

San Jose State University  
Associated Students Transportation Solutions  
Fall 2002  
Student Commute Survey

Phase 2 Final Report

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## Background

The San Jose State University (SJSU) Transportation Solutions (TS) conducted its second student commute survey in the fall of 2002 to obtain information that allows staff to monitor the trends of student commute patterns. This survey was a follow up to the student survey conducted in the Fall of 2001. It is also intended to provide performance data for the Transportation Fund For Clean Air (TFCA) grant that TS received from the Bay Area Air Quality Management District (BAAQMD) in 2001-02.

Currently there are major plans underway in downtown San Jose that will seriously impact the already difficult parking conditions for University students. The survey provided data on the number of days students commute each week, primary commute mode, one-way commute distance and commute time, and pertinent demographics.

The survey information will also be used to assess the Transit Access Program (TAP) between San Jose State University and Santa Clara Valley Transportation Authority (VTA). The TAP was first implemented in 1994 in order to promote student use of transit as an alternative to driving to the campus. The fee for the program is part of each student's registration fees paid each semester. Students receive a sticker, which is placed on their Tower Card (student I.D.). By showing this to drivers when boarding VTA buses and light rail, SJSU students are allowed to travel free throughout the VTA system for the duration of the sticker's validity, which is one-half year.

## Methodology

The survey was conducted by randomly sampling classes offered at the university in Fall 2002. A 21-question survey instrument was passed out to all the students at the beginning of each of the selected classes. TS designed the survey questionnaire and the Office of Institutional Planning and Academic Resources (Institutional Research ) at SJSU constructed the form and printed 1,700 surveys in bubble-scan format. The same office provided the list of classes that were included in the sample. With the help of student volunteers from the Environmental Resource Center (a department of Environmental Studies) at SJSU, TS administered the survey in the selected classrooms during the weeks of September 23 to October 11, 2002. From these classes 1,387 surveys were completed. The surveys were then scanned and tabulated. Based on the enrollment at SJSU and the number of surveys returned, the results are statistically valid at the 95%  $\pm$  3% confidence level.

The Summary of Key Results is followed by the tables and analysis that discuss the results of the survey. Table numbers generally correspond to the same numbered question in the survey.

## Summary of Key Results

- TS is known among 78% of the population. In the Fall 2001 survey, just over one-third of the students (37%) were aware of Transportation Solutions. This year the percentage of students who have heard of TS or TAP climbed to 78%. This is significant and shows that the program has made major strides in its outreach on the campus.
- The most common method of learning about Transportation Solution services was by mailed brochure (40%.) This was followed by learning from the informational letter that was sent to all students, at 29%.
- Most SJSU students have yet to take advantage of Transportation Solutions services. Since freshmen had only been at the university for about a month when this survey was conducted, it is a positive result that one in three has already used the services. This is slightly higher than the average (32%) for all classes combined. Seniors reported the highest level of use (36%) and sophomores the lowest (25%.)
- About half of all students choose to drive as their primary commute mode, with 50% either driving entirely or driving to an SJSU Park & Ride lot and hopping on the shuttle. This percentage has dropped 10% from the 60% recorded last year.
- The overall transit usage (local + regional lines) rose to 16% from 13% last year. VTA bus and light rail ridership rose to 12.8% from 9.0%. Getting a ride or carpooling with other students is the mode selected by 11.2% of student commuters, up 1.6% from 9.6% a year ago. Walking accounts for just under 18% of the commute trips, a 3% increase since last year.
- Most encouraging in the survey was the mode choice of students before and after they had utilized TS services. 68% of the students drove alone before they used Transportation Solutions. This number of drive-alone commuters plunged to less than 7% after using TS. Increased VTA ridership (13% climbing to 71%) and carpool use (4% rising to 11%) were the beneficiaries of this major change in modes.
- Just under 60% of all students know about “Spare the Air Days.”
- Of those students who said they were aware of “Spare the Air Days,” about one in five chooses an alternative commute mode because of a BAAQMD announcement.
- Most students have a car available to get to the campus. Nearly 85% of students always have access to a car and another 8% sometimes have access. VTA commuters have a car always available about two-thirds of the time. That they nonetheless choose to use VTA for their commute to SJSU is encouraging.
- The average commute distance was 15.2 miles for all commute modes. The average commute distance for students who use VTA was 11.5 miles.

