2019 UNC Commuter Survey

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The Office of Institutional Research and Assessment

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THE UNIVERSITY of NORTH CAROLINA at CHAPEL HILL

CONTENTS

INTRODUCTION

The University of North Carolina at Chapel Hill conducts biennial commuter surveys to better understand the commuting behavior of employees and students. Since 1997, a random sample of employees and students are invited by email to complete the survey. The information gained from these surveys helps the University plan future multimodal mobility options, programs, and incentives for the campus community.

In 1997, the University commissioned its first study of campus commuting patterns. The purpose of the study was to survey both students and employees about the various travel modes they used to commute to campus, as well as their origins and destinations. The data gathered was used to help the UNC Department of Transportation and Parking and the Town of Chapel Hill plan for University and Town transportation needs. This study was repeated in 2001, 2004, 2007, 2009, and 2011, 2013, 2015, 2017, and is now completed every other year.

In 2019, the University again surveyed the campus community to determine how campus commuting patterns have changed over the last two years. This new study provides comprehensive information about the current state of campus commuter behavior and characteristics, makes comparisons to the 1997- 2017 studies where possible and relevant, and offers analysis of trends and the implications of these trends for on and off-campus decision makers.

The report is divided into several sections: a brief explanation of the study's methodology, a chapter detailing employee commuting patterns, a chapter detailing student commuting patterns, and finally a discussion of major findings. A complete summary of survey responses, as well as the web-based survey instruments, are included in the appendix.

METHODOLOGY

The survey was distributed to a random sample of UNC-Chapel Hill faculty, staff, and students, as well as UNC Hospital employees. Development of the questionnaire, the sampling techniques used, response rates obtained, and analyses conducted are described below.

The Survey Questionnaire

The questionnaire used in the current study was originally developed for the 1997 survey, and has undergone only slight modifications for the 2001, 2004, 2007, 2009, 2011, and 2013 administrations. The 2019 survey was re-designed and pre-tested by Transportation and Parking with the intent to be direct, brief, and solicit more responses. Most questions were close-ended and check boxes were used to make answering these questions simple and efficient. Open-ended questions were used for numerical responses and a few qualitative free responses where respondents list reasons they do or do not use certain modes to travel to campus. The 2019 survey was conducted in the same manner as the 2017 survey.

Separate sections were developed to elicit more detailed information from those who drive and those who take the bus to campus, and the survey directed individuals to appropriate sections of the survey based on their travel behavior.

Copies of the full web-based questionnaires for employees and students are provided in Appendices 2 and 3.

Population and Sample

The 2019 study utilized the same methodology for determining sample size as the 1997, 2001, 2004, 2007, 2009, 2011, 2013, 2015, and 2017 studies (see previous reports for details). Of the combined population of faculty and staff at the University and UNC Hospitals, a random sample was drawn using employee records obtained from the personnel databases of those organizations. Completed responses totaling 1,329 of 4,110 were received for a response rate of 32%. The student population consisted of all undergraduate, graduate, and professional students who lived off-campus during fall 2019. From this population, a random sample of 2,472 was drawn. A total of 341 completed responses were received for a response rate of 13%. The analysis in this report for employees and students considers all respondents who partially or completely filled out the survey. A total of 1296 employee respondents and 328 student respondents completed the survey in its entirety.

Administration of the Survey

All students and employees in the target sample received an email announcement directing them to the website containing the on-line survey, and one email reminder sent approximately seven days after the first announcement. The responses went directly to a secured server in the UNC Transportation and Parking department.

