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Final Report and Key Findings: 2022 Mode Choice Survey

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Executive Summary

The Facilities & Services (F&S) Transportation Demand Management (TDM) department creates, maintains, and coordinates the overall transportation network for all modes of travel, including walking, bicycling, transit, and motor vehicles. TDM is responsible for the implementation of TDM Plan¹, Campus Bicycle Master Plan², and the several transportation-related objectives in the Illinois Climate Action Plan (iCAP)³.

The iCAP 2020⁴ objective 3.4 is to "Reduce driving on campus and report the percentage of staff trips made using single-occupancy vehicles from 60% to 50% by FY25 and 45% by FY30."⁵

To determine the data for single-occupancy vehicles as part of this objective, the University of Illinois Urbana-Champaign (U of I) must conduct periodic mode choice surveys. These surveys are designed to determine the preferred method of travel by the U of I students, faculty, and staff, and the factors responsible for that choice.

F&S TDM department at the U of I conducted the mode choice survey in spring 2022, which was answered by 349 students, 56 faculty, and 205 staff members. The overall data showed that 29% of the respondents preferred walking and driving alone, while 23% prefer taking the bus, and 13% ride a bicycle as their primary mode of transportation. While walking (45%) is the most preferred mode of transportation for students followed by riding the bus (31%), most faculty and staff members prefer driving to work (55%). This is understandable as, on average, students live nearly 1.5 miles from campus, while faculty members live 4.2 miles and staff members live nearly 7.7 miles from campus.

This report analyzes the travel preferences of U of I students, faculty, and staff, while comparing the results with the data collected from the mode share survey performed by iSEE in 2018-19 and mode choice survey conducted by CCRPC in 2011-12.

¹ https://fs.illinois.edu/docs/default-source/tdm/2019-to-2024-tdm-plan.pdf?sfvrsn=8b60d5ea_0

² https://fs.illinois.edu/docs/default-source/tdm/2014-campus-bicycle-plan.pdf?sfvrsn=a69cf8ea_4

³ <https://icap.sustainability.illinois.edu/>

⁴ <https://icap.sustainability.illinois.edu/files/project/5293/iCAP-2020-FINAL-WEB.pdf>

⁵ <https://icap.sustainability.illinois.edu/project/reduce-driving-campus>

Introduction

Facilities & Services (F&S) Transportation Demand Management (TDM) department conducted the Mode Choice Survey in spring 2022. The purpose of this survey was to assess our students' and employees' primary mode of commuting and the transportation method they use while on-campus.

The Illinois Climate Action Plan (iCAP) 2020 has an objective to reduce driving on-campus⁶. This objective also requires the University of Illinois Urbana-Champaign (U of I) to conduct a travel survey every three years to keep our metrics updated and track our progress as we strive for a 45% Single-Occupancy Vehicles (SOV) use rate by FY30.

In 2011-12, the Champaign County Regional Planning Commission (CCRPC) through the Champaign Urbana Urbanized Area Transportation Study (CUUATS) upgraded the "Mode Choice" step in their Travel Demand Model. As part of that study, CCRPC conducted a very thorough Mode Choice survey to estimate transit, pedestrian, and bicycle trips more accurately by the U of I students, faculty, and staff. Nearly 3,200 (2296 students, 515 staff, and 379 faculty) campus community members completed that survey.

The Institute for Sustainability, Energy, and Environment (iSEE) performed the last mode share survey at U of I in 2018-19⁷. The mode share survey in 2018-19 was answered by 75 students and 186 faculty and staff members.

In 2022, F&S TDM used the CUUATS and iSEE mode choice surveys as reference to develop an updated version of the mode choice survey. The Transportation iCAP team⁸ assisted in the development of the survey.

F&S TDM utilized a variety of sources⁹ to promote this survey, which included several newsletter posts, departmental contacts, word of mouth, as well as digital signage across campus. We had also procured 5,000 randomly selected undergraduate students' emails from the Division of Management Information (DMI).