## Results

### 1. Do you have a car available for getting to SJSU?

Table 1

	Survey Count	Survey %	VTA Users %	Other Transit Users %
Always	1161	84.6	64.5	51.5
Sometimes	115	8.4	20.3	22.7
Never	96	7.0	15.2	25.8
<b>Total</b>	<b>1372</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Most students have a car available to get to the campus. Table 1 shows that nearly 85% of students always have access to a car and another 8% sometimes have access. After looking at the data in greater detail, one finds the results by gender are almost identical. As would be expected, freshmen have the lowest access to cars. Just over 76% of them always have a car available, with 14% never having access to a car for their trip to SJSU. On the other hand, seniors (87%) and graduate students (95%) are most likely to always have access to a car with only 5% of seniors never having access to a car.

Comparing car availability for the whole survey versus those who use VTA or other transit to commute to campus shows that, not surprisingly, transit commuters have less opportunity to use a car. VTA riders (those who commute by VTA bus, light rail, or exclusively on Express Bus 180) have a car always available about two-thirds of the time. That they nonetheless choose to use VTA for their commute to SJSU is encouraging. About half of other transit commuters (ACE train, Amtrak, BART plus Express 180, Caltrain, and Highway 17 Express) have a car available all the time. Over a quarter of other transit users never have a car available.

## 2. In a typical week, how do you come to the SJSU campus?

Table 2a  
(Week Total - Monday through Sunday)

	Survey Count	Survey %
ACE train	4	0.1
Amtrak / Capitol Corridor / ThruBus	8	0.1
BART + Express Bus 180	46	0.7
Express Bus 180 (VTA) only	33	0.5
Bicycle	145	2.3
Bus (VTA)	391	6.1
Light rail (VTA)	400	6.2
Caltrain	81	1.3
Carpool with other students	486	7.6
I get dropped off	233	3.6
Drive alone	2840	44.3
Drive to Park & Ride Lot, take SJSU shuttle	331	5.2
SJSU shuttle from Esplanade or Spartan Village	111	1.7
Highway 17 Express	50	0.8
Motorcycle	27	0.4
Outreach (VTA)	6	0.1
Skateboard / roller blade / scooter	4	0.1
Walk (live on/near campus)	1149	17.9
Other	67	1.0
<b>Total</b>	<b>6412</b>	<b>100.0</b>

*Total may not equal 100% due to rounding.*

Table 2a shows the mode choices for students commuting to the SJSU campus. Students do not necessarily commute every day of the week, often only coming to campus on days that they have classes. Students' class schedules may vary from day to day, which may influence their commute mode choice. The table shows the combined trips to campus for the entire survey week. Most trips are made between Monday and Thursday. Table 2a shows the commute mode choice by day of week.

About half of all students choose to drive as their primary commute mode, with 50% either driving entirely or driving to an SJSU Park & Ride lot and hopping on the shuttle. This percentage has dropped 10% from the 60% recorded last year. Walking accounts for just under 18% of the commute trips. With the campus located in downtown San