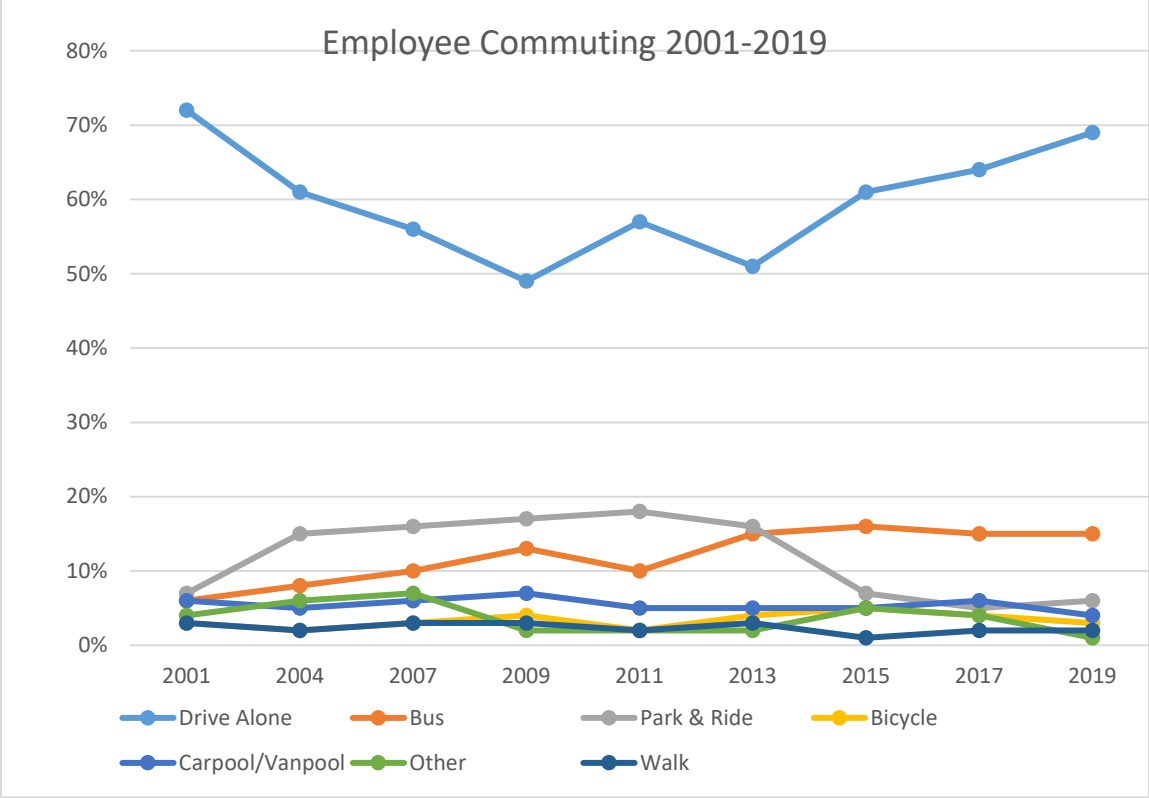
The results were analyzed using Qualtrics and Microsoft Excel was used to create the tables and cross-tabulations in this report.

SURVEY RESULTS

Employee and Commuter Student Mode Splits (2001-2019)

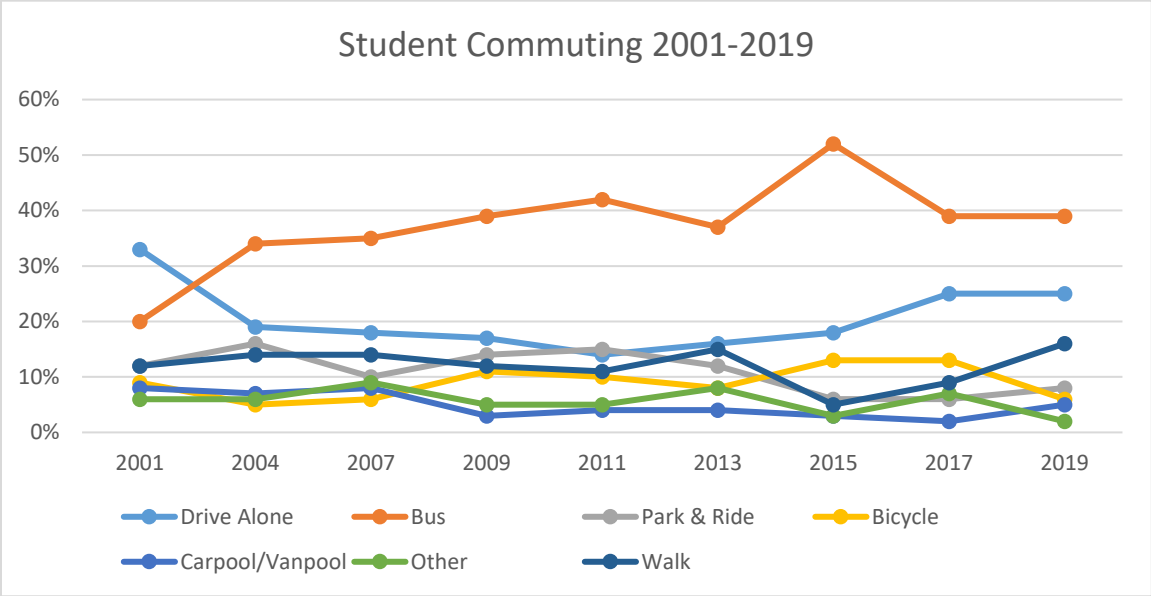
The type of transportation people use to travel is known as a mode. A 'mode split' comprises the total picture of all the different transportation types people use to travel. Tracking and studying a mode split is an essential component in developing sustainable transportation options in our region. The UNC mode split results aid staff to determine the effectiveness of transportation options and incentive programs.

