane, Divided	None			
58	Hannan Blvd	St Bernard Parish	2-Lane, Divided	Both Sides	Bike Lanes	2017	
59	Read Blvd	Read Blvd East	8-Lane, Divided	None	Connecting segment with bike lanes	2013	
60	Tulane Ave (Medical District)	Central Business District (CBD)	6-Lane, Divided	Both Sides			
61	18th St	Fat City	2-Lane	None			
62	Napoleon Ave	Uptown	4-Lane, Divided	Both Sides	Bike Lanes	2017	
63	Martin Luther King Blvd (Claiborne Ave)	Central City	4-Lane, Divided	None	Connecting Segment with bike lanes	2013	

Site #	Site Name	Neighborhood	Facility Type	On-Street Parking	Bicycle Infrastructure Improvements	Year Installed	CBD Gateway
64	S. Claiborne Ave	Central City	7-Lane, Divided	None			
65	Jackson Ave	Lower Garden District	2-Lane, Divided	Both Sides	Bike lanes	2017	
66	Martin Luther King Blvd (OC Haley)	Central City	3-Lane, Divided	Both Sides			
67	Holmes Blvd	Gretna	2-Lane	None			
68	Whitney Ave	Oakwood	4-Lane, Divided	None			
69	Opelousas Ave	Algiers Point	2-Lane, Divided	Both Sides			
70	S. Galvez St	Tulane/Gravier	4-Lane, Divided	None	Bike Lanes	2015	
71	Williams Blvd	Kenner	5-Lane, Divided	None			

Orleans Parish neighborhood classification derived from Greater New Orleans Community Data Center (GNOCDC, 2002).

**Facility terminates into Earhart Blvd as a 2-lane, one-way street with no parking*

***One side of the block observed on Carondelet has an off-street parking strip immediately perpendicular to the road.*

****This bike facility has not been maintained and is no longer functional, thus this corridor is excluded from category of count locations with dedicated bikeways*

Appendix B: Manual Count Methodology

Pedestrian and Bicycle Observation Protocol

Rationale

From 2005-2017, the city of New Orleans Department of Public Works and the State of Louisiana Department of Transportation have installed over 100 miles of bicycle facilities in New Orleans. These bike facilities run through several neighborhoods in New Orleans. We would like to examine the effect of bike facilities on ridership and pedestrian behavior in New Orleans.

Summary

This data collection method was created by Kathryn Parker, MPH. The data collection sheet is based upon examples of other pedestrian and bicycle data collection methods from the United States Department of Transportation.[1] The method is based upon two individuals counting bicycle riders on the street, sidewalk and neutral ground before and after the installation of bike lanes. The counts of pedestrians will also be made. The data can be analyzed to find the number of cyclists by direction of travel, specific location, (i.e. street, sidewalk or neutral ground) gender, race and approximate age.

Observation Areas

Each group of streets will have different observation areas. These areas will be provided on maps we give to you.

Two observers should stand or sit at the designated location as indicated by the observation area maps. One observer should be located at each side of the street, within eyesight of the other observer.

Training and Certification

All observers will read this protocol with the trainer, review a training presentation, and then practice at a screenline determined by the trainer. Observers will be certified with 80% agreement with the trainer after 30 minutes of observation.

Codes and Recoding

Intersection: Usually, this will be Broad and Lafitte; etc.

Temperature: Observers will leave this section blank. The temperature will be filled out by the project manager using the average hour weather data from www.wunderground.com

Rain: Observers will record if there are any rain showers.

Observer Name: Observers will record their first and last name

Hour: example: 7:00-8:00am will read: 7:00am. Only one hour should be indicated per time slot. If the observer sees that they are running out of room, they may use a time slot for every half hour or less.

Comments: Observers should note if there are any unusual circumstances affecting lane usage, such as cars parked on the bike lane or unsafe riding conditions. It should also be noted if another observer substitutes counting by adding their name and the time they observed under comments (i.e., for a bathroom break).

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1 Schneider, Robert; Patton, Robert; Toole, Jennifer; Raborn, Craig. Pedestrian and Bicycle Data Collection in United States Communities: Quantifying Use, Surveying Users, and Documenting Facility Extent. January 2005. Pedestrian and Bicycle Information Center, University of North Carolina at Chapel Hill. Sponsored by the Federal Highway Administration.

Observation Procedures

Observers will arrive 10 minutes early to the intersection of the observation area so that they will be ready to observe promptly at the top of the hour. After filling out the top of the form for the intersection, rain, name, day, date and hour; observers will then observe the cyclists and pedestrians at both sides of the street. Observers should imagine a line in the middle of the block as the observation plane. No cyclist or pedestrians will be counted unless they cross that observation plane.

Observers may sit or stand, as long as they have a view of the observation plane on both sides of the street. Both observers will observe all cyclists and pedestrians at all times. One observer will be designated to observe the sidewalk, street, and neutral ground, while the other observer will only observe the sidewalk and street.

As soon as the observers see a cyclist cross the observation plane, they will mark a straight line in the appropriate box. The fifth line in every box will be made diagonally across the previous four lines. Observers will note the gender, race, approximate age and direction the cyclist is riding. Approximate age is indicated by 'adult' or 'child,' i.e. appearance of high school or older as 'adult' and middle school and younger as 'child.' Riding with traffic is denoted as 'Right Way' (RW); riding against traffic is denoted as 'Wrong Way' (WW). Observers will also count the number of cyclists riding on the sidewalk and neutral ground and mark the appropriate age, race, and gender for the rider.

Observers will also count pedestrians in the same manner on the separate pedestrian form; however they will not note the direction of travel for pedestrians.

For streets with bike lanes, observers will count bikers in the same manner described above; additionally, they will note if the biker is riding in or out of the bike lane. Observers will mark people using the bike lane below the dotted line; those who are riding out of the lane are marked above the dotted line.

Observers should have their UNO identification cards at all times. If at any time there is an unsafe activity, the observers should leave the area, return to UNO and inform the project manager of any situation that interfered with the data collection.

Data collection times will be three days per week. Data will be collected Tuesday, Wednesday, and Thursday from 7-9 AM and 4-6 PM.

Appendix C: Manual Count Observation Recording Templates

Pedestrian Observation Tally Form

Observer Name: ______________________ Count Location Name/Number: ____

Day of Week______________ Date______________ Rain Y / N

	Street				**Neutral Ground**				**Sidewalk**			
Hour	Women	Girls	Men	Boys	Women	Girls	Men	Boys	Women	Girls	Men	Boys
	W	W	W	W	W	W	W	W	W	W	W	W
__:__ __	B	B	B	B	B	B	B	B	B	B	B	B
	O	O	O	O	O	O	O	O	O	O	O	O
	W	W	W	W	W	W	W	W	W	W	W	W
__:__ __	B	B	B	B	B	B	B	B	B	B	B	B
	O	O	O	O	O	O	O	O	O	O	O	O
	W	W	W	W	W	W	W	W	W	W	W	W
__:__ __	B	B	B	B	B	B	B	B	B	B	B	B
	O	O	O	O	O	O	O	O	O	O	O	O
	W	W	W	W	W	W	W	W	W	W	W	W
__:__ __	B	B	B	B	B	B	B	B	B	B	B	B
	O	O	O	O	O	O	O	O	O	O	O	O

COMMENTS:

Bicycle Observation Tally Form

Observer Name: ______________________ Count Location Name/Number: ____

Day of Week__________ Date__________ Rain Y / N

Hour	Street								Neutral Ground				Sidewalk				Helmet?
	Women		Girls		Men		Boys		Women	Girls	Men	Boys	Women	Girls	Men	Boys	
	RW	WW	RW	WW	RW	WW	RW	WW									
	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	M W
__:__	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M W
	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	M W
	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	M W
__:__	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M W
	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	M W
	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	M W
__:__	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M W
	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	M W
	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	M W
__:__	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M W
	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	M W

COMMENTS:

Bicycle Observation Tally Form -- Bike Lane

Observer Name: ______________________ Count Location Name/Number: ____

Day of Week________ Date_________ Rain Y / N = Bike Lane

	Street								Neutral Ground				Sidewalk				Helmet?
	Women		Girls		Men		Boys		Women	Girls	Men	Boys	Women	Girls	Men	Boys	
Hour	RW	WW	RW	WW	RW	WW	RW	WW									
	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	M
																	W
__:__ __	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M
																	W
	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	M
																	W
	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	M
																	W
__:__ __	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M
																	W
	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	M
																	W
	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	M
																	W
__:__ __	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M
																	W
	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	M
																	W
	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	M
																	W
__:__ __	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M
																	W
	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	M
																	W