	Mon	Tue	Wed	Thur	Fri	Sat	Sun	Total
Ace train	0%	0%	0%	0%	0%	0%	0%	0.1%
Amtrak/Capitol Corridor/ThruBus	0%	0%	0%	0%	0%	0%	0%	0.1%
BART + Express Bus 180	1%	1%	1%	1%	1%	1%	1%	0.7%
Express Bus 180 (VTA) only	1%	1%	0%	1%	1%	0%	0%	0.5%
Bicycle	2%	2%	2%	2%	3%	3%	3%	2.3%
Bus (VTA)	6%	7%	6%	6%	6%	5%	4%	6.1%
Light Rail (VTA)	6%	6%	6%	7%	6%	6%	5%	6.2%
Caltrain	1%	1%	2%	1%	1%	1%	1%	1.3%
Carpool with other students	8%	8%	8%	9%	6%	3%	3%	7.6%
I get dropped off	4%	4%	4%	3%	3%	3%	4%	3.6%
Drive alone	44%	46%	45%	45%	44%	40%	37%	44.3%
Drive to P&R lot, then take SJSU shuttle	6%	6%	6%	6%	3%	1%	1%	5.2%
SJSU shuttle from Esplanade or Spartan Village	2%	2%	2%	2%	2%	1%	1%	1.7%
Hwy 17 Express	1%	1%	1%	1%	1%	0%	0%	0.8%
Motorcycle	0%	1%	0%	1%	0%	0%	0%	0.4%
Outreach (VTA)	0%	0%	0%	0%	0%	0%	0%	0.1%
Skateboard / roller blade / scooter	0%	0%	0%	0%	0%	0%	0%	0.1%
Walk (live on/near campus)	16%	16%	16%	17%	21%	31%	31%	17.9%
Other	0%	0%	0%	0%	2%	7%	7%	1.0%
	100%	100%	100%	100%	100%	100%	100%	100.0%
n =	1279	1278	1304	1221	778	285	267	6412

Jose, an area well served by VTA, local transit use - bus and light rail - rose to 12.8% from 9.0% last year. The overall transit ridership (local + regional lines) is about 16%, a 3% increase from last year. Getting a ride or carpooling with other students is the mode selected by 11.2% of student commuters, up 1.6% from 9.6% a year ago. Slightly over 1% of students use Caltrain. Weekday mode choice does not change much from day to day except that on Friday, fewer students carpool and more students walk. Over all walking to campus has increased by 3% since fall 2001. This suggests that more students are moving near campus. On the weekend, walking to campus jumps from 18% of trips to 31% of trips. This is to be expected, as students who live on or near the campus would be much more likely to use SJSU facilities on the weekend.

Exact comparisons to the result from the Fall 2001 survey are not possible, as the commute mode questions were changed in 2002 to improve the detail of commute data. Nonetheless, it can safely be said that driving to campus has decreased by about 10% in the past year. It also appears that use of the SJSU Park & Ride Lot has decreased.

Drive alone commuters are defined as any survey respondent who stated that they drive to the SJSU campus at least one day per week. A quick look at drive alone commuters, including motorcycles, shows:

- Males and females drive alone at a similar rate, 59% to 57%, respectively.
- Students who are employed part time drive alone more than those who are employed full time or not employed. 53% of drive alones are employed part time while 18% work full time and 29% are not employed.
- Graduate students, at 67%, drive alone the most. They are followed by seniors (62%), sophomores (58%) and juniors (55%). Freshmen drive alone at a lower rate of 42%.
- Drive alone rates generally increase by age. From a low of 38% for 18 year olds, the rate climbs to a rate of over 60% by age 22, with a highest rate of 78% for those 51 or older.
- No major difference in drive alone rates was noted by ethnicity. Every ethnic group reported about 50-60% who drive alone. Though American Indian had 78% driving alone, this percentage was based on only 9 survey respondents. African American was the lowest with 50% driving alone.

As in the definition of a student who drives alone, a VTA user is a survey respondent who stated that they make their trip to the SJSU campus at least one day per week using VTA bus, light rail, or Express Bus 180 without connecting from BART. A look at VTA use reveals that:

- Females and males are using VTA at exactly the same 50% rate.
- Students who work part time or are not employed use VTA more than students who work full time. 49% work part time, 40% are not employed, and 11% work full time.
- Freshmen had the highest rate of VTA ridership at 19%. They were followed closely by graduate students at 18%. 17% of seniors use VTA, with juniors (15%) and sophomores (13%) using VTA the least.
- Hispanics and "other," at 23%, use VTA much more often than other ethnic groups. VTA is used by about 17% of Pacific Islanders and Caucasians. The other ethnic groups in the survey, African American, American Indian, Asian, and Filipino all have about a 12% VTA ridership level.