The charts below show the method UNC employees and students used to travel to campus:



*The 2019 Survey split bus results into Local Bus- Chapel Hill Transit (8%) and Regional Bus (7%).

*'Other' category includes telework, dropped off, and motorcycle/scooter.



*The 2019 Survey split Bus into Local Transit-Chapel Hill Transit (35%) and Regional Bus (4%).

Employee Mode Splits

	2007	2009	2011	2013	2015	2017	2019
Drive Alone	0.56	0.49	0.57	0.51	0.61	0.64	0.69
Bus	0.10	0.13	0.10	0.15	0.16	0.15	0.15
Park-and-Ride	0.16	0.17	0.18	0.16	0.07	0.05	0.06
Bicycle	0.03	0.04	0.02	0.04	0.05	0.04	0.03
Carpool/Vanpool	0.06	0.07	0.05	0.05	0.05	0.06	0.04
Other	0.07	0.02	0.02	0.02	0.05	0.04	0.01
Walk	0.03	0.03	0.02	0.03	0.01	0.02	0.02

Commuter Student Mode Splits

	2007	2009	2011	2013	2015	2017	2019
Drive Alone	0.18	0.17	0.14	0.16	0.18	0.25	0.25
Bus	0.35	0.39	0.42	0.37	0.52	0.39	0.39
Park-and-Ride	0.10	0.14	0.15	0.12	0.06	0.06	0.08
Bicycle	0.06	0.11	0.10	0.08	0.13	0.13	0.06
Carpool/Vanpool	0.08	0.03	0.04	0.04	0.03	0.02	0.05
Other	0.09	0.05	0.05	0.08	0.03	0.05	0.02
Walk	0.14	0.14	0.12	0.11	0.15	0.05	0.16

Notes:
1. Bus data was split into Local and Regional beginning in 2017's survey.

2. 'Other' includes motorcycle/scooter, dropped off, and telework

Employee Mode Split

- The percentage of employees who drive alone to campus increased to 69%, the highest level since 2001 (72%). This may be associated with the expansion of the Craige Parking Deck in 2017 and low fuel prices.
- Bicycling declined to 3%, the lowest level since 2011. Cycling infrastructure connecting Chapel Hill to campus and incentives to promote cycling has not been upgraded for many years.
- Bus ridership remains consistent, likely due to former Park-and-Ride users maintaining their previous shift to transit.

Commuter Student Mode Split

- Reported bus usage remained constant at 39%. Local Chapel Hill Transit (35%) and Regional bus (4%) usage were separated for the first time in the 2015 Survey. In 2017, Chapel Hill Transit usage decreased to 35% and Regional Transit decreased to 4%.
- Bicycle usage decreased significantly from 13% to 6%.
- Park-and-Ride increased from 6% to 8% and walking increased from 5% to 16%. These increases are likely due to the increase in walkable and transit accessible off campus housing.

