

Dartmouth Employee Parking Survey 2001: Results and Recommendations



December 2001

Presentation Outline

- ◆ The Survey
 - ◆ Objectives
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 - ◆ Sample
- ◆ Results of the Survey
 - ◆ Current commuting and parking patterns
 - ◆ Commuting and parking preferences
 - ◆ Commuter fringe benefit
- ◆ Commuter Fringe Benefit Market Estimates
- ◆ Recommendations



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The Survey




Objectives of Parking Survey

- ◆ Gather information on current commute/ parking patterns
- ◆ Determine perceptions of current parking system
- ◆ Estimate the market for proposed commuter fringe benefit program alternatives


Survey Conducted Via Internet

- ◆ Password-controlled web instrument
- ◆ Questionnaire customized based on responses
- ◆ Data collected over 2 weeks in October 2001

The
Dartmouth College
Parking Survey



Welcome!



Thank you for participating in this survey.

The purpose of this survey is to gather input from Dartmouth employees about potential changes to the parking system that might affect you.


Questions are customized based on your input. Your answers will be kept confidential and will be used only for this study.

Answering all the questions takes about 10-15 minutes. If you stop before finishing, you can return later and continue where you left off. To back up, use the browser's "Back" button.

If you have difficulty, please be sure you're using version 3.0 or higher of your browser and then contact the HELP desk at 646-2999 for assistance.

To begin, enter your Employee ID number (found on your Dartmouth ID card), then click "next" to continue.

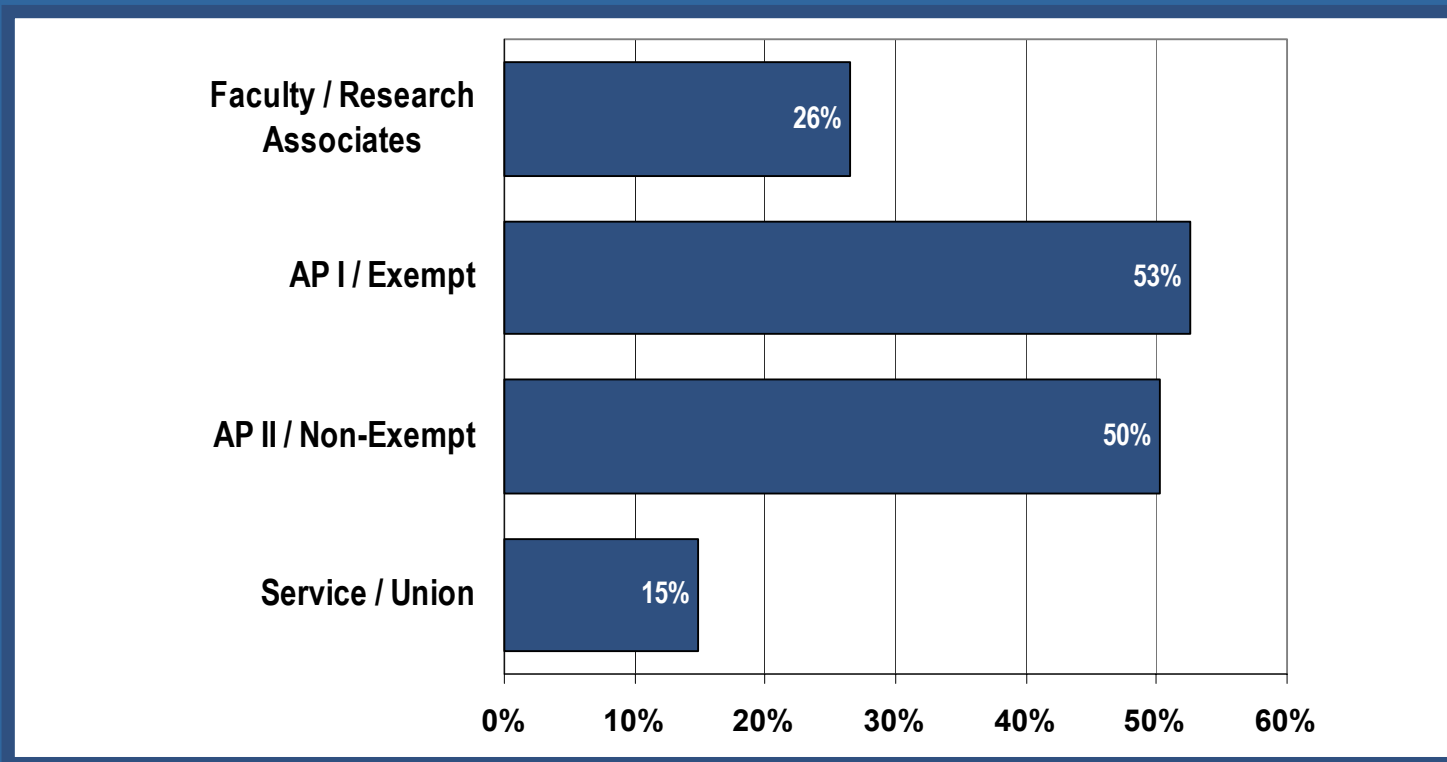
Password:

next 

This survey is being sponsored by Dartmouth College and is being conducted by Resource Systems Group. Call the HELP desk at 646-2999 with questions.

Response Rate

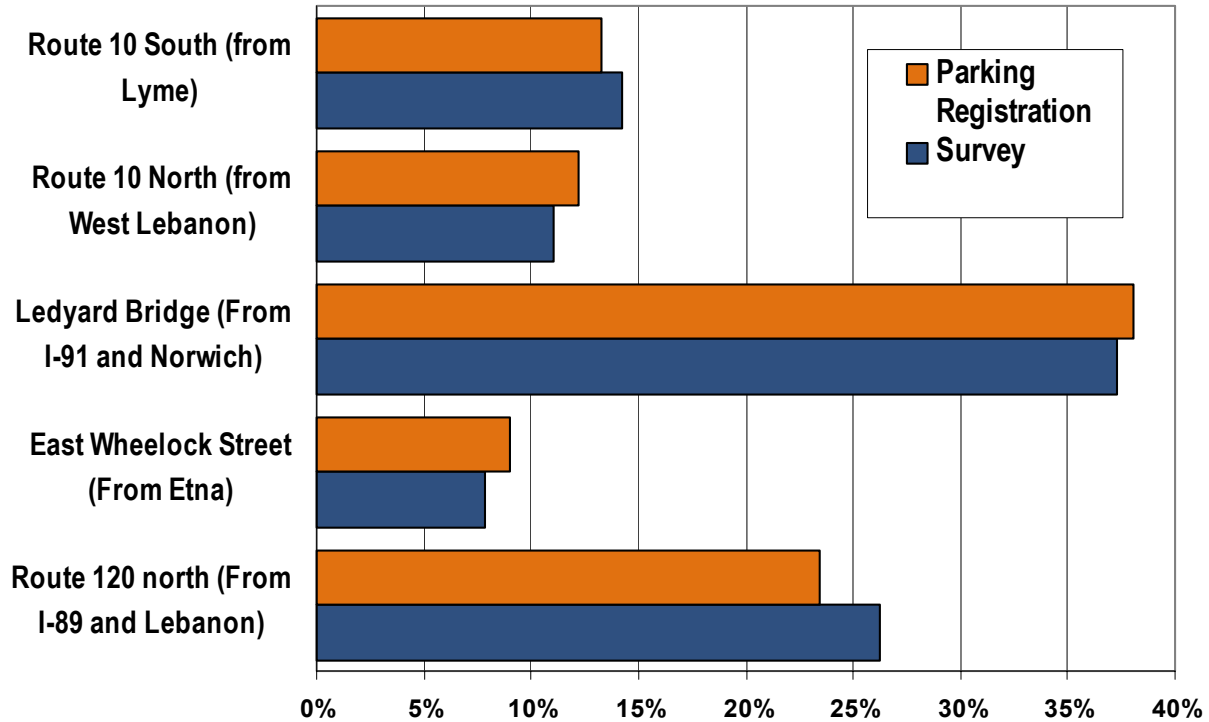
- ◆ Over 1,500 respondents; 40% of all listed
- ◆ Response rate varied by employment classification