The Mode Choice Survey was available to all U of I students, faculty, and staff from March 27, 2022 to May 2, 2022. During this period, 610 participated in this survey, including 349 students, 56 faculty, and 205 staff members.

⁶ <https://icap.sustainability.illinois.edu/project/reduce-cars-vehicle-miles-traveled-campus>

⁷ [2019 Mode Share results - Faculty/Staff and Students](#)

⁸ <https://icap.sustainability.illinois.edu/project/transportation-icap-team>

⁹ [e-week, GradLinks, Email+ to UG and other methods used for Mode Choice Survey](#)

This survey consisted of 28 multiple choice questions.¹⁰ No personal information was collected in this survey. The results from this survey will help us understand how our campus community members move in/around the campus and will help us to develop new and continually improve existing programs to encourage active modes of transportation on-campus.

F&S TDM will conduct this survey every three years going forward.

¹⁰

<https://icap.sustainability.illinois.edu/files/project/92/%5BFINAL%20DRAFT%5D%20Mode%20Choice%20Survey.pdf>

Key findings from the Mode Choice Survey 2022

Participant information

| 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 |

Primary mode of transportation

- In 2022, nearly 55% of the faculty and staff chose **“Drive yourself (arrive/depart alone)”** as their preferred primary mode of transportation. This is down from 60% as reported in the 2019 mode share survey.