Other Survey Data Highlights

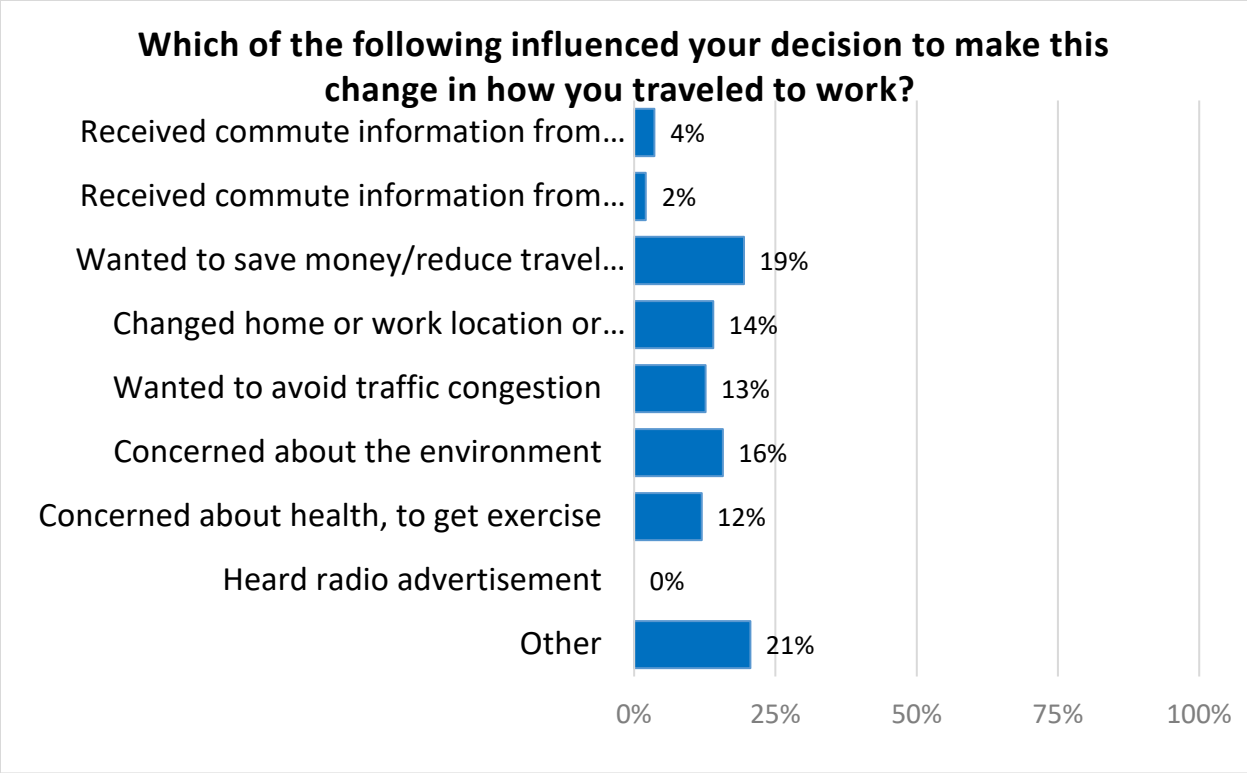
In order to effectively promote use of modes of transportation other than driving it is important to understand commuter preferences and behaviors and the factors that influence their travel choices. These sections highlight data from the survey that will help develop programs and policies to enhance mobility to campus.