Sample Representation

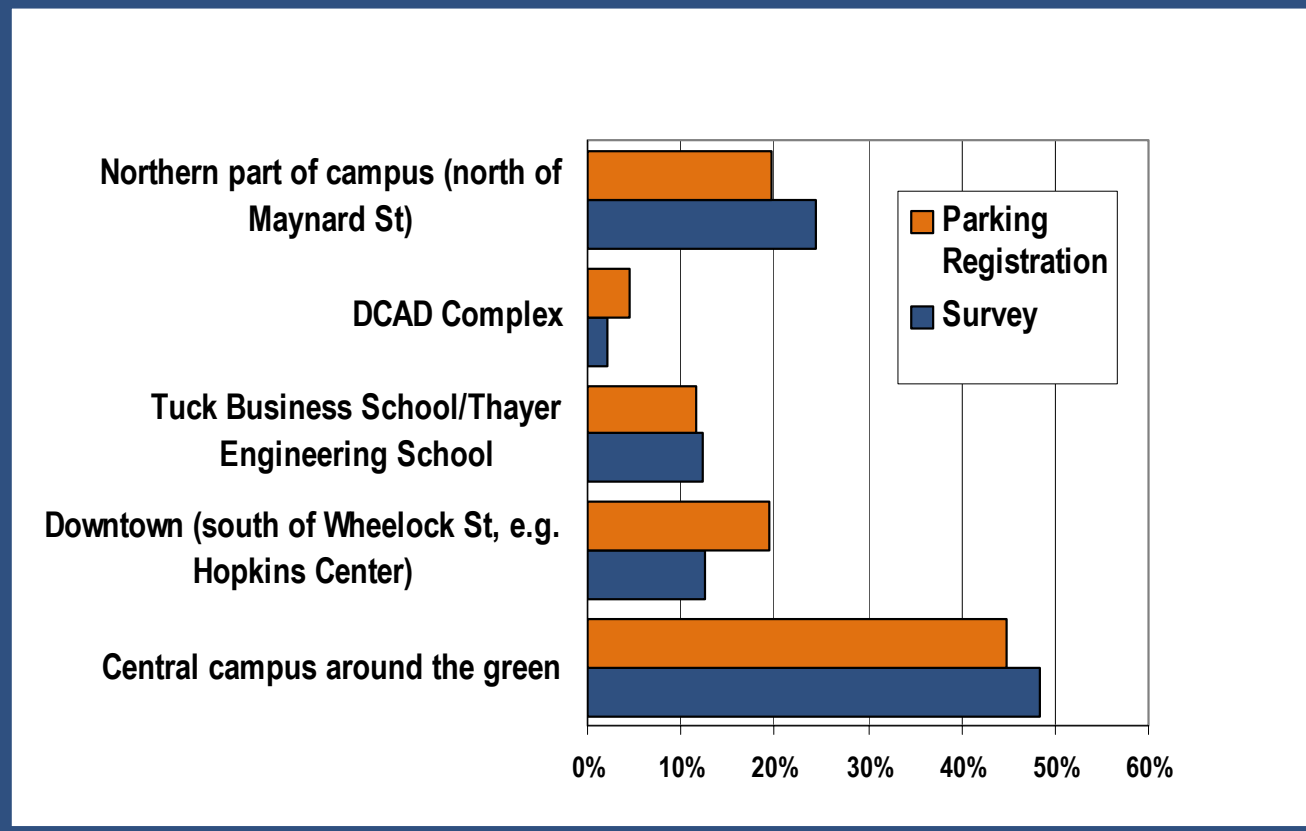
- ◆ Survey sample compares closely with parking registration data:
 - ◆ Commuting route
 - ◆ Parking location
 - ◆ Town/city of residence
 - ◆ Work location

