

Yale University 2008 Transportation Survey Results Summary

The Yale Transportation Options Program connects Yale community members with the resources they need to make the most sustainable and cost-effective transportation choices. The program currently provides the following incentives for using sustainable modes of transportation:

- Pre-tax savings on monthly transit expenses
- Carpool and vanpool matching services
- Discounted parking permits for carpool and vanpool participants
- A Guaranteed Ride Home Program for people who use transit, carpool or vanpool
- Three free one-day parking permits per month for people who use transit, carpool or vanpool
- Discounted Zipcar membership
- Free use of the Yale Shuttle
- A homebuyer program that subsidizes purchase of a home close to the Yale campus

Since the baseline Yale Transportation Survey was conducted in the fall of 2007, the following initiatives have been added to the menu of transportation offerings at Yale. These are described in more detail in the FY 08/09 Annual Report.

- Free parking for carpools of three or more Yale employees
- An online “Commuter Counseling” tool
- An online “Transit Feedback” tool
- “Bike to Work at Yale” workshop offered through the WorkLife series
- The first Annual “Bicyclist Appreciation Breakfast at Yale” was held
- A promotion to register with NuRide for carpool matching was launched
- 27 shared-use bikes were purchased to create a fleet of “Y-Bikes” for Yale departments
- 8 additional Zipcars were added to the Zipcar fleet

According to the results of the 2008 transportation survey, in the ensuing year, fewer Yale employees and graduate students have relied on driving alone to get to campus. In 2007 the drive-alone rate was 44 percent (44%), and according to the 2008 survey results the rate was 37 percent (37%) – **a reduction of 7 percent (7%).**

The 2008 Yale Transportation Survey was conducted primarily online, but was also distributed in paper form to those employees who do not have regular internet access at work. The survey asked faculty, staff, and graduate students about the commute modes they used to get to campus the week of October 29 – November 2, 2008 and remained online through November 12. Paper surveys were completed by November 21.

The survey asked a total of 29 questions. Questions 1 -16 pertained to the commuter and how and why they commuted to work or class. Questions 17 to 29 were targeted only to commuters who drive alone all or some of the time to campus. Commuters who did not drive alone to campus only answered the first 16 questions.

The survey method was a stratified random-sample of 997 selected from the University’s 18,443 commuting employees and graduate students as of October 2008. Yale’s full time commuting population was 7 percent (7%) less than in 2007. The survey return rate was 100% with 5 out of 6 categories reaching their respective percent target.¹ Post Doc was the only category slightly below its

¹ The categories on which the survey was stratified were: Faculty, Postdoc, Graduate/Professional Student, Managerial&Professional, Service&Maintenance, and Clerical&Technical.

target of .05%. To make up the sample, one (1) extra survey was taken from the Faculty category. In comparison to 2007, the Faculty response rate target for 2008 not only reached but significantly exceeded expectation.

In addition to providing direction for transportation initiatives, by measuring the success of Yale's Sustainable Transportation Programs on an annual basis, the survey results will stand as benchmarks to measure against itself and its peers. The following information compares the 2008 survey results of all respondents in the sample to the 2007 survey and is a synopsis of the full report.

Background Information

The gender and age questions were optional, yet the vast majority of respondents—96.6% and 96% respectively, voluntarily answered the questions. Approximately 59.2% were female and 37.4% male. There was an overall 2% drop in voluntary gender responses from 2007. However in 2008 slightly more females (.7%) answered the question while male responses decreased by 2.6% in 2008.

In the 2008 survey, the age question followed a similar rank order for the first two categories as compared to 2007. For the second year, the 19-29 age-category ranked number 1 at 35.5%, an increase of 2.6%, followed by 30-39 at 20.9%, with a slight decrease of 1%. However, in 2008 the 40-49 and the 50-59 categories switched ranking order. The 40-49 increased to 17.4%, up by 1.6% moving the category up to third rank, and the 50-59 dropping to fourth place at 14.3% decreasing by 2.7%.

Approximately 42% of all respondents commute from zip code 06511 (New Haven). When the additional New Haven zip codes are combined, (06510, 06515, 06513), the overall New Haven representation increases to represent half (50.45%) of the survey respondents. This percentage is 1.8% less than in 2007 (52.3%), however. Hamden (06517) represents the second highest commuting zip code at 5.1%, a dramatic drop to second place. When all Hamden zips are combined (06518, 06514) the percent almost doubles to 10%, but remaining significantly less than New Haven. Overall, Hamden's representation was slightly higher in 2008 (0.8%). The rest of Yale's commuting population is spread over the remaining zip codes with the next highest percent at 3.7% and lowest at 0.01%.

The top three work/class sites for the second year in a row were: Central/New Haven Green/Whitney Ave., at 34.3% (1.4% less than 2007); the School of Medicine, at 28.8% (3.6% less than 2007); followed by the Science Hill/Divinity site at 22.7% (a 7.1% increase from 2007). With additional sites provided, this year only 3.9% selected "other" as a description for their Yale worksite. This represents a drop of 8.1% in the "other" category from 2007—making the addition of site selections on the 2008 survey well worth it.

The Commute

37% of all commuting trips to campus were by Single Occupant Vehicle (SOV) in 2008—a 7% reduction from the previous year, with 8% using a form of ridesharing, an increase of 2% since 2007. Therefore approximately 45% of the trips to campus were in a vehicle, an overall reduction of 5% in vehicle use. In addition, 22% of commuters traveled on public transit (a 3% increase); 9% commuted by bike (a 4% increase); 23% walk (no change from 2007); and 2% telecommuted, up 1% from 2007.