Reasons for Not Riding the Bus or Carpooling

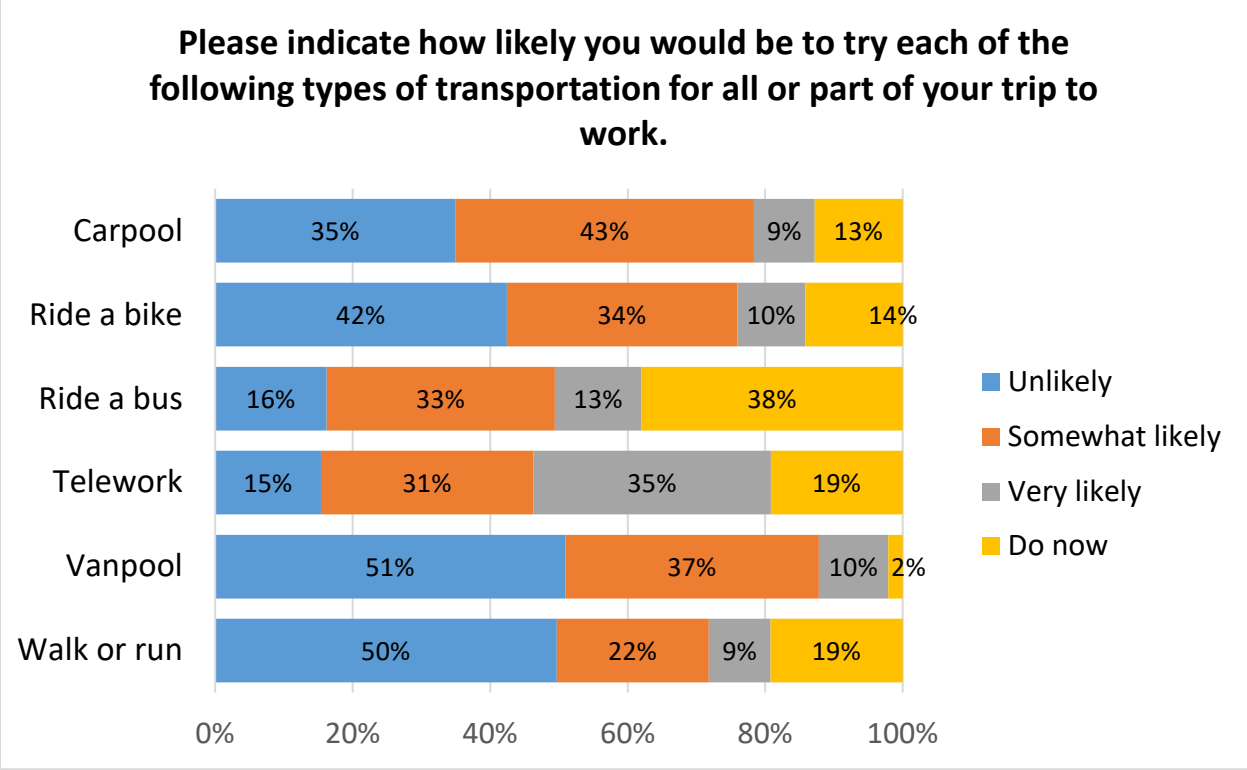
Employees provided common reasons why they do not ride the bus or carpool/vanpool more often. The most common reason reported was the bus trip takes too long compared to driving, irregular work schedules, and the bus stop is too far from my home/workplace.

Employees increased bus riding and telework

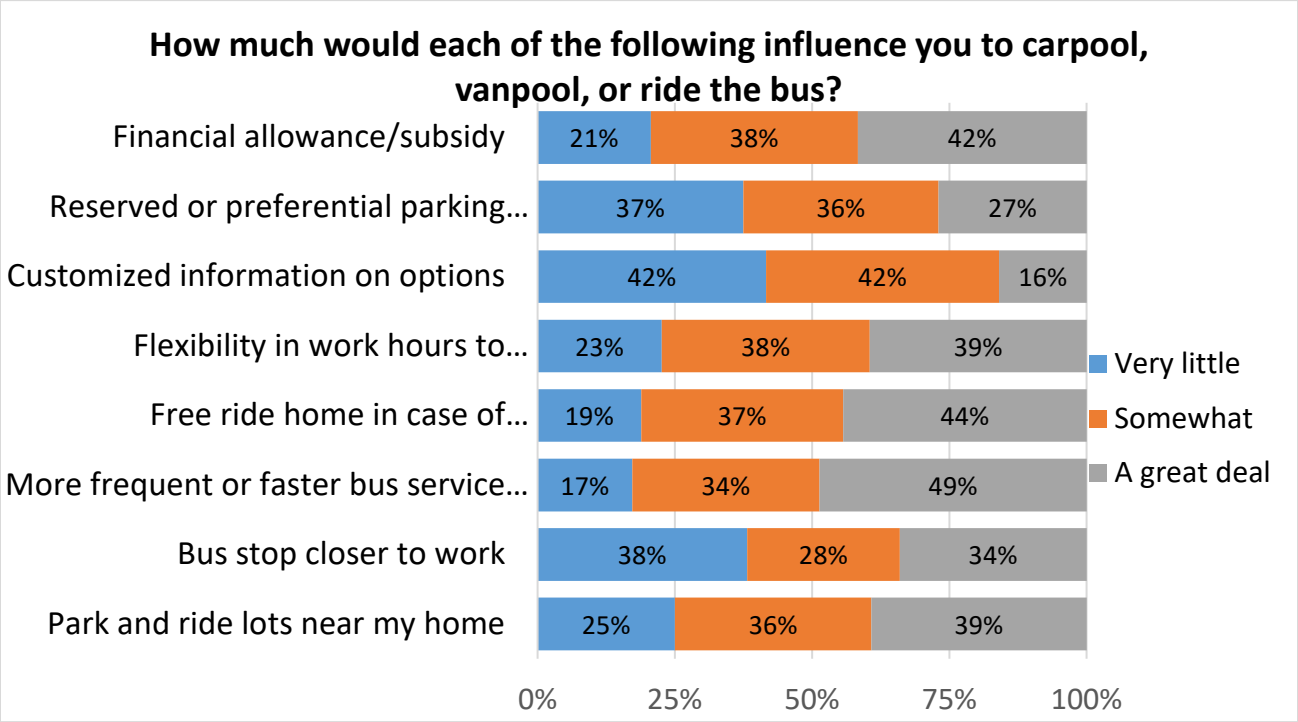
Employees who made changes to how they get to work chose to ride a bus or telework because they wanted to save money/reduce travel costs, were concerned about the environment, and changed their home/work location or work hours.