Sample Comparison– Commuting



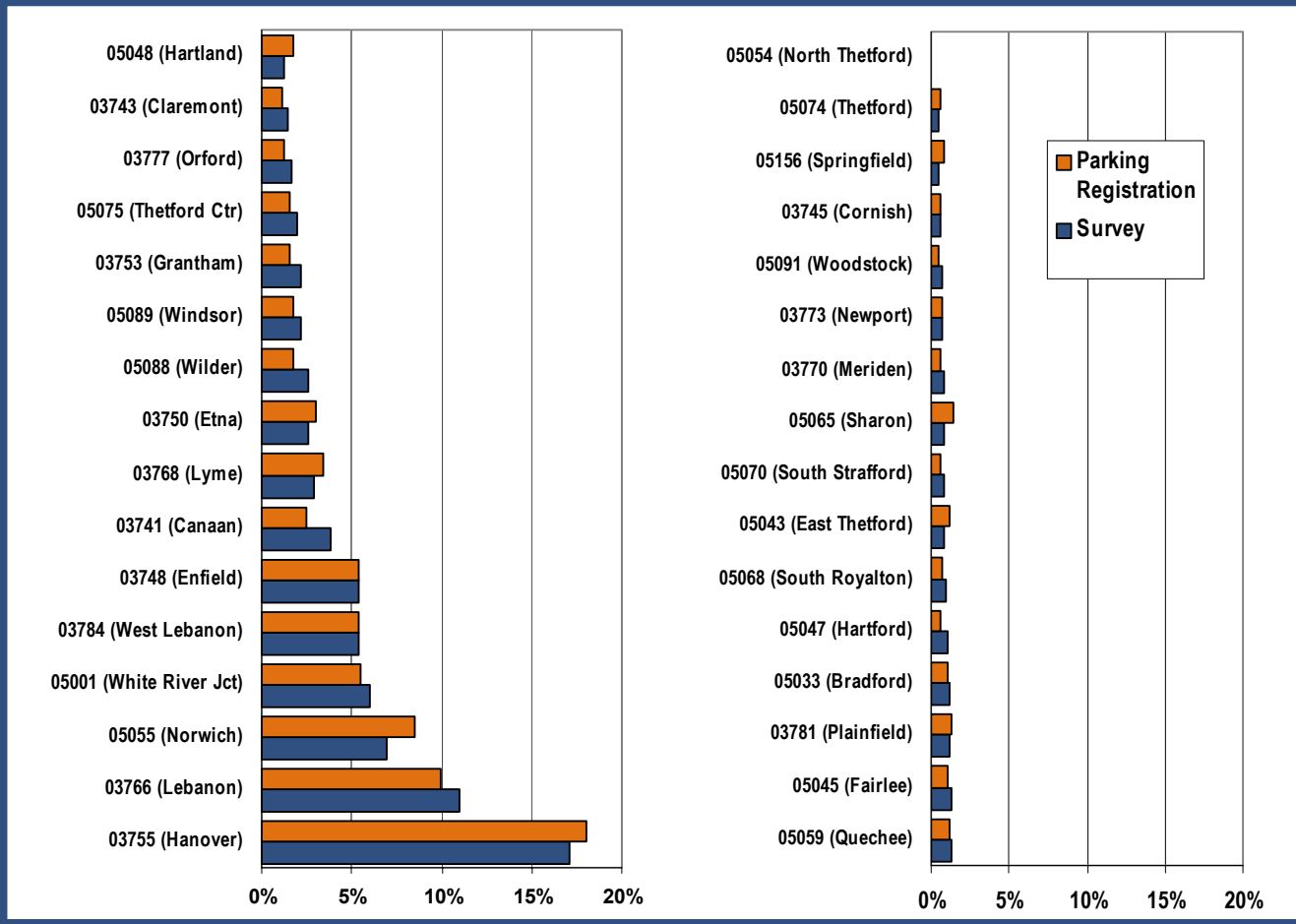
◆ Sample is representative for all

Sample Comparison– Parking



- ◆ Sample low on downtown, higher for and central campus

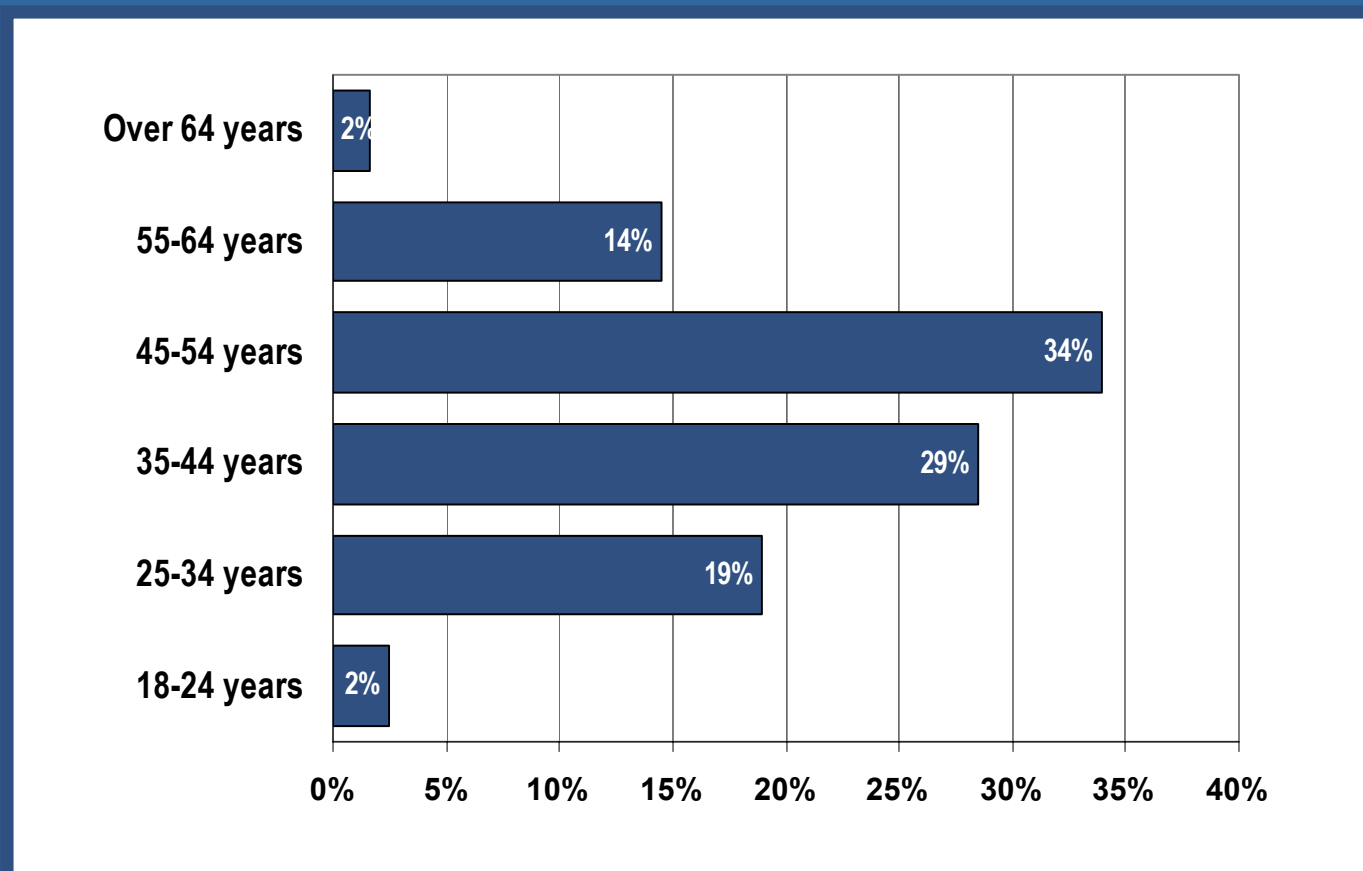
Sample Comparison– Town of



- ◆ Survey sample slightly low for Hanover, Norwich, Lyme; high for Canaan, Lebanon, Wilder, and others