3. Your direct trip to SJSU usually starts from:

**Table 3a**  
(Week Total - Monday through Sunday)

<b>Trip Origin</b>	<b>Survey Count</b>	<b>Survey %</b>
Home	5466	90.5
Work	379	6.3
Other	195	3.2
<b>Total</b>	<b>6040</b>	<b>100.0</b>

Table 3a shows the summary results of Question 3 in the survey. Over 90% of students begin their trips to the campus from their homes. Students who come from their job are more likely to drive to SJSU. This is partly because many work locations are not well-served by transit and students need to come to SJSU quickly after work. Further, many of these students are taking evening classes when availability of transit for their trips home becomes more limited.

**Table 3b**  
(Trip Origin Percentages - Monday through Sunday)

<b>Trip Origin</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>	<b>Sunday</b>
Home	92.7%	88.0%	90.8%	89.8%	92.3%	89.7%	88.7%
Work	4.9%	9.3%	6.7%	7.0%	4.3%	2.2%	1.4%
Other	2.4%	2.8%	2.5%	3.1%	3.4%	8.1%	9.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

## 4. How far in miles is your one-way trip to SJSU?

Table 4

	Survey Count	Survey %	VTA %
0 miles	25	2.1	1.5
1 - 5 miles	334	28.2	37.2
6 - 10 miles	308	26.0	25.5
11 - 15 miles	172	14.5	16.3
16 - 20 miles	71	6.0	5.6
Over 20 miles	275	23.2	13.8
<b>Total</b>	<b>1185</b>	<b>100.0</b>	<b>100.0</b>

*Totals may not equal 100% due to rounding.*

Table 4 shows grouped distances of students' one-way commutes to the SJSU campus for the entire survey and for those who use VTA as a commute mode. The average commute distance was 15.2 miles for all commute modes. The average commute distance for students who use VTA was 11.5 miles. The majority of students (56%) commute 10 miles or less one-way. This means that many could take transit for their journey and not add a great amount of time to their commute when the time needed to park and walk to campus is factored in. For those who use VTA, over one-third (37%) commute between 1 and 5 miles. Another 42% of VTA riders commute between 6 and 15 miles.

Variations in commute distance by class level were evident but not surprising. Freshman commute shorter distances, with 41% commuting 5 miles or less. Miles traveled increases generally as class level increases. The percentage of those commuting more than 10 miles is lowest for freshmen at 36%, increasing incrementally to 51% for graduate students.

## 5. How long is your one-way trip to SJSU in minutes?

Table 5

	Survey Count	Survey %	VTA %
0	7	0.5	0.5
1 - 10 minutes	270	20.7	12.7
11- 20 minutes	463	35.5	31.1
21 - 30 minutes	204	15.6	18.9
31 - 45 minutes	170	13.0	17.0
46 - 60 minutes	40	3.1	4.2
61 - 90 minutes	12	0.9	1.4
Over 90 minutes	140	10.7	14.2
<b>Total</b>	<b>1306</b>	<b>100.0</b>	<b>100.0</b>

Table 5 presents student one-way commute times, again presenting the entire survey results plus the results for those who commute on VTA. This table reflects the commute distances reported in Table 4. Commute times relate directly to commute distance. Over half of the respondents (57%) have a commute to SJSU of 20 minutes or less, which corresponds to the 56% of students who commute 10 miles or less. VTA riders have longer commutes than the average student in the survey. 56% of those who commute on VTA have travel times over 20 minutes. About 20% of students arriving at the university via VTA commute more than 45 minutes.

6. If you come to the university by carpooling, bus or train in Question 2, how do you get to your bus stop, train station, or carpool location?