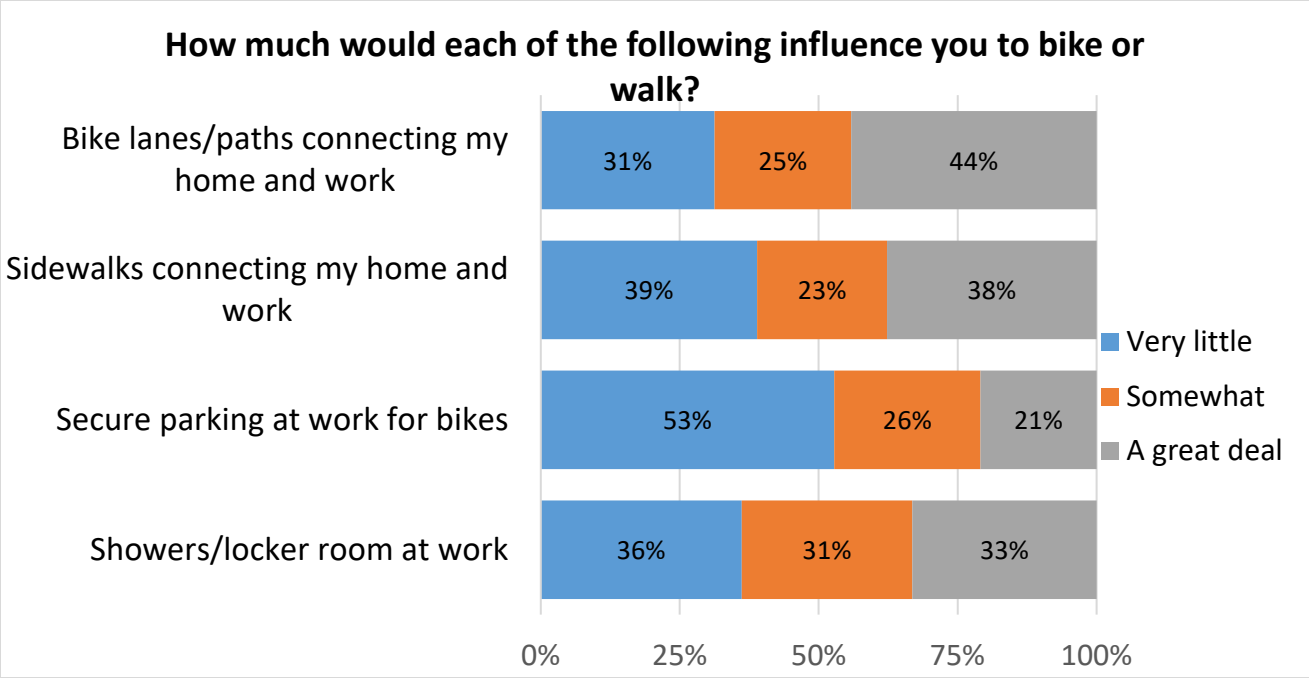
Riding the bus and teleworking are also the modes that employees are most likely to try in the future:



The largest influence to carpool, vanpool, or bus usage is more frequent or faster bus service to work, a free ride in case of emergencies, and flexibility in work hours to accommodate schedules.



The top influencers on people biking and walking more included more bike lanes/paths and sidewalks connecting their home to workplace. This shows how important local land use policy plays in providing housing within a walkable and bikeable distance as well as the importance of connecting neighborhoods to campus with safe walking and biking facilities.