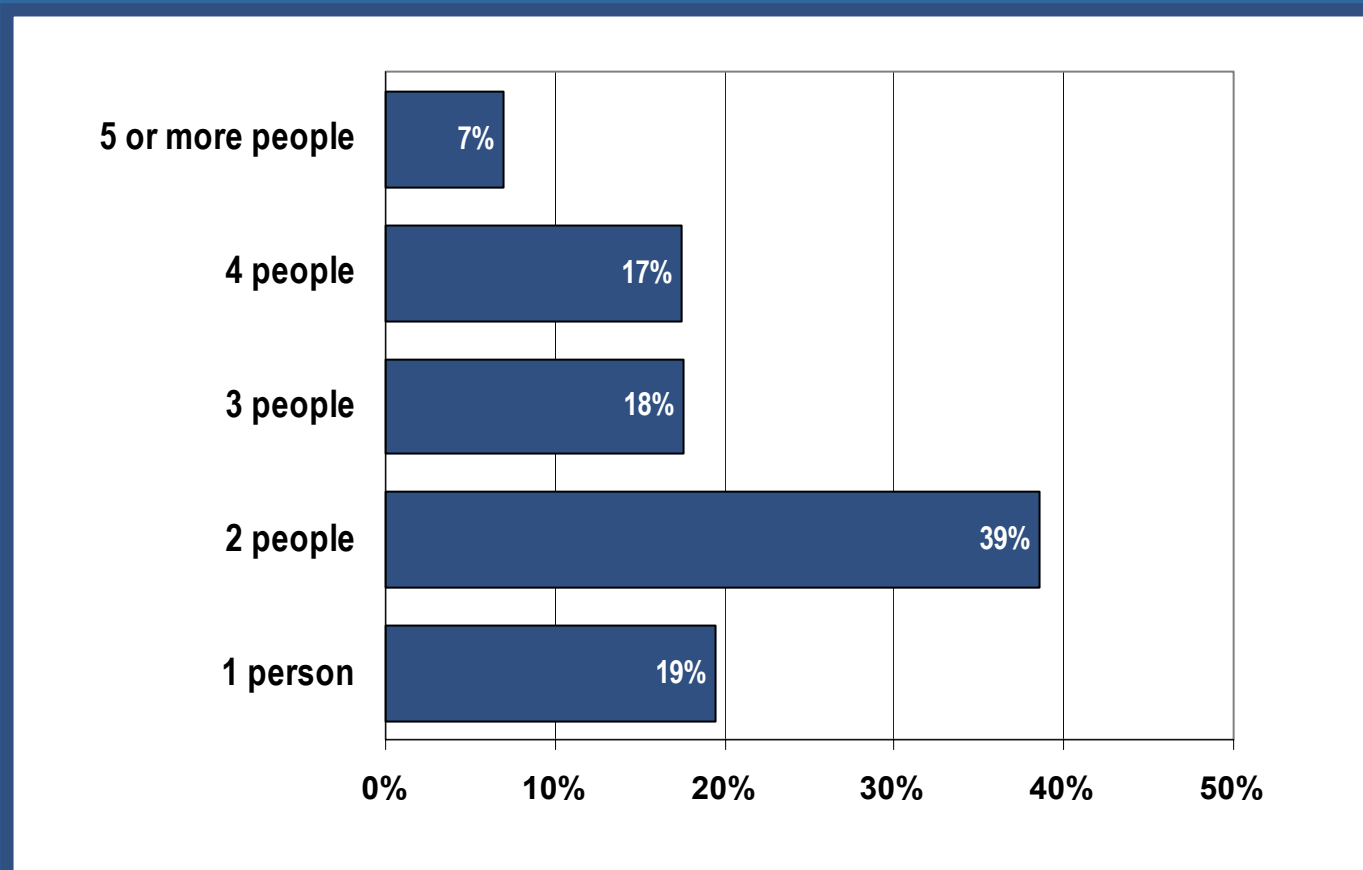
Sample Demographics – Age

- ◆ Median age is about 45 years



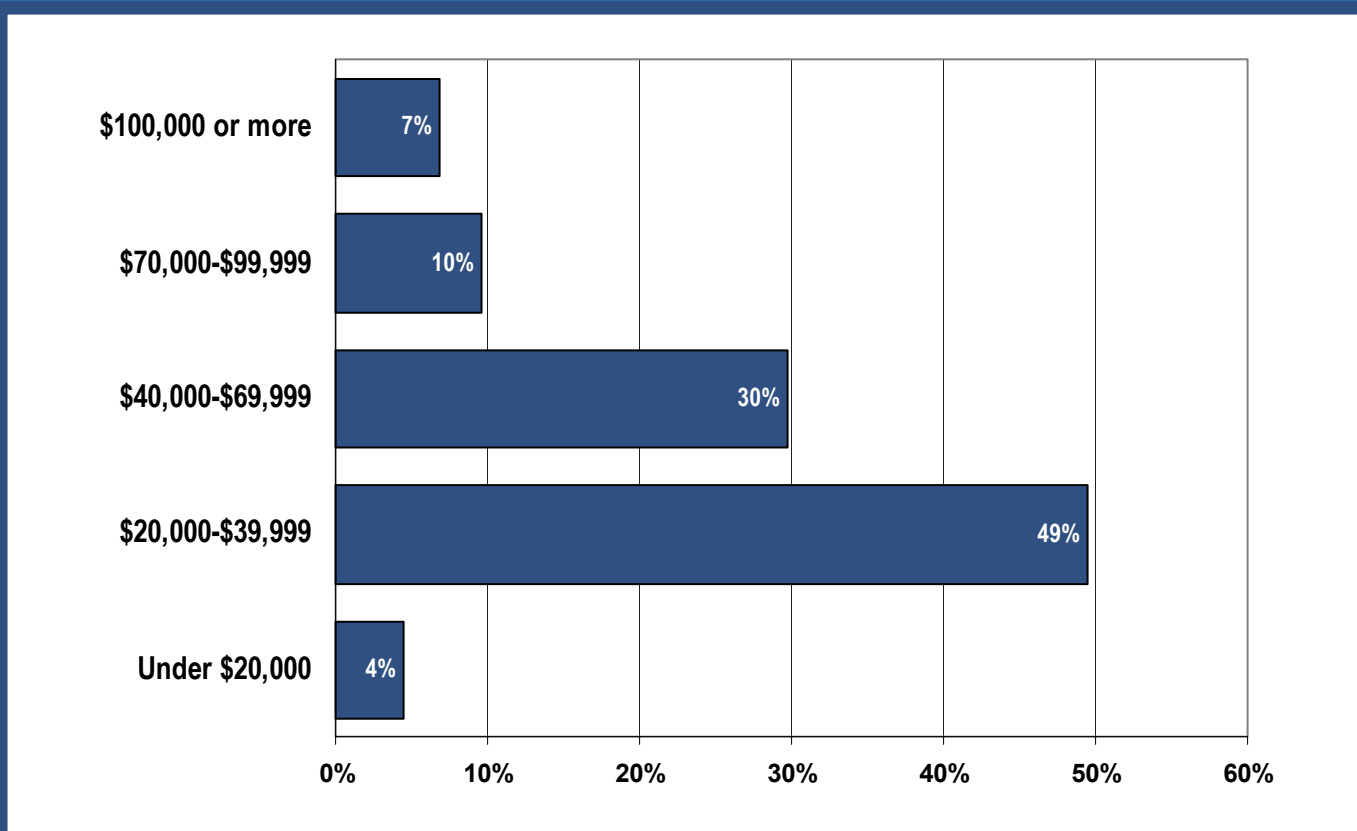
Sample Demographics – Household

- ◆ Median number of persons per household is 2



Sample Demographics – Salary

- ◆ Median annual salary is about \$40,000
- ◆ About 6% of sample declined to answer



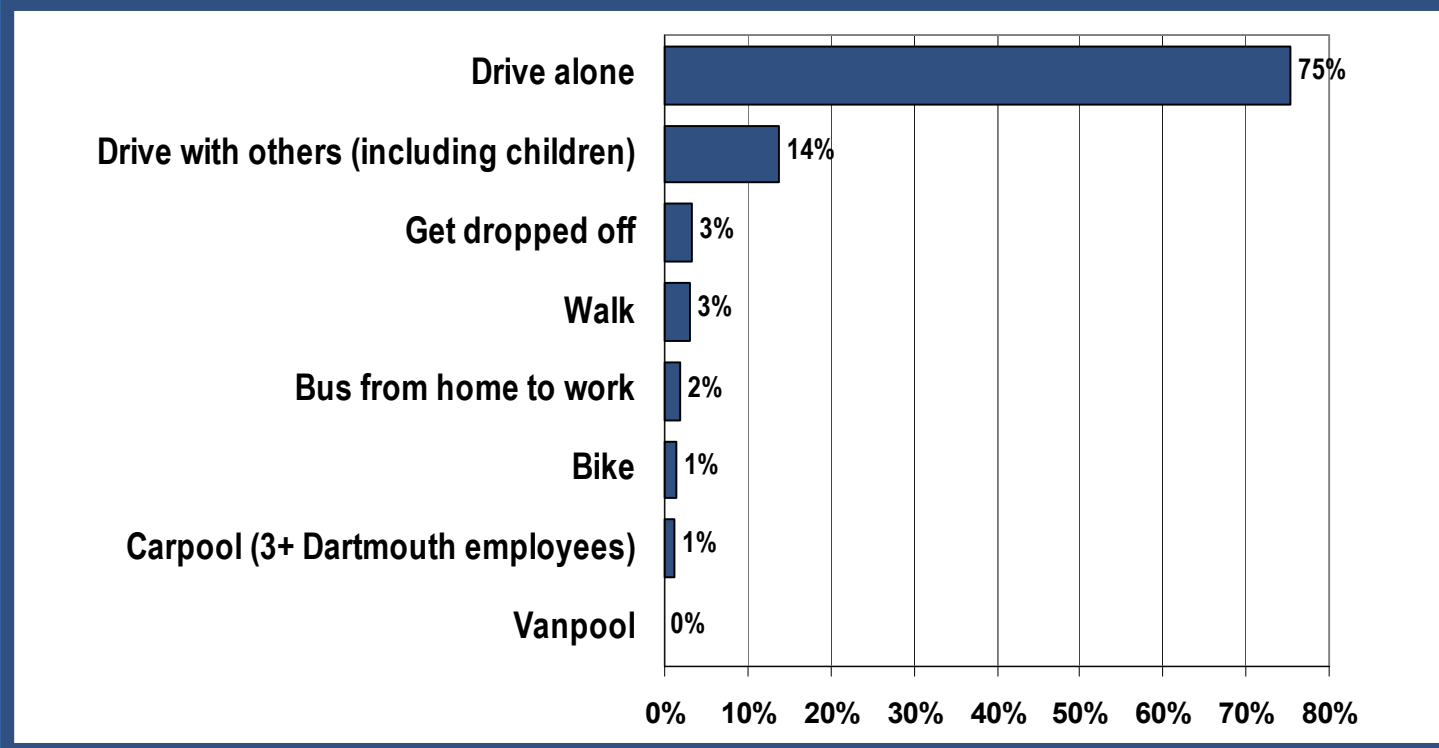


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Survey Results

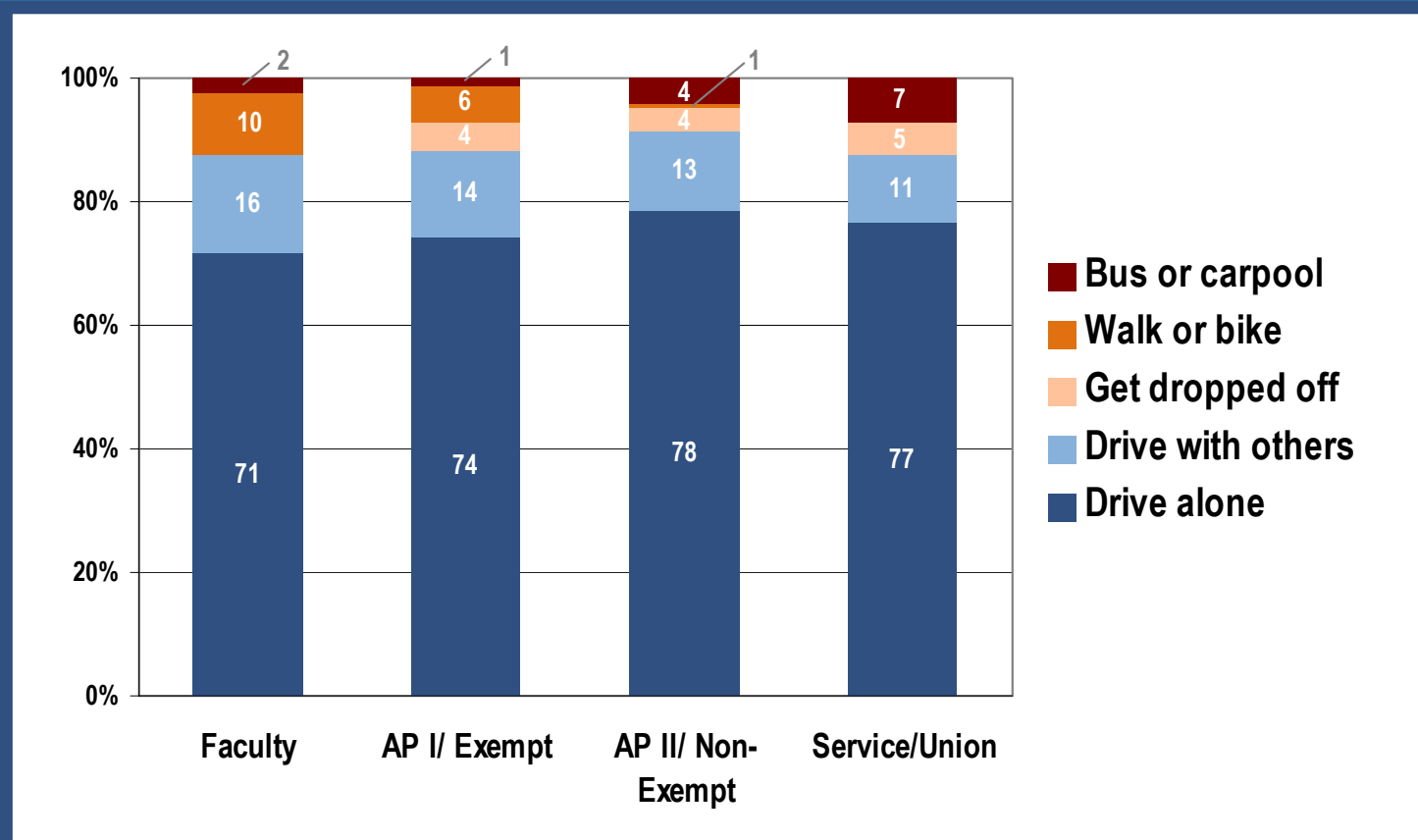
Commute Method

- ◆ Most respondents work on campus
- ◆ Almost 95% of Dartmouth employees get to and from work by car