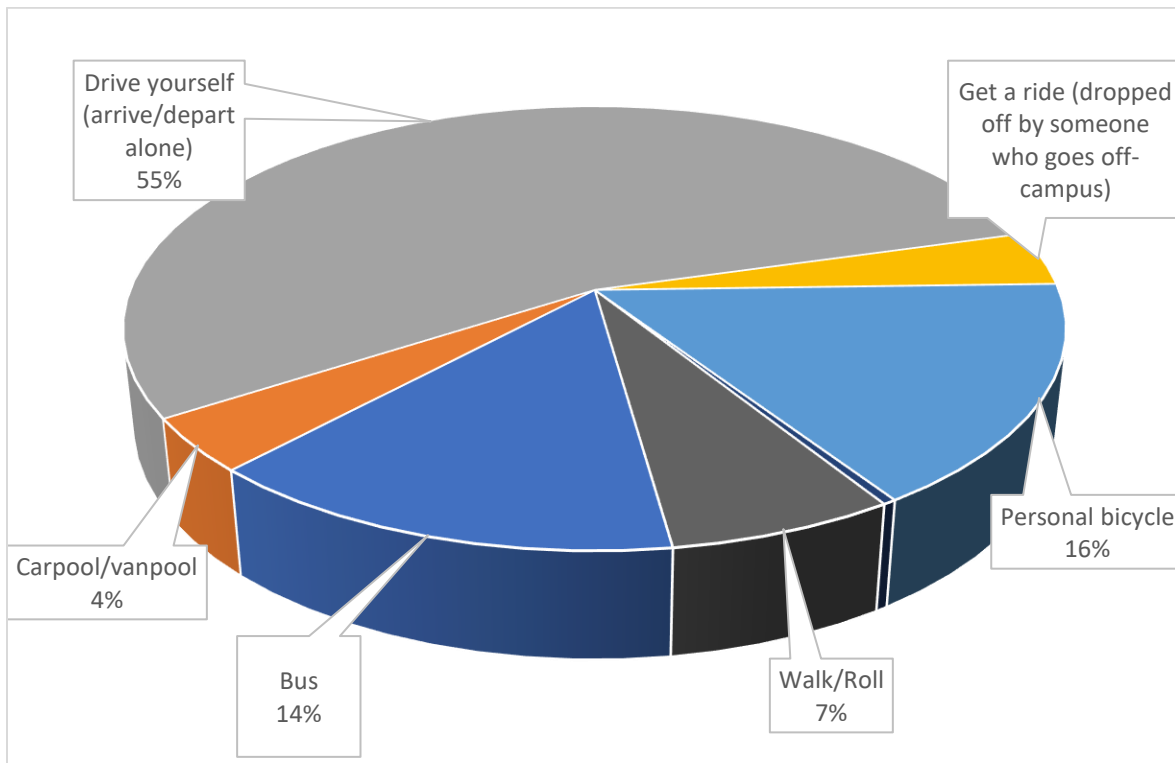


Figure 1 Primary mode of transportation for faculty and staff



- In 2022, nearly 45% of the students chose “Walk/Roll” as their preferred primary mode of transportation. This is down from 49% as reported in the 2019 mode share survey and up from nearly 37% as reported in the 2011 mode choice survey.

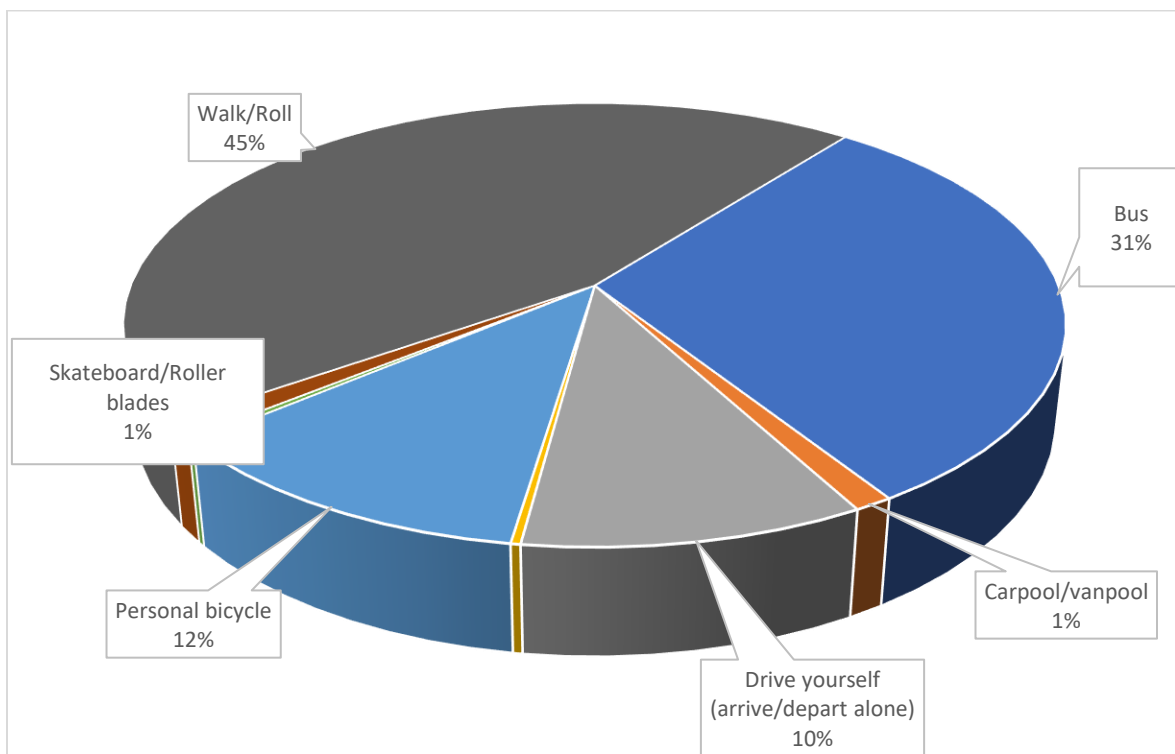


Figure 2 Primary mode of transportation for students



Top three preferred modes of travel for campus community members

- Faculty and staff respondents in 2022 – (1) nearly 75% selected “Drive yourself”, (2) nearly 54% selected “Bus”, and (3) nearly 46% selected “Walk/Roll” as one of their top three preferred modes of travel.