Of those who drive to campus and chose to answer the questions concerning their vehicle, 17.7% drive a mid-size vehicle (a 3.5% reduction since 2007); 17.4% drive a small economy vehicle (a 1.4% reduction since 2007); and 8.5% of the commuting population drive a sport utility vehicle or truck (1.4% fewer people than in 2007). 1.9% of respondents who drive to campus drive a Hybrid/alternative fuel vehicle (a 0.2% increase over 2007). The gross average miles per gallon are

26 mpg (of those who drive and who responded to the question) a slight increase in miles per gallon since 2007. However, this year the question on the web allowed each individual to write in their actual mileage (after looking it up, if necessary), rather than by selecting a mileage range. This may account for a more accurate calculation of mpg in 2008. When the paper survey answers (which only had ranges to choose from) were removed, the mpg is less than 2007 at 21 mpg.

50.65% of respondents arrived at their campus destination during the commonly known peak hours of 8 am to 9 am, a 4.2% increase over the percentage in 2007 of 46.44%. For the corresponding commute home during the afternoon peak hours of 5 pm to 6 pm, 39.52% (a 2.61% increase since 2007) leave work/class during this time frame.

The 2008 survey was changed to allow respondents to select a specific number of miles (one way) to campus, by way of a drop down menu. In 2007, the mileage was selected from ranges. The drop down menu in 2008 allowed individuals to choose a number between 1 and 40 miles as their one way distance to campus, or to choose 40+. This allowed for a more accurate count in 2008 than in 2007. 73% of the respondents commuted up to 10 miles each way in 2008, compared to 55% in 2007. In 2008, 60.88% of the respondents selected a commute time of 11 to 30 minutes one way compared to 63% in 2007.

Similar to the 2007 survey, almost a quarter (24.27%) of the respondents were “very satisfied” with their commute, with only 6.68% dissatisfied. The majority, or 66.6% of respondents, fell somewhere in-between. In 2008, 69.81% of the respondents indicated they would not change their commute just because of weather or season, a drop of approximately 6% from 2007. On the 2008 survey only 54%, (compared to 58% in 2007) feel safe on campus after dark.

Driving to Campus

The top 5 reasons for driving to campus ranked in a similar order of importance as in 2008 with #2 and #3 switching rank by just 0.4%. They are:

1. Hours on campus are irregular 22.2%
2. Driving alone takes less time 17.4%
3. Need car for errands or appointments 17%
4. Public transit doesn't work for me 13.6%
5. Need car in case of emergencies 11.9%

The two interesting changes were in rank 4 and 5: “Public transit doesn't work for me” decreased by 3.7% and “Need car in case of emergencies” decreased slightly by 1.8%.

In 2008 there were 4 alternatives that respondents deemed “Very Likely” to encourage them to try an alternative commute, and all were tightly clustered within the 11 percentile. They are:

1. More frequency on the Yale Shuttle (11.94%)
2. Flexible hours to accommodate transit, carpool or vanpool schedule (11.84%)
3. Additional Yale Shuttle stops (11.33%)
4. Free parking for carpools and vanpools (11.13%)

Of interest is the increase in interest in flexible hours for alternatives and free parking for ridesharing. What makes these two new top choices compelling is that they are also ranked at 11.33% and 11.23% respectively in the “Somewhat Likely” category. When the “Somewhat Likely” category is included, the combined percents are higher than the “more frequency on the shuttle” and “additional shuttle stops” percentage response of “Very Likely” and “Somewhat Likely” taken together.

Parking

27.08% of respondents who drive to campus parked in a Yale lot or garage, down slightly from 28.6% in 2007. Interestingly, in 2008 15.45% claimed they parked "somewhere else." this response rate is down 3.05% from 18.5% in 2007. Also there was a slight decrease (1%) from 9.65% to 8.73% of respondents who indicated they paid to park at a non-Yale lot or garage. More than half of the potential respondents who drive alone to campus did not answer this question.

The re-wording of the question posed to people who drive to campus and park regarding what might influence a change in their behavior brought higher response rates than a similar question in 2007. According to the 2008 survey, 12.34% of respondents indicated they would stop regularly driving alone to campus if it they could pay for daily parking in a convenient location at \$8 a day when they need their car; 17% would ride the CTTransit buses for free, and 10.63% would stop regularly driving alone if they could receive a \$45 discount on their train pass.

For the second year, approximately a third of the respondents who drive some or all of the time to campus continue to be unaware that Yale offers three (3) free 1-day parking permits/month to registered carpoolers and transit riders, that there is a Guaranteed Ride Home program for employees registered for car/vanpools or transit, or that there is free parking for 3 (or more)-person carpools. On a positive note, there is an increase in awareness of the pre-tax savings to employees who use transit.

Travel Among Campuses

52.96% of all respondents, an increase of 4.36% from 2007, travel among the various campus locations with 18.15% going between campuses at least 2-4 times a week (up from 15.6% in 2007), followed by 15.95% traveling 1 -2 times a day (down from 16.6% in 2007), with a significant increase in walking (43.33% in 2008 and 22.5% in 2007), with 27.38% using the shuttle (significantly up from 16% in 2007), followed by 13.64% driving, up from 11.8% in 2007.