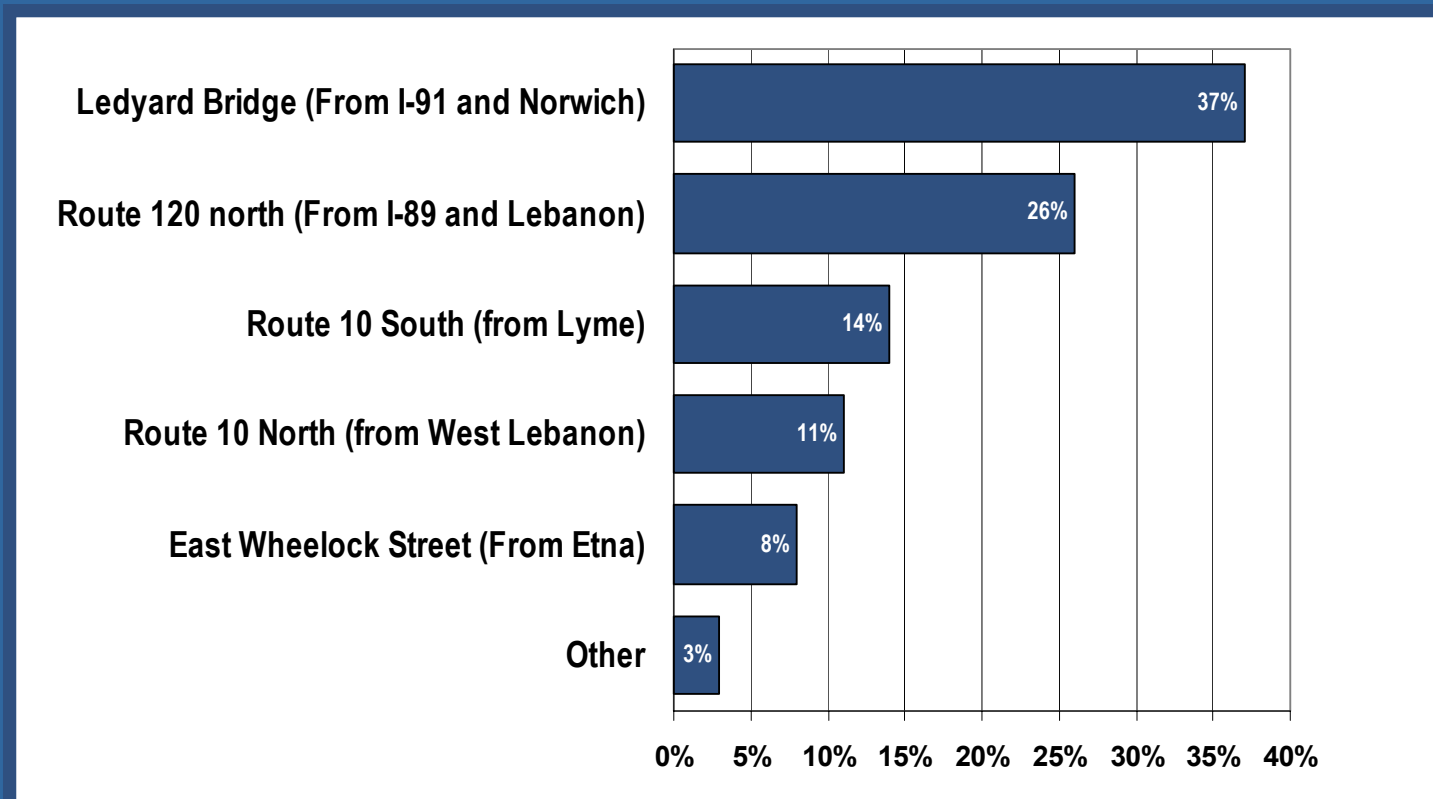
Commuting Mode Share

- ◆ Highest drive-alone share (78%): AP II/Non-exempt
- ◆ Lowest drive-alone share (71%): Faculty



Commuting Route

- ◆ The two most used routes are Ledyard Bridge & Rt.120; both have moderate to heavy congestion

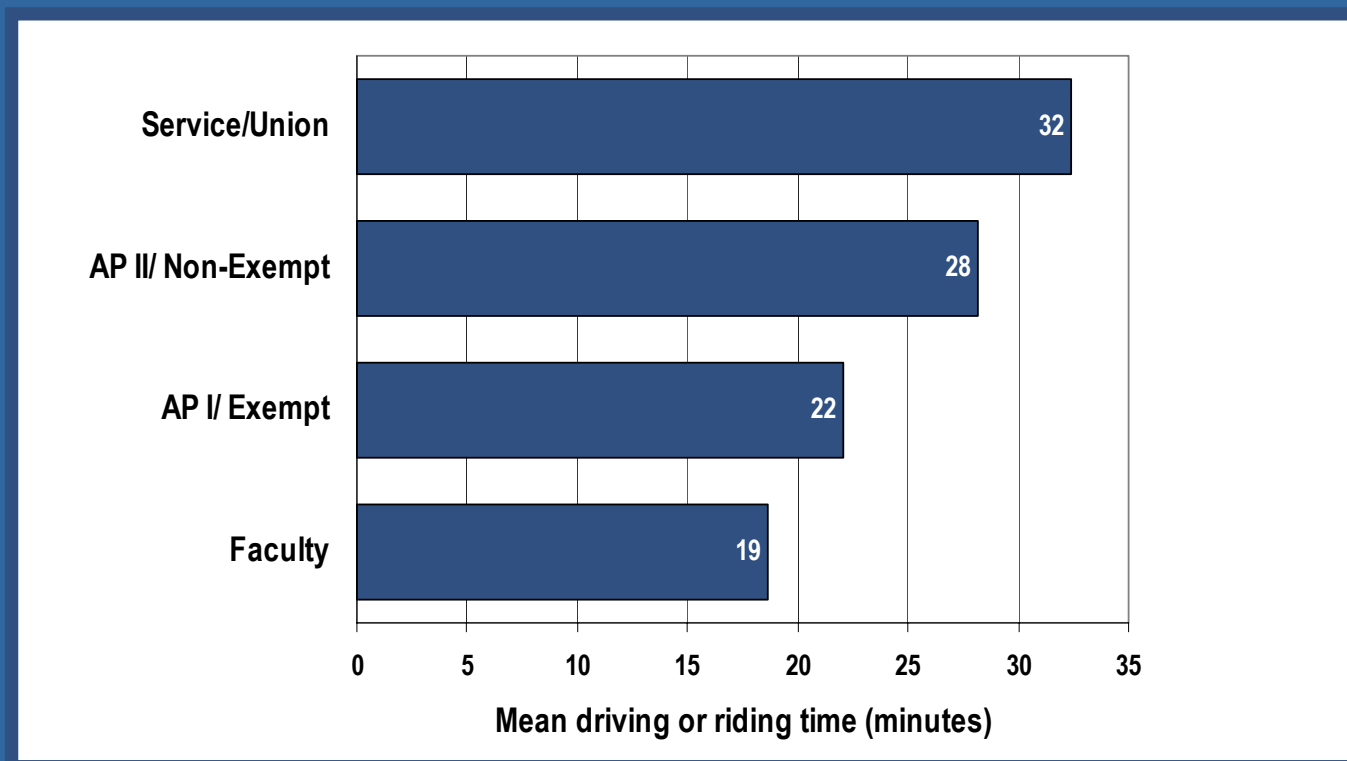


Time of Day of Travel

- ◆ 80% arrive at work at 7-9 AM and leave at 4-7
- ◆ 26% choose work hours to get a parking spot
- ◆ 21% choose work hours to avoid traffic