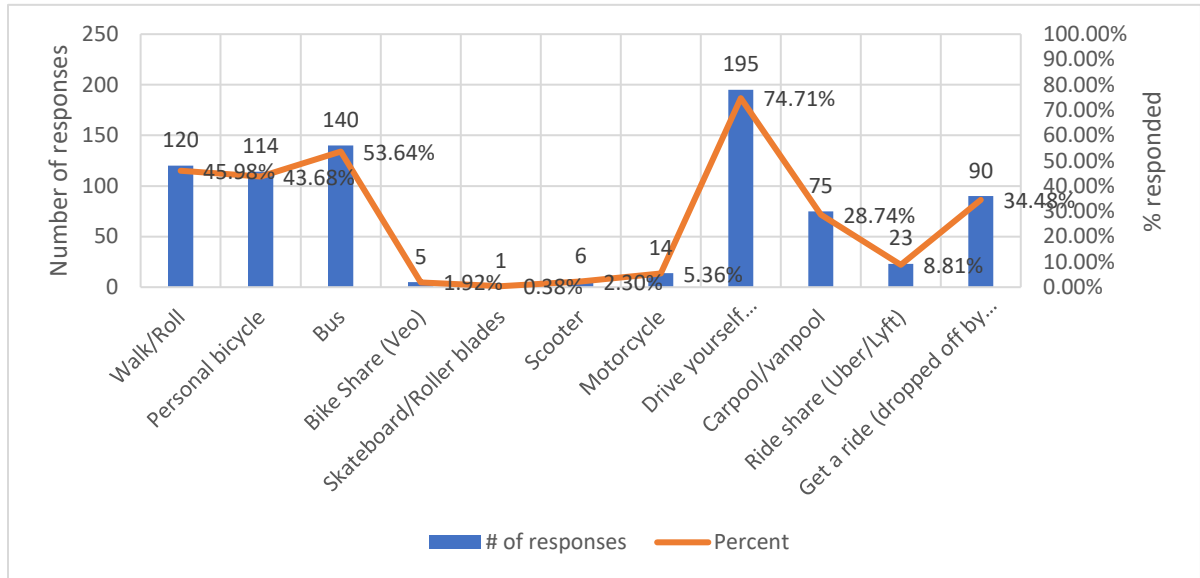


Figure 3 Top three preferred modes of travel for faculty and staff

- Student respondents in 2022 – (1) nearly 90% selected “Walk/Roll”, (2) nearly 82.5% selected “Bus”, and (3) nearly 41.5% selected “Personal bicycle” as one of their top



three preferred modes of travel.

