

Sustainable Transportation Updates

Sarthak Prasad

Sustainable Transportation Assistant

Transportation Demand Management | Capital Programs

Facilities & Services

University of Illinois Urbana-Champaign



Facilities & Services

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Agenda

- Overview of the TDM department
- Overview of the TDM Plan + Campus Bike Plan Report + TDM Achievement Report
- Overview of some sustainable transportation projects on campus
- Bike Share updates



Overview of the TDM Department



Facilities & Services

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Transportation Demand Management

- Transportation demand management (TDM) represents and coordinates all campus modes of transportation with an emphasis on safety and sustainability.
- TDM goal is to improve safety for all modes of transportation on campus and reduce the number of single occupancy vehicle miles traveled on campus by encouraging ride sharing, bicycling, walking, and utilizing mass transit.
- TDM is responsible for the implementation of TDM Plan , Campus Bicycle Master Plan , and the several transportation-related objectives in the Illinois Climate Action Plan (iCAP)
- Contacts
 - Stacey DeLorenzo (sdeloren@illinois.edu) – Transportation Systems Manager
 - Sarthak Prasad (sprasad9@illinois.edu) – Sustainable Transportation Assistant



Overview of the TDM Plan + Campus Bike Plan Report + TDM Achievement Report



Facilities & Services

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

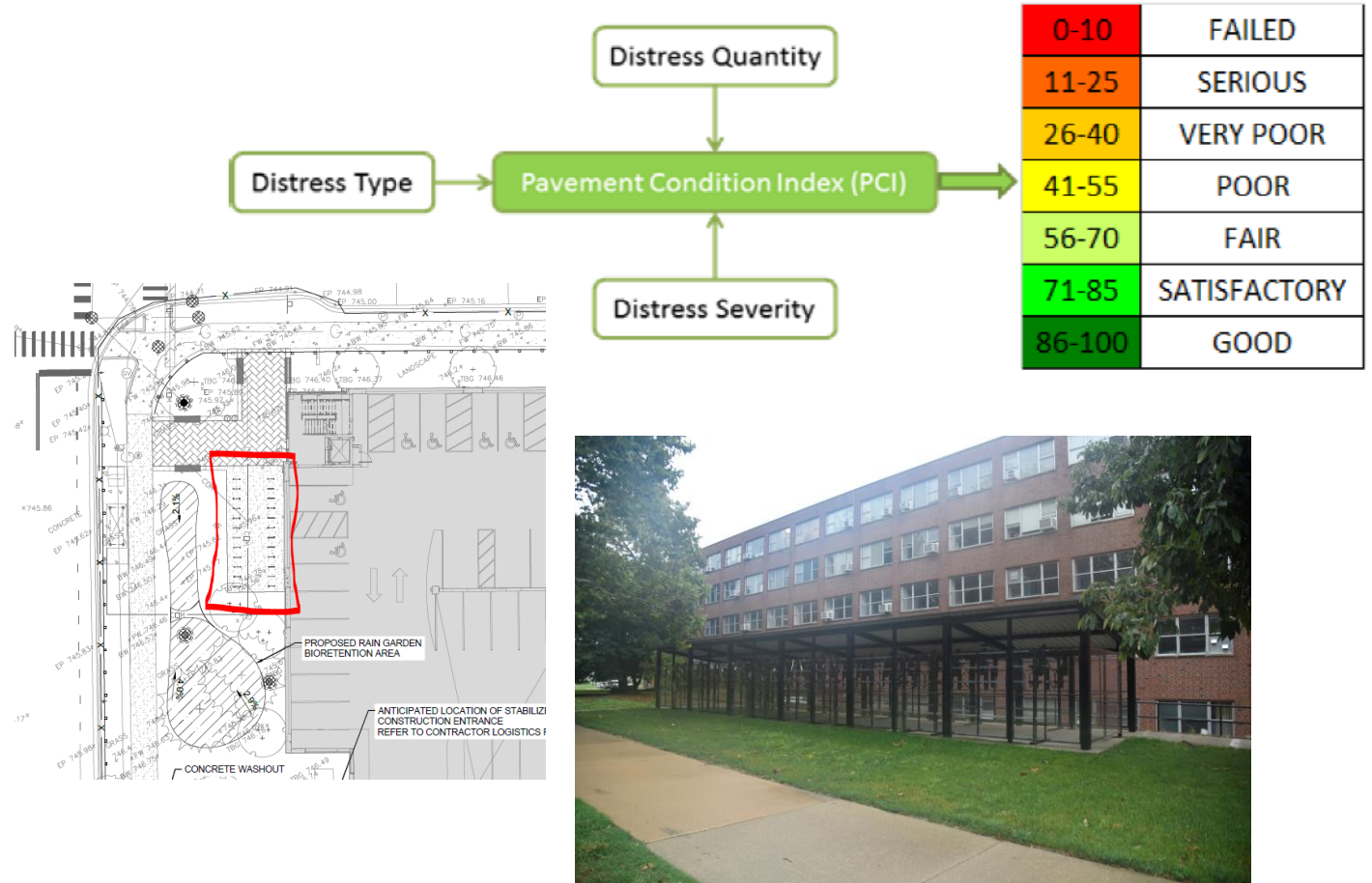
TDM Plan

- Published in FY20, updated and finalized in FY23
- TDM Prioritization Methods
 - Safety for users: this includes all modes of transportation, including multi modal interactions.
 - Location: this refers to the impact on the overall networks and the perception of that impact.
 - Volume of Traffic: this reflects the number of users in the respective areas.
 - Condition, such as PCI: this considers the condition of the street pavement (UIUC-owned; 20 center-lane miles) and the scale of improvements needed in the respective area.
 - Alignment with campus plans: this considers the connections to strategic priorities and potential coordination with other campus projects.
- TDM Plan's key objectives:
 - Asset Management
 - Programming
 - Funding Resources
 - Community Engagement