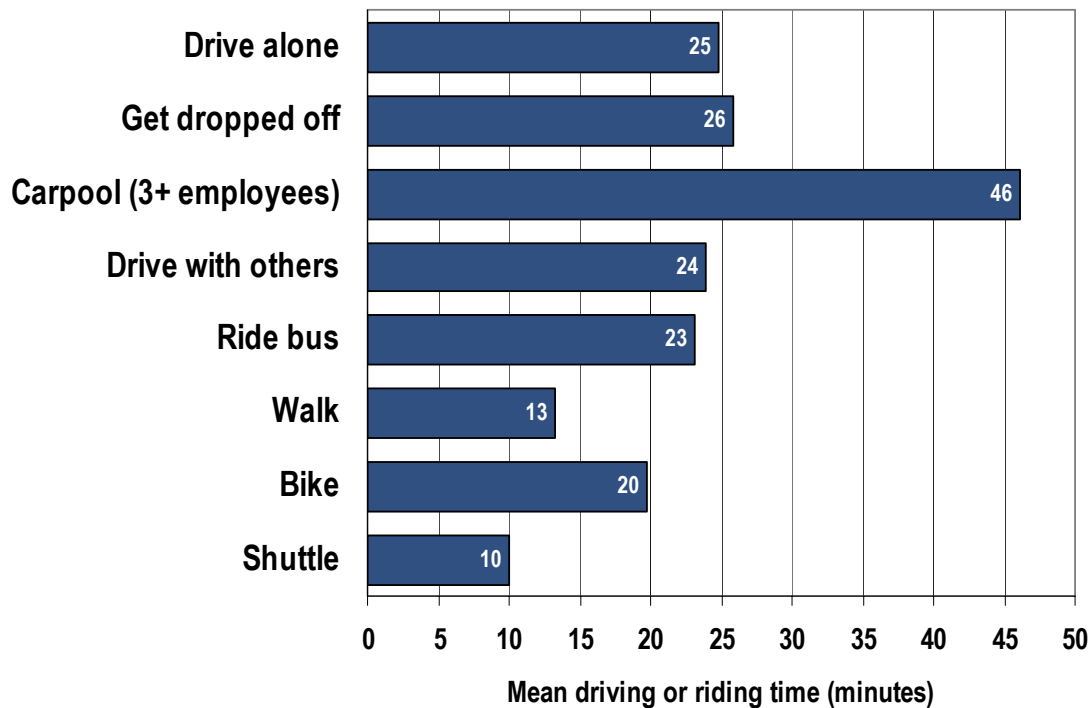
Travel Time

- ◆ Median total time driving or riding is about 25 min.
- ◆ Slightly longer than the national average of 20 min.



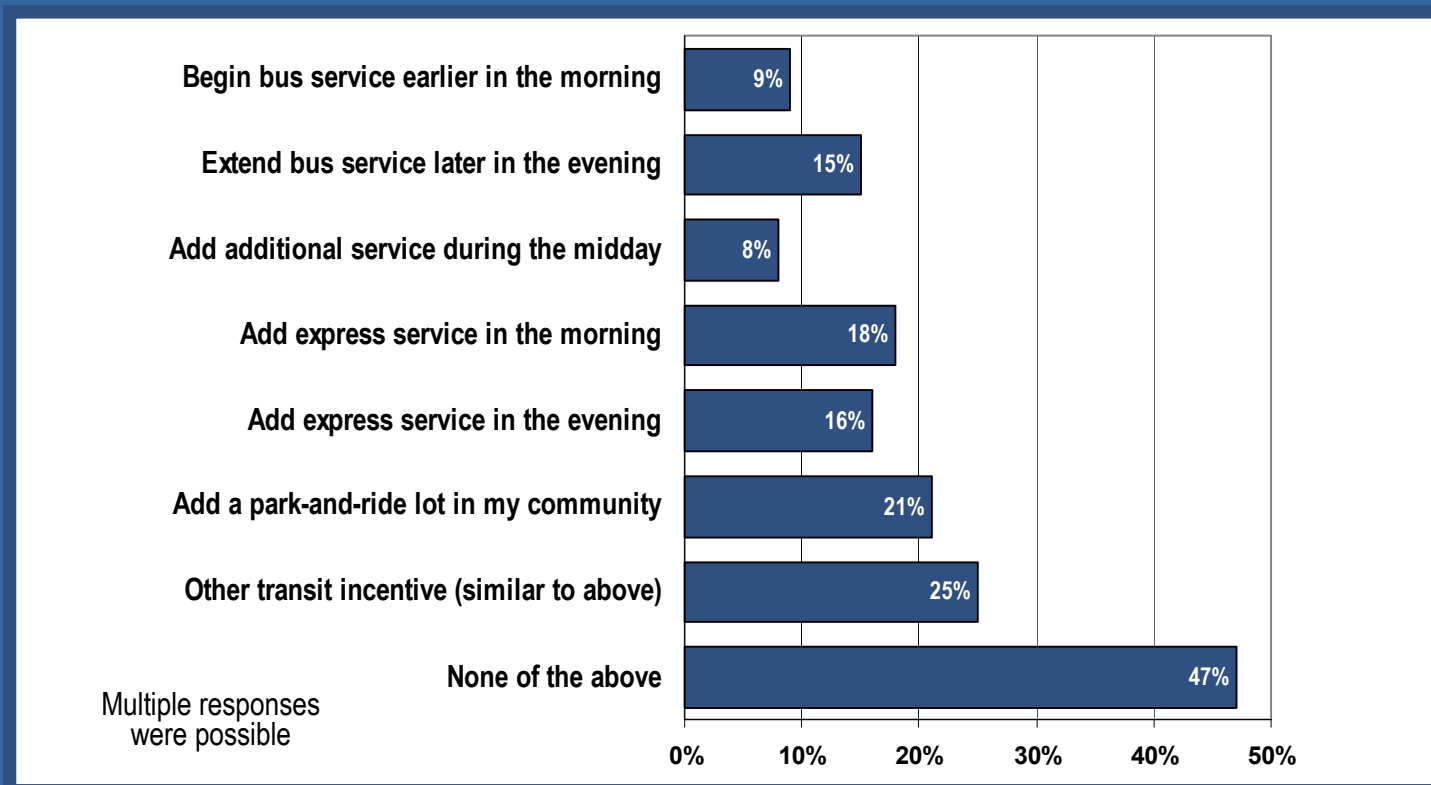
Travel Time by Commuting Mode

- ◆ Carpoolers live farther away and have a longer ride
- ◆ Those who walk or bike live close to Dartmouth



