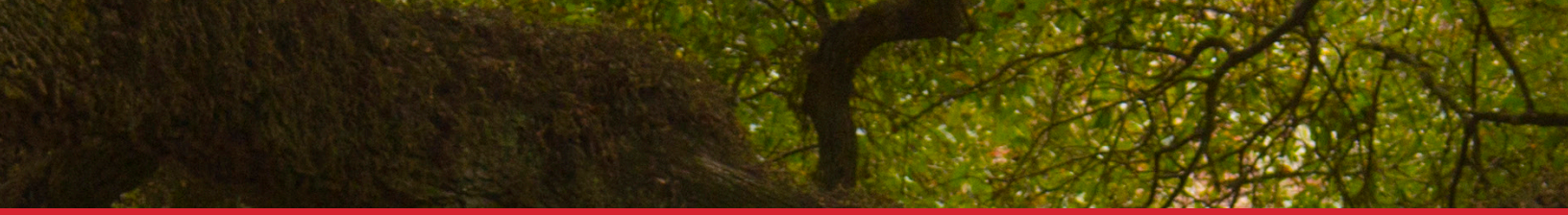

University of Louisiana at Lafayette Pedestrian and Bike Study

Fall 2022 - Spring 2023

UNIVERSITY of LOUISIANA LAFAYETTE | Office of Sustainability

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STRENGTH

1 Introduction

Pedestrian Study

In the 2022 fall semester, the Office of Sustainability conducted a pedestrian study at the campus intersections of Johnston St. to study pedestrian patterns and identify potential solutions to reduce local traffic congestion and improve safety for bikers, pedestrians, and drivers.

Why?

The Office of Sustainability conducted this study to measure the volume and direction of pedestrian traffic of the Johnston Street intersections to evaluate efficiency and safety of students as the University progresses to the next stage of the Master Plan, to include the University of Louisiana at Lafayette's Health Sciences campus expansion across Johnston Street.

When?

Thursday, October 20, 2022 from 7am - 6pm
Monday, October 24, 2022 from 7am - 6pm

Where?

Johnston Street intersections at East St. Mary Boulevard, East University Avenue, and East Lewis Street.

The Office of Sustainability defines expanding access to safe and sustainable, active transportation options for students, faculty, and staff as a priority transportation objective in the University's Sustainability Strategic Plan.

Strategies are:

- Convene the Campus Bicycle Committee on a regular basis to discuss issues and plan for improvements.
- Improve infrastructure according to the Campus Master Plan.
- Promote complete streets principles and advocate for its implementation.
- Improve the quantity and quality of bike parking and amenities on campus, including the installation of bike stations and covered racks.
- Work with local, regional, and state government and planning agencies to optimize conditions of the core region of Lafayette to make walking and biking a safe, desirable option.
- Adopt Vision Zero, a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all.

BICYCLE FRIENDLY COMMUNITY
BRONZE
THE LEAGUE OF AMERICAN BICYCLISTS

UL Lafayette is recognized by the League of American Bicyclists for maintaining campuses that encourage biking and rider safety.

2015-2019 & 2020-2024

According to the Governors Highway Safety Association (GHSA), pedestrian accident fatalities in Louisiana and across the nation reached a record high in 2021.[1]

Post Pedestrian Studies

The Office of Sustainability and Lafayette Consolidated Government's Planning Division partnered to create the Bicycle and Pedestrian Workshop and Bicycle Lafayette Survey as a follow up to the Pedestrian Study to gather input and comments from UL Lafayette's students, faculty, and staff.

Bicycle and Pedestrian Workshop

The **Bicycle and Pedestrian Workshop** was held in the 2023 spring semester to gather input from student, faculty, and staff about non-motorized connectivity.

- The Bicycle and Pedestrian Workshop was held April 5, 2023.
- There were 30 participants.
- Participants included undergraduate students, graduate students, community members from neighborhoods adjacent to the campus, faculty and staff from various departments and offices from across the university.
- Comments and destination maps were collected from the workshop.

Students, faculty, and staff working in small groups at the Bicycle and Pedestrian Workshop in the 2023 spring semester.

Bicycle Lafayette Survey

The **Bicycle Lafayette Survey** was also conducted during the spring semester of 2023 to gather input from students, faculty, and staff to improve Lafayette's existing and planned bike and pedestrian network.

UL Lafayette Bicycle Survey that went out to the entire university in the 2023 spring semester.

- The survey was open from February 23, 2023 - May 31, 2023.
- There were 427 participants.
- Nearly half of the participants were students and the other half were faculty and staff.
- Comments, occupant data, destination data, preferred routes, and preferred amenities were collected.

In the 2019 Bicycle Friendly State Report Card, the League of American Bicyclists gave Louisiana a D in Infrastructure & Funding, ranking 44 out of 50. [2]


RAGIN'
CAJUNS
RAGIN'
CAJUNS

2 Methodology

American Planning Association

The American Planning Association(APA) model for Pedestrian Counts is a comprehensive pedestrian count to determine the over all pedestrian volume and traffic patterns for a multiplicity of purposes. It should include all midblock points and intersections in a urban core with heavy pedestrian volumes. [15]

The APA's pedestrian count is a method of measuring the volume and direction of pedestrian traffic in the urban core through time and by location. As such, it provides quantitative data to evaluate the need for and effectiveness of various pedestrian planning measures at particular places like at campus intersections.

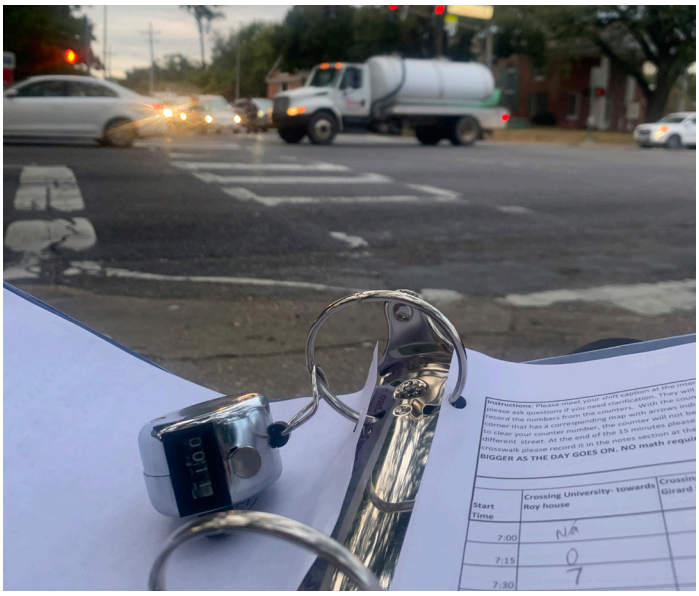
The ability of pedestrians to move easily and directly within the urban core depends upon the degree of conflict with vehicular traffic, the extent of sidewalk congestion, the land use pattern, and the availability of pedestrian routes.

Pedestrian-oriented design refers to features of the built environment that encourage pedestrian activity and improve pedestrian mobility.

By using the data collected from the APA's methodology of study, the University of Louisiana at Lafayette intends to explore solutions with Lafayette Consolidated Government's Planning Division to maximize the safety of Johnston Street for all users and create a desirable pedestrian and bike experience.

The Governors Highway Safety Association (GHSA) projects a total of 7,485 pedestrians were killed in motor vehicle traffic crashes in 2021, an increase of 11.5%. [1]

According to the National Highway Traffic Safety Administration(NHTSA) 966 cyclists were killed in motor vehicle traffic crashes in 2021, an increase of nearly 2%. [3]



Pedestrian Counter and data tracker at 7:30am on Oct. 20, 2023.


Pedestrian counter volunteer at the corner of University Avenue and Johnston Street documenting pedestrian volume and directional flow.