Table 6

	Survey %	VTA %	Other Transit %	Carpool %
Walk / skateboard / roller blade / scooter	38.2	60.4	30.5	12.5
Bicycle	0.2	0.5	1.7	0.0
Bus / light rail / train / ferry	3.2	3.1	15.3	0.7
I carpool or get dropped off	18.1	5.7	18.6	45.1
Drive alone	34.0	30.2	30.5	27.1
Motorcycle	0.0	0.0	0.0	0.0
Other	6.3	0.0	3.4	14.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

*Totals may not equal 100% due to rounding.*

Question 2 on the survey asked students to name the mode(s) they use to commute to SJSU. Just over 26% of students use transit or carpool. Table 6 shows what mode these students use to get to the place where they boarded the bus or train, or made their carpool connection. The columns of Table 6 show the breakdown based on VTA only, all other transit, carpool, and survey total. Most students using VTA walk (60%) or drive alone (30%.) Students who use other transit walk and drive alone equally. For carpoolers, 27% drive alone which for many will mean they are the carpool drivers. Many (45%) state that they carpool or get dropped off at the meeting place.

7. How far do you travel to this bus stop, train station, or carpool location?

Table 7

	Survey Count	Survey %	VTA %
0 - 0.5 miles	205	55.3	50.3
0.6 - 1.0 miles	46	12.4	19.5
1.1 - 2.0 miles	36	9.7	9.4
2.1 - 3.0 miles	14	3.8	3.4
3.1 - 4.0 miles	11	3.0	4.7
4.1 - 5.0 miles	18	4.9	4.0
5.1 - 10.0 miles	25	6.7	4.0
10.1 - 15 miles	10	2.7	3.7
16 - 20 miles	2	0.5	0.0
Over 20 miles	4	1.1	1.3
<b>Total</b>	<b>371</b>	<b>100.0</b>	<b>100.0</b>

*Totals may not equal 100% due to rounding.*

For those students who use transit or carpool to campus, the survey asked them to state how far they traveled to the location where they boarded transit or met their carpool. The average distance traveled was 2.2 miles, both for VTA users and all transit and carpool modes combined. With over 50% of all trips a half mile or less, most of these locations are within easy walking distance.

8. Do you know about “Spare the Air Days”?

Table 8

	Survey Count	Survey %
Yes	818	59.1
No	566	40.9
<b>Total</b>	<b>1384</b>	<b>100.0</b>

Just under 60% of all students know about “Spare the Air Days.” Knowledge of these days with serious air quality problems generally increases for each succeeding class level. Freshmen (50%) and sophomores (48%) are least aware. The level of awareness climbs to 60% for juniors, 64% for seniors, and 69% for graduate students.

9. If yes, do you use bus, rail, bicycle, or carpool to campus because of an announced “Spare the Air Day”?

Table 9

	<b>Survey Count</b>	<b>Survey %</b>
Yes	174	21.6
No	541	67.2
Do not commute	90	11.2
<b>Total</b>	<b>805</b>	<b>100.0</b>

Of those students who said they were aware of “Spare the Air Days,” about one in five chooses an alternative commute mode because of a Bay Area Air Quality Management District (BAAQMD) announcement. Use of alternative commute modes on “Spare the Air Days” is similar for most class levels, with about 20% changing mode because of a BAAQMD announcement. The exception to this is for graduate students, where only 6% select an alternative mode on “Spare the Air Days.”

### 10. How did you hear about Transportation Solutions (TS) or Transit Access Program (TAP)?

Table 10a

	<b>Survey Count</b>	<b>Survey %</b>	<b>2001 Survey %</b>
Have not heard of TS	304	22.1	63.3
Brochure	442	32.1	10.5
Campus fair / tabling event	43	3.1	0.6
Email	59	4.3	n.a.
Friend / classmate / colleague	97	7.0	5.6
Mailed letter	322	23.4	13.4
Poster / signs	40	2.9	1.8
Spartan Daily	50	3.6	3.2
Student orientation	75	5.4	n.a.
Web site	46	3.3	1.7
Other	48	3.5	2.7
<b>Total Respondents</b>	<b>1378</b>		
<b>Total Responses</b>	<b>1526</b>		

*Percentages based on number of respondents. Multiple responses were allowed.*

Students were asked how they had heard of Transportation Solutions. Table 10a presents the results for all students. TS is known among 78% of the population. In the Fall 2001 survey, just over one-third of the students (37%) were aware of Transportation Solutions. This year the percentage of students who have heard of TS or TAP climbed to 78%. This is significant and shows that the program has made major strides in its outreach on the campus.