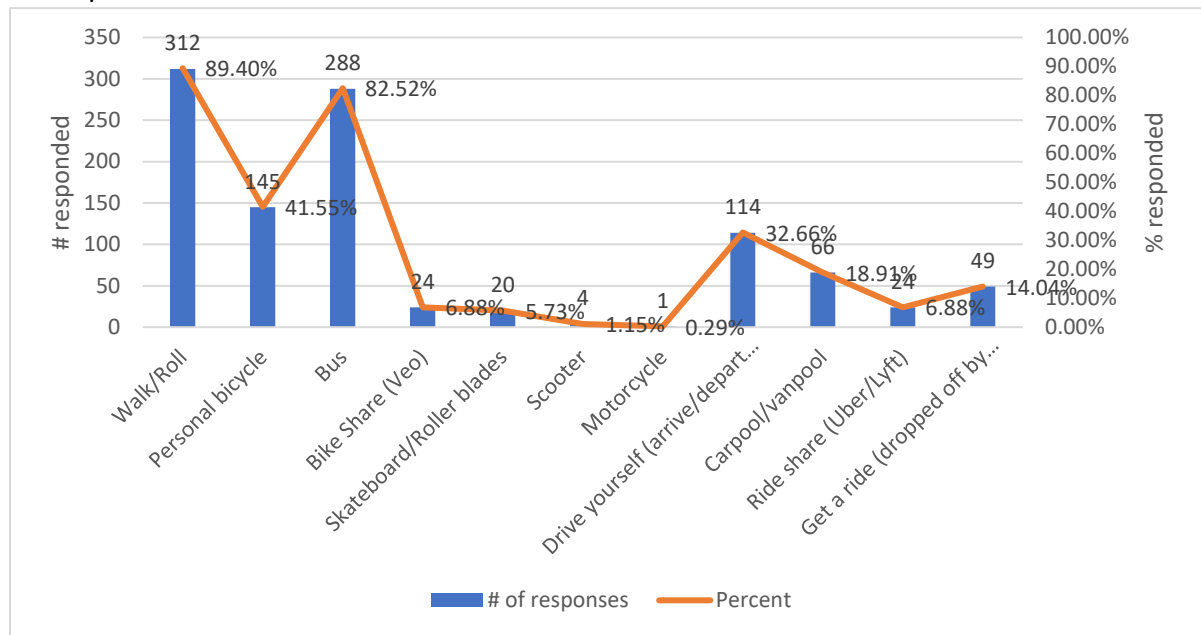


Figure 4 Top three preferred modes of travel for students

Supplementing first trip to campus

- Nearly 60% of faculty and staff reported that they supplement their primary mode of transportation while getting to the campus. Following is how they supplement their commute to the campus:

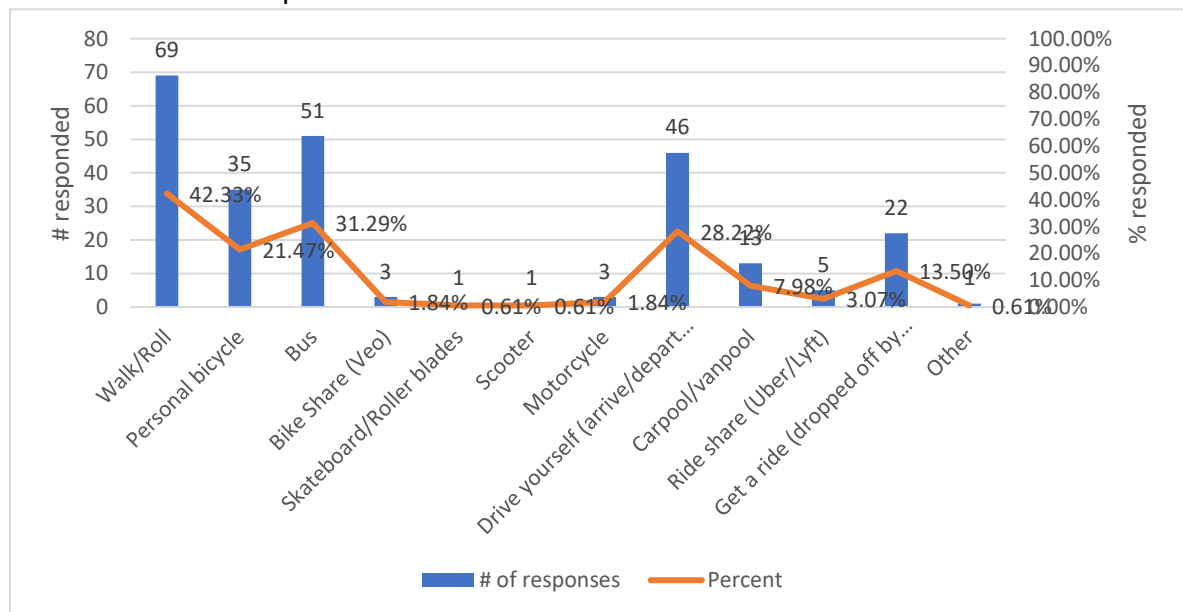


Figure 5 How do faculty and staff supplement their travel to the campus



- Nearly 85% of the students reported that they supplement their primary mode of transportation while arriving to the campus. Following is how they supplement their commute to the campus:

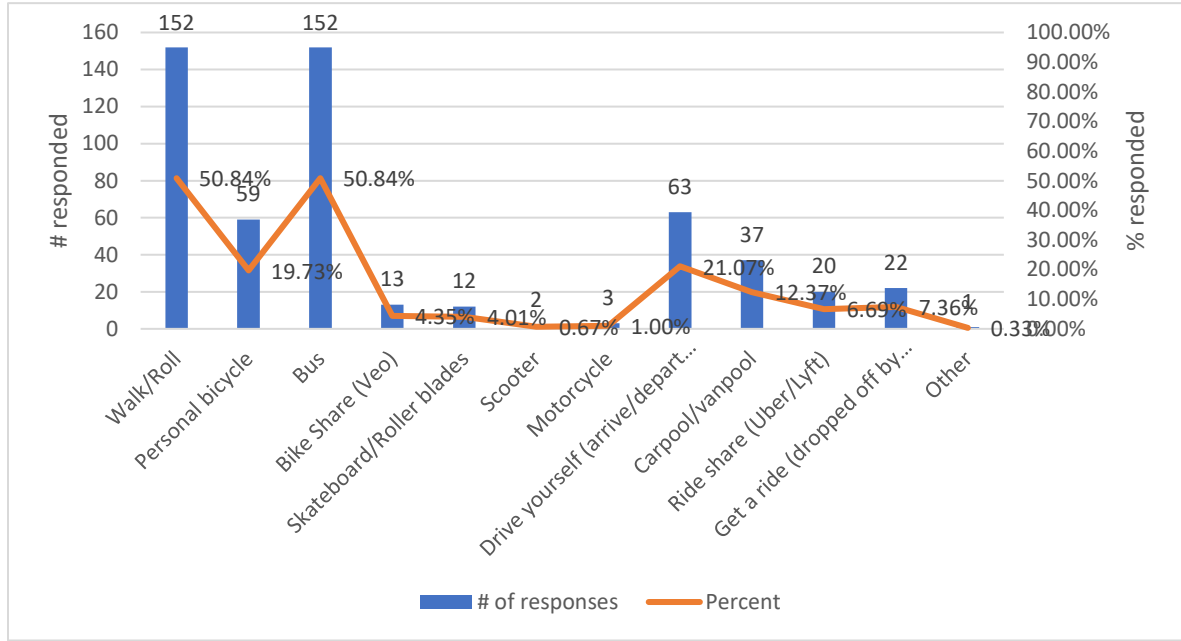


Figure 6 How do students supplement their travel to the campus?



Other questions from the 2022 Mode Choice Survey

- Nearly 73% of the University of Illinois faculty, staff, and students walk once they are on-campus.