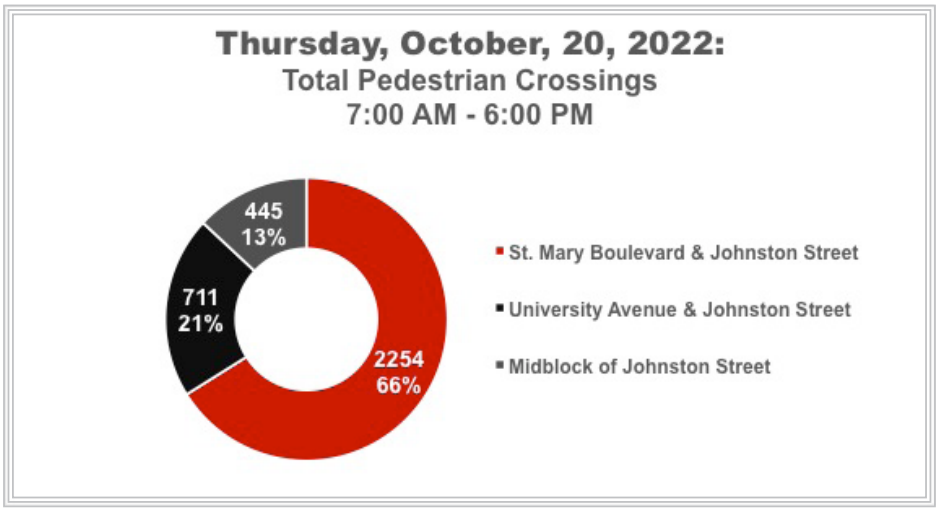

PEDS
MUST
OBEY
SIGNAL
CAJUNS

3 Data Analysis

Pedestrian Study

Using the American Planning Association(APA) model for Pedestrian Counts, the Office of Sustainability and volunteers collected quantitative data between the hours of 7am - 6pm on Thursday, October 20, 2022 and Monday, October 23, 2022. Pedestrian areas studied were along Johnston Street at campus intersections and the midblock between University Avenue and East St. Mary Boulevard.

Volunteers were posted at the corner of campus intersections with a counter and a 15 minute interval tracker to track the volume and direction of pedestrian traffic.

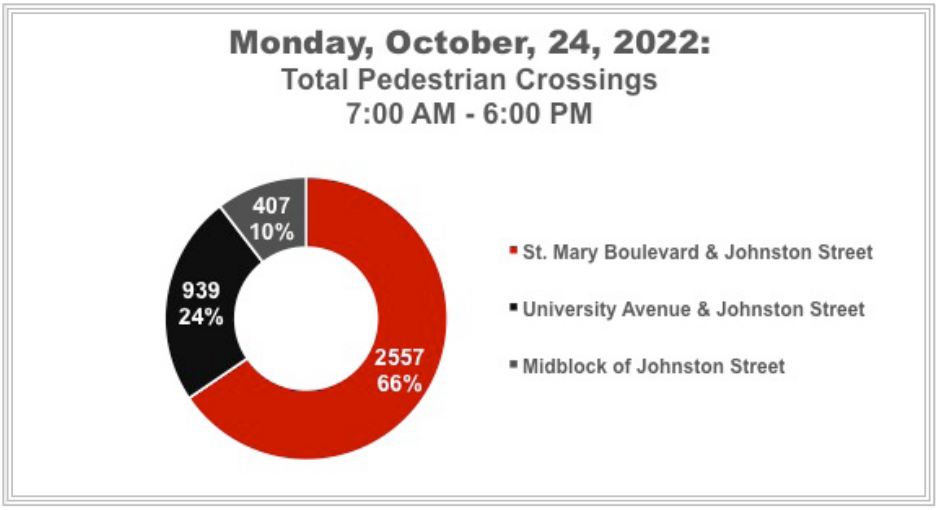


3,410

Pedestrian crossings on Thursday, October 20, 2022

3,903

Pedestrian crossings on Monday, October 24, 2022



On both days of the Pedestrian Study, over **400** students, faculty, and staff members were witnessed crossing at the mid-block across four lanes of traffic at Johnston St. between University Ave and E St. Mary Blvd.

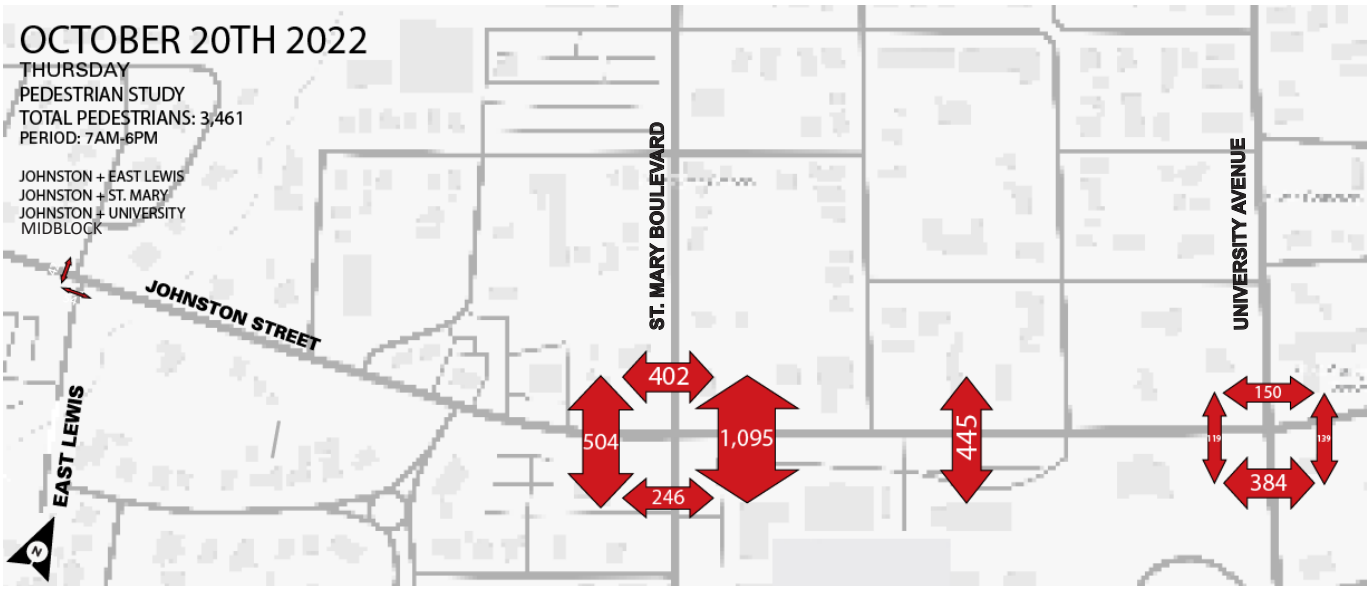
Louisiana routinely ranks around 2nd or 3rd for most bicyclist fatalities in the United States according to the Louisiana Highway Safety Commission. [4]