## How did you hear of Associated Students Transportation Solutions(TS)? [Table based only on those who had heard about the program.]

Table 10b

	<b>Survey Count</b>	<b>Survey %</b>	<b>Frosh %</b>	<b>Soph %</b>	<b>Jr. %</b>	<b>Sr. %</b>	<b>Grad %</b>
Brochure	442	40.3	30.1	36.4	42.7	43.8	34.2
Campus fair / tabling event	43	3.9	3.2	4.0	3.1	4.6	4.1
Email	59	5.4	7.5	6.9	5.1	3.1	9.6
Friend/classmate/ colleague	97	8.8	14.0	9.2	9.6	7.9	2.7
Mailed letter	322	29.3	28.0	31.2	28.5	28.2	38.4
Poster / signs	40	3.6	4.3	0.6	3.4	4.9	2.7
Spartan Daily	50	4.6	4.3	4.6	3.4	5.4	2.7
Student orientation	75	6.8	9.7	8.7	6.8	6.4	2.7
Web site	46	4.2	3.2	4.6	3.7	5.1	2.7
Other	48	4.4	6.5	1.7	4.2	4.6	5.5
<b>Total Respondents</b>	<b>1098</b>						
<b>Total Responses</b>	<b>1222</b>						

*Percentages based on number of respondents. Multiple responses were allowed.*

By taking the results in Table 10a and selecting only those who had heard about the program, Table 10b shows that most (34%) learned about TS from the letter mailed to them at the beginning of the semester.

The most common method of learning about TS was by brochure. Of those who knew of the program, just over 40% learned of it through this means. This was followed by learning from the informational letter that was sent to all students, at 29%. Just under 5% of students found out about it from the Spartan Daily.

There is a difference between genders. Female students are much more likely to have learned about the program by way of the letter, 34% compared to men at 25%. On the other hand, male students are much more likely than female students to have learned about the program from a brochure (44% verses 37%.) Almost 10% of freshmen and 9% of sophomores learned of the program at student orientation. Overall, about two-thirds of each class level learned about TS from two main sources: a brochure or a mailed letter.

11. Have you ever used the TS or TAP services?

Table 11

	Survey Count	Survey %	Frosh %	Soph %	Jr. %	Sr. %	Grad %
Yes	438	31.9	33.1	25.0	30.5	35.9	29.6
No	935	68.1	66.9	75.0	69.5	64.1	70.4
<b>Total</b>	<b>1373</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Most SJSU students have yet to take advantage of Transportation Solutions services. There is no difference to the responses to this question based on gender. Variations by class level are also not large. Since freshmen had only been at the university for about a month when this survey was conducted, it is a positive result that one in three has already used the services. This is slightly higher than the average (32%) for all classes combined. Seniors reported the highest level of use (36%) and sophomores the lowest (25%.)

One fact to note is the percentage of students who have used TS based on car availability. Only 28% of those who have a car available all the time have used Transportation Solutions. This compares to 52% of those who sometimes have a car available and 51% of those who never have a car available.