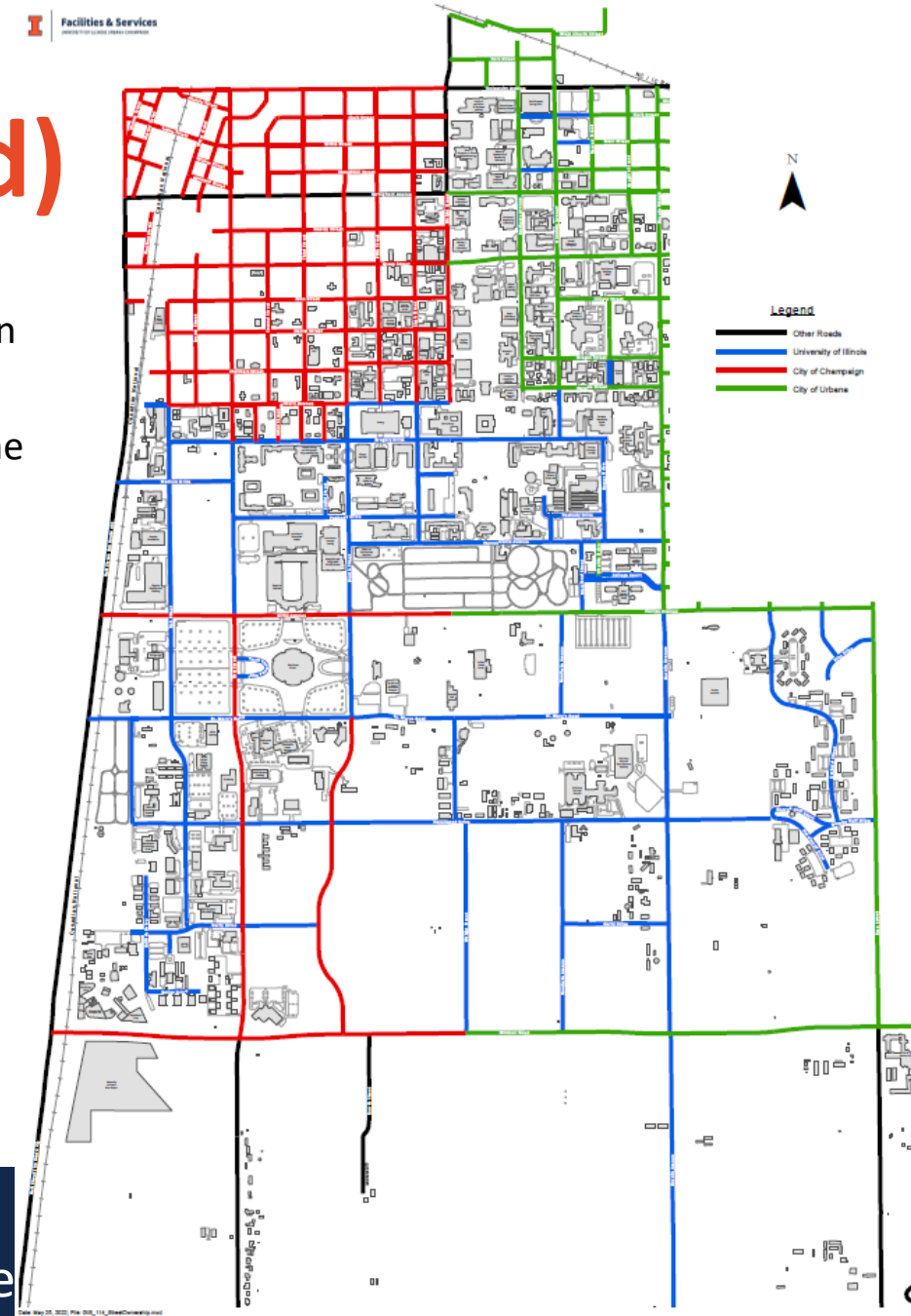
Asset Management

- Transportation Asset Management Plan (TAMP) for streets
 - Patching and spray injection projects
 - Mill and overlay
 - Pavement section(s) replacement/repair
- Striping, Signage, and Traffic Control
 - Striping and painting streets and crosswalks
 - Signage along the streets on-campus
 - Striping of bike lanes, bike paths, and sharrows
- New Infrastructure Projects



Asset Management (continued)

- Projects for Existing Infrastructure
 - Update the Maintenance Matrices with City of Urbana and City of Champaign
 - Develop a new maintenance matrix with the Village of Savoy
 - Create a new Division of Responsibility (DOR) map for all pavement within the University District
 - Maintenance of bicycle infrastructure
 - Bike Parking
 - Bicycle Repair Stations
 - Bike lanes/paths/sharrows
 - Sidewalk improvement projects
 - Maintain the Eco-Counters
- ADA Right of Way improvement (U19132)
 - To make eliminate ADA Right of Way (ROW) non-compliance in designated accessible routes at various locations across campus.
 - Based on the [ADA Transition Plan 2018 Supplement](#)



Programming

- Traffic Closures
- Encourage Active Modes of Transportation
 - Commuter Program (<https://go.fs.illinois.edu/CommuterProgram>)
 - Bike Friendly University
 - Green Fleets
 - Bicycle and Pedestrian Counts
 - Encourage use of MTD by faculty & staff ([It's Your MTD Too!](#))
 - Bike Education and Bike at Illinois (<https://bike.illinois.edu>)
 - Bike Share and Ride Share
 - Walkability Audit of the campus
- Academic and Peer-to-Peer Collaborations
- TDM Marketing Plan and Communication
 - [Near & Far Without a Car](#) flyer
 - Videos to encourage active modes of transportation
 - Publicity Plans to promote events



Progress Reports

- **Campus Bike Plan progress report**
 - Published in spring 2023
 - [Campus Bike Plan progress report FY23](#)
- **TDM Plan Annual Report**
 - Published in spring 2023
 - [TDM Plan Achievement Report FY23](#)
- **2024 Campus Bike Plan update**
 - To be published in 2024
 - [2024 Campus Bike Plan](#)



Highlights from Campus Bike Plan report

- Bicycle Programs & Infrastructure Fee (Bike Fee) was approved for FY24
- F&S TDM conducted a Mode Choice Survey in spring 2022 and [published a report](#) in fall 2022
- Pilot for Commuter Program: Bus, Bike, and Hike was launched in spring 2015
- Nearly all donut-loop bike parking removed from campus
 - In fall 2022, replaced the donut loop racks with standard inverted U-loop racks at Illini Union
 - In fall 2022, replaced the donut loop racks with standard inverted U-loop racks at Vet Med
- New bike racks installed
- Bike week 2022 – successful
- Removed abandoned bike path along Springfield Ave and installed a 10' wide shared use path
- Received SSC funding for project

11



Highlights from TDM Plan Achievement report

- **Asset Management Plan**

- \$4,500,000 allocated by the Provost Office in FY20 (\$1.5M per year was initially committed in FY20-22) for pavement maintenance and improvement projects
- \$2,605,000 encumbered for Transportation Asset Management Plan (TAMP) for streets in FY23.
- Updated the GIS map for striping of bike lanes, bike paths, and sharrows on-campus in fall 2022
- A study for a potential roundabout at the intersection of Lincoln and Hazelwood.
- Developing a new maintenance matrix with Village of Savoy, and updating the maintenance matrices with City of Urbana and City of Champaign
- Several bicycle infrastructure projects planned and completed
- Installed bicycle and pedestrian counters by Eco-Counters at 5 campus locations, with more planned soon. Learn more at [Pedestrian and Bicycle Counts](#).
- Installed the Smartpoles at Illini Union Bookstore

- **Programming**

- The [Bike at Illinois website](#) features information on bicycle education and facilities, bike sharing, registration, safety, and more. The [F&S website](#) includes information on walking, MTD buses, accessibility, and car-share options.

- **Collaborations**

- Collaborated with faculty, students, and staff on various projects

12



Overview of some sustainable transportation projects on campus

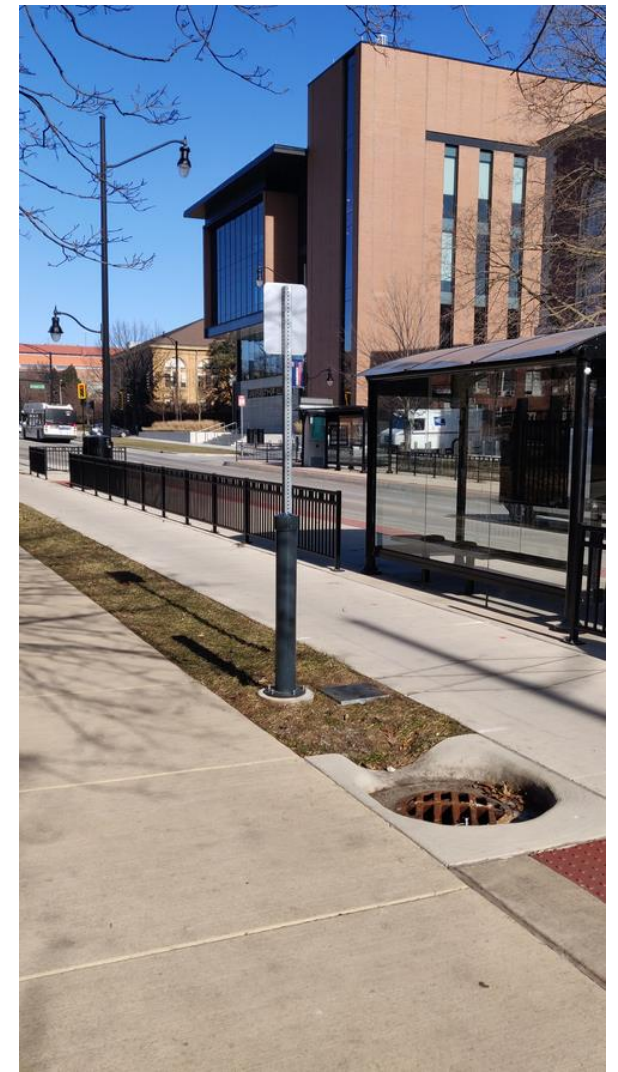


Facilities & Services

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Eco-Counters

- Installed at 5 locations
 - Illini Union (installed in March 2020)
 - Wright & Healey St (installed in 2021)
 - Armory & Sixth St (installed in May 2022)
 - Green and Goodwin (installed in May 2022)
 - Bookstore/Transit Plaza (installed in July 2023)
- Purchased counters for the 7 other locations
 - ARC approved
- Monthly data is posted on the iCAP Portal: [Pedestrian and Bicycle Counts](#)