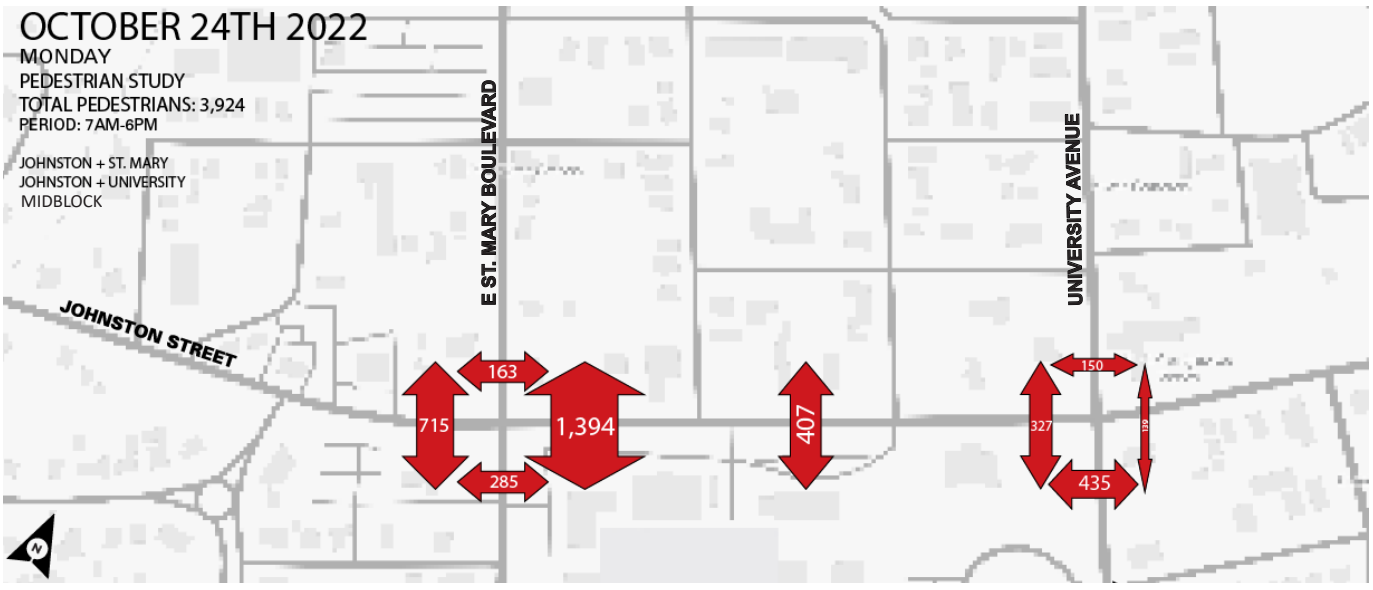
Pedestrian Study Quantitative Data

Volunteers documented pedestrian traffic in 15 minute intervals to understand peak flow times and the relationship with the Monday/Wednesday/Friday and Tuesday/Thursday alternating class schedules. Notes about incidents, near misses, comments, and other areas of concern were recorded during the study.

Key Takeaways:

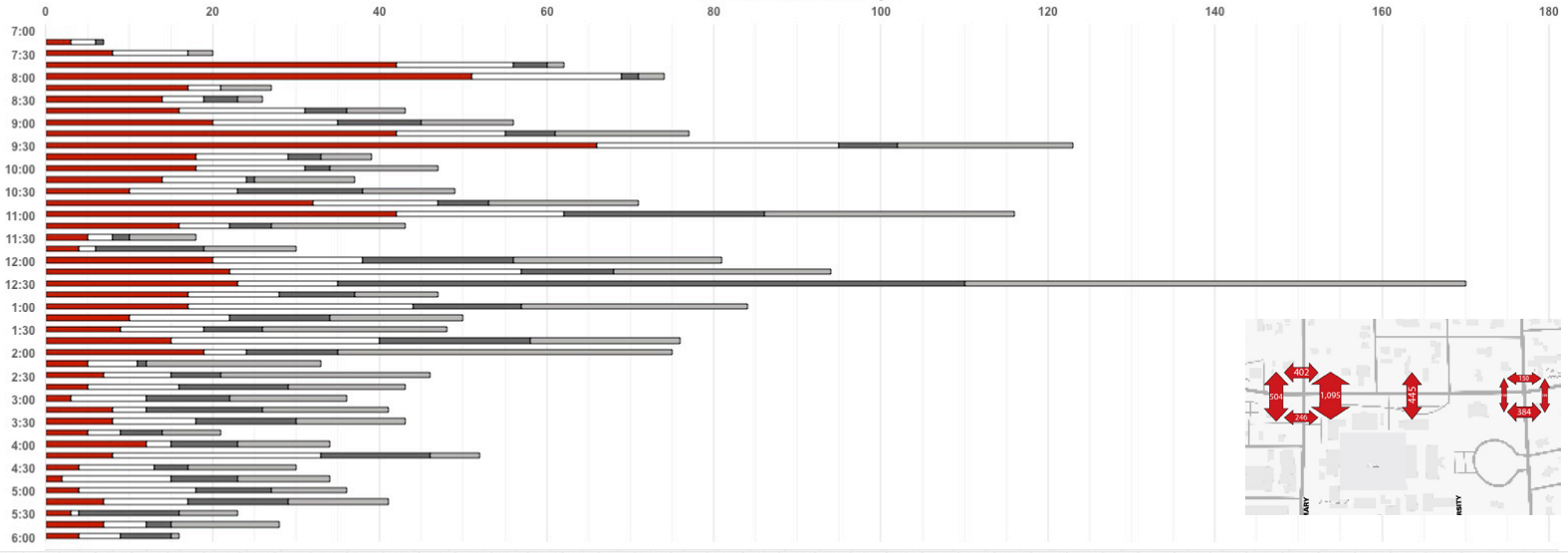
- East St. Mary Boulevard. and Johnston Street intersection had the most pedestrian foot traffic.
- Peak foot traffic flows occurred when students were switching classes and during lunch times.
- Thursday's highest pedestrian foot traffic occurred at 12:30pm with 170 crossings in a 15 minute time interval at East St. Mary Boulevard and Johnston Street.
- Monday's highest pedestrian foot traffic occurred at 10:45am with 175 crossings in a 15 minute time interval at East St. Mary Boulevard and Johnston Street.
- Over 400 mid-block crossings were recorded each day, making up over 10% of all the crossings.





Pedestrian Study Quantitative Data

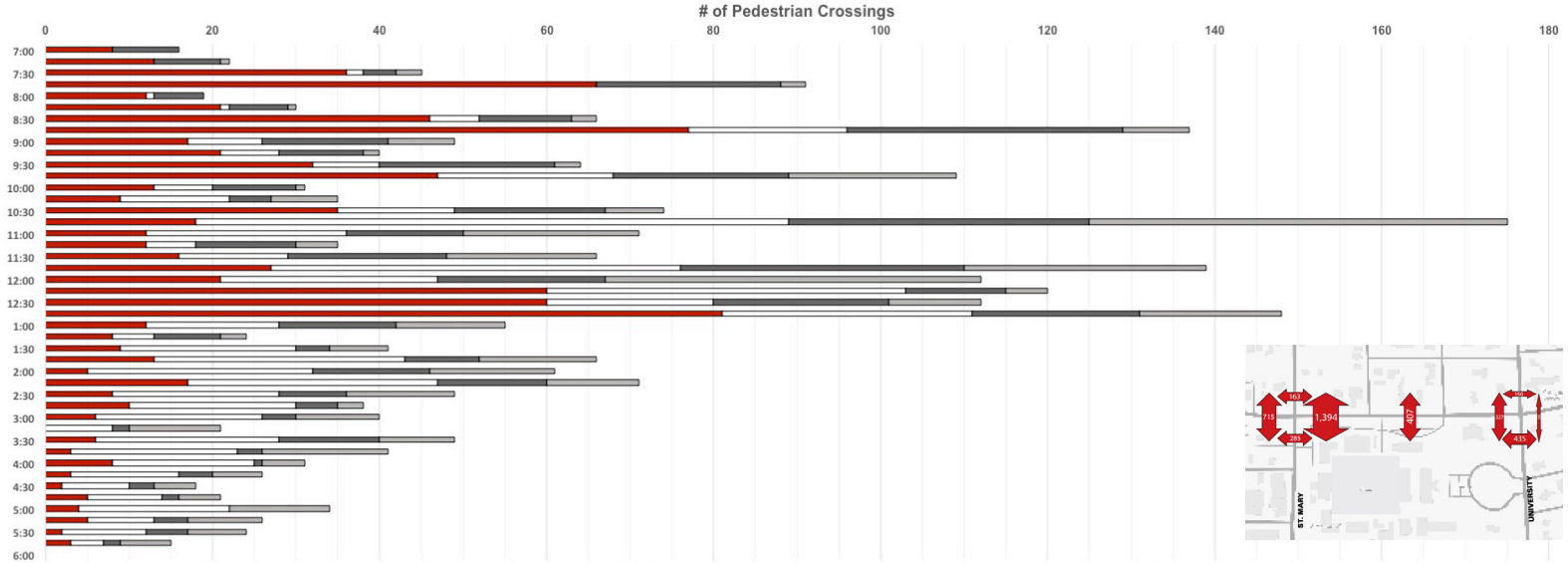
Thursday, October 20, 2022: Johnston Street & St. Mary Boulevard