COMMENTS:

Appendix D: Manual Count Weather Data

Table D-1: 2017 Manual Count Weather Data

#	Site	Count Dates	Temperature (°F)			Precipitation (inches)	Observed Weather Events
			High	Average	Low		
1	Gentilly Blvd	3/28/2017	83	75	67		
		3/30/2017	74	68	61	0.93	Fog, Rain, Thunderstorm
2	Esplanade Ave	4/11/2017	82	73	64		
		4/12/2017	82	72	62		
3	Harrison Ave	3/28/2017	83	75	67		
		3/30/2017	74	68	61	0.93	Fog, Rain, Thunderstorm
4	St. Claude Ave	4/18/2017	83	74	64		
		4/19/2017	84	75	65	0.2	
5	Royal St	4/5/2017	86	75	63	0.01	Rain
		4/6/2017	72	62	52		
6	Camp St (Gateway)	4/25/2017	79	68	56		
		4/27/2017	82	74	66	0.01	Rain
7	St. Charles Ave (Gateway)	5/17/2017	85	79	73		
		5/18/2017	86	81	76	0.04	
8	Decatur St	4/25/2017	79	68	56		
		4/26/2017	82	73	63	T	
9	Magazine St (Uptown)	4/11/2017	82	73	64		
		4/13/2017	83	72	60		
10	Magazine St (Gateway)	5/24/2017	78	69	60	T	
		5/30/2017	75	73	70	1.06	Rain, Thunderstorm
11	Simon Bolivar Ave (Gateway)	5/17/2017	85	79	73		
		5/18/2017	86	81	76	0.04	
12	Carondelet St (Gateway)	4/25/2017	79	68	56		
		4/26/2017	82	73	63	T	
15	St. Bernard Ave	3/22/2017	83	74	64		
		3/23/2017	83	72	61		
16	Basin St	3/21/2017	82	72	62		
		3/29/2017	83	76	69		
17	Nashville Ave	3/21/2017	82	72	62		
		3/23/2017	83	72	61		

#	Site	Count Dates	Temperature (°F)			Precipitation (inches)	Observed Weather Events
			High	Average	Low		
18	St Charles Ave (uptown)	4/4/2017	85	72	58		
		4/5/2017	86	75	63	0.01	Rain
19	S. Carrollton Ave	5/4/2017	68	61	53	0.58	Rain, Thunderstorm
		5/9/2017	83	72	60		
20	Oretha Castle Haley Blvd	4/4/2017	85	72	58		
		4/6/2017	72	62	52		
22	Loyola Ave	4/19/2017	84	75	65	0.2	
		4/20/2017	82	75	67		
23	S. Broad St	4/12/2017	82	72	62		
		4/13/2017	83	72	60		
24	Tulane Ave	5/24/2017	78	69	60	T	
		5/30/2017	75	73	70	1.06	Rain, Thunderstorm
31	Decatur St (Jackson Square)	5/11/2017	85	76	67		
		6/8/2017	85	79	72		
37	Baronne St (Gateway)	5/2/2017	84	72	59		
		5/16/2017	85	77	69		
38	N. Rampart St	5/4/2017	68	61	53	0.58	Rain, Thunderstorm
		5/9/2017	83	72	60		
40	Annunciation St	5/31/2017	83	77	70	0.77	Fog, Rain, Thunderstorm
		6/1/2017	83	78	73	0.66	Fog, Rain, Thunderstorm
43	St. Charles Ave (LGD)	5/10/2017	83	73	63		
		5/16/2017	85	77	69		
45	N. Galvez St	5/10/2017	83	73	63		
		5/11/2017	85	76	67		
46	N. Miro St	5/16/2017	85	77	69		
		6/15/2017	91	83	75	0.19	Thunderstorm
52	Marconi Dr	5/2/2017	84	72	59		
		5/10/2017	83	73	63		
53	Banks St	5/2/2017	84	72	59		
		5/3/2017	74	67	60	3.66	Fog, Rain, Thunderstorm
56	Desaix Blvd	4/18/2017	83	74	64		
		4/20/2017	82	75	67		

#	Site	Count Dates	Temperature (°F)			Precipitation (inches)	Observed Weather Events
			High	Average	Low		
57	Severn Ave	4/11/2017	82	73	64		
		4/20/2017	82	75	67		
58	Hannan Blvd	5/23/2017	83	78	72	T	
		5/24/2017	78	69	60	T	
59	Read Blvd	5/30/2017	75	73	70	1.06	Rain, Thunderstorm
		6/1/2017	83	78	73	0.66	Fog, Rain, Thunderstorm
60	Tulane Ave (Medical Dist)	5/31/2017	83	77	70	0.77	Fog, Rain, Thunderstorm
		6/1/2017	83	78	73	0.66	Fog, Rain, Thunderstorm
61	18th St	6/6/2017	79	76	72	2.03	Rain, Thunderstorm
		6/8/2017	85	79	72		
62	Napoleon Ave	5/2/2017	84	72	59		
		5/3/2017	74	67	60	3.66	Fog, Rain, Thunderstorm
63	Martin Luther King Blvd (Claiborne)	5/23/2017	83	78	72	T	
		5/25/2017	83	70	57		
64	S. Claiborne Ave	5/23/2017	83	78	72	T	
		5/25/2017	83	70	57		
65	Jackson Ave	6/6/2017	79	76	72	2.03	Rain, Thunderstorm
		6/8/2017	85	79	72		
66	Martin Luther King Blvd (OC Haley)	5/10/2017	83	73	63		
		5/16/2017	85	77	69		
67	Holmes Blvd	5/2/2017	84	72	59		
		5/11/2017	85	76	67		
68	Whitney Ave	5/17/2017	85	79	73		
		5/18/2017	86	81	76		
69	Opelousas Ave	6/13/2017	88	81	73	0.03	Thunderstorm
		6/14/2017	89	82	75	0.03	Thunderstorm
70	S. Galvez St	6/6/2017	79	76	72	2.03	Rain, Thunderstorm
		6/7/2017	86	80	74	T	
71	Williams Blvd	6/13/2017	88	81	73	0.03	Thunderstorm
		6/15/2017	91	83	75	0.19	Thunderstorm

Source: The Weather Undergound (www.wunderground.com)

Appendix E: PBRI Extrapolation Methodology

Manual Counts were performed at sites in Orleans, Jefferson, and St. Bernard Parishes, LA. Each count site represents a total of four observation periods: two AM counts (7-9 AM) and two PM counts (4-6 PM). For all sites, two volunteers observed from opposite sides of the street, creating a "plane" of observation. Observers differentiated between pedestrians and bicyclists and noted gender, race, age group, helmet use, and travel orientation. With the data collected by PBRI student workers, the following extrapolation method, derived from the National Bicycle and Pedestrian Documentation (NBPD) Project, was used to estimate daily, weekly, monthly, and annual traffic volumes of pedestrians and bicyclists.

PBRI Extrapolation Methodology

- Divide counts into AM and PM sessions. There should be two, 2-hour counts for each session.
- Come up with separate pedestrian and bicycle averages for AM and PM sessions. (i.e. for AM bicycle average, add both 2-hour AM bicycle counts and divide by the amount of hours observed, which should be four.)
- Add the pedestrian and bicycle averages together for a total user average. Then, multiply this number by 1.05 (this multiplier accounts for traffic between 11pm and 6am which is rarely manually counted and assumed to make up 5% of all daily volume).
- To calculate the daily volume, note the time (hours) that were observed for AM and PM counts. These should always be 7-9am for AM counts and 4-6pm for PM counts. Also note the month of the year. Use the NBPD Project extrapolation formula to find the corresponding adjustment factors for the time period and month. For our purposes, all manual counts are PED trails and should have been observed on a weekday. Divide total user averages by their appropriate adjustment factor to get the daily user average.
- For weekly volumes, determine the days that the AM and PM counts were observed. They may be the same or different. Use NBPD Project methodology to find the correct adjustment factor(s) for the AM and PM counts. If, for example, one AM count (2 hours) was taken on a Tuesday and the other count (2 hours) was taken on a Thursday, take the average of the two adjustment factors and apply it. Divide the AM and PM session daily user averages by their appropriate adjustment factor to get the weekly averages for AM and PM sessions.
- At this point, average the weekly user averages for the AM and PM sessions together since all unique data attributes have now been accounted for.
- Get the monthly user average by multiplying the combined AM and PM weekly average by 4.33 (the number of weeks in a year).
- In order to get the annual estimate, note the month that the counts were observed. This is done to account for seasonal variation in use. Use NBPD Project methodology to find the respective adjustment factor for the month observed under our climate pattern and divide the monthly user average by this number. NBPD methodology provides 3 climates to choose from. For New Orleans, choose "very hot summer, mild winter." Climate is accounted for because it affects monthly patterns.
- To get monthly or daily averages from the annual estimate above, simply divide by 12 or 365 respectively.
- In order to get individual pedestrian and bicycle averages, multiply the desired average (daily, weekly, monthly, or annual) by the pedestrian or bicycle percentage observed from the manual counts at that site.