14



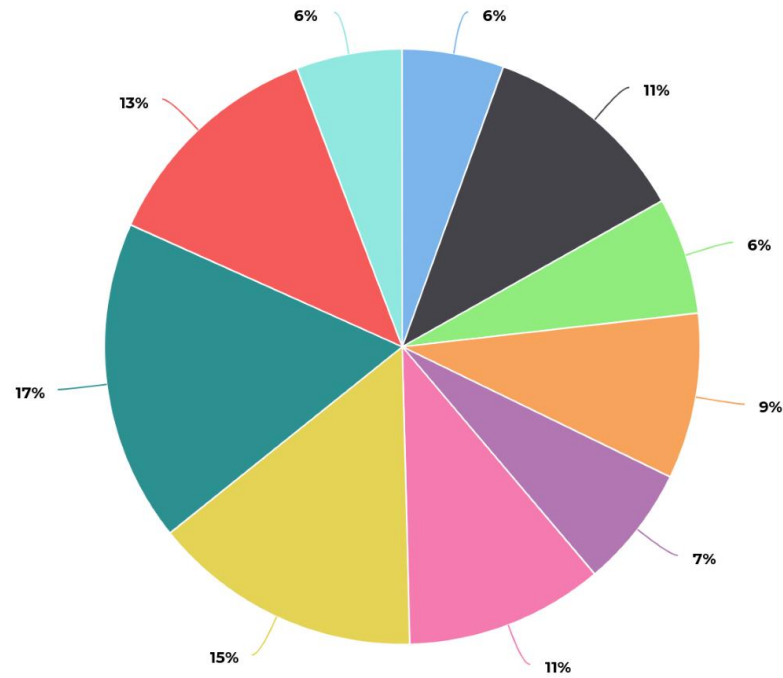
Facilities & Services
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Inspiration • Innovation • Leadership • Perseverance • Agility

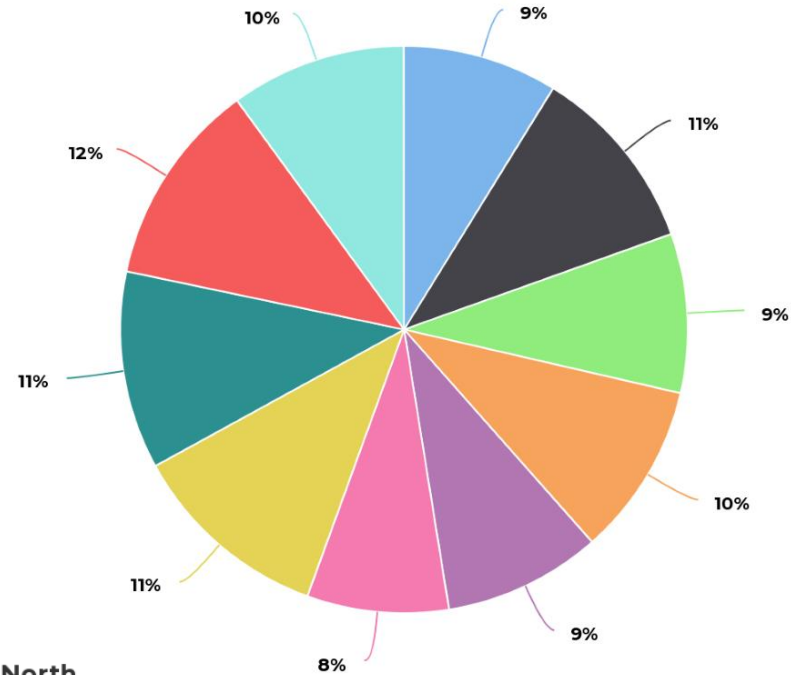
Distribution

October 1, 2023 → October 31, 2023

Pedestrians

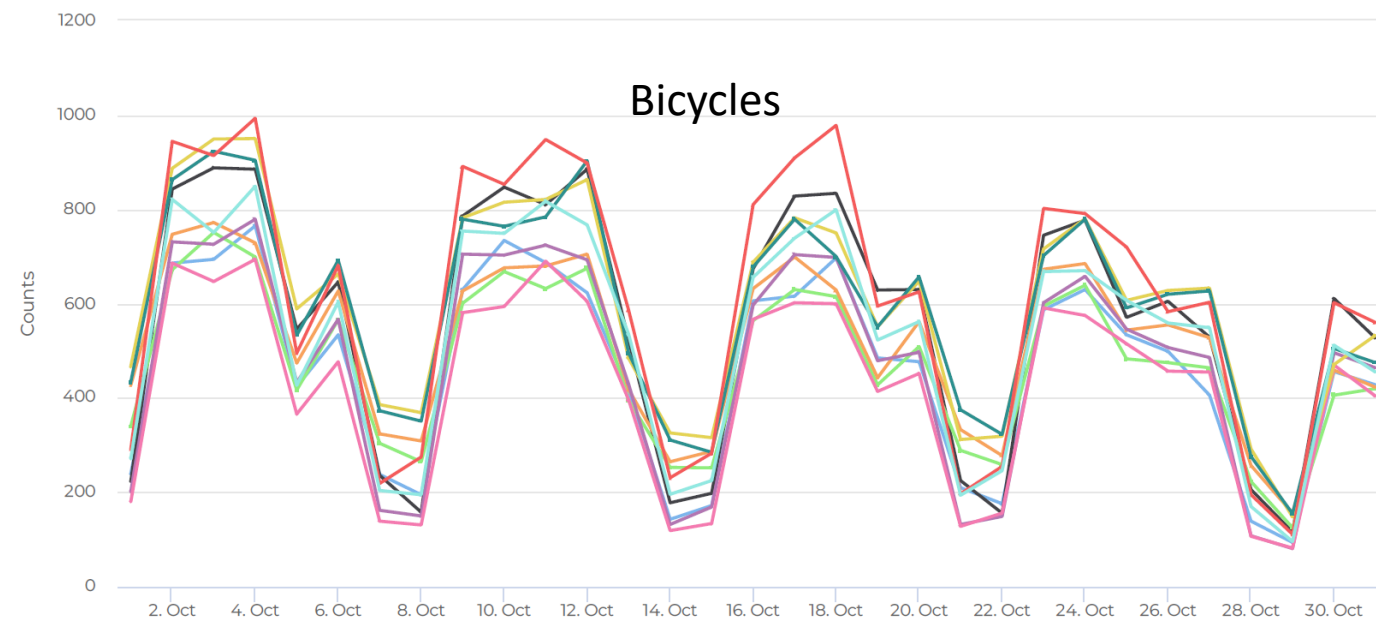
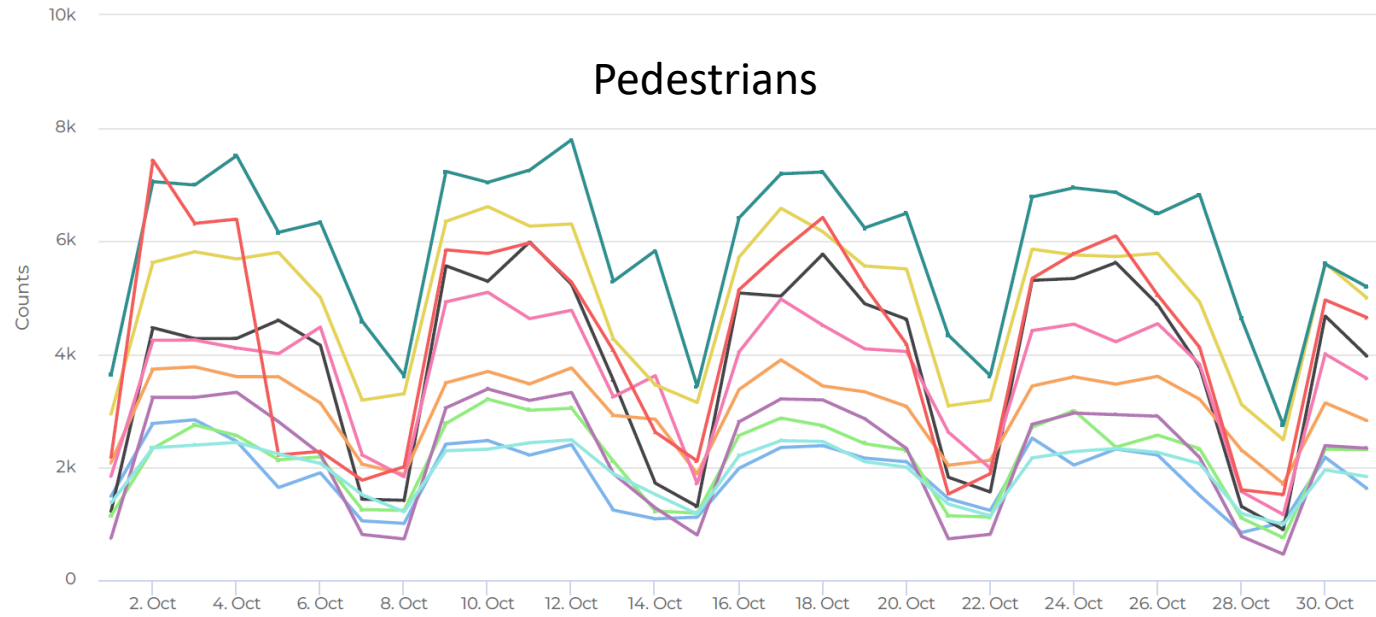