	6:00	5:45	5:30	5:15	5:00	4:45	4:30	4:15	4:00	3:45	3:30	3:15	3:00	2:45	2:30	2:15	2:00	1:45	1:30	1:15	1:00	12:45	12:30	12:15	12:00	11:45	11:30	11:15	11:00	10:45	10:30	10:15	10:00	9:45	9:30	9:15	9:00	8:45	8:30	8:15	8:00	7:45	7:30	7:15	7:00
To Mouton Hall Corner	4	7	3	7	4	2	4	8	12	5	8	8	3	5	7	5	19	15	9	10	17	17	23	22	20	4	5	16	42	32	10	14	18	18	66	42	20	16	14	17	51	42	8	3	0
To French House Corner	5	5	1	10	14	13	9	25	3	4	10	4	9	11	8	6	5	25	10	12	27	11	12	35	18	2	3	6	20	15	13	10	13	11	29	13	15	15	5	4	18	14	9	3	0
To Burger King Corner	6	3	12	12	9	8	4	13	8	5	12	14	10	13	6	1	11	18	7	12	13	9	75	11	18	13	2	5	24	6	15	1	3	4	7	6	10	5	4	0	2	4	0	1	0
To Taco Bell Corner	1	13	7	12	9	11	13	6	11	7	13	15	14	14	25	21	40	18	22	16	27	10	60	26	25	11	8	16	30	18	11	12	13	6	21	16	11	7	3	6	3	2	3	0	0

To Mouton Hall Corner To French House Corner To Burger King Corner To Taco Bell Corner

Monday, October 24, 2022: Johnston Street & St. Mary Boulevard



	6:00	5:45	5:30	5:15	5:00	4:45	4:30	4:15	4:00	3:45	3:30	3:15	3:00	2:45	2:30	2:15	2:00	1:45	1:30	1:15	1:00	12:45	12:30	12:15	12:00	11:45	11:30	11:15	11:00	10:45	10:30	10:15	10:00	9:45	9:30	9:15	9:00	8:45	8:30	8:15	8:00	7:45	7:30	7:15	7:00
To Mouton Hall Corner	0	3	2	5	4	5	2	3	8	3	6	0	6	10	8	17	5	13	9	8	12	81	60	60	21	27	16	12	12	18	35	9	13	47	32	21	17	77	46	21	12	66	36	13	8
To French House Corner	0	4	10	8	18	9	8	13	17	20	22	8	20	20	20	30	27	30	21	5	16	30	20	43	26	49	13	6	24	71	14	13	7	21	8	7	9	19	6	1	1	0	2	0	0
To Burger King Corner	0	2	5	4	0	2	3	4	1	3	12	2	4	5	8	13	14	9	4	8	14	20	21	12	20	34	19	12	14	36	18	5	10	21	21	10	15	33	11	7	6	22	4	8	8
To Taco Bell Corner	0	6	7	9	12	5	5	6	5	15	9	11	10	3	13	11	15	14	7	3	13	17	11	5	45	29	18	5	21	50	7	8	1	20	3	2	8	8	3	1	0	3	3	1	0

To Mouton Hall Corner To French House Corner To Burger King Corner To Taco Bell Corner

Pedestrian Study Observations

During the two days of the Pedestrian Study, we recorded comments from pedestrians who inquired about the study and told volunteers things they have noticed and how they feel as a pedestrian crossing in these high traffic areas.

Pedestrian Comments Collected during the Pedestrian Study:

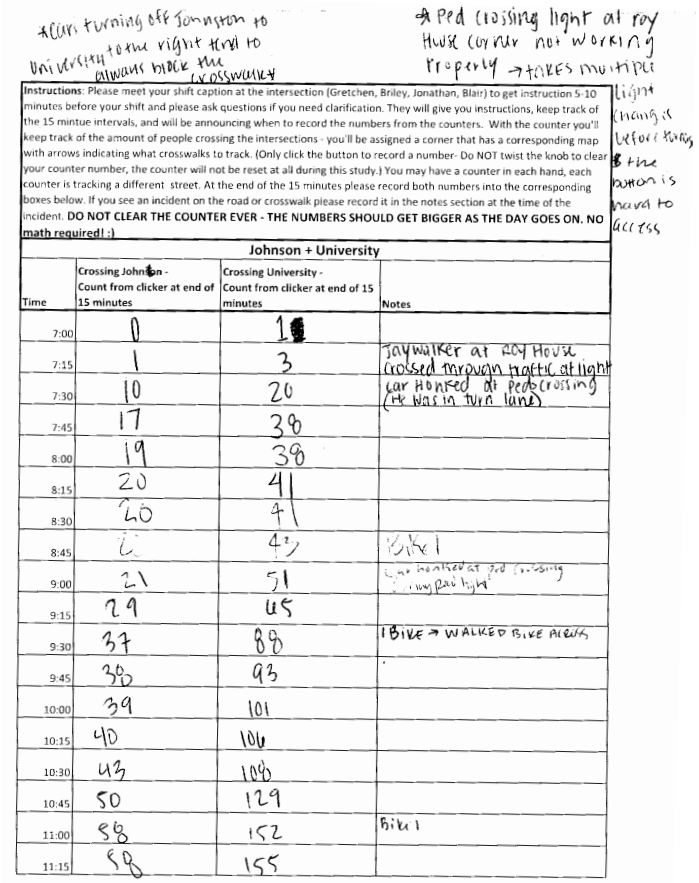
- Multiple students and employees requested longer time periods for crossing.
- Multiple students and employees expressed they wanted directional button arrows at crosswalks on East St. Mary Boulevard and Johnston Street.
- One student said crossing Johnston Street on her commute to class was "scary enough."
- Midblock crossings were reported and witnessed crossing University Avenue at KOK Wings & Things, but a count was not recorded within this study. Students told volunteers that "It's too far to get to the nearest light with a crosswalk".
- The pedestrian study site is also where the Affiliated Blind of Louisiana's Adjustment to Blindness Training occurs.
- Affiliated Blind of Louisiana is located on East St. Mary Boulevard less than half a mile from Johnston Street and the East St. Mary Boulevard Intersection. Affiliated Blind of Louisiana's trainers and trainees discussed crosswalk accessibility issues for people with vision impairments.
- Affiliated Blind of Louisiana's trainers and trainee's noted the following issues:
    - There are no truncated domes.
    - Crosswalks are rounded so there's no safe separation from the sidewalk and the street.
    - There's only one button, so trainees have to learn different listening techniques to understand when to cross.
    - Multiple crosswalk button poles are too far from the crosswalk so trainees have to use the canes to find it by entering landscaping areas to access the poles.
    - There is often confusion with the crosswalk poles with the crossing button and the adjacent utility poles.

Pedestrian Study Observations

During the two days of the Pedestrian Study, volunteers recorded notes regarding incidents and other areas of concern. Instances of speeding, illegal turns, near miss traffic accidents, and many instances of cars honking at crossing pedestrians with the right of way.

Observations Documented During the Pedestrian Study:

- Multiple cars ran red lights.
- Multiple near misses between two or more cars and among cars and pedestrians.
- Multiple instances of illegal left turns from East St. Mary Boulevard to Johnston Street heading northbound.
- Multiple instances of cars honking at pedestrians when the pedestrians have the right of way.
- Multiple instances of cars turning right and left into crossing pedestrians.
- Multiple instances of cars driving on the sidewalks when turning right with pedestrians present.
- The lane on East St. Mary Boulevard with three lights for two lanes has caused confusion for drivers.
- Speeding was recorded as high as 55mph in a 40mph zone.