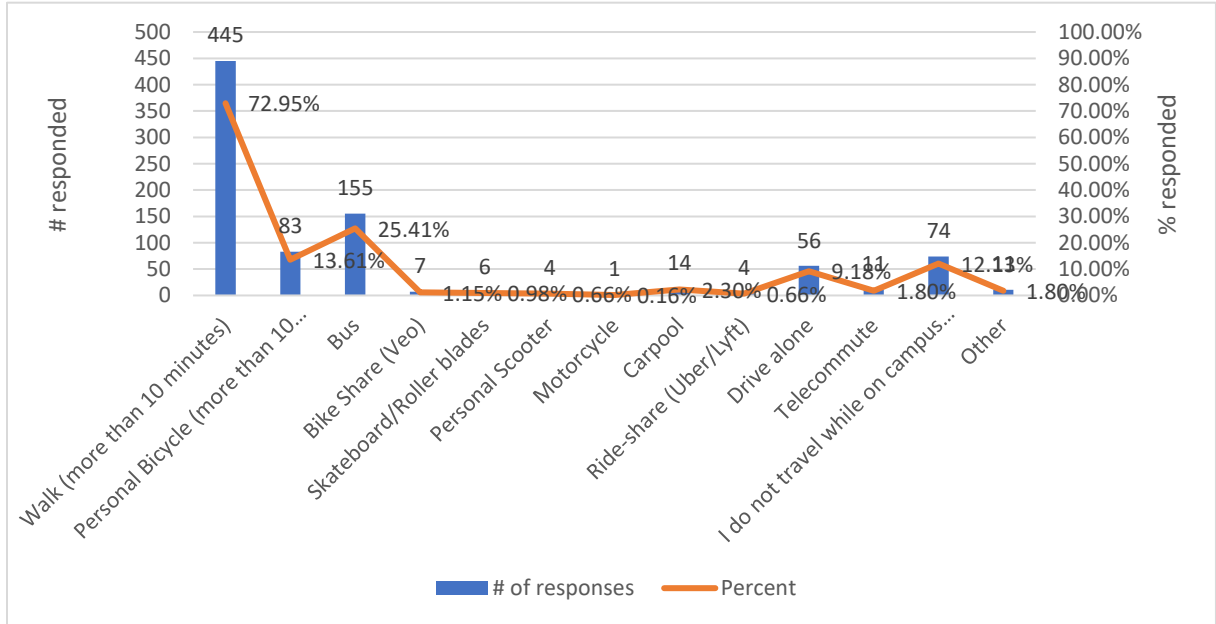


Figure 7 How does the campus community move while on campus?

- 27% of the total respondents reported that they own a bicycle on-campus. Nearly 31% of the students, 6% of the faculty, and 15% of the staff who participated in the 2022 Mode Choice Survey reported that they own a bicycle on-campus.

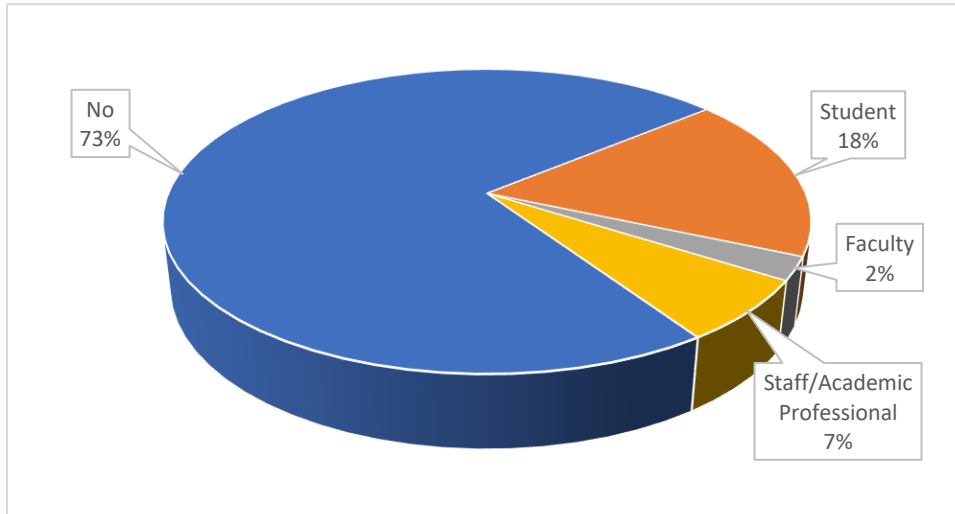


Figure 8 Who owns a bicycle on campus?



- Nearly 42% of the students, who participated in the 2022 Mode Choice Survey, reported that they own a car on-campus, however, only 8% of the students hold a campus parking permit. In 2018 mode share survey, nearly 40% students reported that they owned a car and nearly 7% of the students held a campus parking permit.
- Nearly 90% of the faculty and staff, who participated in the 2022 Mode Choice Survey, reported that they own a car on-campus, however, only 52.5% of the faculty and staff responded that they hold a campus parking permit. In 2018 mode share survey, 96% of the faculty and staff reported that they owned a car, and nearly 65% reported that they held a campus parking permit.
- Nearly 50% said that Improved bike lanes and bike paths would encourage them to ride them to campus more frequently. Figure 9 shows the incentives that would encourage the campus community to walk or bike to the campus more frequently.