Bicycles



- Armory and Sixth North
- Armory and Sixth South
- Green and Goodwin North
- Green and Goodwin South
- Illini Bookstore/Transit Plaza East
- Illini Bookstore/Transit Plaza West
- Illini Union North Side of Green Street
- Illini Union South Side of Green Street
- Wright St and Healey St East Side
- Wright St and Healey St West side



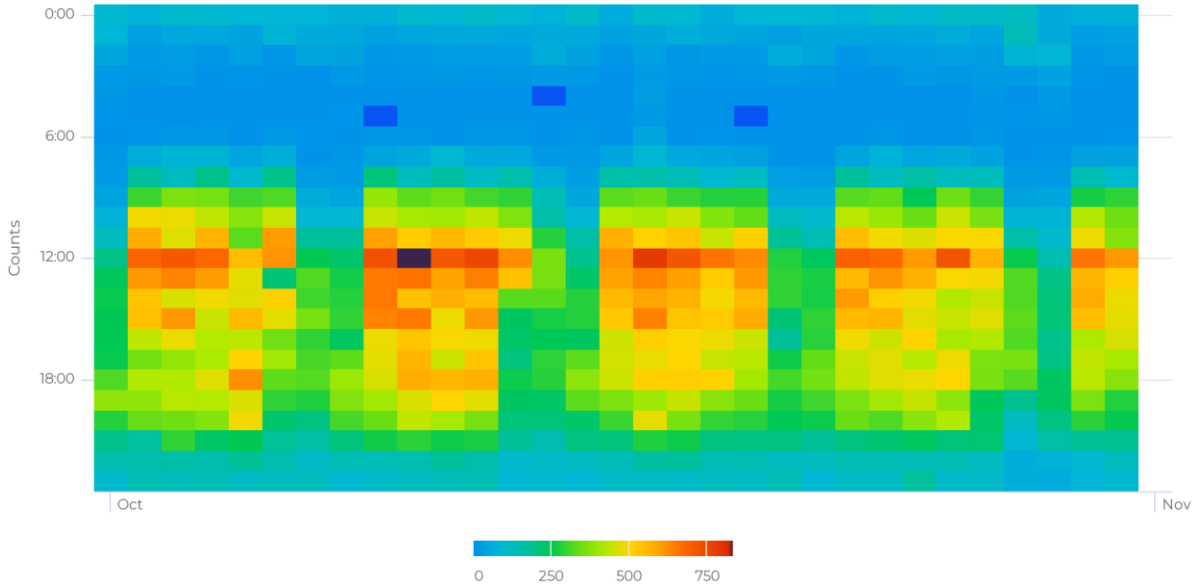


- Armory and Sixth North
- Green and Goodwin South
- Illini Union North Side of Green Street
- Wright St and Healey St West side
- Armory and Sixth South
- Illini Bookstore/Transit Plaza East
- Illini Union South Side of Green Street
- Green and Goodwin North
- Illini Bookstore/Transit Plaza West
- Wright St and Healey St East Side