Cars turning off Johnston to University to the right tend to always block the crosswalks

Ped crossing light at Roy House corner not working properly → takes multiple

Instructions: Please meet your shift caption at the intersection (Gretchen, Briley, Jonathan, Blair) to get instruction 5-10 minutes before your shift and please ask questions if you need clarification. They will give you instructions, keep track of the 15 mintue intervals, and will be announcing when to record the numbers from the counters. With the counter you'll keep track of the amount of people crossing the intersections - you'll be assigned a corner that has a corresponding map with arrows indicating what crosswalks to track. (Only click the button to record a number- Do NOT twist the knob to clear your counter number, the counter will not be reset at all during this study.) You may have a counter in each hand, each counter is tracking a different street. At the end of the 15 minutes please record both numbers into the corresponding boxes below. If you see an incident on the road or crosswalk please record it in the notes section at the time of the incident. **DO NOT CLEAR THE COUNTER EVER - THE NUMBERS SHOULD GET BIGGER AS THE DAY GOES ON. NO math required! :)**

Johnson + University

Time	Crossing Johnston - Count from clicker at end of 15 minutes	Crossing University - Count from clicker at end of 15 minutes	Notes
7:00	0	1	
7:15	1	3	Jaywalker at Roy House crossed through traffic at light car honked at pedestrian (He was in turn lane)
7:30	10	20	
7:45	17	38	
8:00	19	38	
8:15	20	41	
8:30	20	41	
8:45		43	Bike 1
9:00	21	51	Car honked at ped crossing [illegible] light
9:15	29	45	
9:30	37	88	1 BIKE → WALKED BIKE ACROSS
9:45	38	93	
10:00	39	101	
10:15	40	106	
10:30	43	108	
10:45	50	129	
11:00	58	152	Bike 1
11:15	58	155	

Pedestrian count tracker used in the study modeled off of APA standards.

Pedestrian crossing East St. Mary Boulevard.

Crash Data and Traffic Counts

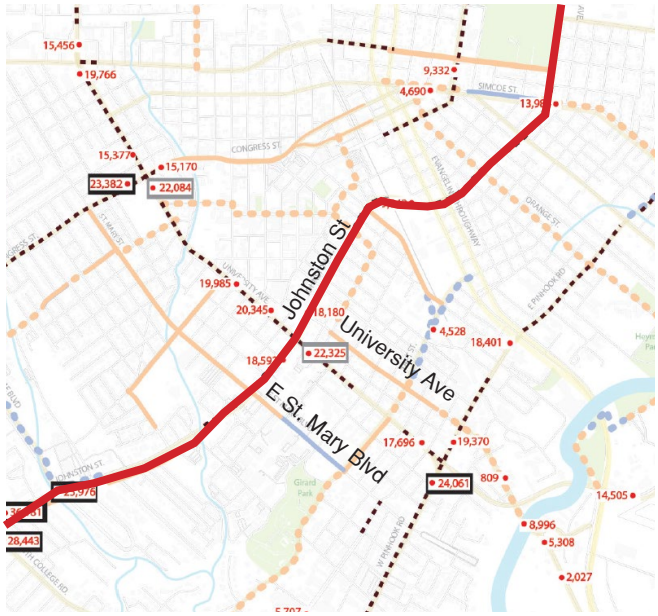
Between 2019 and 2023, UL Police Department (ULPD) responded to 167 traffic crashes on/or near campus. Of the 167 reported traffic crashes, 5 involved pedestrians and 6 involved bicyclists. These numbers do not reflect the quantity of unreported incidents or the Lafayette Police Department's (LPD) numbers.

Bike and Pedestrian Incidents at Johnston St. Campus Intersections :

- Five pedestrians who were waiting on the sidewalk to cross the road were struck after a driver ran a red light and hit another vehicle into the students at University Avenue and Johnston Street. One of them had moderate injuries and the other four had minor injuries. - *Fall 2021*
- ULPD responded to a major traffic crash with injuries at Johnston Street near West Saint Mary Boulevard involving a bicyclist. - *Spring 2019*
- ULPD responded to a vehicle crash that hit a bicyclist near the East Lewis Street and Johnston Street. - *Spring 2023*

18%

of recorded incidents occurred on Johnston St. at E Lewis St., St. Mary Blvd., or University Ave. intersections



LANES	PEAK HOUR	HIGH (.07)	LOW (.01)
(1)	800	11,428	8,000
(2)	1,600	22,857	16,000
(3)	2,400	34,285	24,000
(4)	3,200	45,714	32,000
(5)	4,000	57,142	40,000
(6)	4,800	68,571	48,000

Traffic Counts:

- The Johnston Street and Cajun Dome Boulevard intersection measured a car count of 25,970 vehicles per day(VPD)
- Johnston Street between the intersections of East St. Mary Boulevard and University Avenue measured a car count of 18,592 VPD.
- Johnston Street between University Avenue and Jefferson Street measured a car count of 18,180 VPD.

According to the FHWA, 15,000- 20,000 VPD is a good candidate for Road Diets.

Pedestrian Fatalities in Louisiana increased from 122 in 2019, 146 in 2020, to 175 in 2021 an increase of 43.4% from 2019 to 2021 according to the Governors Highway Safety Association (GHSA) [1]

Bicycle and Pedestrian Workshop

The workshop was hosted by the Office of Sustainability in partnership with Lafayette Consolidated Government's Planning Division. The Bicycle Lafayette Plan, existing paths, new and ongoing projects, traffic counts, existing bike and pedestrian infrastructure on campus, bike amenities on campus, and Pedestrian Study Results were discussed. Small groups were created after the presentation to identify their top destinations and frequently used paths, using large scale maps.

Bicycle and Pedestrian Workshop Top Comments:

- Crossing Johnston Street is difficult because traffic is too fast, the dangerous turns into crosswalks, and lanes at the light are confusing and dangerous for drivers and pedestrians.
- Crossing University Avenue is also difficult because traffic is too fast, the dangerous turns into crosswalks, and lanes at the light are confusing and dangerous for drivers and pedestrians.
- Pedestrian light crossing timing issues - discussions were had about Scramble Crossings at peak times of the day when needed in heavy pedestrian areas on Johnston Street.
- Walkable/Bikeable infrastructure is needed to access the neighboring urban areas such as Downtown, Oil Center, Moncus Park, Girard Park, Freetown, & Saints Streets.
- Neighborhood routes and the overall connection of neighborhoods to each other, campus, and downtown need improvements.
- Utilities and poles are obstructing sidewalks along streets affecting accessibility for many users.
- Lack of infrastructure on surrounding/connecting streets (Lights, sidewalks, bike lanes, bike amenities)
- Condition and quality of existing sidewalks is lacking.
- Pinhook is an unsafe street for non-motorized users. The road is tight even for cars, the bridge crossing feels dangerous for non-motorized users, and crossing Pinhook Road is difficult and dangerous for pedestrians.
- Participants were able to indicate their primary traveled to destinations on the map of Lafayette and most repeated destinations included Main Campus, the University's Research Park, Girard Park, Moncus Park, Oil Center, and Downtown.

78%

of participants described a *negative* biking experience in Lafayette. Common descriptive words used were "*scary, stressful, disconnected, harassed, dangerous, unsafe, and terrifying.*"

Participants Destinations in Lafayette

According to the Center for Disease Control (CDC), most pedestrian deaths occur in urban areas, on roadway locations away from intersections (where higher speeds might occur). [5]

Bicycle Lafayette Survey Results

The Bicycle Lafayette Survey was conducted during the Spring Semester of 2023 collected input from students, faculty, and staff to gather comments to improve Lafayette's existing and planned bike and pedestrian network.

Bicycle Lafayette Survey

- The survey was open from February 23, 2023 - May 31, 2023
- There were 427 participants
- Nearly half of the participants were students(49.4%) and the other half were faculty and staff(50.6%).

64%

of participants said they would bike or walk more often once the Bicycle Lafayette Plan is complete but at the moment they feel *uncomfortable* riding to their destinations.

75%

of participants said they walk to get around campus more than 3 days per week.

15%

of participants said they bike to get around campus more than 3 days per week.