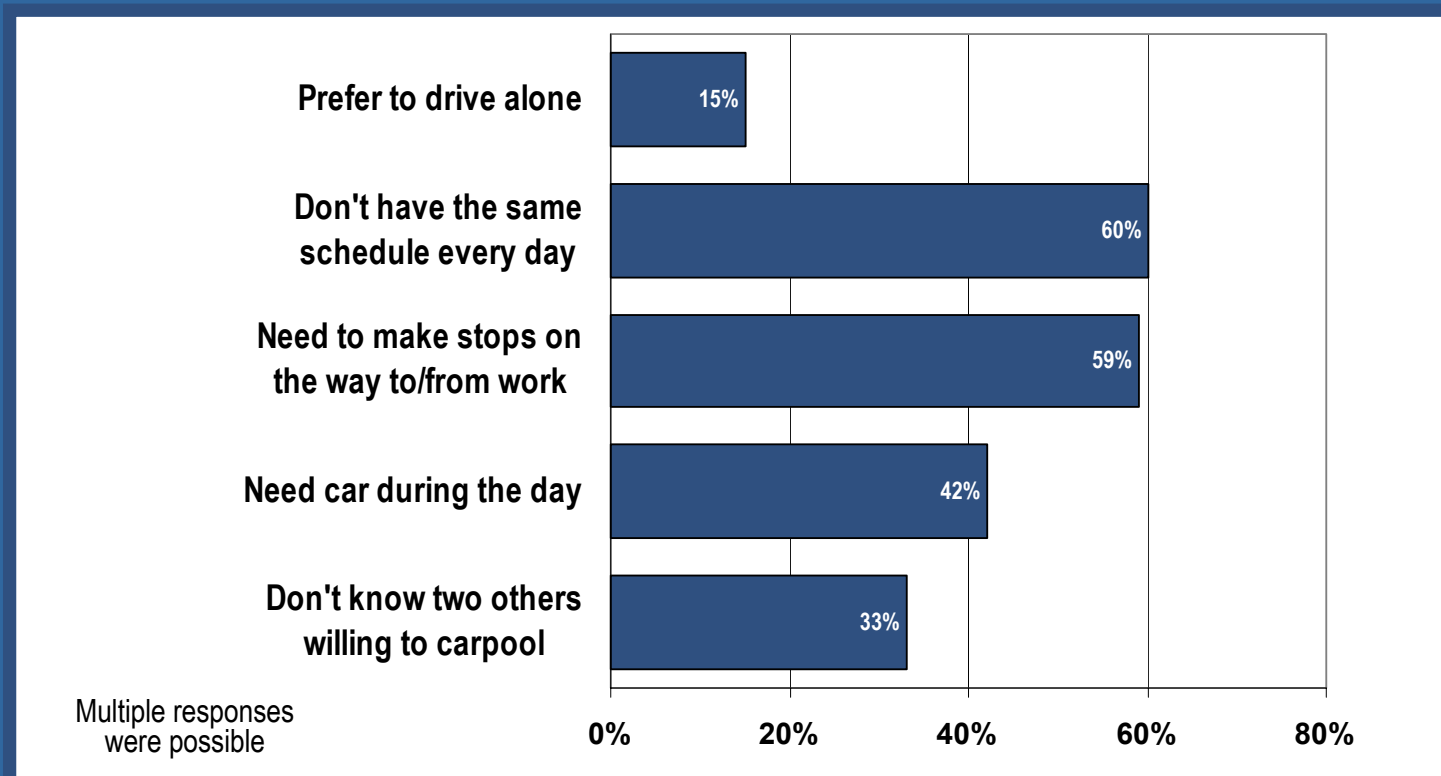
Bus Use Incentives

- ◆ Of those who used car, 23% said it was possible to use bus
- ◆ For more than half of respondents, service improvements help induce bus use



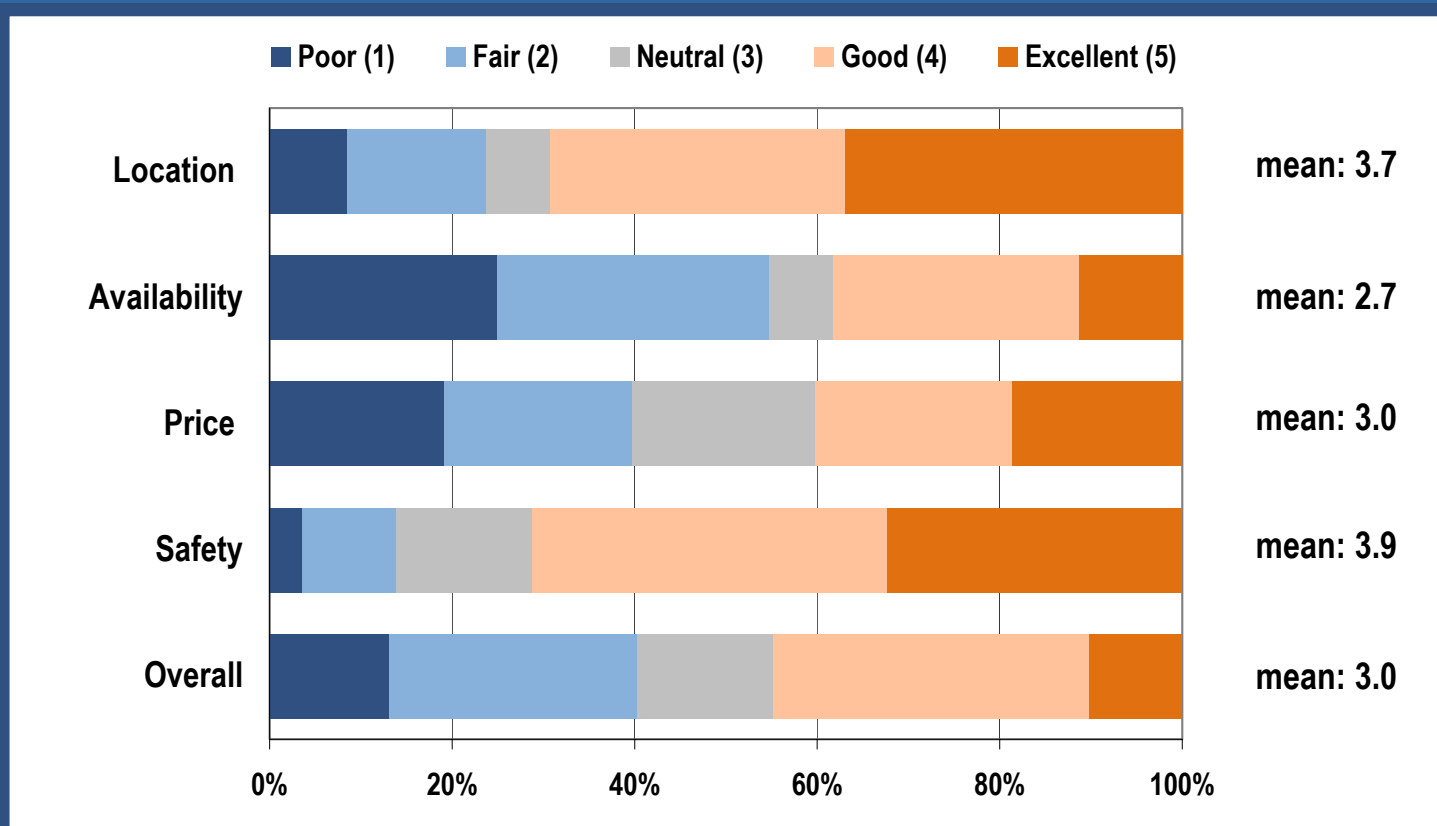
Reasons for Not Carpooling

- ◆ Of those who use car but don't carpool, changes and stops made to and from work are common reasons



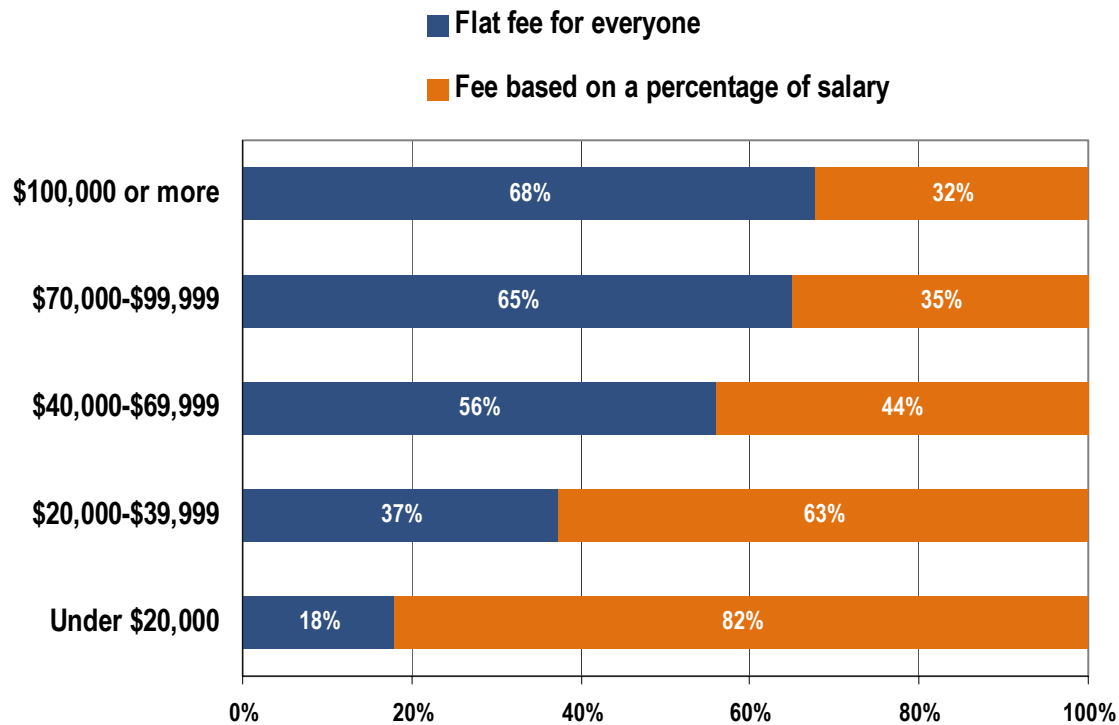
Existing Parking System

- ◆ Mixed ratings of the existing parking system
- ◆ Location and safety scored highest



Preference for Parking Fee

- ◆ Overall, 48% of the sample prefer a flat fee for 52% prefer percentage of salary
- ◆ Preferences differ by income





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Commuter Fringe Benefit Market Estimates