NATIONAL BICYCLE & PEDESTRIAN DOCUMENTATION PROJECT : Count Adjustment Factors - **Detailed Explanation** (March 2009)

Available at http://bikepeddocumentation.org/downloads/

While more year-long automatic count data is needed from different parts of the county, especially for pedestrians and on-street bicyclists, enough data now exists to allow us to adjust counts done almost any period on multi-use paths and pedestrian districts to an annual figure.

All percentages in the following tables represent the percentage of the total period (day, week, or month).

How to Use This Data

The factors in the following tables are designed to extrapolate daily, monthly, and annual users based on counts done during any period of a day, month, or year. The factors currently are designed to be used by (a) multi-use pathways (PATH) and (b) higher density pedestrian and entertainment areas (PED).

How Many Counts Can it Be Based On?

Given the variability of bicycle and pedestrian activity, we strongly encourage that all estimates be based on the average of at least two (2) and preferably three (3) counts during the same time period and week, especially for lower volume areas. For example, counts could be done from 2-4pm on consecutive weekdays (Tuesday – Thursday) during the same week, or, in consecutive weeks. Weekday counts should always be done Tuesday through Thursday, and never on a holiday. Weekend counts can be done on either day.

Bicyclists versus Pedestrians

The factors used in these formulas are for combined bicyclist and pedestrian volumes. Once you have calculated your total daily, monthly, or annual volume, you can simply multiple the total by the percent breakdown between bikes and pedestrians based on your original count information.

Start with the Hour Count

Once you have collected your count information and developed an average weekday and weekend count volume for bicyclists and/or pedestrians, pick any one (1) hour period from either of those days.

Adjustment Factor

Your next step is to multiply those counts by 1.05.

Sample #1

Average 1 hour weekday count: 236 bikes/peds x 1.05 = 248

Average 1 hour weekend day count: 540 bikes/peds x 1.05 = 567

This adjustment factor is done to reflect the bicyclists/pedestrians who use the facility between 11pm and 6am, or, about 5% of the average daily total. The count formulas are all based on total counts between 6am and 10pm, since many available counts only cover those periods. If you are certain your facility gets virtually no use between those hours, you can forgo this step.

Calculate Daily Weekday and Weekend Daily Total

Identify the weekday and weekend hour your counts are from in Table 1 below. Be sure to use the PATH column for all multi-use paths, and the PED column for all higher density pedestrian areas with some entertainment uses such as restaurants. Be sure to select the correct time of year (April- September, or, October-March) as well.

Sample #2: done in June on a multiuse path (weekday = 4-5pm, weekend day = 12-1pm):

Adjusted weekday hourly count = 248/.07 = 3,542 daily users

Adjusted weekend day hourly count = 567/.1= 5,670 daily users

Calculating Average Weekly Volumes

We need to adjust these figures based on the day of the week. See table 2 below. Find the day of the week your counts were done, and factor them by that percent. If you did multiple counts on different days of the week, then take the average of those factors.

Sample #3: counts were done on a Tuesday and a Saturday.

Adjusted weekday count = 3,542/.13 = 27,246 average weekly users

Adjusted weekend count = 5,670/.18 = 31,500

Add these two figures together, and divide by 2:
27,246+31,500=58,746/2 = 29,373 people

The average weekly volumes for that month are 29,373 people.

Convert to Monthly Volumes

To convert from average weekly volumes to an average monthly volume, multiply the average weekly volume by the average number of weeks in a month (4.33 weeks).

Sample #4: 29,373 x 4.33 = 127,282 people.

This is the average monthly volume for the month the counts were conducted.

Convert to Annual Totals

To convert from the average monthly volume for the month the counts were taken into an annual total, divide the average monthly figure by the factor from Table 3 for the month the counts were conducted. Use the general climate zones described. Some climate zone types are not included.

Sample #5: counts were done in June in a moderate climate zone.

Average monthly volumes = 127,282/.08 = 1,591,037 people.

Based on these sample figures, it is estimated that almost 1.6 million people use the pathway annually

Average Monthly and Daily Figures

To identify the average monthly and daily figures, simply divide the annual figure by 12 (for month) or by 365 (for daily figures).

Monthly average = 1,591,037/12 = 132,586 people

Daily Average = 1,591,037/365 = 4,359 people

Table 1 -- Hourly Adjustment Factors

Multi-use paths and pedestrian entertainment areas by season

	April - September					October - March			
	6am - 9pm					6am - 9pm			
	---- PATH------		-----PED-----			---- PATH------		-----PED-----	
	wkdy	wkend	wkdy	wkend		wkdy	wkend	wkdy	wkend
600	2%	1%	1%	1%	600	2%	1%	1%	1%
700	4%	3%	2%	1%	700	4%	2%	2%	1%
800	7%	6%	4%	3%	800	6%	6%	3%	2%
900	9%	9%	5%	3%	900	7%	10%	5%	4%
1000	9%	9%	6%	5%	1000	9%	10%	6%	5%
1100	9%	11%	7%	6%	1100	9%	11%	8%	8%
1200	8%	10%	9%	7%	1200	9%	11%	9%	10%
1300	7%	9%	9%	7%	1300	9%	10%	10%	13%
1400	7%	8%	8%	9%	1400	9%	10%	9%	11%
1500	7%	8%	8%	9%	1500	8%	10%	8%	8%
1600	7%	7%	7%	9%	1600	8%	8%	7%	7%
1700	7%	6%	7%	8%	1700	7%	5%	6%	6%
1800	7%	5%	7%	8%	1800	6%	3%	7%	6%
1900	5%	4%	7%	8%	1900	4%	2%	7%	6%
2000	4%	3%	7%	8%	2000	2%	1%	6%	6%
2100	2%	2%	6%	8%	2100	2%	1%	5%	5%

Table 2 -- Daily Adjustment Factors

Note: Holidays use weekend rates

MON	14%
TUES	13%
WED	12%
THURS	12%
FRI	14%
SAT	18%
SUN	18%

Table 3 -- Monthly Adjustment Factors by Climate Area

	Climate Region		
Month	**Long Winter, Short Summer**	**Moderate Climate**	**Very hot summer, Mild Winter**
JAN	3%	7%	10%
FEB	3%	7%	12%
MAR	7%	8%	10%
APR	11%	8%	9%
MAY	11%	8%	8%
JUN	12%	8%	8%
JUL	13%	12%	7%
AUG	14%	16%	7%
SEP	11%	8%	6%
OCT	6%	6%	7%
NOV	6%	6%	8%
DEC	3%	6%	8%

Appendix F; Summary of Manual Count Totals, All 2010-2017 Count Locations

Table F-1: Summary of Pedestrian Count Totals 2010-2017

#	Site	2010	2011	2012	2013	2014	2015	2017
1	Gentilly Blvd	126	140	127	121	93	112	92
2	Esplanade Ave	230	289	607	573	490	503	512
3	Harrison Ave	124	117	164	285	234	282	250
4	St. Claude Ave (Bywater)	230	205	536	325	560	538	508
5	Royal St (Marigny)	324	314	371	376	357	525	455
6	Camp St (Gateway)	144	183	189	199	287	241	173
7	St. Charles Ave (Gateway)	550	501	460	603	659	941	880
8	Decatur St	1,313	1,902	2,547	3,053	2,540	2,558	2,652
9	Magazine St (Uptown)	330	269	321	338	356	385	607
10	Magazine St (Gateway)	159	187	229	334	241	309	264
11	Simon Bolivar Ave (Gateway)	608	433	494	692	505	430	647
12	Carondelet St (Gateway)	81	101	92	140	119	222	191
13	Metairie Hammond Hwy		20	32	7	18		
14	Papworth Ave		21	15	49	38		
15	St. Bernard Ave				247	312	302	250
16	Basin St				413	415	694	533
17	Nashville Ave				53	63	87	69
18	St. Charles Ave (Uptown)				430	398	342	400
19	S. Carrollton Ave				309	422	464	406
20	Oretha Castle Haley Blvd					466		287
21	Pace Blvd					41	250	
22	Loyola Ave				485	543	635	384
23	S. Broad St				492	529	505	345
24	Tulane Ave				468	396	458	287
25	St. Claude Ave Bridge				81	74		
26	Broad St Overpass				31	45	48	