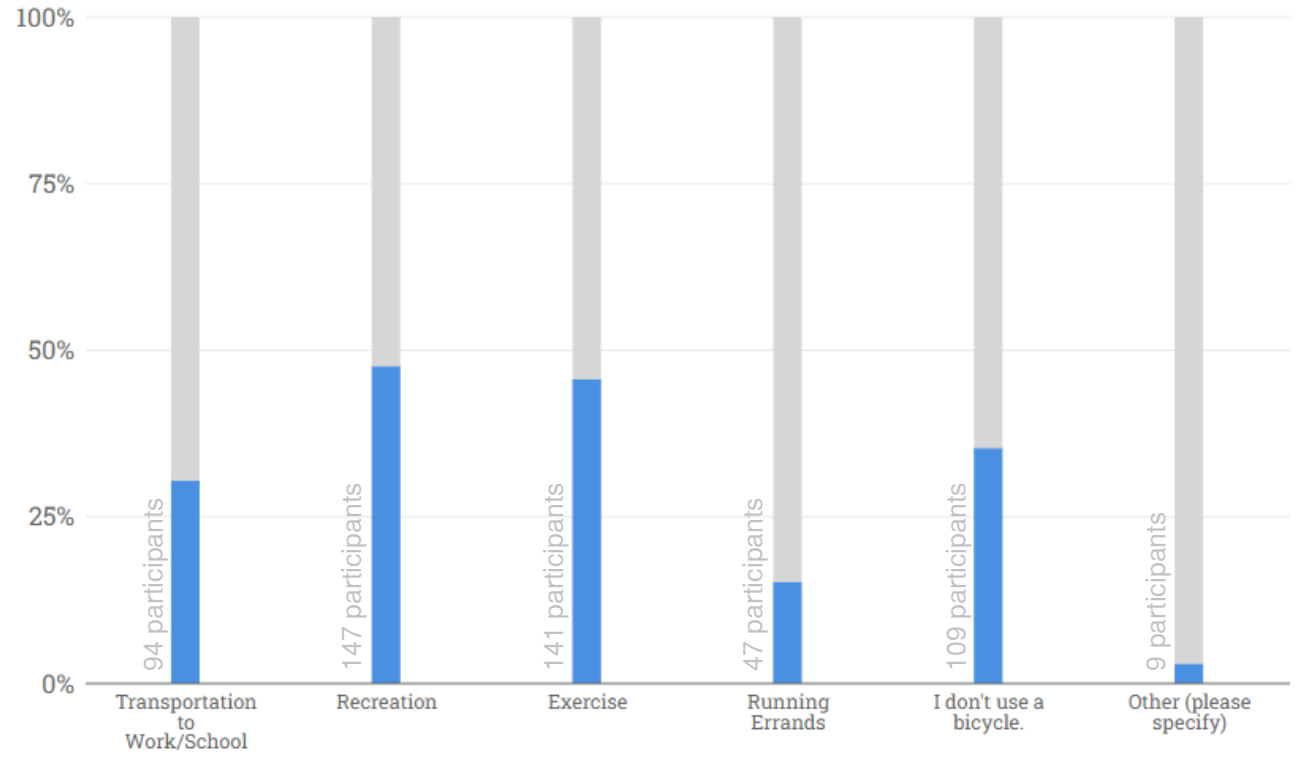
30%

of participants said they use their bike to get to work/school.

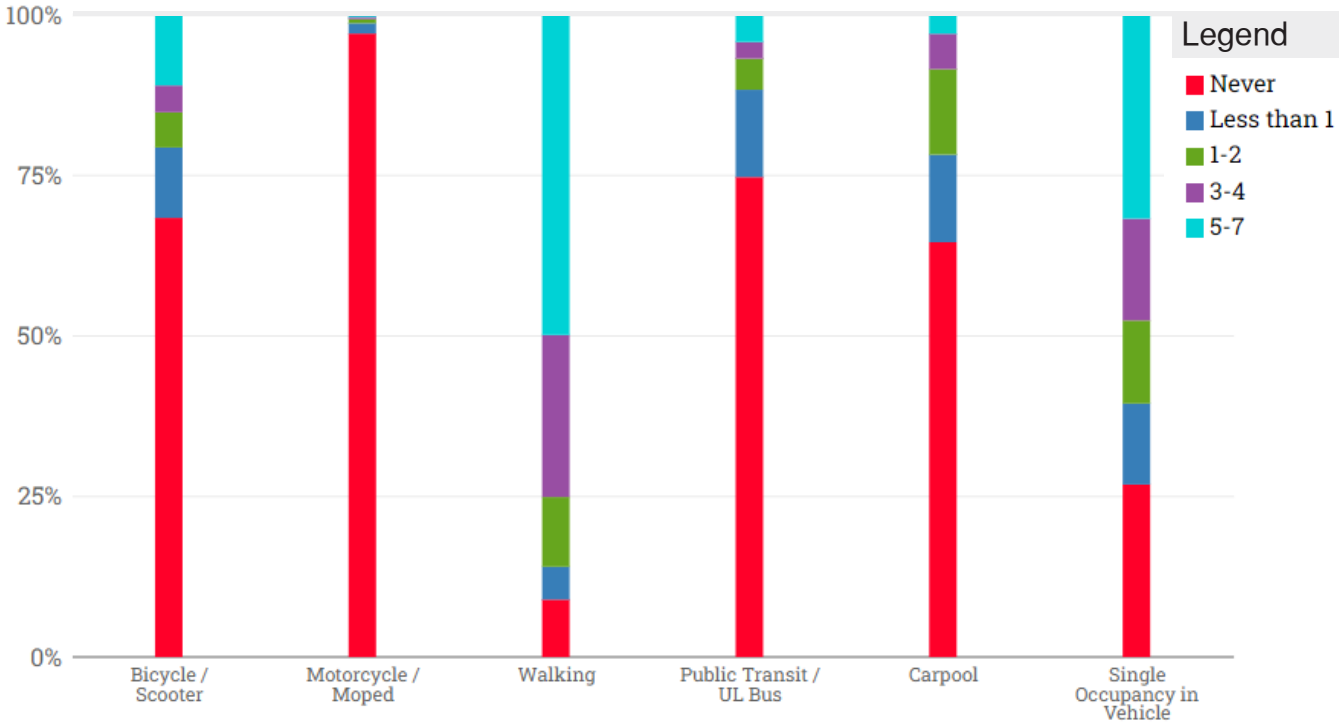
Four-lane undivided highways have a history of increased crashes as traffic volumes rise, due to motorists sharing the inside lane for higher speed through movements and left turns. -FHWA [6]

Bicycle Lafayette Survey Results

If you bike, what do you use your bike for?



How many days per week, on average, do you typically use the following modes of transportation to get around CAMPUS?



Bicycle Lafayette Survey Comments

Responses for the survey question: "Is there somewhere you'd like to ride your bike now but don't feel safe?"

36 participants listed **"Johnston St."** as the primary road of concern that does not feel safe. Other repeated roads of concern besides Johnston Street was Congress Street, South College Road, Pinhook Road, Ambassador Caffery Parkway, Verot School Road, Girard Park Drive, Bertrand Drive, East Bayou Parkway, West Bayou Parkway, East Broussard Road, Kaliste Saloom Road, Jefferson Street, Cajundome Boulevard, East Lewis Street, Surrey Street, and Evangeline throughway. Additionally, participants also described wanting **safe paths to the UL Lafayette campus, downtown, parks, and grocery stores.**

- "Crossing Johnston Street at St. Mary Blvd., sometimes seems unsafe as either a cyclist or a pedestrian because drivers too often do not yield to pedestrians."
- "I would like to be able to ride to campus"
- "Most of the roads in Lafayette are really bad for cyclist."
- "I don't feel safe biking on Johnston due to the high volume of traffic."
- "There is nowhere in the entire city that feels "safe" on a bicycle: drivers don't pay attention to us, riding on sidewalks is the only way to hope you won't get sideswiped by someone."
- "I would love to ride my bike more often but feel like pedestrians/bike riders are ignored by car traffic. The mentality will have to change in order for people to feel more comfortable in traffic in Lafayette."
- Just about anywhere in Lafayette is unsafe for riding. The reasons are: rough roads & curbs and sidewalks, very small spaces or no space for bikes, and terrible drivers.
- "I want to ride to UL down johnston street without thinking I will die"
- "I live on the northside but typically only bike into downtown and midtown because northside does not feel safe"
- "Anywhere in Lafayette frankly feels unsafe, even with painted bike lanes. I only bike within my neighborhood but live close to campus, but I fear dying on S. College or West Bayou because of no protection and high speeds"
- "Any main street in Lafayette is dangerous to bike; most drivers don't pay attention to bikers in this context. Even where there are bike lanes, they will end unexpectedly forcing you onto main traffic. The entire city could be better about safety on the road, particularly where it comes to awareness of bikers. In general Lafayette is one of the worst biking towns I have lived in, so these new biking trails are a welcome change."
- "I would like to ride my bike to friend's houses, downtown and to the park without risking my life biking. We have lost a dear friend to biking on the unsafe roads."
- "It isn't enough to have a lane; the plan needs to include sustainability 'maintenance' and accountability efforts to keep the lanes usable."