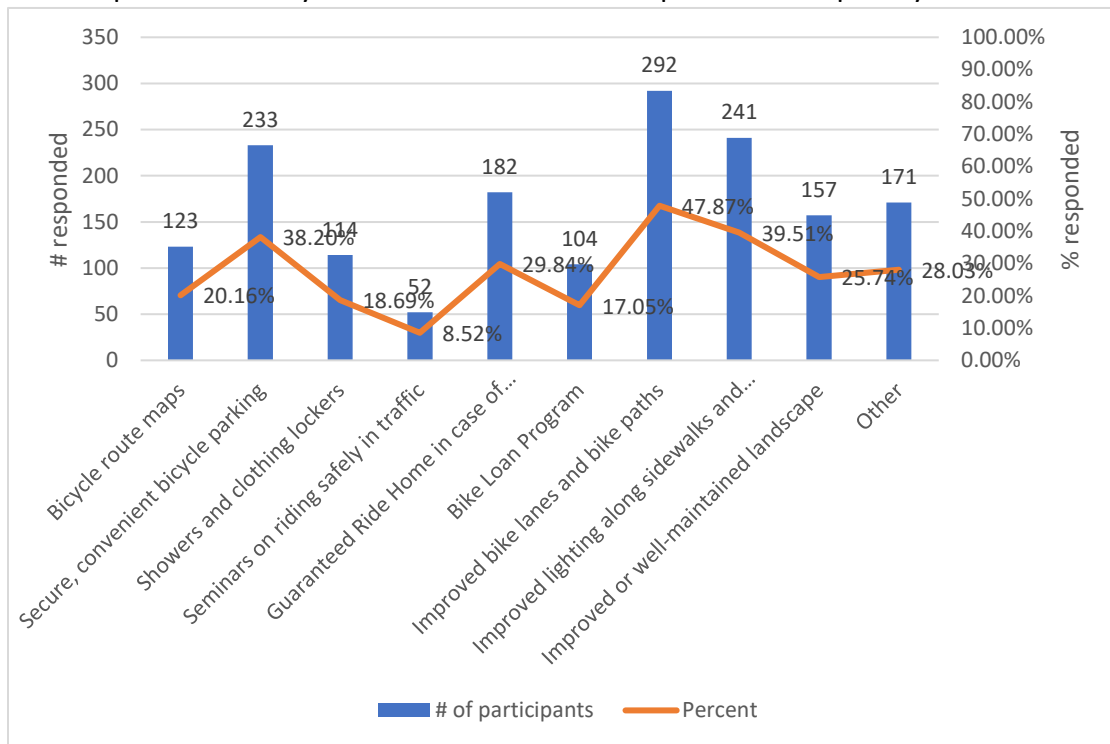


Figure 9 What programs or incentives would encourage you to walk or bike to campus more frequently?



Conclusion and next steps

The data and results from 2022 Mode Choice Survey were used to update the iCAP 2020 objective of reducing single-occupancy vehicles on campus. 610 participated in this survey, including 349 students, 56 faculty, and 205 staff members. 65% of the respondents use active modes of transportation as their primary method of travel to the campus and 73% of the respondents walk once they are on campus.

The F&S TDM department also collected information on carpool, Electric Vehicles, and incentives to use active modes of transportation. The F&S TDM department will analyze the participants' comments and use that information to plan for infrastructure and programming improvements. The results from this survey will also help develop new and continually improve existing programs to encourage active modes of transportation on campus at the University of Illinois Urbana-Champaign. The F&S TDM department will conduct this survey every three years.