#	Site	2010	2011	2012	2013	2014	2015	2017
27	Bonnabel Blvd					34		
28	Cleary Blvd					64		
29	Metairie Rd					62	123	
30	Jeff Davis Pkwy Bridge					141	211	
31	Decatur St (Jackson Square)					4,773	4,597	6,387
32	Freret St					601	471	
33	Martin Luther King Blvd (Hoffman Triangle)					122	107	
34	Royal St (French Quarter)					5,249	4,803	
35	Mirabeau Ave					27	73	
36	S. Peters St					545	489	
37	Baronne St (Gateway)					149	176	174
38	N. Rampart St					770		994
39	Golf Dr					66	66	
40	Annunciation St					130	182	92
41	Elysian Fields Ave					281	321	
42	Canal St (CBD)					5,022	7,819	
43	St. Charles Ave (LGD)						944	901
44	LB Landry Ave						272	
45	N. Galvez St						144	49
46	N. Miro St						171	72
47	Lake Forest Ave						94	
48	Holiday Dr						98	
49	Transcontinental Dr						93	
50	Baronne St (CBD)						1,104	
51	St. Claude Ave (Marigny)						577	
52	Marconi Dr						55	40
53	Banks St						193	216
54	Canal St (Midcity)						364	

#	Site	2010	2011	2012	2013	2014	2015	2017
55	General Meyer Ave						89	
56	Desaix Blvd							68
57	Severn Ave							71
58	Hannan Blvd							9
59	Read Blvd							70
60	Tulane Ave (Medical District)							579
61	18th St							137
62	Napoleon Ave							242
63	Martin Luther King Blvd (Claiborne)							135
64	S. Claiborne Ave							213
65	Jackson Ave							365
66	Martin Luther King Blvd (Central)							136
67	Holmes Blvd							84
68	Whitney Ave							65
69	Opelousas Ave							55
70	S. Galvez St							177
71	Williams Blvd					68		69

Table F-2: Summary of Bicyclist Count Totals 2010-2017

#	Site	2010	2011	2012	2013	2014	2015	2017
1	Gentilly Blvd	46	69	76	173	103	165	156
2	Esplanade Ave	105	117	185	217	314	468	368
3	Harrison Ave	27	33	48	23	29	68	31
4	St. Claude Ave (Bywater)	96	153	266	287	252	340	243
5	Royal St (Marigny)	377	295	281	253	212	229	175
6	Camp St (Gateway)	157	249	276	332	270	280	288
7	St. Charles Ave (Gateway)	191	229	269	281	248	276	216
8	Decatur St	150	199	258	262	226	253	178
9	Magazine St (Uptown)	38	63	95	92	90	104	106
10	Magazine St (Gateway)	153	223	285	266	223	219	134
11	Simon Bolivar Ave (Gateway)	86	150	175	161	221	256	281
12	Carondelet St (Gateway)	87	114	103	115	105	179	101
13	Metairie Hammond Hwy		14	13	10	29		
14	Papworth Ave		6	4	5	3		
15	St. Bernard Ave				88	114	259	205
16	Basin St				99	241	341	428
17	Nashville Ave				37	138	153	171
18	St. Charles Ave (Uptown)				441	242	250	284
19	S. Carrollton Ave				206	214	268	165
20	Oretha Castle Haley Blvd					163		200
21	Pace Blvd					22	92	
22	Loyola Ave				267	222	279	279
23	S. Broad St				112	128	139	93
24	Tulane Ave				71	102	82	95
25	St. Claude Ave Bridge				105	99		
26	Broad St Overpass				57	59	80	
27	Bonnabel Blvd					12		
28	Cleary Blvd					37		

#	Site	2010	2011	2012	2013	2014	2015	2017
29	Metairie Rd					24	65	
30	Jeff Davis Pkwy Bridgeł					289	514	
31	Decatur St (Jackson Square)					556	559	478
32	Freret St					178	99	
33	Martin Luther King Blvd (Hoffman Triangle)					85	86	
34	Royal St (French Quarter)					280	439	
35	Mirabeau Ave					17	45	
36	S. Peters St					19	59	
37	Baronne St (Gateway)					102	180	186
38	N. Rampart St					105		235
39	Golf Dr					183	257	
40	Annunciation St					118	87	58
41	Elysian Fields Ave					160	201	
42	Canal St (CBD)					230	220	
43	St. Charles Ave (LGD)						249	176
44	LB Landry Ave						22	
45	N. Galvez St						82	66
46	N. Miro St						51	37
47	Lake Forest Ave						31	
48	Holiday Dr						22	
49	Transcontinental Dr						71	
50	Baronne St (CBD)						247	
51	St. Claude Ave (Marigny)						343	
52	Marconi Dr						83	67
53	Banks St						53	75
54	Canal St (Midcity)						242	
55	General Meyer Ave						26	
56	Desaix Blvd							48

#	Site	2010	2011	2012	2013	2014	2015	2017
57	Severn Ave							8
58	Hannan Blvd							0
59	Read Blvd							39
60	Tulane Ave (Medical District)							111
61	18th St							101
62	Napoleon Ave							110
63	Martin Luther King Blvd (Claiborne)							71
64	S. Claiborne Ave							91
65	Jackson Ave							114
66	Martin Luther King Blvd (Central)							50
67	Holmes Blvd							20
68	Whitney Ave							15
69	Opelousas Ave							21
70	S. Galvez St							54
71	Williams Blvd					9		88

Appendix G: Observed User Characteristics by Count Location

Table G-1: Bicyclist Composition, by Count Site, 2017

		Gender		Race			Age Group		Helmet Use	Travel Orientation				
Site #	Site	Female	Male	White	Black	Other	Adult	Youth	%	Street-Right Way	Street-Wrong Way	Side-walk	Neutral Ground	Bike Lane Use (of on-street riders)
1	Gentilly Blvd	27.6%	72.4%	35.3%	60.9%	3.8%	94.2%	5.8%	17.9%	73.1%	18.6%	8.3%	0.0%	94.4%
2	Esplanade Ave	31.5%	68.5%	77.2%	15.5%	7.3%	99.2%	0.8%	34.2%	95.7%	1.1%	3.3%	0.0%	98.0%
3	Harrison Ave	19.4%	80.6%	74.2%	16.1%	9.7%	87.1%	12.9%	29.0%	61.3%	6.5%	29.0%	3.2%	
4	St. Claude Ave	26.7%	73.3%	54.3%	42.4%	3.3%	100.0%	0.0%	11.1%	80.7%	9.1%	9.5%	0.8%	98.2%
5	Royal St	28.6%	71.4%	92.0%	8.0%	0.0%	100.0%	0.0%	10.3%	91.4%	8.6%	0.0%	0.0%	
6	Camp St	29.2%	70.8%	74.0%	16.0%	10.1%	100.0%	0.0%	34.4%	89.2%	0.3%	10.4%	0.0%	
7	St. Charles Ave (Gateway)	20.8%	79.2%	71.8%	23.6%	4.6%	98.6%	1.4%	19.9%	73.6%	4.6%	20.4%	1.4%	
8	Decatur St	25.8%	74.2%	79.8%	17.4%	2.8%	98.3%	1.7%	18.5%	94.9%	2.8%	2.2%	0.0%	
9	Magazine St (Uptown)	32.1%	67.9%	67.9%	20.8%	11.3%	96.2%	3.8%	25.5%	51.9%	2.8%	45.3%	0.0%	
10	Magazine St (Gateway)	31.3%	68.7%	80.6%	14.9%	4.5%	99.3%	0.7%	33.6%	94.8%	2.2%	3.0%	0.0%	
11	Simon Bolivar Ave	15.7%	84.3%	31.3%	67.3%	1.4%	98.9%	1.1%	12.1%	64.4%	21.7%	13.9%	0.0%	
12	Carondelet St	25.5%	74.5%	65.7%	28.4%	5.9%	99.0%	1.0%	19.6%	82.4%	11.8%	5.9%	0.0%	
15	St. Bernard Ave	19.0%	81.0%	48.3%	48.8%	2.9%	95.1%	4.9%	9.3%	83.4%	10.7%	5.9%	0.0%	99.0%
16	Basin St	36.9%	63.1%	78.0%	17.1%	4.9%	100.0%	0.0%	39.5%	94.9%	1.4%	3.0%	0.7%	94.9%
17	Nashville Ave	33.9%	66.1%	81.9%	11.1%	7.0%	88.9%	11.1%	50.3%	96.5%	2.3%	1.2%	0.0%	96.4%
18	St. Charles Ave (Uptown)	38.7%	61.3%	79.2%	9.9%	10.9%	99.6%	0.4%	33.5%	97.9%	0.4%	0.0%	1.8%	99.6%
19	S. Carrollton Ave	27.9%	72.1%	74.5%	20.0%	5.5%	97.6%	2.4%	34.5%	86.7%	5.5%	7.9%	0.0%	98.7%
20	Oretha Castle Haley Blvd	31.0%	69.0%	64.0%	33.5%	2.5%	100.0%	0.0%	31.5%	92.0%	1.5%	6.5%	0.0%	93.6%
22	Loyola Ave	19.4%	80.6%	53.0%	45.5%	1.4%	99.3%	0.7%	20.1%	83.2%	8.6%	8.2%	0.0%	91.8%
23	Broad St	9.7%	90.3%	24.7%	65.6%	9.7%	100.0%	0.0%	11.8%	58.1%	9.7%	30.1%	2.2%	
24	Tulane Ave (Broad St)	24.2%	75.8%	42.1%	47.4%	10.5%	97.9%	2.1%	17.9%	75.8%	9.5%	14.7%	0.0%	100.0%
31	Decatur St (Jackson Square)	32.2%	67.8%	82.6%	14.4%	2.9%	99.0%	1.0%	16.5%	96.2%	1.0%	2.7%	0.0%	
37	Baronne St (Gateway)	31.7%	68.3%	76.9%	20.4%	2.7%	99.5%	0.5%	41.4%	88.7%	6.5%	4.8%	0.0%	
38	N. Rampart St	31.9%	68.1%	61.3%	30.2%	8.5%	99.1%	0.9%	18.7%	91.5%	2.6%	6.0%	0.0%	65.2%