Bicycle Lafayette Survey Comments

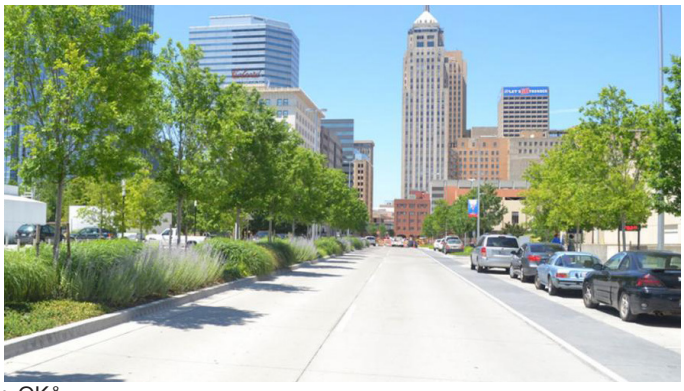
Responses for the survey question: "Do you have any additional questions or comments about the plan?"

Many participants expressed **excitement** about the plan but also expressed the **dangers of the current conditions**. Repeated comments were about poor existing conditions, unmaintained/uncleaned bike lanes, and Johnston Street design and current conditions.

- "I would love for Lafayette to be a more bike friendly city. I do miss riding but Lafayette and the surrounding areas have grown so much it is now too dangerous to ride."
- "I am very excited about this opportunity for more cycling in safer ways. My husband has been hit twice by a car when he was on the shoulder, so I am happy to see that utility cyclists will have safer trails.'
- "Walking to class on Johnston St is extremely uncomfortable, being that the sidewalk is narrow and the traffic moves close to it and at a fast pace."
- "A lot of the bike paths have unsafe dips or large bumps that make them very hard to stay on and usually force me on to the sidewalk."
- "I would LOVE to be able to bike to the park, and around town on a safe path, without worrying about being run over!"
- "My main concern is where bike trails cross roads and streets. In other places I have biked there is a very wide range of crossings in terms of safety. Some cities have stop lights for cars that the bikers can trigger, which will make people feel very safe. Other places there is barely a discernible sign to notify motorists. Drivers don't like to stop at lights or signs for bikers, so good signage is imperative, as is a public awareness campaign. More bikers means fewer motorists and less traffic, which should make drivers happy!"
- "I feel Lafayette a dangerous city to ride a bike. Not enough access. People are distracted when driving and bikers do not wear the correct clothing. "
- "I like 'the bike plan'. What prevents me from biking is having to cross University, Congress, AND Johnston to get to campus. In Lafayette some cars really want to take them out. So, more bike lanes would really make a difference. And would be good for health, and relieve congestion. Truly, it's mostly danger and harassment that keep me from biking more."
- "The use and viability of this plan depends entirely on the safety. Utilizing roads will NEVER create a functional bike plan and this will be useless. Lafayette needs bike path/trails/running/walking paths/greenways that are off of the main roads. It is the only safe and functional solution."
- "I think this needs to be enacted as SOON as possible! Even owning a car, a bike-friendly Lafayette would be amazing :)"
- "I think this will be an amazing addition to our city. Making Lafayette a more welcoming place for people who bike and walk."

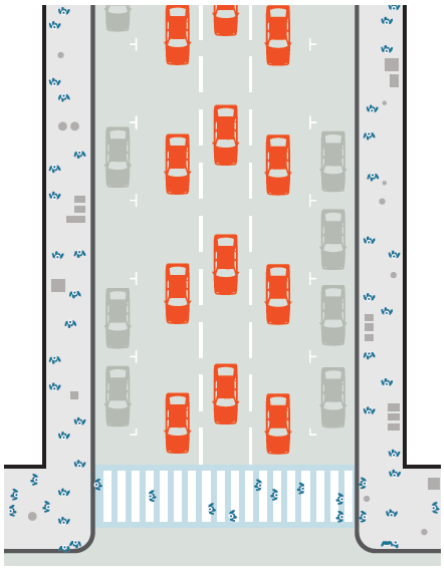
4 Benefits Terms

Road Diets improve safety, calm traffic, provide better mobility and access for all road users, and enhance overall quality of life. Studies indicate a 19% to 47% reduction in overall crashes when a Road Diet is installed on a previously four-lane undivided facility and improve safety by reducing the speed differential. [7]



Before and after photos from the Project 180 Road Diet in Oklahoma City, OK [8]

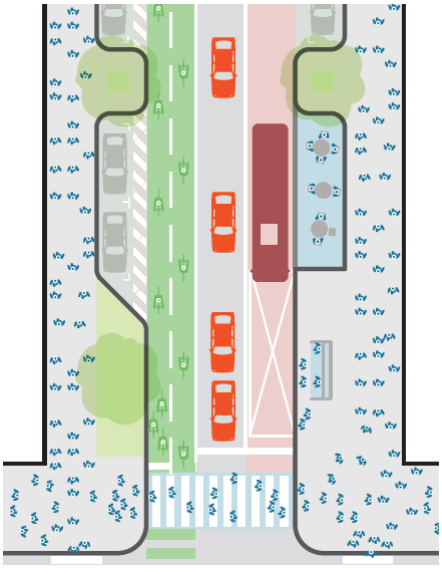
A **Road Diet** is generally described as removing vehicle lanes from a roadway and reallocating the extra space for other uses or traveling modes, such as parking, sidewalks, bicycle lanes, transit use, turn lanes, medians or pedestrian refuge islands. Road Diets have the potential to improve safety, provide operational benefits, and increase the quality of life for all road users. Road Diets can be relatively low cost if planned in conjunction with reconstruction or resurfacing projects since applying Road Diets consists primarily of re-striping. [7]



Car - Oriented Street [10]

Complete Streets is an approach to planning, designing, building, operating, and maintaining streets that enables safe access for all people who need to use them, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. [9]

Multimodal Streets offer options for safe, attractive, and convenient travel by foot, by cycle, on transit, as well as in motorized vehicles. [10]



Multimodal Street [10]

Vision Zero is a multi-national road traffic safety campaign that aims to achieve a roadway system with no fatalities or serious injuries involving road traffic. Vision Zero is based on an underlying ethical principle that "it can never be ethically acceptable that people are killed or seriously injured when moving within the road transport system." In most road transport systems, road users bear complete responsibility for safety. Vision Zero changes this relationship by emphasizing that responsibility is shared by transportation system designers and road users. [11]

Case Studies

Complete Streets and Road Diets have many benefits for all users. The U.S. Department of Transportation's Federal Highway Administration gathered 24 case studies with the use of proven safety countermeasures, including Road Diets. Majority of the case studies saw road reconfigurations of 4-lane undivided roadways reduced to 3-lane roadways. [12]

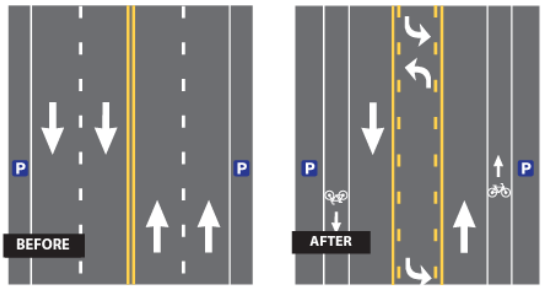
Ocean Park Blvd - Santa Monica, CA In School Zone

23,000 vehicles per day

Objective: Improve safety and pedestrian crossing conditions along Ocean Park Blvd from 16th to 18th Streets within the School Zone.