12. If you have used TS or TAP services, what was/is your mode of transportation to campus before/after?

Table 12

	Before Count	Before %	After Count	After %
Bicycle	8	2.0	12	3.0
Carpool	15	3.8	44	11.2
Drive alone	275	68.8	26	6.6
VTA bus/light rail	50	12.5	280	71.1
Regional bus/train	6	1.5	16	4.1
Walk	30	7.5	14	3.6
Other	16	4.0	2	0.5
<b>Total</b>	<b>430</b>	<b>100.0</b>	<b>394</b>	<b>100.0</b>

*Totals may not equal 100% due to rounding.*

Most encouraging in the survey was the mode choice of students before and after they had utilized TS services. 68% of the students drove alone before they used Transportation Solutions. This number of drive-alone commuters plunged to under 7% after using TS. Increased VTA ridership (13% climbing to 71%) and carpool use (4% rising to 11%) were the beneficiaries of this major change in modes. Most dramatic was the mode shift of freshmen. 3% of those who came to TS were using VTA for their transportation to SJSU. After using TS, 71% of these freshmen were using VTA.

In exploring results from those students who used Transportation Solutions, we see that there are some differences in how they learned about TS. 36% of students who used TS found out about TS through the brochure versus 40% in the entire survey. Categories that showed a significant increase were: hearing from a friend (13% versus 9% overall) and student orientation (10% versus 7%.)

Students who drove alone to campus before using TS learned of the program in nearly the same manner as all others who used the program. Slightly more learned by means of the brochure (39%) and the mailed letter (32%.) Fewer (7%) learned at the student orientation. It must be noted that Survey Question 11 did not differentiate between drive alone commuters and commuters who drove to the SJSU Park & Ride Lot.

It is interesting to look at those students who actually changed modes. 39% of students who learned about TS from the web site changed their commute mode. About one in three who learned by campus fair (33%), friend or classmate (35%), or student orientation (31%) made a shift in commute mode. At 20%, learning of TS through a poster/sign showed the lowest mode shift, with brochure registering 24%, mailed letter 29%, and email 29%.

The demographic characteristics (class level, employment, gender, ethnicity, etc.) of students who stated that they knew about but did not use Transportation Solutions were not significantly different from the characteristics of all survey respondents. The main difference was that these students travel a bit further to campus. 26% travel 5 miles or fewer versus 30% for the entire survey group. 3% more (29% compared to 26%) travel 6 to 10 miles to SJSU.

### 13. How did you receive your TAP sticker to validate your Tower Card (Student ID)?

Table 13

	Survey Count	Survey %
By mail before class started	868	64.6
By mail after class started	111	8.3
Picked up at Student Services Center before class started	60	4.5
Picked up at Student Services Center after class started	57	4.2
I never received my TAP sticker	240	17.9
Other	8	0.6
<b>Total Respondents</b>	<b>1344</b>	<b>100.0</b>

*Total may not equal 100% due to rounding.*

Students were asked how they had received their TAP sticker. Table 13 presents the results for all students. Nearly two-thirds of the students (65%) received their sticker in the mail before classes commenced. Almost 18% of those surveyed stated that they had not received their TAP sticker. It is not clear whether they really didn't receive them or they simply do not know that the sticker on their Student I.D. is the TAP sticker. In particular, 29% of freshmen stated they didn't receive their sticker, which was about double the percentage for sophomores, juniors, and seniors. Graduate students also reported a high rate (27%) of not receiving the sticker.

14. If you use bus or light rail, or carpool to campus, select the **THREE MOST IMPORTANT** reasons for doing so:

Table 14

	Survey Count	Survey %
Have no other way	162	28.0
Ability to use Student ID Card	145	25.0
Because of "Spare the Air Day" announcements	19	3.3
Allows someone else to use the car	65	11.2
Avoid traffic and parking hassles	404	69.8
Costs less	270	46.6
Good for the environment	115	19.9
Saves time	139	24.0
Other	51	8.8
<b>Total Respondents</b>	<b>579</b>	
<b>Total Responses</b>	<b>1370</b>	

*Percentages based on number of respondents. Multiple responses were allowed.*

Students who take the bus or light rail or carpool to SJSU were asked to state the three most important reasons why they do so. Avoiding traffic and parking hassles was named most often, with 70% of respondents mentioning it. Almost half (47%) said it was important that those alternative modes costed less. 28% of the respondents had no other way to get to campus. This means they live too far away to walk or bike to SJSU and do not have a car available to drive alone. Freshmen were the most dependent on these transportation modes. Almost 40% of freshmen surveyed stated that they had no other mode of transportation. This dependence slowly shrinks with each class, with graduate students being the least dependent at 18%.