		Gender		Race			Age Group		Helmet Use	Travel Orientation				
Site #	Site	Female	Male	White	Black	Other	Adult	Youth	%	Street-Right Way	Street-Wrong Way	Side-walk	Neutral Ground	Bike Lane Use (of on-street riders)
40	Annunciation St	25.9%	74.1%	75.9%	22.4%	1.7%	100.0%	0.0%	24.1%	87.9%	8.6%	3.4%	0.0%	
43	St. Charles Ave (LGD)	22.2%	77.8%	74.4%	21.0%	4.5%	99.4%	0.6%	27.8%	87.5%	2.8%	9.1%	0.6%	
45	N. Galvez St	31.8%	68.2%	45.5%	48.5%	6.1%	97.0%	3.0%	30.3%	77.3%	21.2%	1.5%	0.0%	96.9%
46	N. Miro St	48.6%	51.4%	78.4%	21.6%	0.0%	100.0%	0.0%	40.5%	86.5%	13.5%	0.0%	0.0%	
52	Marconi Dr	28.4%	71.6%	88.1%	11.9%	0.0%	98.5%	1.5%	53.7%	82.1%	1.5%	16.4%	0.0%	
53	Banks St	28.0%	72.0%	72.0%	21.3%	6.7%	93.3%	6.7%	34.7%	93.3%	4.0%	2.7%	0.0%	97.3%
56	Desaix Blvd	35.4%	64.6%	43.8%	47.9%	8.3%	100.0%	0.0%	25.0%	83.3%	10.4%	4.2%	2.1%	100.0%
57	Severn Ave	37.5%	62.5%	87.5%	12.5%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	
58	Hannan Blvd													
59	Read Blvd	15.4%	84.6%	17.9%	66.7%	15.4%	100.0%	0.0%	15.4%	5.1%	0.0%	92.3%	2.6%	
60	Tulane Ave (Medical District)	15.3%	84.7%	53.2%	36.0%	10.8%	98.2%	1.8%	11.7%	76.6%	2.7%	20.7%	0.0%	
61	18th St	10.9%	89.1%	24.8%	21.8%	53.5%	96.0%	4.0%	9.9%	38.6%	1.0%	60.4%	0.0%	
62	Napoleon Ave	40.0%	60.0%	86.4%	7.3%	6.4%	96.4%	3.6%	30.0%	95.5%	0.0%	4.5%	0.0%	97.1%
63	Martin Luther King Blvd (Claiborne)	25.4%	74.6%	56.3%	33.8%	9.9%	98.6%	1.4%	40.8%	59.2%	4.2%	36.6%	0.0%	
64	S. Claiborne Ave	18.7%	81.3%	39.6%	47.3%	13.2%	90.1%	9.9%	18.7%	49.5%	15.4%	25.3%	9.9%	
65	Jackson Ave	30.7%	69.3%	74.6%	21.1%	4.4%	99.1%	0.9%	25.4%	93.9%	2.6%	3.5%	0.0%	100.0%
66	Martin Luther King Blvd (Central)	32.0%	68.0%	64.0%	32.0%	4.0%	98.0%	2.0%	32.0%	82.0%	6.0%	12.0%	0.0%	
67	Holmes Blvd	30.0%	70.0%	35.0%	65.0%	0.0%	100.0%	0.0%	45.0%	10.0%	0.0%	90.0%	0.0%	
68	Whitney Ave	13.3%	86.7%	13.3%	73.3%	13.3%	86.7%	13.3%	0.0%	46.7%	13.3%	40.0%	0.0%	
69	Opelousas Ave	33.3%	66.7%	42.9%	57.1%	0.0%	81.0%	19.0%	0.0%	71.4%	9.5%	19.0%	0.0%	
70	S. Galvez St	25.9%	74.1%	61.1%	35.2%	3.7%	100.0%	0.0%	31.5%	57.4%	5.6%	27.8%	9.3%	97.1%
71	Williams Blvd	13.6%	86.4%	17.0%	58.0%	25.0%	94.3%	5.7%	20.5%	36.4%	2.3%	61.4%	0.0%	
	TOTAL ALL SITES	**27.7%**	**72.3%**	**65.4%**	**28.2%**	**6.4%**	**98.2%**	**1.8%**	**25.4%**	**83.2%**	**5.4%**	**10.9%**	**0.5%**	

Table G-2: Pedestrian Composition, by Count Site, 2017

		Gender		Race			Age Group		Travel Orientation		
Site #	Site	Female	Male	White	Black	Other	Adult	Youth	Sidewalk	Street	Neutral Ground
1	Gentilly Blvd	35.9%	64.1%	12.0%	87.0%	1.1%	88.0%	12.0%	2.2%	0.0%	97.8%
2	Esplanade Ave	51.2%	48.8%	59.8%	35.2%	5.1%	95.3%	4.7%	5.5%	0.4%	94.1%
3	Harrison Ave	61.6%	38.4%	78.4%	16.4%	5.2%	85.6%	14.4%	3.2%	6.4%	90.4%
4	St. Claude Ave	40.7%	59.3%	20.3%	77.4%	2.4%	92.1%	7.9%	5.9%	1.8%	92.3%
5	Royal St	45.7%	54.3%	85.9%	10.3%	3.7%	96.7%	3.3%	4.8%	0.0%	95.2%
6	Camp St	34.1%	65.9%	72.3%	16.8%	11.0%	100.0%	0.0%	2.3%	0.0%	97.7%
7	St. Charles Ave (Gateway)	37.6%	62.4%	68.4%	24.4%	7.2%	99.4%	0.6%	0.2%	9.9%	89.9%
8	Decatur St	47.5%	52.5%	77.3%	15.5%	7.2%	96.2%	3.8%	0.8%	0.0%	99.2%
9	Magazine St (Uptown)	61.2%	38.6%	80.9%	10.0%	9.0%	93.6%	6.2%	0.0%	0.0%	99.8%
10	Magazine St (Gateway)	39.8%	60.2%	84.1%	11.7%	4.2%	99.6%	0.4%	1.5%	1.5%	97.0%
11	Simon Bolivar Ave	27.5%	72.5%	10.7%	84.7%	4.6%	92.0%	8.0%	7.0%	5.7%	87.3%
12	Carondelet St	38.2%	61.8%	37.2%	49.7%	13.1%	99.5%	0.5%	5.8%	0.0%	94.2%
15	St. Bernard Ave	23.2%	76.8%	12.4%	82.4%	5.2%	87.2%	12.8%	2.4%	8.0%	89.6%
16	Basin St	33.8%	66.2%	39.8%	54.2%	6.0%	95.9%	4.1%	7.9%	5.1%	87.1%
17	Nashville Ave	46.4%	53.6%	76.8%	11.6%	11.6%	97.1%	2.9%	1.4%	0.0%	98.6%
18	St. Charles Ave (Uptown)	46.0%	54.0%	78.0%	10.8%	11.3%	94.3%	5.8%	1.8%	41.5%	56.8%
19	S. Carrollton Ave	51.0%	49.0%	71.9%	21.2%	6.9%	92.9%	7.1%	0.5%	22.4%	77.1%
20	Oretha Castle Haley Blvd	26.5%	73.5%	31.7%	64.8%	3.5%	98.6%	1.4%	3.1%	3.5%	93.4%
22	Loyola Ave	29.9%	70.1%	36.5%	56.3%	7.3%	95.8%	4.2%	2.6%	4.2%	93.2%
23	Broad St	31.3%	68.7%	11.9%	76.2%	11.9%	94.8%	5.2%	2.3%	3.8%	93.9%
24	Tulane Ave (Broad St)	34.1%	65.9%	29.6%	63.1%	7.3%	93.7%	6.3%	2.4%	3.8%	93.7%
31	Decatur St (Jackson Square)	53.1%	46.9%	81.0%	13.4%	5.6%	96.4%	3.6%	1.7%	0.0%	98.3%
37	Baronne St (Gateway)	29.3%	70.7%	43.1%	42.0%	14.9%	99.4%	0.6%	4.0%	0.0%	96.0%
38	N. Rampart St	38.4%	61.6%	50.4%	41.3%	8.2%	96.2%	3.8%	2.9%	0.8%	96.3%
40	Annunciation St	23.9%	76.1%	64.1%	30.4%	5.4%	97.8%	2.2%	6.5%	0.0%	93.5%
43	St. Charles Ave (LGD)	39.0%	61.0%	71.6%	25.6%	2.8%	97.4%	2.6%	1.3%	12.0%	86.7%