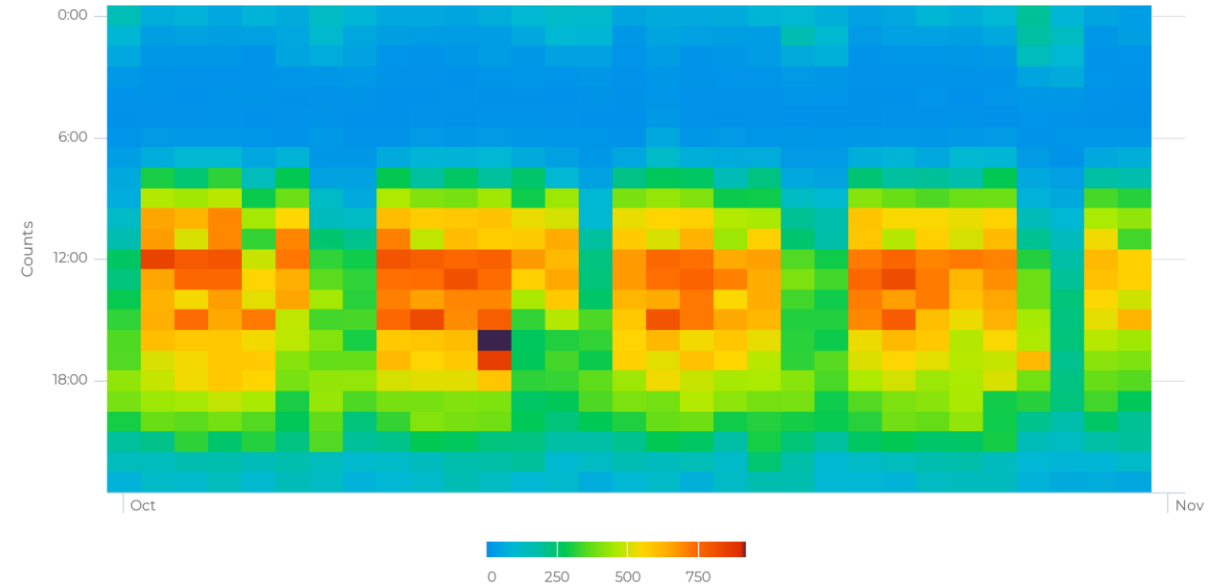
Heatmap

October 1, 2023 → October 31, 2023
Illini Union North Side of Green Street



Heatmap

October 1, 2023 → October 31, 2023
Illini Union South Side of Green Street



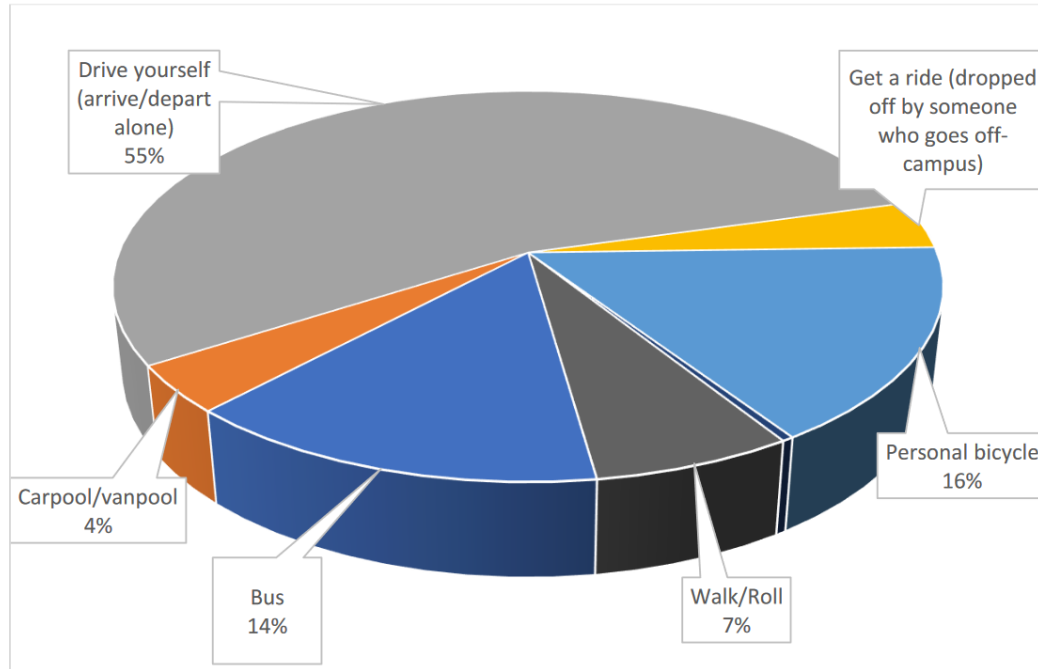
Highlights from Mode Choice Survey 2022

- F&S TDM conducted the Mode Choice Survey in spring 2022
- Survey was open from March 27, 2022 to May 2, 2022
- 610 participated in this survey, including 349 students, 56 faculty, and 205 staff members
- Survey consisted of 28 multiple choice questions
- No personal information was collected in this survey
- F&S TDM will conduct this survey every three years going forward
- Read the full report here: [Final Report and Key Findings from the Mode Choice Survey 2022.pdf](#)

18

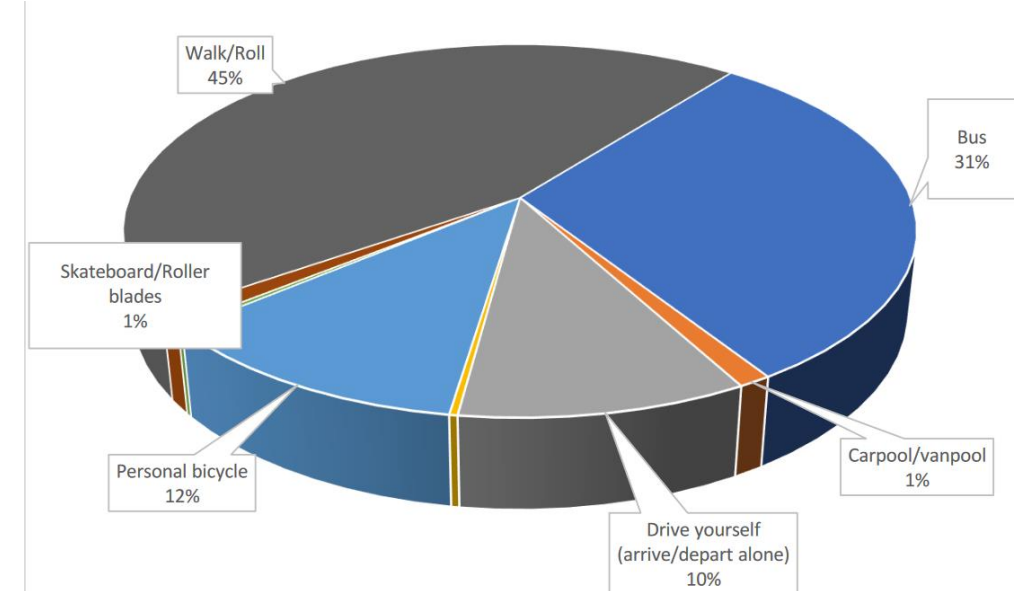


Key Findings



Faculty and Staff – Primary mode of travel
 55% drive alone, which is down from 60% from 2019 Mode Share survey

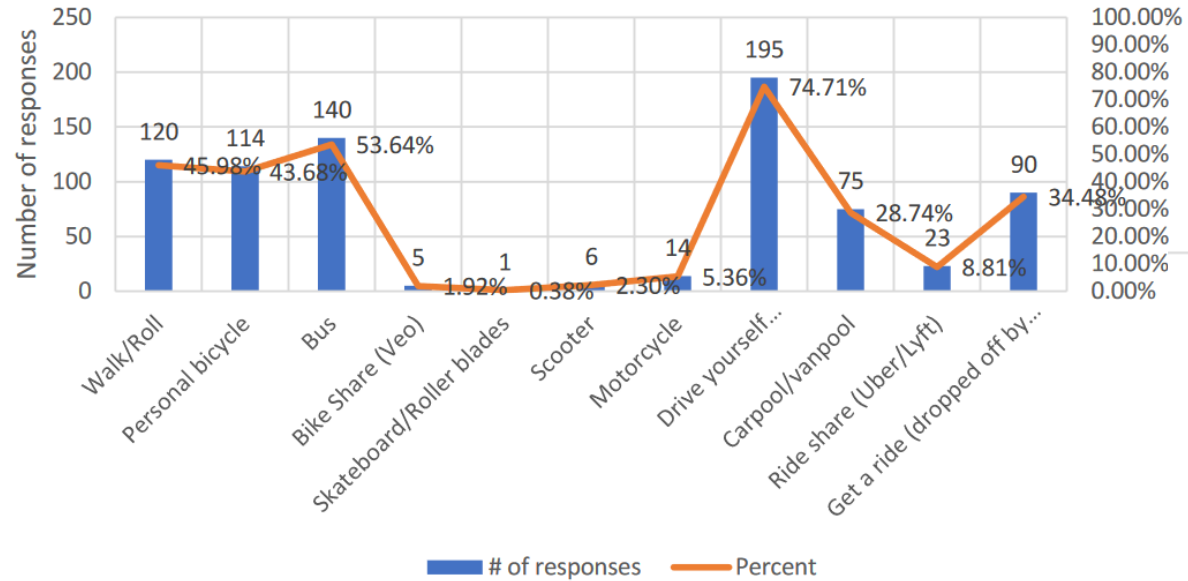
Number of Participants		
Type	Count	Average distance of campus from place of residence
Total	610	3.81 miles
Student	349	1.47 miles
Faculty	56	4.19 miles
Staff/Academic Professional	205	7.69 miles



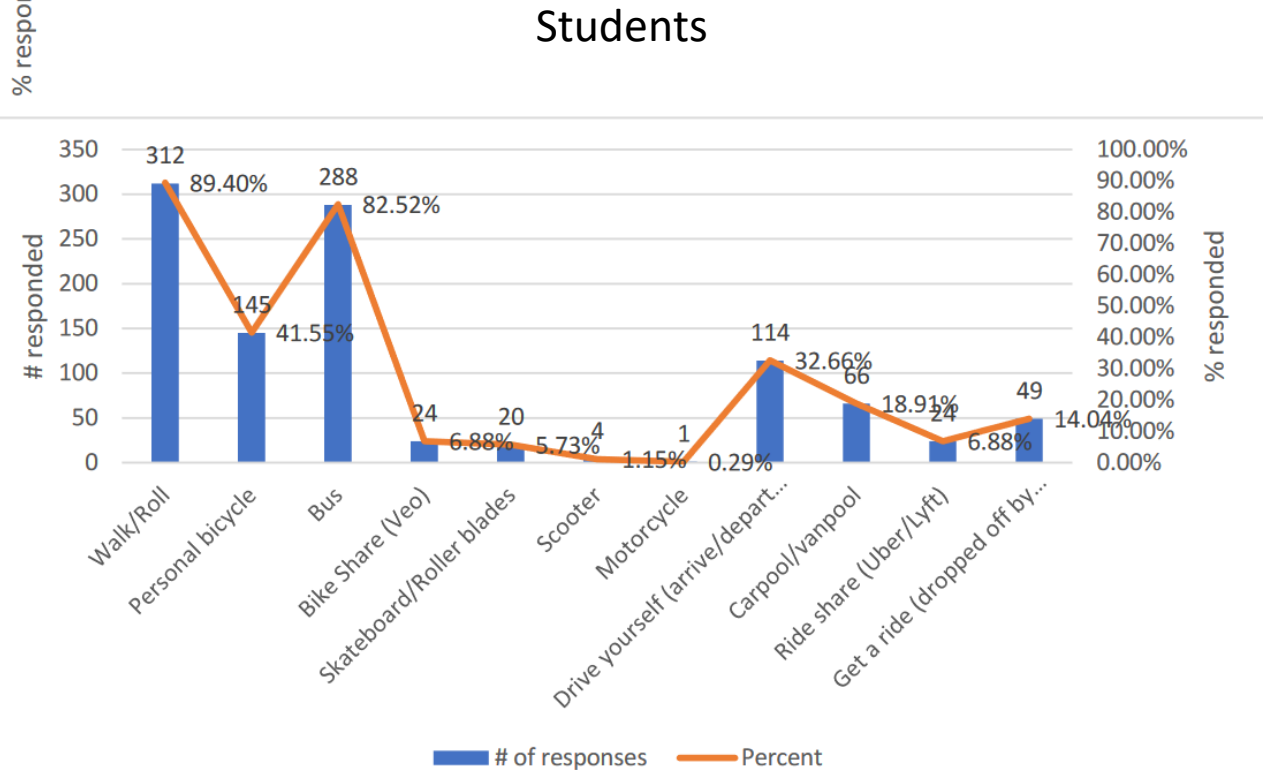
Students – Primary mode of travel
 45% walk, which is up from 37% from 2019 Mode Share survey.
 Nearly 88% use active modes of transportation