## 15. Your employment status:

Table 15

	Survey Count	Survey %	2001 Survey %
Employed full time	199	14.6	15.3
Employed part time	709	52.0	48.1
Not employed	455	33.4	36.6
<b>Total</b>	<b>1363</b>	<b>100.0</b>	<b>100.0</b>

Most students work either full time or part time as seen in Table 15. The numbers of working female and male students are nearly identical. Juniors, seniors and graduate students work the most. About 70% of each group is employed. Of all the class levels, freshmen work the least with just under 50% employed.

## 16. Where do you work?

Table 16

	Survey Count	Survey %
Not employed	333	27.6
On campus	95	7.9
Within walking distance of campus	29	2.4
Off campus	720	59.7
Other	29	2.4
<b>Total</b>	<b>1206</b>	<b>100.0</b>

Most students are employed and work off campus. Except for freshmen, at 45% off campus employment, about 60% of students in each class level work off campus.

Tables 17 through 21 present demographic information that was collected in the survey. Gender and class level have been used throughout this report in order to evaluate any differences of student commuting, Transit Access Program use, and knowledge of Transportation Solutions based on these categories. Ethnicity and age were asked on the survey but were not used as evaluation categories. Discussion accompanies these four tables only where relevant.

## 17. Your class level:

Table 17

	<b>Survey Count</b>	<b>Survey %</b>	<b>Fall 2002 SJSU Enrollment</b>	<b>2001 Survey %</b>
Freshman	129	9.4	15.7	10.9
Sophomore	212	15.4	8.1	8.3
Junior	432	31.5	18.1	26.8
Senior	474	34.5	26.6	40.5
Graduate	111	8.1	23.4	11.7
Continuing Education/ Open University	11	0.8	2.0	1.3
Other	4	0.3		0.6
<b>Total</b>	<b>1373</b>	<b>100.0</b>		<b>100.0</b>

*Total may not equal 100% due to rounding.*

Table 17 contains both the results of the class level question on the survey and the actual distribution of students at the university by class in the Fall 2002 semester (Source: SJSU Institutional Research). The percent differences in class levels between SJSU enrolment and the surveys may be due to the survey sample that included fewer night classes.

## 18. Your age:

Table 18

	Survey Count	Survey %	2001 Survey %
12	1	0.1	0.0
17	9	0.7	0.2
18	94	7.0	8.0
19	158	11.7	8.1
20	182	13.5	8.7
21	222	16.5	12.0
22	152	11.3	14.2
23	116	8.6	10.2
24	86	6.4	6.7
25	48	3.6	5.0
26 - 29	119	8.8	12.0
30 - 39	104	7.7	9.9
40 or over	56	4.2	5.0
<b>Total</b>	<b>1347</b>	<b>100.0</b>	<b>100.0</b>

There is no Table 19. Question 19 on the survey asked for the home zip code of the respondent. This information is used by Transportation Solutions to plot distances students live from SJSU.

## 20. Your sex:

Table 20

	Survey Count	Survey %	2001 Survey %
Male	686	51.0	50.6
Female	660	49.0	49.4
<b>Total</b>	<b>1346</b>	<b>100.0</b>	<b>100.0</b>

## 21. Your ethnicity:

Table 21

	Survey Count	Survey %	2001 Survey %
African American / Black	50	3.8	3.8
American Indian / Alaskan	9	0.7	0.5
Asian	410	31.5	36.3
Filipino	134	10.3	8.0
Hispanic	177	13.6	13.3
Pacific Islander	17	1.3	1.8
White	411	31.6	26.2
Other	93	7.1	10.0
<b>Total</b>	<b>1301</b>	<b>100.0</b>	<b>100.0</b>

*Total may not equal 100% due to rounding.*