		Gender		Race			Age Group		Travel Orientation		
Site #	Site	Female	Male	White	Black	Other	Adult	Youth	Sidewalk	Street	Neutral Ground
45	N. Galvez St	36.7%	63.3%	36.7%	61.2%	2.0%	93.9%	6.1%	2.0%	0.0%	98.0%
46	N. Miro St	61.1%	38.9%	27.8%	65.3%	6.9%	68.1%	31.9%	2.8%	0.0%	97.2%
52	Marconi Dr	55.0%	45.0%	72.5%	22.5%	5.0%	100.0%	0.0%	0.0%	5.0%	95.0%
53	Banks St	28.7%	71.3%	66.7%	22.7%	10.6%	93.1%	6.9%	7.4%	0.9%	91.7%
56	Desaix Blvd	36.8%	63.2%	26.5%	69.1%	4.4%	82.4%	17.6%	5.9%	2.9%	91.2%
57	Severn Ave	43.7%	56.3%	52.1%	23.9%	23.9%	91.5%	8.5%	0.0%	2.8%	97.2%
58	Hannan Blvd	44.4%	55.6%	44.4%	44.4%	11.1%	100.0%	0.0%	0.0%	11.1%	88.9%
59	Read Blvd	25.7%	74.3%	14.3%	68.6%	17.1%	100.0%	0.0%	4.3%	2.9%	92.9%
60	Tulane Ave (Medical District)	43.7%	56.3%	40.8%	49.6%	9.7%	97.8%	2.2%	1.7%	2.8%	95.5%
61	18th St	25.5%	74.5%	19.0%	27.7%	53.3%	94.2%	5.8%	2.9%	0.0%	97.1%
62	Napoleon Ave	48.8%	51.2%	70.2%	27.3%	2.5%	88.4%	11.6%	2.9%	3.3%	93.8%
63	Martin Luther King Blvd (Claiborne)	17.8%	82.2%	9.6%	69.6%	20.7%	98.5%	1.5%	0.7%	2.2%	97.0%
64	S. Claiborne Ave	26.3%	73.7%	19.2%	67.6%	13.1%	99.5%	0.5%	9.9%	23.0%	67.1%
65	Jackson Ave	48.2%	51.8%	78.1%	14.0%	7.9%	94.2%	5.8%	1.1%	0.5%	98.4%
66	Martin Luther King Blvd (Central)	35.3%	64.7%	27.9%	65.4%	6.6%	94.9%	5.1%	22.1%	0.0%	77.9%
67	Holmes Blvd	36.9%	63.1%	14.3%	81.0%	4.8%	86.9%	13.1%	7.1%	0.0%	92.9%
68	Whitney Ave	40.0%	60.0%	13.8%	56.9%	29.2%	81.5%	18.5%	0.0%	10.8%	89.2%
69	Opelousas Ave	38.2%	61.8%	49.1%	50.9%	0.0%	81.8%	18.2%	1.8%	0.0%	98.2%
70	S. Galvez St	39.0%	61.0%	34.5%	58.8%	6.8%	98.9%	1.1%	0.6%	9.6%	89.8%
71	Williams Blvd	17.4%	82.6%	17.4%	60.9%	21.7%	92.8%	7.2%	20.3%	0.0%	79.7%
	TOTAL ALL SITES	**44.4%**	**55.6%**	**62.8%**	**30.1%**	**7.1%**	**95.6%**	**4.4%**	**2.6%**	**3.4%**	**94.0%**

Appendix H: Electronic Counts - Additional Data Tables

Table H-1: Jefferson Davis Trail User Volumes by Month

	Total Bicyclists	Total Pedestrians	Total Users	% of Annual Volume	Average Daily Bicyclists	Average Daily Pedestrians	Average Daily Users	Average Daily Temperature	Total Precipitation (in)
2015-2016									
July, 2015	10,791	7,486	18,277	6.0%	348	241	590	86	4.17
August, 2015	11,972	11,093	23,065	7.5%	386	358	744	85	3.28
September, 2015	14,035	12,591	26,626	8.7%	468	420	888	81	2.72
October, 2015	14,609	13,286	27,895	9.1%	471	429	900	74	9.54
November, 2015	11,309	10,808	22,117	7.2%	377	360	737	67	6.25
December, 2015	9,772	9,585	19,357	6.3%	315	309	624	65	6.46
January, 2016	9,929	10,753	20,682	6.8%	320	347	667	54	4.41
February, 2016	13,226	14,617	27,843	9.1%	456	504	994	59	3.72
March, 2016	13,240	12,885	26,125	8.5%	427	416	843	68	6.36
April, 2016	18,064	15,442	33,506	11.0%	602	515	1117	72	9.89
May, 2016	16,387	20,960	37,347	12.2%	529	676	1,205	78	4.95
June, 2016	11,651	11,467	23,118	7.6%	376	370	771	84	9.78
12 Month Total	**154,985**	**150,973**	**305,958**	**100.0%**	**423**	**412**	**840**	**73**	**71.53**
2016-2017									
July, 2016	11,218	11,307	22,525	7.4%	362	365	727	87	4.45
August, 2016	11,021	9,131	20,152	6.6%	356	295	650	86	11.87
September, 2016	12,883	9,960	22,843	7.5%	429	332	761	85	4.65
October, 2016	16,379	18,161	34,540	11.3%	528	586	1,114	78	0.05
November, 2016	12,718	12,669	25,387	8.3%	424	422	846	67	2.77
December, 2016	8,933	9,714	18,647	6.1%	288	313	602	60	7.86
January, 2017	11,225	12,029	23,254	7.6%	362	388	750	60	5.48
February, 2017	15,761	17,363	33,124	10.8%	563	620	1,183	65	2.74
March, 2017	15,378	12,612	27,990	9.1%	496	407	903	68	2.88
April, 2017	17,618	10,959	28,577	9.3%	587	365	953	72	5.45
May, 2017	16,610	n/a	n/a	n/a	536	n/a	n/a	74	9.93
June, 2017	11,361	n/a	n/a	n/a	366	n/a	n/a	80	15.48
12 Month Total*	**161,105**	**123,905**	**257,039**	84.0%	**443**	**409**	**849**	74	73.61