Key Findings continued – Top 3 preferred modes of travel



Faculty and Staff



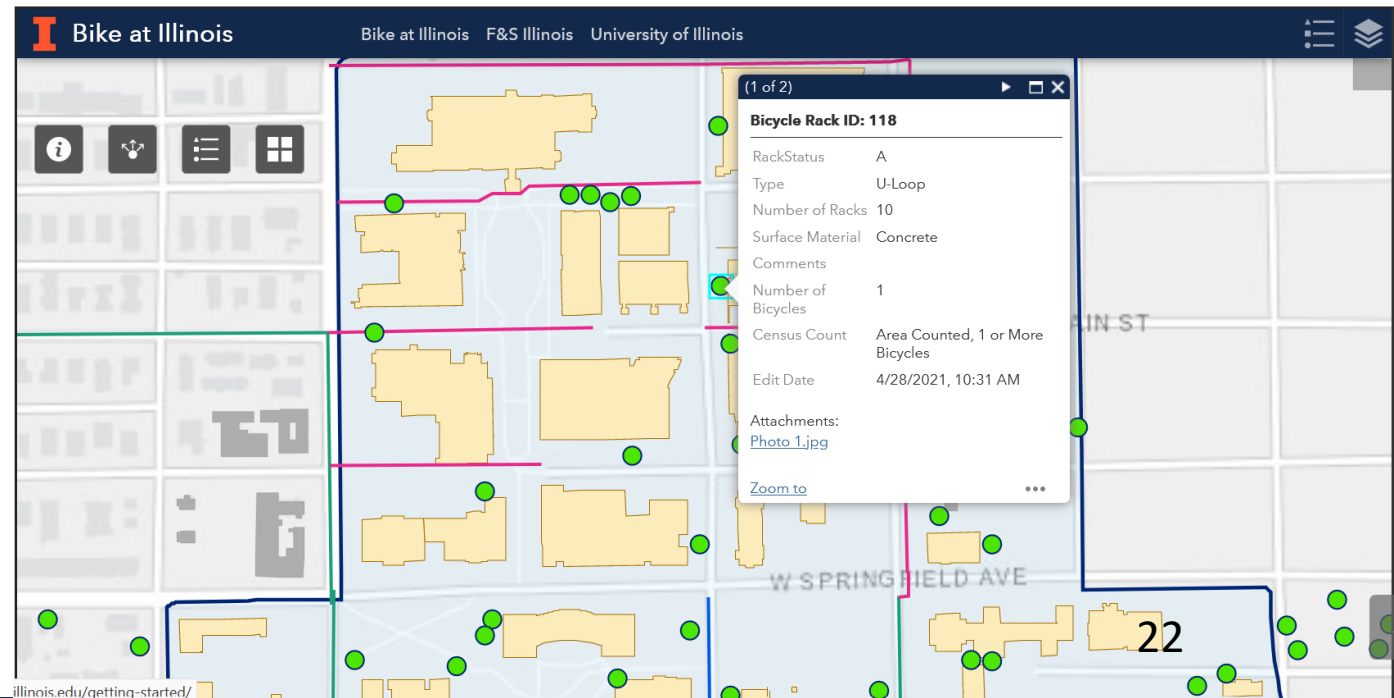
Key Findings continued

- Nearly 73% of the University of Illinois faculty, staff, and students walk once they are on-campus
- 27% of the total respondents reported that they own a bicycle on-campus
 - 31% of the students
 - 6% of the faculty
 - 15% of the staff
- Nearly 42% of the students owned a car, but only 8% hold a parking permit
- Nearly 90% of the faculty and staff owned a car, but only 52.5% hold a parking permit



Bike Map updated following Bike Census

- Updated the campus bicycle map
- All bike racks have been updated
- All bike racks have a picture associated with it
- Updated the locations of all bike repair stations
- <https://bike.illinois.edu/maps/biking-map/>



Bike Registration



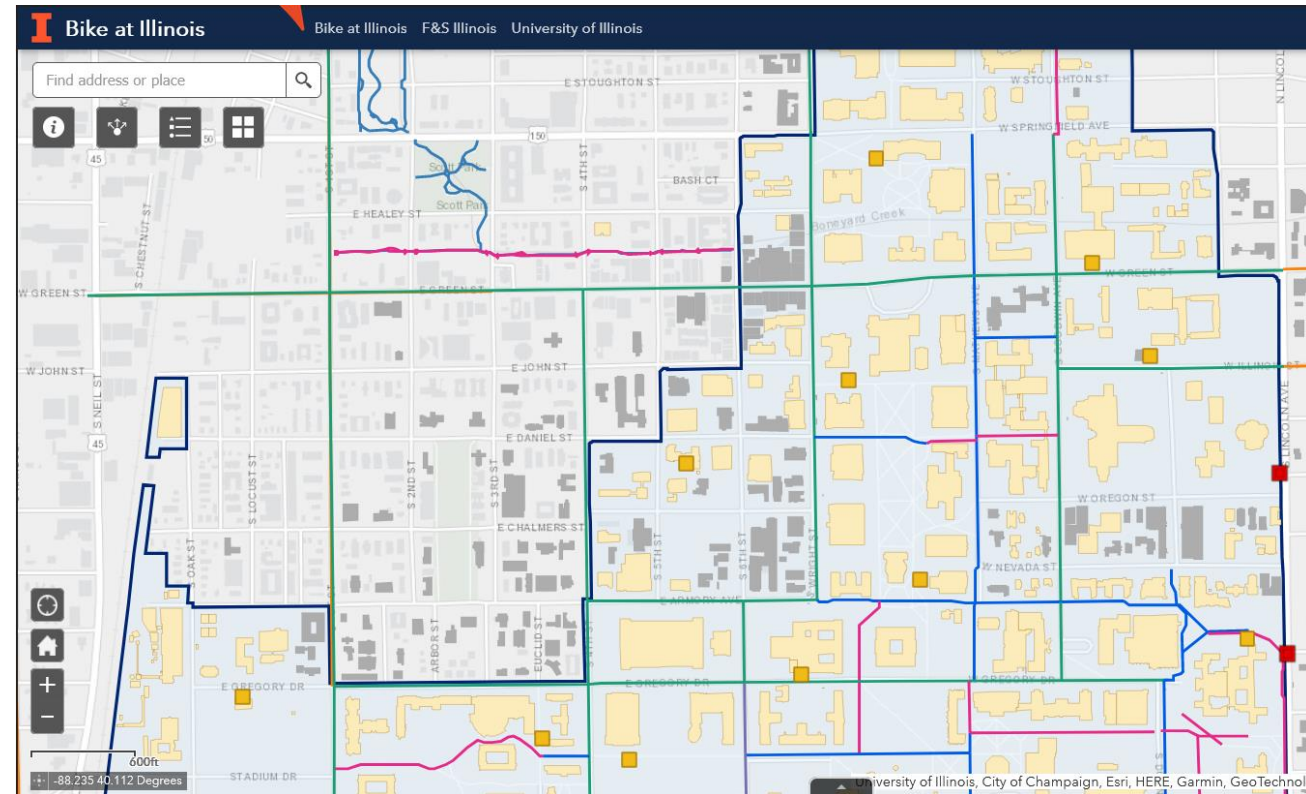
- Number of Registrations:
 - FY21: 506
 - FY22: 685
 - FY23: 927
 - FY24 (so far): 789
- Monthly numbers can be found on the iCAP Portal:
<https://icap.sustainability.illinois.edu/project/bicycle-registration>
- Only about 54% of those registered have collected their shield stickers
- Bike Registration Signs: 16 locations (SSC funded)