Assumptions about future alternatives

The Dartmouth College Parking Survey



Dartmouth College is considering making changes in its parking and transportation system to offer more options for the future. Some changes may have already occurred by the time you read this survey. Changes include:

▲ Improved shuttle and bus service:

- Increased shuttle service to and from existing parking lots
- Free use of Advance Transit bus service for all employees
- New shuttle service that circulates through nearby neighborhoods
- New Express Bus service for outlying communities that runs to and from conveniently located Park & Ride lots with shelter and phones

▲ Increased registration fees for parking on campus (to reflect increased costs)

▲ Benefits to employees who register to get to and from work by walking, bicycling, taking public transit, or carpooling (with a total of at least 3 employees per car):

- Guaranteed ride home in an emergency (by taxi)
- "Voluntary Commuter Fringe Benefit", a cash payment in your paycheck
- Passes that allow carpoolers or bus riders to drive alone and park on campus a limited number of days per month

Attributes Tested

The Dartmouth College Parking Survey



In the next section you will be presented with a variety of possible future situations. For each situation you will have information about:

- ▲ Voluntary Commuter Fringe Benefits amount (amount you would get in your paycheck if you don't park on campus)
- ▲ Number of daily parking passes per month you would get if you don't park on campus
- ▲ How often free shuttle bus service through your neighborhood would run
- ▲ Monthly parking fee (amount it would cost you to register to park), which will be based on your annual salary. Please select the category below that represents your annual salary to find out what your parking fee might be in the future:
 - Under \$20,000
 - \$20,000-\$39,999
 - \$40,000-\$69,999
 - \$70,000-\$99,999
 - \$100,000 OR MORE
 - DECLINE TO PROVIDE SALARY (Note: Salary information will be used only to show you possible situations you might face in the future. If you decline to provide your salary, a default value will be used that may not accurately reflect the costs and benefits that would apply to you in the future.)

Example trade-off question

How would you get to work?

Option 1: REGISTER TO PARK

Parking fee is \$21 per month

I would :

- continue to DRIVE

Option 2: REGISTER FOR VOLUNTARY COMMUTER FRINGE BENEFIT

You get 2 parking passes per month

Commuter fringe benefit is \$65 per month

Free bus service includes shuttle service that
circulates through your neighborhood every 30
minutes

I would:

- get DROPPED OFF
- CARPOOL (in a carpool of 3 or more people)
- VANPOOL
- WALK
- BIKE
- take FREE BUS



Information in **this color** changes for
each situation

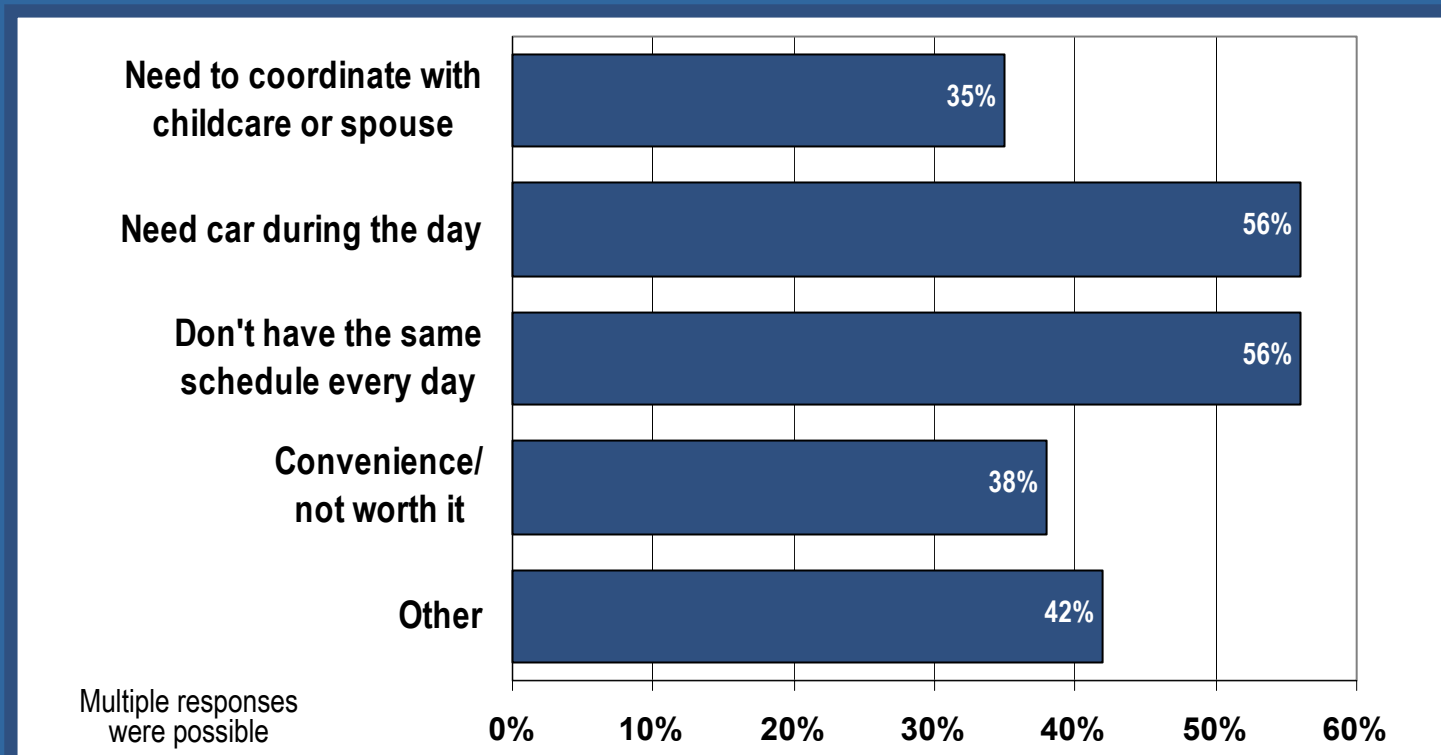
Situation **1** of 9

Commuter Fringe Benefit Market

- ◆ 15% to 45% could be persuaded to enroll, program details
- ◆ Enrollment level is particularly sensitive to parking levels
- ◆ Less sensitivity to benefit dollar amount or number parking day passes:
 - ◆ Doubling parking fee doubles the enrollment
 - ◆ Doubling benefit dollar amount increases enrollment by one-third
 - ◆ Increasing number of day passes from 2 to 6 increases enrollment by one-third

Commuter Fringe Benefit Debrief

- ◆ Of those who never chose the commuter fringe benefit, over half need a car during the day or too varied a schedule



Commuter Fringe Benefit (“CFB”) Scenarios

- ◆ Tested different options using statistical CFB choice model from survey data
- ◆ On-campus parking space reductions from 230 to

Parking Scenario Description	Parking Fee (0.1% salary)	# Parking Passes/mo	Benefit Amt (\$/mo)	Bus Headway (min.)	# CFB Enrollments	Net Reduction in Demand
Base CFB, New Buses	2	2	30	60	560	320
CFB w/ 4 passes, New Buses, 0.3% Fee	3	4	30	60	760	450
Base CFB, No New Buses, 0.3% Fee	3	2	30	60	450	230
Aggressive CFB, New Buses, 0.3% Fee	3	4	45	30	1,000	640
Base CFB, New Buses, 0.4% Fee	4	2	30	60	840	580

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Recommendations

Parking Program Recommendations

- ◆ Test market commuter fringe benefit program, if possible
- ◆ Develop initial CFB program for 2002/2003 year
 - ◆ \$30/month cash buyout
 - ◆ 2-4 parking passes/month
 - ◆ Provide limited new bus service
 - ◆ Increase parking fees to encourage enrollment and offset CFB
 - ◆ Cap enrollment, develop measures to deter scofflaws
- ◆ Restructure parking fees to reflect locational value
- ◆ Plan for new parking structures
- ◆ Coordinate with other area employers
- ◆ Extend commuter fringe benefit program as necessary

Parking Program Benefits

- ◆ Facilitate campus master plan
 - ◆ Reduce the amount of core campus space devoted to parking
 - ◆ Reduce the costs of providing parking to meet needs
 - ◆ Provide basis for positive findings on traffic and parking in permitting process
- ◆ Improve regional traffic conditions and environment
 - ◆ Reduce peak traffic on key commuting routes
 - ◆ Support better regional transit
 - ◆ Set example for other major employers
- ◆ Provide better alternatives for employees
 - ◆ Improve parking availability for those who choose to purchase permit
 - ◆ Give participating employees additional cash that would be spent on building new parking spaces



Questions

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