** For pedestrian and combined annual averages, 10 month total*

Table H-2: Jefferson Davis Trail Total User Volumes, 2010-2017, by Month

	Total Usage								
Month	**2010-2011**	**2011-2012**	**2012-2013**	**2013-2014**	**2014-2015**	**2015-2016**	**2016-2017***	**Absolute Change, 2010-2015**	***Percent Change, 2010-2015***
July	12,506	13,053	13,273	14,581	16,500	18,277	22,525	10,019	*80.10%*
August	10,945	13,471	12,719	13,978	15,499	23,065	20,152	9,207	*84.10%*
September	13,191	17,719	16,278	15,071	17,632	26,626	22,843	9,652	*73.20%*
October	15,755	19,752	20,330	22,936	22,539	27,895	34,540	18,785	*119.20%*
November	10,975	14,117	15,146	22,303	16,447	22,117	25,387	14,412	*131.30%*
December	11,502	11,715	13,867	17,748	14,859	19,357	18,647	7,145	*62.10%*
January	12,245	15,806	14,057	21,752	16,802	20,682	23,254	11,009	*89.90%*
February	12,301	14,080	16,215	16,987	17,058	27,843	33,124	20,823	*169.30%*
March	17,188	18,256	17,978	25,517	21,911	26,125	27,990	10,802	*62.80%*
April	18,946	19,449	n/a	22,537	23,834	33,506	28,577	9,631	*50.80%*
May	22,128	24,256	n/a	34,175	31,320	37,347	n/a	n/a	*n/a*
June	11,733	13,740	n/a	16,586	19,475	23,118	n/a	n/a	*n/a*
Total	**169,415**	**195,414**	**n/a**	**244,171**	**233,876**	**305,958**	**257,039**	**87,624**	***51.70%***

Table H-3: Jefferson Davis Trail Average Daily User Volumes, 2010-2017, by Month

	Average Daily Usage								
Month	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017*	Absolute Change, 2010-2017	Percent Change, 2010-2017
July	403	421	428	470	532	590	727	323	80.10%
August	353	435	410	451	500	744	650	297	84.10%
September	440	591	543	502	588	888	761	322	73.20%
October	508	637	656	740	727	900	1114	606	119.20%
November	366	471	505	743	548	737	846	480	131.30%
December	371	378	447	573	479	624	602	230	62.10%
January	395	510	453	702	542	667	750	355	89.90%
February	439	486	579	566	609	994	1183	744	169.30%
March	554	589	580	823	707	843	903	348	62.80%
April	632	720	n/a	751	794	1,117	953	321	50.80%
May	714	783	n/a	1,102	1,010	1,205	n/a	n/a	n/a
June	391	458	n/a	553	553	771	n/a	n/a	n/a
Total	464	540	n/a	665	641	840	849	385	83.00%

Table H-4: Jefferson Davis Trail Observed Volume by Hour of Day, 2015-2016

	Bicyclists			Pedestrians			Total Users		
Hour	Total	Average Hourly Users	% of total	Total	Average Hourly Users	% of total	Total Users	Average Hourly Users	% of total
12:00 AM	2,206	6	1.40%	1,102	3	0.70%	3,308	*9*	1.10%
1:00 AM	1,301	4	0.80%	585	2	0.40%	1,886	*5.2*	0.60%
2:00 AM	868	2	0.60%	432	1	0.30%	1,300	*3.6*	0.40%
3:00 AM	590	2	0.40%	276	1	0.20%	866	*2.4*	0.30%
4:00 AM	652	2	0.40%	469	1	0.30%	1,121	*3.1*	0.40%
5:00 AM	953	3	0.60%	1,089	3	0.70%	2,042	*5.6*	0.70%
6:00 AM	3,591	10	2.30%	5,125	14	3.40%	8,716	*23.8*	2.80%
7:00 AM	7,182	20	4.60%	7,276	20	4.80%	14,458	*39.5*	4.70%
8:00 AM	8,187	22	5.30%	7,706	21	5.10%	15,893	*43.4*	5.20%
9:00 AM	7,328	20	4.70%	7,643	21	5.10%	14,971	*40.9*	4.90%
10:00 AM	6,984	19	4.50%	8,782	24	5.80%	15,766	*43.1*	5.20%
11:00 AM	8,220	23	5.30%	9,335	26	6.20%	17,555	*48*	5.70%
12:00 PM	8,997	25	5.80%	8,884	24	5.90%	17,881	*48.9*	5.80%
01:00 PM	9,313	25	6.00%	9,644	26	6.40%	18,957	*51.8*	6.20%
02:00 PM	9,833	27	6.30%	9,315	26	6.20%	19,148	*52.3*	6.30%
03:00 PM	11,243	31	7.30%	10,401	28	6.90%	21,644	*59.1*	7.10%
04:00 PM	12,722	35	8.20%	12,190	33	8.10%	24,912	*68.1*	8.10%
05:00 PM	14,324	39	9.20%	14,026	38	9.30%	28,350	*77.5*	9.30%
06:00 PM	11,332	31	7.30%	12,831	35	8.50%	24,163	*66*	7.90%
07:00 PM	10,058	28	6.50%	10,545	29	7.00%	20,603	*56.3*	6.70%
08:00 PM	6,646	18	4.30%	5,880	16	3.90%	12,526	*34.2*	4.10%
09:00 PM	4,870	13	3.10%	3,487	10	2.30%	8,357	*22.8*	2.70%
010:00 PM	4,357	12	2.80%	2,333	6	1.50%	6,690	*18.3*	2.20%
011:00 PM	3,228	9	2.10%	1,617	4	1.10%	4,845	*13.2*	1.60%
12-Month Total	**15,4985**	**18**	**100.00%**	**150973**	**17**	**100.00%**	**305,958**	***34.83***	**100.00%**

Table H-5: Jefferson Davis Trail Observed Volume by Hour of Day, 2016-2017

	Bicyclists			Pedestrians*			Total Users*		
Hour	Total	Average Hourly	% of total	Total	Average Hourly	% of total	Total Users	Average Hourly Users	% of total
12:00 AM	2,323	6.4	1.40%	1,017	3.3	0.80%	2,934	9.7	1.10%
1:00 AM	1,376	3.8	0.90%	578	1.9	0.50%	1,718	5.7	0.70%
2:00 AM	837	2.3	0.50%	375	1.2	0.30%	1,081	3.6	0.40%
3:00 AM	559	1.5	0.30%	286	0.9	0.20%	746	2.5	0.30%
4:00 AM	530	1.5	0.30%	303	1	0.20%	745	2.5	0.30%
5:00 AM	1,064	2.9	0.70%	993	3.3	0.80%	1,880	6.2	0.70%
6:00 AM	3,912	10.7	2.40%	3,769	12.4	3.00%	7,103	23.4	2.80%
7:00 AM	7,099	19.4	4.40%	6,558	21.6	5.30%	12,579	41.4	4.90%
8:00 AM	8,606	23.6	5.30%	6,945	22.8	5.60%	14,136	46.5	5.50%
9:00 AM	7,672	21	4.80%	6,864	22.6	5.50%	13,272	43.7	5.20%
10:00 AM	7,792	21.3	4.80%	7,961	26.2	6.40%	14,412	47.4	5.60%
11:00 AM	8,425	23.1	5.20%	6,963	22.9	5.60%	14,006	46.1	5.40%
12:00 PM	9,299	25.5	5.80%	7,389	24.3	6.00%	15,054	49.5	5.90%
01:00 PM	9,649	26.4	6.00%	7,678	25.3	6.20%	15,678	51.6	6.10%
02:00 PM	10,079	27.6	6.30%	7,422	24.4	6.00%	15,789	51.9	6.10%
03:00 PM	12,199	33.4	7.60%	8,214	27	6.60%	18,451	60.7	7.20%
04:00 PM	13,341	36.6	8.30%	9,490	31.2	7.70%	20,641	67.9	8.00%
05:00 PM	14,592	40	9.10%	11,451	37.7	9.20%	23,706	78	9.20%
06:00 PM	11,751	32.2	7.30%	10,822	35.6	8.70%	20,429	67.2	7.90%
07:00 PM	9,846	27	6.10%	7,693	25.3	6.20%	15,317	50.4	6.00%
08:00 PM	6,514	17.8	4.00%	4,603	15.1	3.70%	9,654	31.8	3.80%
09:00 PM	5,350	14.7	3.30%	2,865	9.4	2.30%	7,267	23.9	2.80%
010:00 PM	4,631	12.7	2.90%	1,996	6.6	1.60%	5,772	19	2.20%
011:00 PM	3,659	10	2.30%	1,670	5.5	1.30%	4,669	15.4	1.80%
12-Month Total	**161,105**	**18.4**	**100.00%**	**123,905**	**17**	**100.00%**	**257,039**	**35.2**	**100.00%**

** For pedestrian and combined annual averages, average represents 10-month total excluding May and June 2017*

Table H-6: Jefferson Davis Parkway Trail User Volume by Day of Week, 2015-2016

	Bicyclists	Pedestrians	Total Users	% of Total	Average Daily Bicyclists	Average Daily Pedestrians	Average Daily Users
Monday	21,401	20,874	42,275	13.80%	412	401	813
Tuesday	21,845	20,448	42,293	13.80%	420	393	813
Wednesday	21,412	20,967	42,379	13.90%	404	396	800
Thursday	22,362	20,354	42,716	14.00%	422	384	806
Friday	22,151	20,236	42,387	13.90%	426	389	815
Saturday	24,222	24,402	48,624	15.90%	466	469	935
Sunday	21,592	23,692	45,284	14.80%	415	456	871
Total	**154,985**	**150,973**	**305,958**	**100.00%**	**423**	**412**	**836**

Table H-7: Jefferson Davis Parkway Trail User Volume by Day of Week, 2016-2017

	Bicyclists	Pedestrians*	Total Users*	% of Total	Average Daily Bicyclists	Average Daily Pedestrians*	Average Daily Users*
Monday	21,810	16,545	34,619	13.50%	419	385	805
Tuesday	23,321	17,369	37,006	14.40%	448	404	861
Wednesday	23,379	16,212	35,929	14.00%	450	377	836
Thursday	23,778	17,121	36,616	14.20%	457	398	852
Friday	24,024	17,153	36,629	14.30%	453	390	832
Saturday	24,245	24,655	44,602	17.40%	466	560	1,014
Sunday	20,548	14,850	31,638	12.30%	395	338	719
Total	**161,105**	**123,905**	**257,039**	**100.00%**	**441**	**408**	**846**

**12 month bike data*

**10 month pedestrian and total users data*

Table H-8: Lafitte Greenway Monthly Total and Average Daily Users, 2016-2017

	Lafitte Greenway @ N. Galvez St		Lafitte Greenway @ Jeff Davis Pkwy	
Month	**Total Users**	**Average Daily Users**	**Total Users**	**Average Daily Users**
Jan-16	19,185	619	17,146	553
Feb-16	24,649	850	22,101	762
Mar-16	23,403	755	22,441	724
Apr-16	26,851	895	25,869	862
May-16	24,315	784	25,838	833
Jun-16	17,849	595	18,210	607
Jul-16	17,452	563	17,943	579
Aug-16	17,476	564	18,755	605
Sep-16	21,999	733	28,195	940
Oct-16	26,859	866	35,884	1,158
Nov-16	23,216	774	24,661	822
Dec-16	17,117	552	15,883	512
Jan-17	20,515	662	20,058	647
Feb-17	29,169	1,042	28,183	1,007
Mar-17	25,861	834	26,315	849
Apr-17	28,174	939	28,814	960
May-17	25,724	830	27,410	884
Jun-17	21,274	709	21,072	702
18 Month Total	**411,088**	**752**	**424,778**	**777**

Table H-9: Lafitte Greenway Average Hourly Users, Jan 2016 - June 2017

Hour	Lafitte Greenway @ N. Galvez St	Lafitte Greenway @ Jeff Davis Pkwy
12:00 AM	10.8	8
1:00 AM	6.6	5
2:00 AM	4.1	3
3:00 AM	3.2	2
4:00 AM	3	2
5:00 AM	5.4	5
6:00 AM	17	16
7:00 AM	33.2	29
8:00 AM	42.6	42
9:00 AM	40.3	42
10:00 AM	37	41
11:00 AM	37.6	46
12:00 PM	40.7	51
01:00 PM	45.2	56
02:00 PM	50.9	56
03:00 PM	60.5	60
04:00 PM	63.9	64
05:00 PM	66.2	67
06:00 PM	54.4	55
07:00 PM	41.3	44
08:00 PM	28.7	29
09:00 PM	22.3	23
010:00 PM	20.6	18
011:00 PM	15.9	13

Table H-10: Lafitte Greenway Average Daily Users by Day of the Week, January 2016 - June 2017

Hour	Lafitte Greenway @ N. Galvez St	Lafitte Greenway @ Jeff Davis Pkwy
Monday	701	722
Tuesday	791	786
Wednesday	727	749
Thursday	751	759
Friday	753	766
Saturday	833	901
Sunday	705	753
Daily Average	**752**	**777**

Table H-11: Tammany Trace User Volumes by Month

	Total Bicyclists	Total Pedestrians	Total Users	Average Daily Bicyclists	Average Daily Pedestrians	Average Daily Users	Average Daily Temperature	Total Precipitation (in)
May, 2014 (partial--15 days)	3,138	844	3,982	209	56	265	74	3.25
June, 2014	5,928	1,526	7,454	198	51	248	80	6.41
July, 2014	6,080	1,535	7,615	196	50	246	80	7.40
August, 2014	6,227	1,657	7,884	201	53	254	82	3.47
September, 2014	6,027	1,742	7,769	201	58	259	79	1.46
October, 2014	5,618	2,213	7,831	181	71	253	69	2.60
November, 2014	4,054	1,507	5,561	135	50	185	54	1.59
December, 2014	2,373	1,645	4,018	77	53	130	56	5.04
January, 2015	3,069	1,661	4,730	99	54	153	50	5.02
February, 2015	2,622	1,427	4,049	94	51	145	50	1.68
March, 2015	4,689	1,951	6,640	151	63	214	65	5.47
April, 2015	4,606	1,652	6,258	154	55	209	71	10.09
May, 2015	5,938	2,068	8,006	192	67	258	75	3.95
June, 2015	6,007	1,609	7,616	200	54	254	80	2.81
July, 2015	5,740	1,380	7,120	185	45	230	84	2.53
August, 2015	6,248	1,562	7,810	202	50	252	81	3.53
September, 2015	5,612	2,065	7,677	187	69	256	77	3.34
October, 2015	5,276	2,049	7,325	170	66	236	70	4.83
November, 2015	3,837	1,676	5,513	128	56	184	63	5.24
December, 2015	2,653	1,443	4,096	86	47	132	61	8.39
January, 2016	3,020	1,462	4,482	97	47	145	50	3.97
February, 2016	4,197	1,450	5,647	145	50	195	55	3.24
March, 2016	4,545	1,925	6,470	147	62	209	65	6.55
April, 2016	6,217	2,276	8,493	207	76	283	68	8.76
May, 2016	6,616	2,383	8,999	213	77	290	73	4.94
June, 2016	5,083	1,656	6,739	169	55	225	81	6.33
July, 2016	6,411	1,839	8,250	207	59	266	83	4.61
August, 2016	4,023	1,643	5,666	130	53	183	82	9.97
September, 2016	4806	1588	6394	160	53	213	81	7.42

Table H-12: Tammany Trace Average Hourly Users, Weekdays v. Weekends

	Weekday Hourly Average Users			Weekend Hourly Average Users		
	Total	Pedestrians	Bicyclists	Total	Pedestrians	Bicyclists
12:00 AM	0.1	0	0.1	0.1	0	0.1
1:00 AM	0.1	0	0.1	0.1	0	0.1
2:00 AM	0.1	0	0.1	0.1	0	0.1
3:00 AM	0.1	0	0.1	0.1	0	0.1
4:00 AM	0.3	0	0.3	0.1	0	0.1
5:00 AM	1.3	0.2	1.1	1.1	0.2	0.9
6:00 AM	4.9	1.5	3.3	8.4	2.3	6.2
7:00 AM	9.7	3.1	6.6	21.7	6.1	15.6
8:00 AM	9.7	2.5	7.1	29.9	7.2	22.7
9:00 AM	11.7	3.1	8.6	36.2	8.2	28
10:00 AM	12.5	3.1	9.5	41.2	6.8	34.4
11:00 AM	13.3	4.4	8.9	42.9	6.8	36.2
12:00 PM	14.5	6.3	8.2	37.4	6.3	31.1
01:00 PM	11.4	3.7	7.7	36.1	6.3	29.8
02:00 PM	10.3	3	7.3	34.1	5.6	28.5
03:00 PM	9.6	3.1	6.5	28.6	4.5	24.1
04:00 PM	12.8	5.5	7.3	24.5	4.3	20.2
05:00 PM	13.7	5.6	8.1	17.4	3.6	13.9
06:00 PM	11.9	3.5	8.4	10.4	2.2	8.2
07:00 PM	6.2	1.6	4.5	5.5	1.5	4
08:00 PM	0.9	0.3	0.7	1	0.4	0.6
09:00 PM	0.2	0.1	0.1	0.2	0.1	0.2
010:00 PM	0.2	0.1	0.1	0.2	0	0.1
011:00 PM	0.1	0	0.1	0.1	0	0.1
Average Hourly Users	**6.5**	**2.1**	**4.4**	**15.7**	**3**	**12.7**

Table H-13: Tammany Trace User Volume by Day of Week

	Average Daily Bicyclists	Average Daily Pedestrians	Average Daily Users
Monday	107	53	160
Tuesday	103	47	160
Wednesday	99	51	150
Thursday	108	52	160
Friday	115	48	162
Saturday	320	76	396
Sunday	294	67	361