Students cited irregular schedules, the bus taking too long compared to a car, and the bus running too infrequently near their home. The majority of off campus student housing is within a ¼ mile of a Chapel Hill Transit bus stop which points to the need for increased frequency to accommodate irregular schedules. Chapel Hill Transit's North-South Corridor Bus Rapid Transit (BRT) project consists of a BRT system along the Martin Luther King Jr Boulevard/South Columbia Street corridor that will open in approximately 2023. A congestion-free bus option may alleviate these concerns by providing fast, frequent, reliable service to campus.

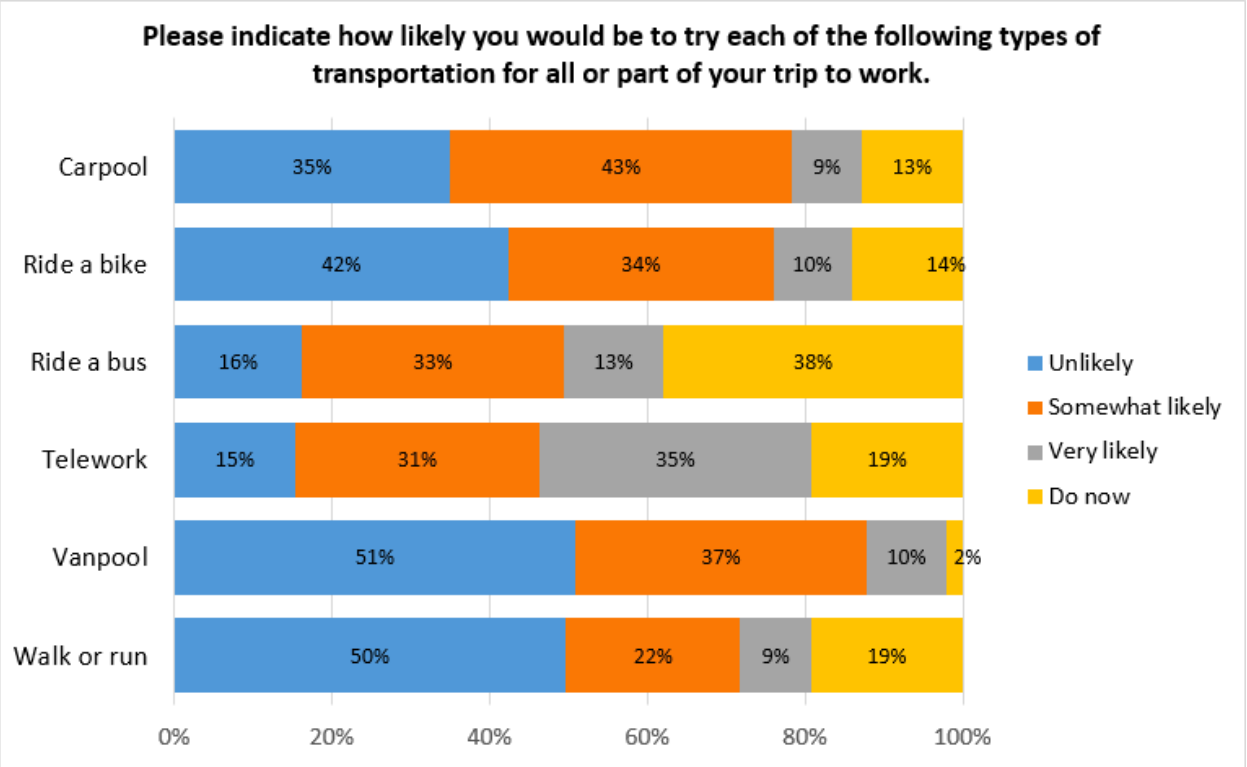
Distance from UNC

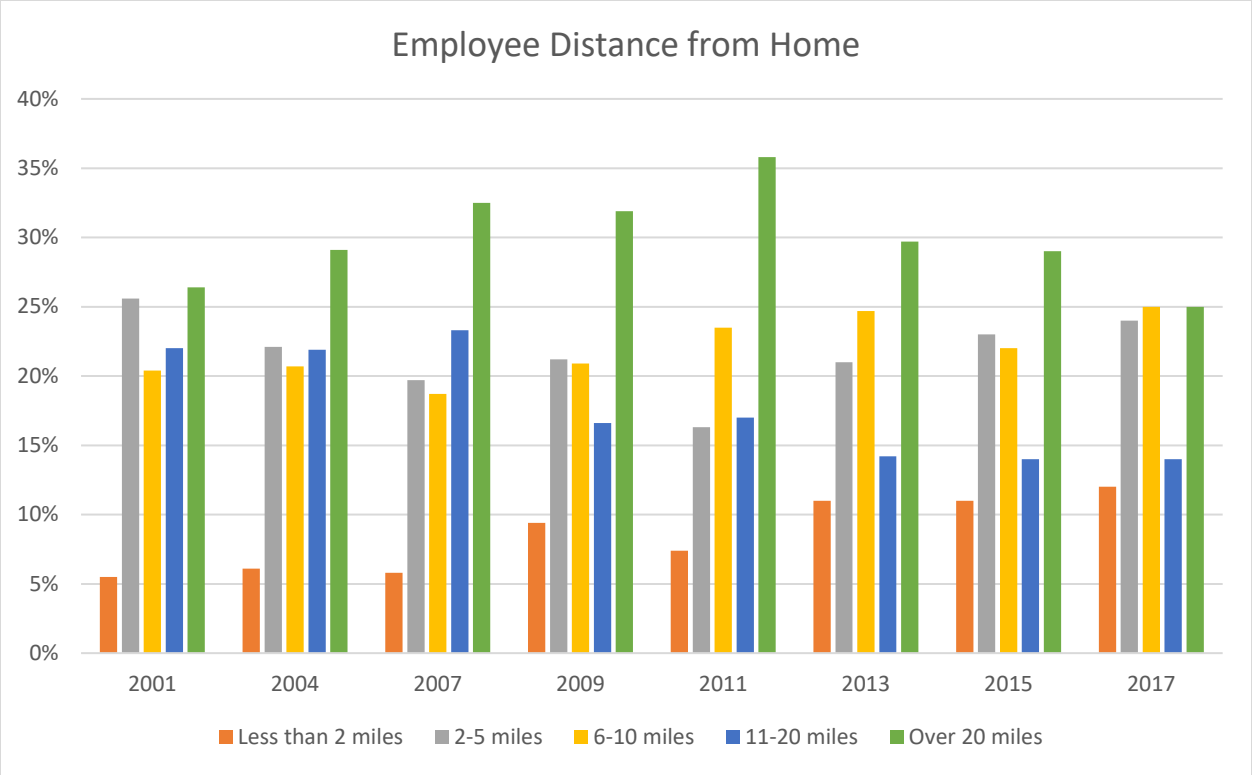
Employees and students who drive alone travel similar distances as those who ride a regional bus, park and ride, or get dropped off/ride-hail:

	Average One-Way Commute Distance (miles)	
Primary Commute Mode	EMPLOYEE	STUDENT
Drive Alone	16.7	16.3

Bicycle	4.2	2.0
Carpool/Vanpool		4.9
Carpool	16.3	
Vanpool	23.7	
Dropped off/Ride-hailing service (taxi, Uber, Lyft, etc.)	15.2	3.0
Walk/Run (the entire trip)	1.8	1.0
Chapel Hill Transit Bus	6.1	2.9
Regional Bus (GoTriangle, PART, Chatham)	18.5	15.6
Park-and-Ride served by Chapel Hill Transit	15.9	11.5
Motorcycle/Moped	10.2	7.1
Scooter		1.0
None - Most or all classes are online		11.5
Telework	40.3	

Employees are most likely to try teleworking at a rate of 35%, three times as many people as the second mode, the bus (13%).





The top four reasons employees living less than five miles from campus gave for not bicycling more to campus include: Too far to bike, the roads to campus are unsafe, lack of bike lanes or paths on route, and there is no place to shower at work. Students indicated that it is too far to bike, the route to campus is too hilly/biking is too difficult, roads to campus are unsafe, and there is a lack of bike lanes/separated paths on their route.

Dedicating more transportation funding to bicycle improvements may alleviate concerns about unsafe road conditions by separating people from high speed motor vehicle traffic. The increased affordability and usage of electric assist bicycles may alleviate those who think cycling is too difficult. Twenty percent of employees who stop on the way to work do so to drop off and pick up children. Increasing the connectivity and safety of cycling infrastructure coupled with flexible schedules may facilitate those parents to ride with or take their children to school by bicycle.