Results:

- In the first 9 months following the reconfiguration, collision data indicated there was a 65 % reduction (from 35 to 12 crashes), as compared to the same 9-month period in the year prior to the Road Diet installation.
- Injury collisions were reduced by 60% following the reconfiguration.
- Travel speeds, based on statistics from the local transit provider in the corridor, have generally remained constant throughout the day. [12]



Ocean Park Blvd - Santa Monica, CA road improvements

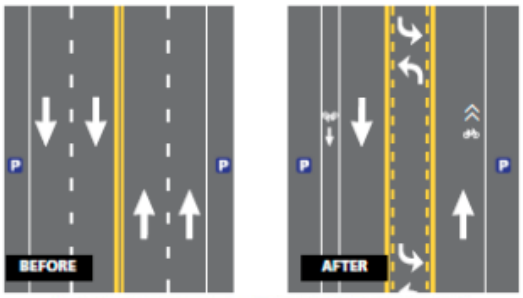
Nickerson St. - Seattle WA Seattle Pacific University

18,500 vehicles per day

Objective: Improve pedestrian safety and increase driver compliance with speed limit.

Results:

- To improve pedestrian safety, the Road Diet project incorporated crosswalks with curb bulb-outs and pedestrian refuge islands.
- After the road diet there was a 23% reduction in collisions
- More than 90% drop in top-end speeders
- The results also showed that the Road Diet accomplished this without significant diversion of traffic to parallel routes. Nickerson Street only experienced a 1 percent decrease in traffic volumes between 2009 - 2011.[12]



Nickerson Street - Seattle, WA road improvements

Traffic counts on the stretch of Johnston St. that runs through campus ranges from 18,180 - 25,970 vehicles per day. According to the FHWA, 15,000- 20,000 VPD is a good candidate for Road Diets.[6]

Benefits of Road Diets

Communities receive many benefits when a road diet reclaims an unsafe, congested, and/or vehicle-prioritized streets to create safe, balanced, and active corridors. Complete streets are streets for everyone. [14]

Greenville Avenue Road Diet - Dallas TX

- Development has increased 212%
- All crimes have reduced by 80%
- Average speed reduced from 35-40 mph to 20-25 mph
- The population in Lower Greenville increased by 3.6% over the last five years [13]

1. Enhanced Safety - Road diets lead to greater safety by slowing down through movement and redistributing space. These safety outcomes have a direct impact on people on foot and bicycles, patrons of a sidewalk business, and those behind the wheel. When redesigning a street, it is vital to prioritize designs that enable safe mobility for particularly vulnerable users, such as children and elderly pedestrians.

2. Multimodality - Not all transportation modes are created equal. Each has its own advantages in terms of safety, cost, efficiency, speed, and inclusivity. Safety accommodations for people on bicycles and on foot require a significantly less amount of space than single occupancy vehicles. By freeing up space and balancing the needs of different types of users, road diets create the opportunity for truly multimodal streets.

3. Expanded Sidewalks - One prominent way of utilizing the freed up space from a road diet is expanding sidewalk space, directly impacting the current and future businesses that front on to them. Sidewalk businesses like cafe's, that contribute spillover activity to other business and spaces contribute to an areas economic vitality, walkability, perceived safety, and overall appeal.

4. Local Economy Boost - Pedestrians and cyclists spend more money on local businesses than motorists. An unsurprising revelation from several research studies supports the case for better infrastructure to improve the experience of these users, which in turn improves the local economy. Development increased 212% in the Greenville Avenue Road Diet in Dallas, TX.

5. Resilient Infrastructure - The grayer and harder the pavement, the more prone an area is to flooding and the urban heat island effect. Creating space for more softscape and green infrastructure can be extremely challenging in existing built environments, making small and incremental change a more realistic solution. Road diets can free up space for resilient softscape to combat the increasing threat of weather events in pre-existing developments.

6. Improved User Experience - Unfortunately, too few streets are safe, comfortable, or attractive to the human-scale user (people choosing to walk or bike). Road diets provide the opportunity to turn high-speed, low-capacity streets into vibrant corridors.

7. Imageability - All of the benefits outlined above make the street a more inviting, accommodating, and memorable place to frequent. Placemaking is all about cultivating that sense of attachment to a place, and a road diet is a key strategy. [14]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5 Recommendations

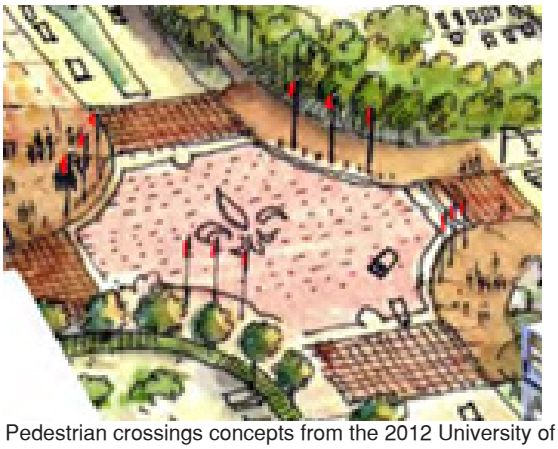
"The intersection of St. Mary Boulevard and Johnston Street has, for some time, been handling a significant volume of traffic, both pedestrian and vehicular. With the implementation of the Health Sciences Campus expansion and the proposed commuter parking possibilities at St. Mary and St. Landry corridor, changes to the intersection will have to be devised. Over time, the intersection will handle up to 1/3 of the entire student body during peak demand times. Widening the crossing will be paramount." -2012 Master Plan

Johnston St. and St. Mary intersection re-imagined in the 2012 University of Louisiana at Lafayette Master Plan.

Johnston St. re-imagined in the 2012 University of Louisiana at Lafayette Master Plan.

Improvement Recommendations

The Pedestrian Study, Bicycle and Pedestrian Workshop, and the Bicycle Lafayette Survey revealed that students, faculty, and staff are uncomfortable and concerned for their safety when they are crossing any Johnston Street intersection on campus. The East St. Mary Boulevard and University Avenue intersections with Johnston Street were the two intersections identified as the most dangerous for drivers and pedestrians on campus.



Pedestrian crossings concepts from the 2012 University of Louisiana at Lafayette Master Plan.

Recommendations:

- Road Diet to reduce Johnston Street from five lanes down to two travel lanes and turning lanes with protected bike lane (5 lanes reduction to 3-4 lanes).
- Lane size reduction and utilize space to add a protected bike lane.
- Pedestrian refuge islands in boulevard conditions.
- Pedestrian scramble crossing.
- Slow down traffic speeds on Johnston Street. Suggestions: another light before E St. Mary Boulevard, a raised pedestrian crossing like Girard Park Circle, or a speed limit reduction on Johnston Street.
- Add Midblock crossings between Calder and Brashear Street on Johnston Street and on University Avenue at Lamar Street where most midblock crossings occur.
- Redesign turn lanes. The current design endangers pedestrians and drivers.
- Raised (tactile) arrow push button for pedestrians.
- Accessible pedestrian signals that provide supplemental information in non-visual formats (such as audible tones, speech messages, and/or vibrating surfaces)
- Bulbouts or a larger pedestrian queue area at campus intersections.
- Pedestrian signal timings to exceed minimum requirements when possible. Reasoning: the current design does not support a heavy pedestrian queue area so a line forms further from the road. This creates a situation for pedestrians where it takes them longer to cross the intersection if they were last in the queue line. Additionally this site is an Affiliated Blind of Louisiana training area and should be designed with accessibility in mind. Furthermore, pedestrians requested longer crossing signals at the E St. Mary Boulevard and University Avenue intersections with Johnston Street.
- Bike lanes that safely cross Johnston Street. Could be shared or dedicated lanes but intersections need to be designed for bike safety as well as pedestrian safety.
- Bury utilities on Johnston Street from Cajundome Boulevard to University Avenue.
- On street parking along Johnston Street to slow down traffic, add parking, and provide a buffer for pedestrians.
- The University would like to add branding to the intersection to strengthen the sense of place while on campus and create a gateway into the university.

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Pedestrians walking along St. Mary Blvd on campus.

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