23



Bicycle Repair Stations

- Total number of bicycle repair stations on campus = 17
- Number of bicycle repair stations at Housing facilities = 8
- Remaining nine repair stations are managed by F&S
- Existing the bicycle repair stations at
 - Campus Bike Center - replaced
 - Altgeld Hall - replaced
 - Parking lot C-5 (by International Studies Building) - replaced
 - Siebel Center for Design
- Added new bicycle repair stations at:
 - Main Library
 - West of Smith Hall
 - ECE/Micro Nano
 - Loomis Lab
 - Grainger Library (future – not installed yet)
- Go to <https://bike.illinois.edu/maps/biking-map/>



Existing bike repair stations

Campus Bike Center



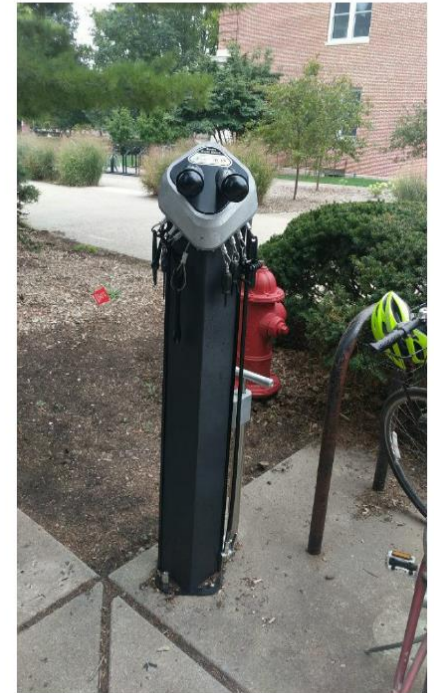
SCD



Library and Information
Science



Altgeld Hall



New bicycle repair stations

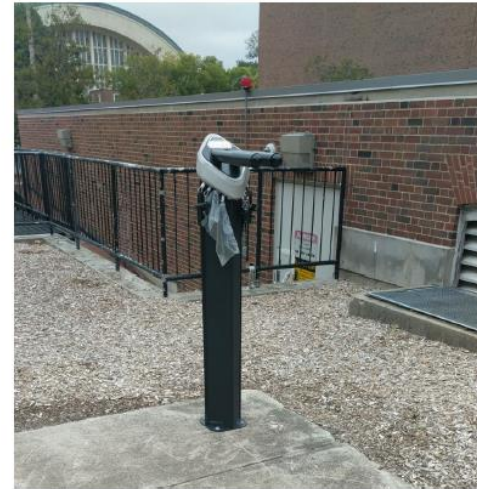
Loomis Laboratory



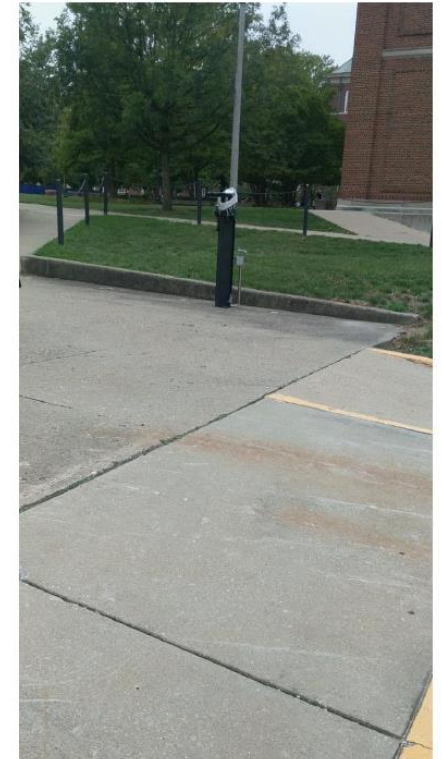
ECE



Main Library



Follinger Auditorium



Facilities & Services
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Inspiration • Innovation • Leadership • Perseverance • Agility

End of year round up of bicycles

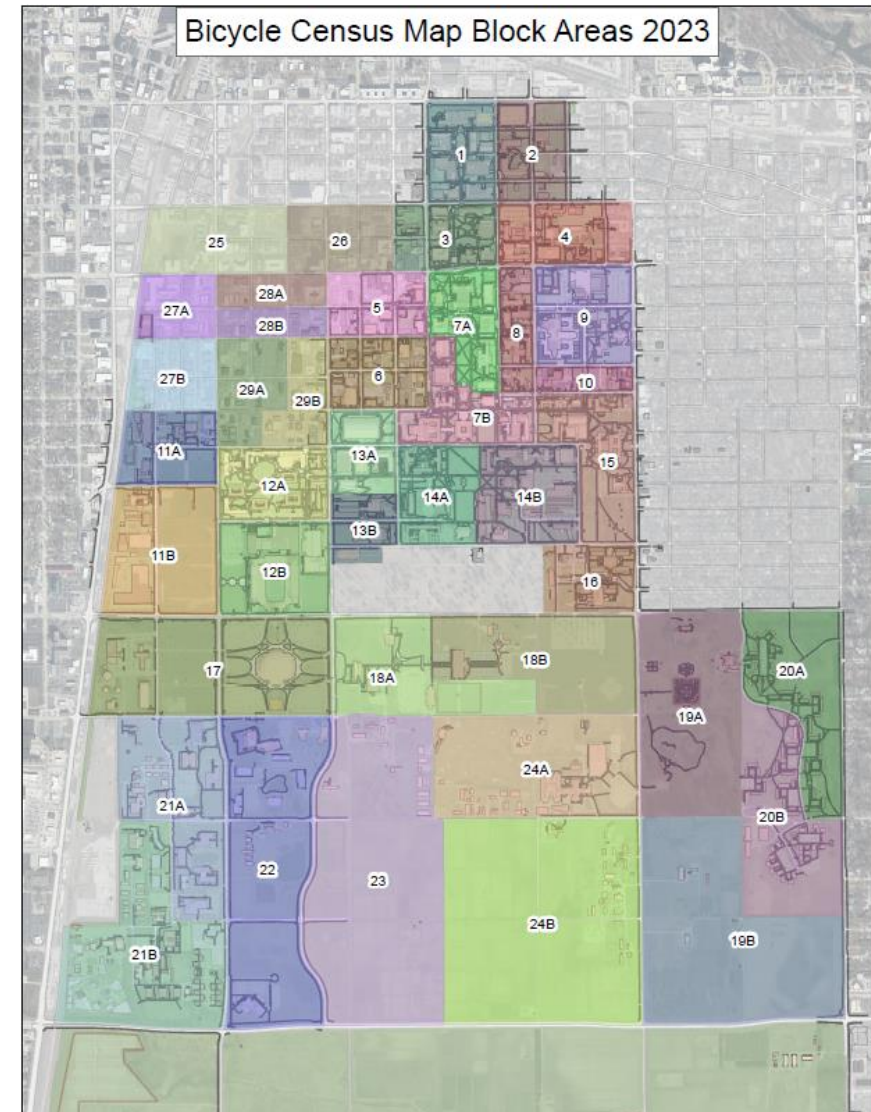
- Timeline
 - Start of the Tagging: 6/8/2023
 - End of tagging process: 6/16/2023
 - Start of the identification of abandoned bicycles: 7/5/2023
 - End of the identification of abandoned bicycles: 7/10/2023
 - Parking to remove abandoned bicycles (Start): 7/5/2023
 - Parking to remove abandoned bicycles (End): 7/14/2023
 - Inventory impounded bicycles (End): 7/19/2023
 - Bicycle Retrieval end date: 9/22/2023
- Bicycles tagged: 970
- Bicycles identified as abandoned: 300
- Bicycle impounded: 240
- Bicycles reclaimed: 26
- Unclaimed bicycles donated to Campus Bike Center and the Bike Project of Urbana-Champaign: 214
- Learn more: [Collection and Donation of Abandoned Bicycles](#)

27



Bike Census 2023

- Count bicycle parked on bike racks and off racks
- Event held on Wednesday, April 26, 2023 from 10 – 11 am
- Campus divided into 42 map blocks
- Number of volunteers: 17
- Number of bicycles counted: 3,000
- Learn more at:
<https://bike.illinois.edu/bikecensus/>



28



Bicycle Friendly University application

- Student collaboration
- Renewed the university's Bicycle Friendly University status
- Learn more: [Bicycle Friendly University Status](#)



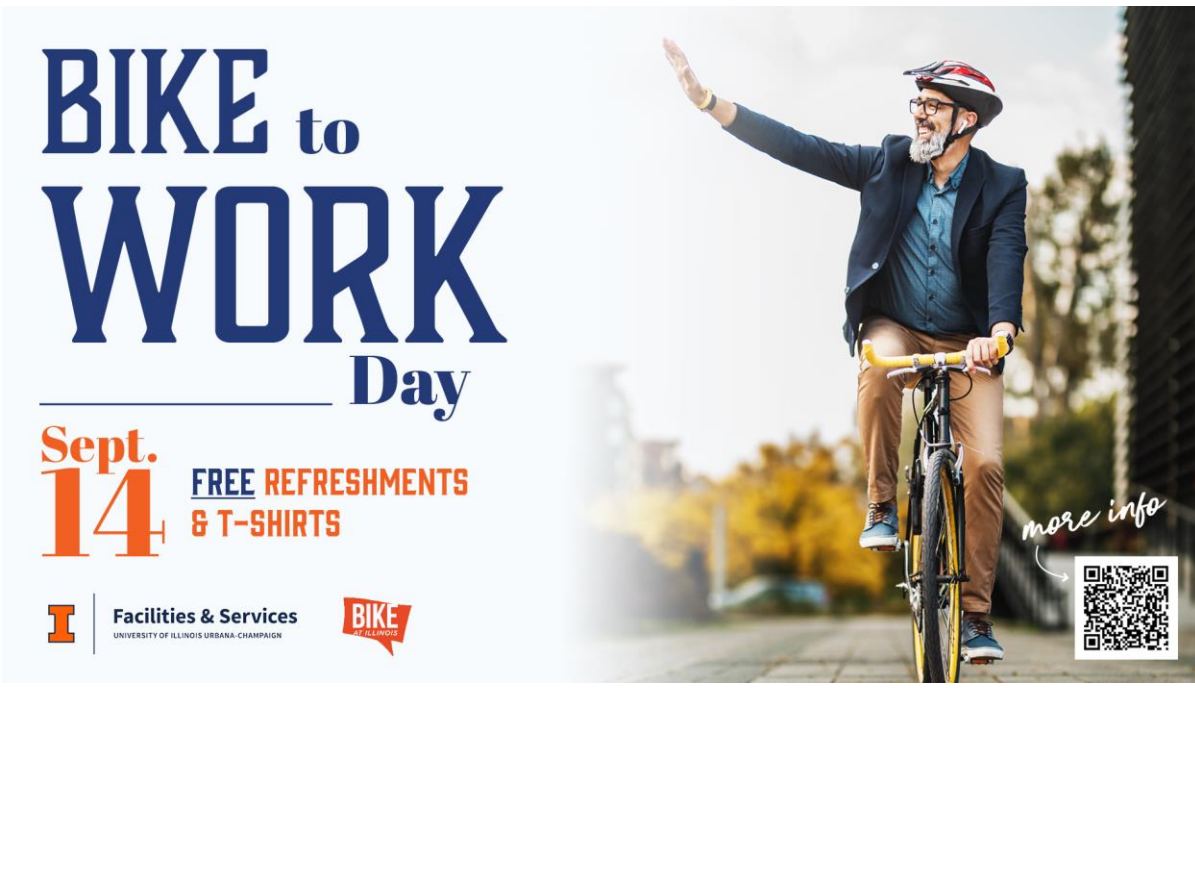
29



Facilities & Services
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Inspiration • Innovation • Leadership • Perseverance • Agility

Bike Month 2023 planning




BIKE to WORK
Day

Sept. 14 **FREE REFRESHMENTS & T-SHIRTS**

I Facilities & Services
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

BIKE
AT ILLINOIS

more info



LIGHT the NIGHT

I Facilities & Services
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

BIKE
AT ILLINOIS

Free Bike Light Giveaway
Must bring Bike for Installation

TUESDAY, SEPT. 19



Facilities & Services
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Inspiration • Innovation • Leadership • Perseverance • Agility

Bike to Work Day 2023

- Held on Thursday, September 14, 2023
- Biggest event so far
- 16 welcoming stations in Champaign County with eight on campus
- Number of pre-registered participants: ~1,075
- Number of on-site registrations: 100
- Number of t-shirts handed out: 1,100





Light the Night 2023

- Held on Tuesday, September 19, 2023
- Three campus locations:
 - Alma Mater
 - Hallene Gateway
 - Ikenberry Quad
- Number of light sets installed: 850



Facilities & Services
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Inspiration • Innovation • Leadership • Perseverance • Agility

Bike Safety Quiz

- Bike Safety Quiz for Adults and Kids (English and Spanish versions)
- These quizzes are education tools for adults, children, motorists, and truck/bus drivers on how to share the road safely

Adult Bike Safety Quiz – English

Adult Bike Safety Quiz – Spanish

Child Bike Safety Quiz – English

Child Bike Safety Quiz – Spanish

Motorist Driver's Education

Truck Driver

- Adult Bicyclist – for teens and adults
- Child Bicyclist – for 4th and 5th graders (or younger with adult help)
- Motorist/Drivers Ed – for motorists and student drivers
- Truck Driver – for drivers of buses and other large vehicles



F&S Green Fleet Plan

- One aspect of the iCAP includes reducing emissions from University operated vehicles
- F&S operates a fleet of nearly 300 vehicles supporting maintenance activities across this campus
- There are four primary aspects to the Green Fleet Plan:
 1. Freeze vehicle fleet at current levels
 2. Collect data, establish a baseline and report
 3. Reduce use of petroleum based fuels
 4. Incorporate new technologies when appropriate



Electric Vehicles and Chargers

- Fleet operations
 - 6 Ford F150 Lighting all electric trucks
 - 2 Ford e-transit
 - 4 EV charging stations installed
 - More EVs on order
 - \$134,000 from SSC to purchase and install more EV charging stations for fleet operations
 - Responsible unit: F&S
- General public use
 - All new construction and major renovation of parking lots and garages will have Level-2 chargers
 - Consultant hired to add a facility standard
 - Moving away from Level-1 chargers
 - Responsible unit: University Parking





Facilities & Services
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Inspiration • Innovation • Leadership • Perseverance • Agility

SSC funded projects for FY23

- Strong Towns – SSC awarded \$2,000
 - in collaboration with Thomas Valencia and Briana Barr, students at the Department of Urban & Regional Planning
- Curb cut improvement at the intersection of Main St and Mathews Ave – SSC awarded \$30,000
 - Waiting for design
 - City of Urbana approval
 - Expected in summer 2023 (in-house project)
- EV charging stations for F&S fleet – SSC awarded \$134,000
- Student intern – SSC awarded \$20,000

38



Bike Share updates

39



Facilities & Services

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Veo Bike Share

- 750 bicycles allowed on campus
 - E-scooters are not allowed
 - Cosmo-e cannot use throttle while on campus property*
- Renewed the Veo bike share contract for the next five years
- Slow speed zones in the core of campus – 8 mph speed limit
- No-ride zones for sidewalks and off-street bike paths (when throttled)
- Parking only allowed at a bike parking area



Bird Bike Share

- Working on a contract with Bird Bike Share
- Only class-1 e-bikes will be allowed
- 500 bicycle fleet limit on campus
 - E-scooters will not be allowed
- We will work on
 - Slow speed zones in the core of campus – 8 mph speed limit
 - No-ride zones for sidewalks and off-street bike paths
- Parking only allowed at a designated bike parking area
- Expected to start in spring 2024
- Bird has a license to operate in the City of Champaign

41



Thank you!

sprasad9@illinois.edu



Facilities & Services

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN