A Community Survey of Wheels Service Area Households

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Introduction

Methods

A telephone survey of adult respondents in seven-hundred households was conducted in the communities of Livermore, Pleasanton and Dublin in March, 2007. The sample was selected by a random-digit-dial method using the Genesys Sampling System[tm.] This method assures accurate random representation of all working telephone numbers within a fixed geographic area, including numbers that are not published and numbers that are too recently installed to appear in standard listings.

A sample of this size has a sample error variation of ±4% at the 95% level of confidence. This means that one can be 95% confident that the percentages shown are accurate within ±4%.

The sample was stratified, and includes a sub-sample of 400 potential riders defined by their attitudes toward using public transit. (When the sample of 400 potential riders is used alone, the sample error is ±5%.) Specifically potential riders are those who say they would be very likely or somewhat likely to use Wheels at least once a month if service came within a "block or two of your home and ran directly to within a block or two of where you need to go anywhere in the Tri-Valley area." We have found in many similar studies that this simple type of question provides a useful starting point for segmenting members of the public in terms of their potential to become users of public transit.

In the final sample, corrections were made by weighting to allow for disproportions introduced by the stratification process. Therefore, we have the advantage of a larger than normal sample of the potential rider market, but at the same time, we can observe community-wide characteristics without distortion. The sample was weighted for the combination of the proportion of potential riders and the towns in which respondents reside.

Analysis was performed using the Statistical Program for the Social Sciences (SPSS) and Excel. Charts were created in Excel and placed in PowerPoint slides, which in turn were exported into this report. The charts cannot be edited within this document, but they can be copied into PowerPoint from an electronic copy of this report if desired. The original slides and data are also available to the client in electronic format.

Reasons for contrasts between the findings of the onboard survey and the telephone survey

The reader who carefully reads both this report and the companion report based on an onboard survey of Wheels riders will notice that there seem to be some differences in the behaviors and attitudes of the "current rider" segment shown in this community survey report, and those of the riders described in the onboard survey report. Both surveys are accurate.

It is important to understand the difference in both the **nature** and the **purpose** of the two studies. Therefore we digress for a moment to explain the difference. The difference in the characteristics of the riders as measured by the two surveys is explained by the very different nature of the two populations studied:

- Community telephone survey: The general adult population is represented in the telephone survey without regard to their use the local buses.

Versus:

- Onboard rider survey: Only riders are represented because they were sampled onboard Wheels buses.

Think of it this way. If you walk through a neighborhood selecting ten houses at random, one house may have a rider who rides every day, the next five no riders at all, the next four riders who ride once a month. If you board a bus, you will find only riders. Moreover, you will tend to find frequent riders since, obviously, they are the people one most often encounters on a bus.

In the general household population there are many more people who ride the buses infrequently than ride them frequently. Therefore, when we choose a sample of houses (or telephone numbers in those houses) we will find all varieties of rider frequency, but infrequent riders will outnumber frequent riders simply because we are looking at households, not at riders. But on the buses, whom will we tend to find? Frequent riders, especially because the survey occurs in a single week on-board the buses, and thus we are most likely to encounter the more frequent riders, not the infrequent riders.

The reason for sampling in this way is that in the onboard survey, we intend to reflect the typical passengers on the typical bus that one would see on a typical day. In the telephone survey, we intend to reflect not transit riders, but typical households.

Therefore, the community household survey will find anyone in the adult population who uses Wheels, regardless of the frequency with which they use Wheels. In the onboard survey, we will find more riders who are frequent riders and who thus account for more of the Wheels trips. Both perspectives are valid.

One caution on the rider sample. The rider sample in the telephone survey is very small (21 respondents). Thus it is much too small to consider reliable as a separate sample. When combined with other respondents as part of the total sample, it blends with them. *But, standing alone, the results of the rider component of the Community Survey sample can be considered suggestive, but by no means definitive*. In certain cases, when sub-sets of the market segments were being examined (e.g. potential riders, and non-riders who are employed persons) riders were simply omitted from the tables because the sub-group of riders was simply too small to even be suggestive of a result. *For **definitive** rider results, we must turn to the onboard survey.*

In contrast, the potential rider and non-rider samples are adequate to stand alone as comparative groups.

Wheels basics: A Local transportation profile

Let's say that Wheels' local bus service came within a block or two of your home, ran frequently, and ran directly to a block or two of where you need to go anywhere in Tri-Valley area. Thinking realistically, how likely would you be to use a Wheels Bus once a month or more -- very likely, somewhat likely, not very likely, or definitely would not?

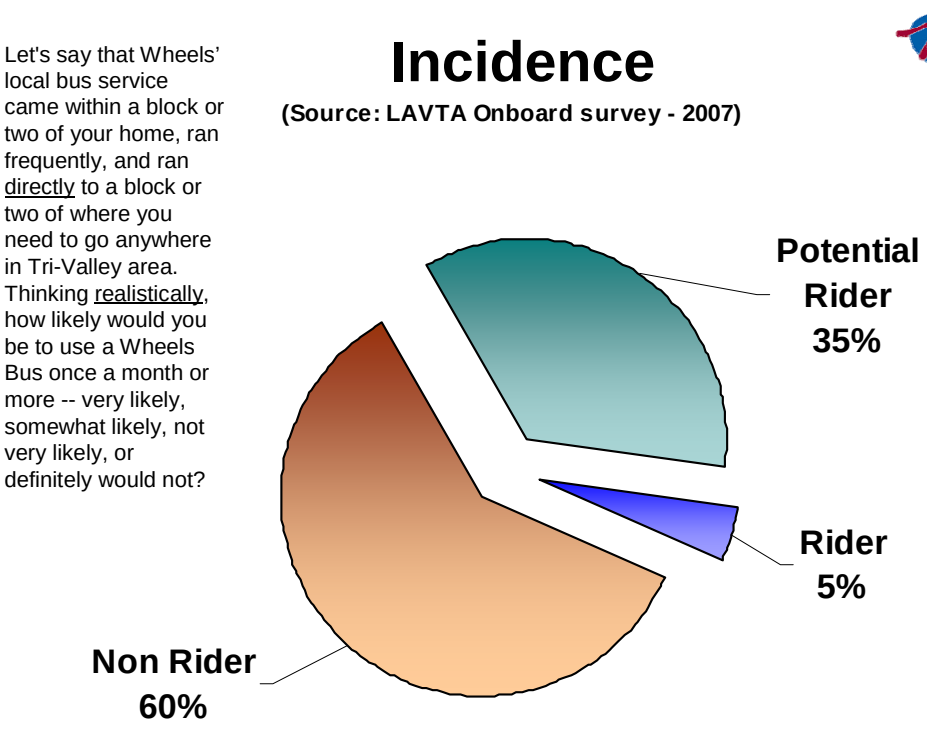


Figure 1 Incidence

The basic transit market segments

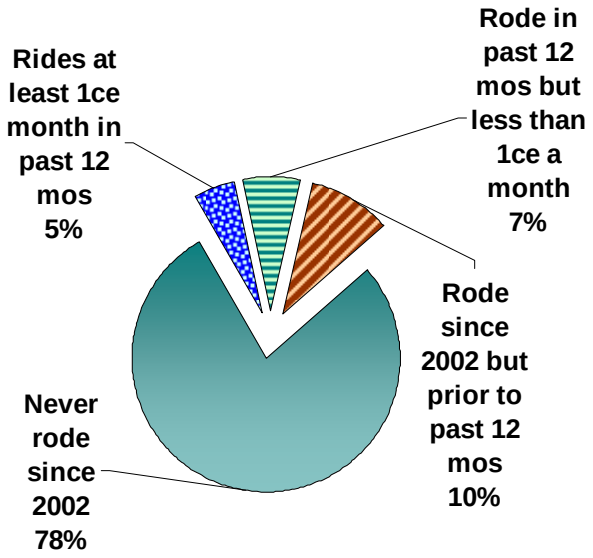
The Wheels service area population is defined by five Zip Codes. The Zip Codes are 94550, 94551, 94566, 94568, and 94588.

Within this area, 60% of the population (down from 64% in 2002) can be considered staunch non-riders in the sense that they would not consider using transit even if it met the ideal conditions described in the question shown in the chart above. On the other hand, 5% are "riders" in that they use Wheels at least occasionally already. This percentage is statistically unchanged from the 7% saying this in 2002. Another 35% say they would be at least somewhat likely to use it under ideal conditions. The latter group is designated as "potential riders" and comprises the key market segment for ridership development. This percentage has risen somewhat from the 29% potentials found in the market in 2002.

The designation "potential rider" does not mean that they would necessarily begin riding if service were improved. It does mean that they represent the population to which improved service can be marketed. With improved service, new riders would be more likely to come from the ranks of potential riders.

Rider segment history

(Source: LAVTA Onboard survey - 2007)



	When riders ceased riding	
	% of all adults who used Wheels most recently in year shown	% of former riders who used Wheels most recently in year shown
2002	1.5%	15%
2003	1.6%	16%
2004	1.4%	14%
2005	4.3%	43%
2006	1.2%	12%

When you were using Wheels, did you use Wheels several times a week, about once a month or more, or did you use it less than once a month?	
Several times a week	19%
Occasionally	3%
Less often	77%
Do not remember	1%

Figure 2 Utilization of Wheels since 2002

USE OF WHEELS IN PAST FIVE YEARS

Utilizing Wheels

Respondents were asked if they had used Wheels service at any time during the past five years (i.e. since the previous survey), and if so, when and how often they had used it. A total of 22% said they have used Wheels at some time in the past five years. This is close to the 25% who said the same thing about the prior five years in 2002. Of this 22%, 7% have used Wheels service within the past twelve months but less than once a month (and they thus are not considered "riders"), 5% continue to use it at least once a month, and 10% said they have used Wheels since 2002 but no longer do so.

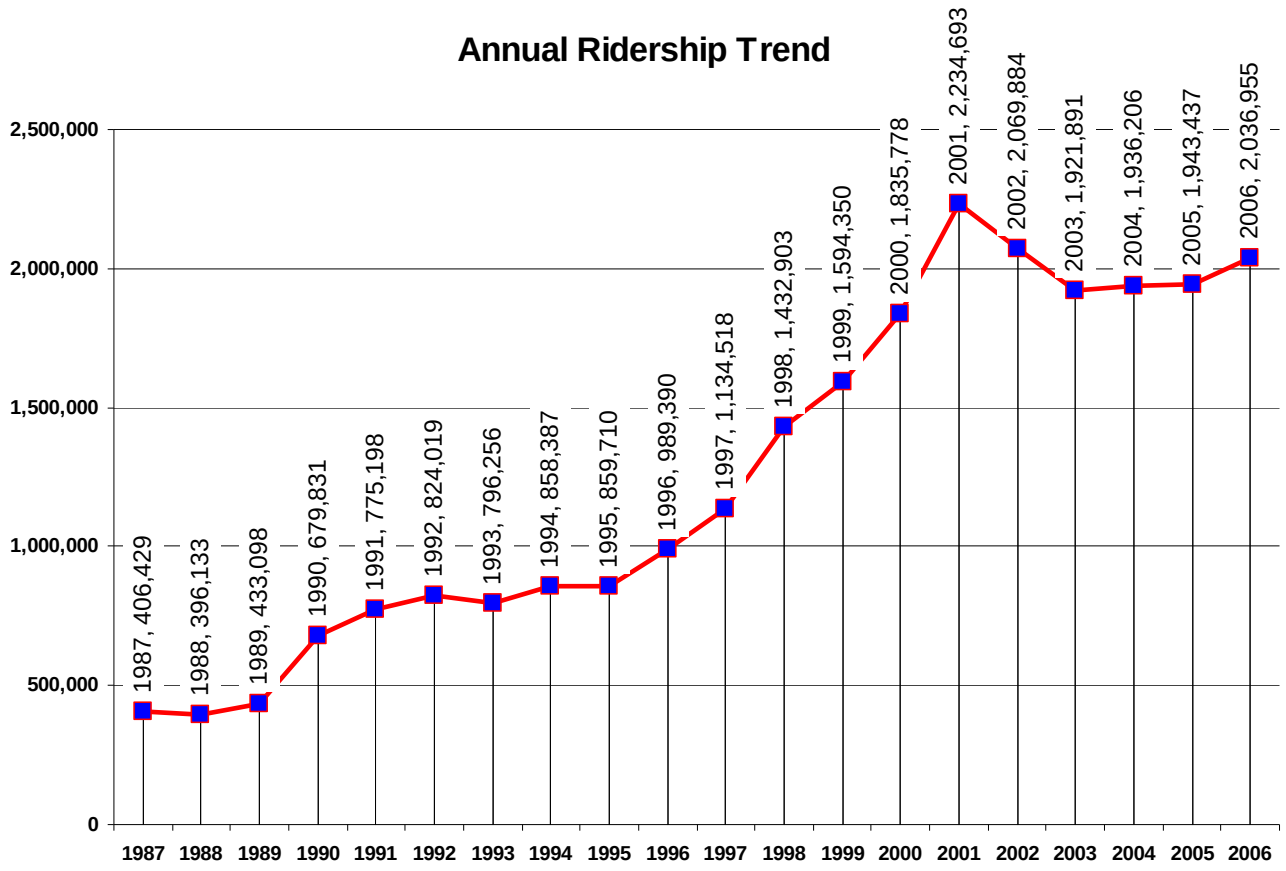


Figure 3 Annual ridership trend

Ridership growth

Ridership of Wheels has been increasing somewhat since 2003. According to the US Census, the population of Alameda County actually declined somewhat between 2000 and 2005. However, the population of Livermore as the most populous city within the service area, increased by 19% from 73,000 in 2000 to 87,000 in 2005. Pleasanton also grew, though less dramatically, from 63,600 to 67,000 (5%)[1]. Thus the increase may be somewhat explained by the increase in population in these three cities.

"Incidence," or the tendency of the general public to use Wheels (see Figure 1 and supporting text), has remained about the same statistically or possibly has declined slightly from 7% in 2002 to 5% in 2007. If we assume it has stayed the same and the population has increased, then the growth in ridership would easily be explained.

Another possible explanation is that the onboard survey indicated that the ridership is using Wheels more intensively now than in 2002. (See Onboard Survey report, pages 9 and 10). It showed that the percentage of current riders using Wheels a given number of days a week had

[1] The 2005 projections are based on the US Census community surveys and are subject to sample error of ±7% for Livermore and ±5% for Pleasanton. No projection is available from the Census for Dublin.

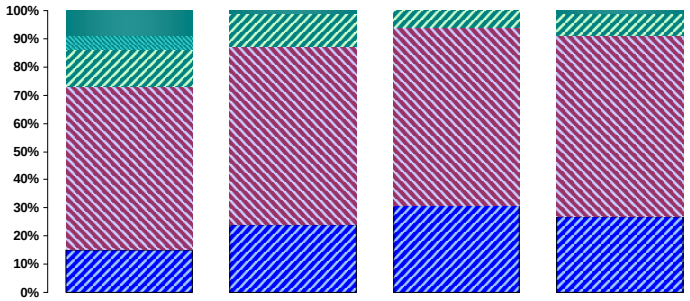
varied somewhat, but that the number of trips made per day had increased substantially. The comment in the text was:

> *Intensity of use seems to have increased since 2002, and this may account for some of the ridership increase. In 2002, only 4% said they made three trips per day and 8% said they made four or more for a total of 12% making more than just a round-trip. In the 2007 survey, a total of 23% said that on their usual day using Wheels they make three or more trips – almost double the percentage in 2002.*

Thus, the increased ridership is probably a result of a combination of population growth in the key population centers and a fairly constant incidence rate coupled with a more intense use by existing riders.

Modal choice

(Source: LAVTA Community Survey, 2007)



	Riders	Potential riders	Non-riders	All respondents
No vehicle no driver	9%	1%	0%	1%
No vehicle	5%	0%	0%	0%
More drivers than vehicles	13%	12%	6%	8%
Same number veh & drivers	58%	63%	63%	64%
More cars than drivers	15%	24%	31%	27%

Figure 4 Modal choice

Having modal choice

The LAVTA service area is relatively affluent, with a median income roughly $14,000 per year above the national norm and about $6,500 above the California norm. This affluence shows in the level of vehicle ownership among the general population. Among all adults in the Wheels service area, 98% say they have a vehicle available to them. This finding contrasts with the 31% of the regular riders surveyed during the onboard survey who said they have a vehicle (see Fig 36, Onboard Survey Report, Page 53).

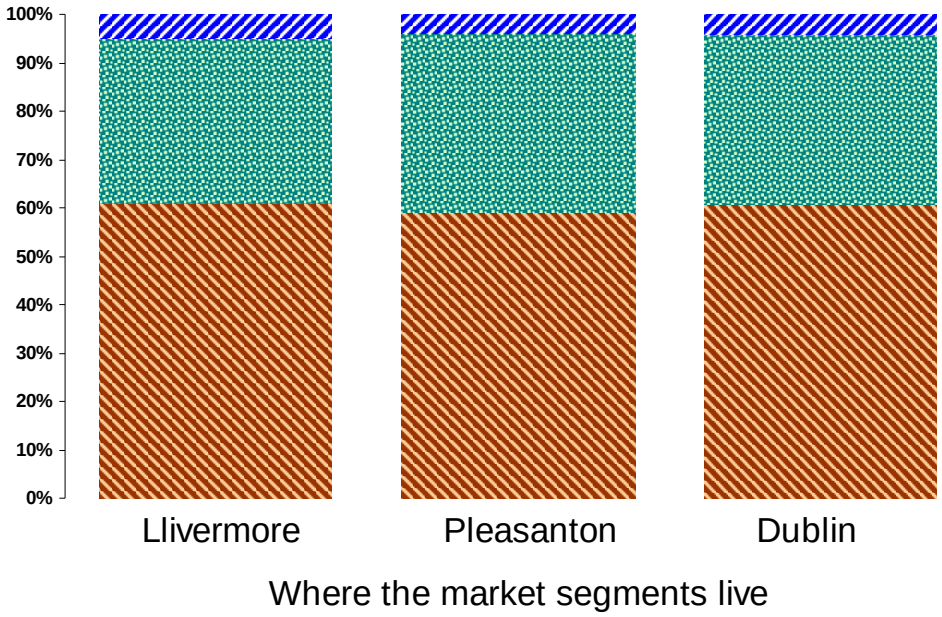
The rider data from the telephone survey shown in the figure above are quite different from those in the onboard survey for reasons noted in the introduction (see page 6). The rider sample in the telephone survey is small and, as pointed out in the introduction, can be considered only suggestive, not as definitive. It suggests that for the riders spread through the general population (including many occasional riders), most (86%) have vehicles and use Wheels by choice. Among the regular riders one meets on the buses on a daily basis however (i.e. those measured in the onboard survey) the picture is much different with only 31% saying they have a vehicle.

Among potential riders, 87% say they have a car available to them, and another 12% say they share a car (I.e. more drivers than vehicles).[2] The results for the staunch non-riders are similar to those of the potential riders, though they are more likely to have more vehicles than drivers.

[2] If the ratio of cars to drivers in a household is 1:1, the respondents is said to have full access. If there are more drivers in a household than cars (i.e the ratio of cars to drivers < 1:1), then, the person is said to share a vehicle.

Rider segment residence

(Source: LAVTA Community Survey, 2007)



	Llivermore	Pleasanton	Dublin
Riders	5%	4%	4%
Potential riders	34%	37%	35%
Non-riders	61%	59%	60%

Figure 5 The three cities and their market segments

The three cities and their market segments

The three cities of Livermore, Pleasanton, and Dublin have roughly equal proportions of riders potential riders and non-riders as the chart above shows.

Where the market segments live

Where the market segments live	Market segments: Riders	Potential riders	Non-riders
Livermore	51%	45%	47%
Pleasanton	31%	36%	34%
Dublin	18%	19%	19%

The population of Livermore is larger than the population of either of the other two cities, and the population of Pleasanton is larger than that of Dublin. Consequently almost half of the potential market (45%) live in Livermore, approximately another third (36%) live in Pleasanton, and approximately one fifth (19%) live in Dublin.

Awareness

Basic name recognition (unaided)

(Source: LAVTA Onboard survey - 2007)

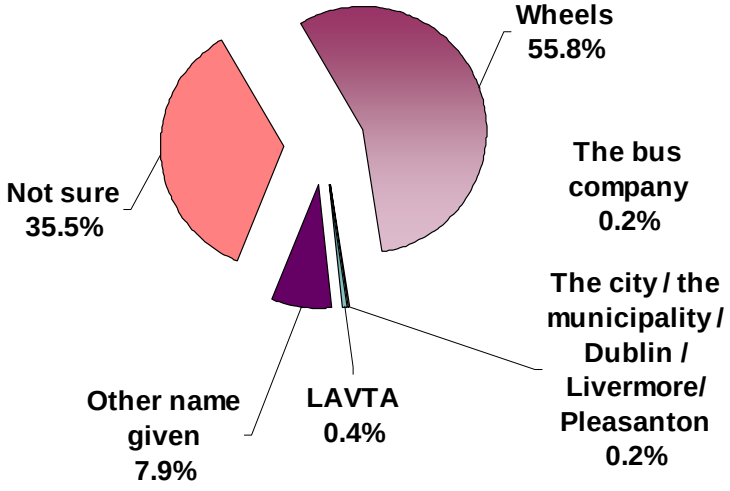


Figure 6 Awareness of transit system name

Awareness of Wheels

It is obvious, but bears repeating, that a market must be aware of a service before it can use the service. Awareness has several levels, including name-awareness and awareness of specific services.

AWARENESS OF THE "WHEELS" NAME

Of all adults in the service area, slightly more than half (55.8%, improved from 51% in 2002) are aware of the Wheels name when asked the name of the "agency that provides local bus service in the Tri-Valley area." Another small number (only .4%) cite the name "LAVTA," which is also accurate. However, the balance, 43.8%, are not aware of the name.

There is only a slight difference between potential riders and non-riders in terms of awareness of the system name. (This is not shown in the chart.) Of the potential riders, 59% knew the name Wheels, while of the non-riders, 54% knew it. Thus we know at least that almost 60% of the potential market knows the name.

COMMENT

Wheels is considering a name change. If Wheels is renamed, it will require dedicating considerable resources to a visibility effort to achieve the current level of name identification.

Awareness of basic Wheels services

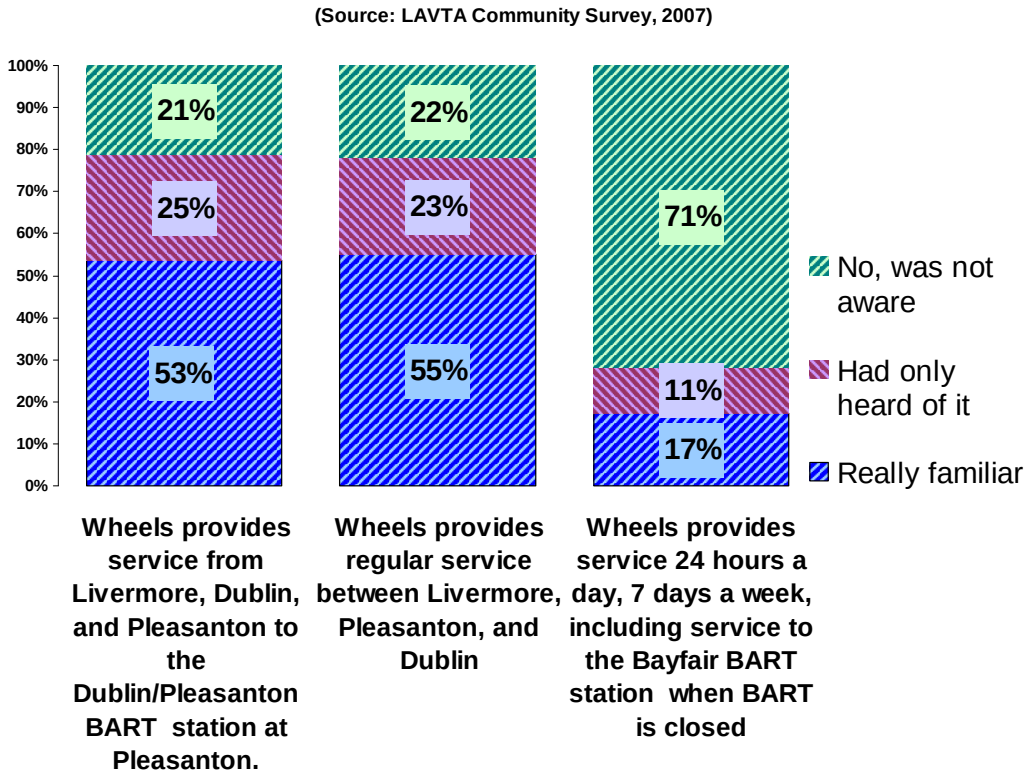


Figure 7 Awareness of Wheels' basic intra-Tri-Valley service

AWARENESS OF BASIC WHEELS SERVICES

Respondents were asked if they were aware of Wheels basic services, such as the regular service among Livermore, Pleasanton, and Dublin, service to BART, and the relatively new 24-hour service to Bayfair. More than half of the respondents said they were very familiar with the local tri-city service and were aware of the service to BART and approximately another one-fourth said they had heard of these local services. However, not surprisingly, given the newness of the service, only 17% said they were very familiar with the service to Bayfair and another 11% said they had heard of it.

COMMENT

The Bayfair service will be useful to only a limited segment of the public who would travel or commute out of the Tri-Valley at unusual hours. Assuming that word of this service spreads among current users, currently low recognition among the general public is not necessarily a major operational disadvantage. However, the idea that some service is “24/7” is potentially a major image enhancement for Wheels and thus a marketing advantage, especially when coupled with the advent of BRT service and a potential to improve system image.

Awareness of Livermore-Dublin-Pleasanton service

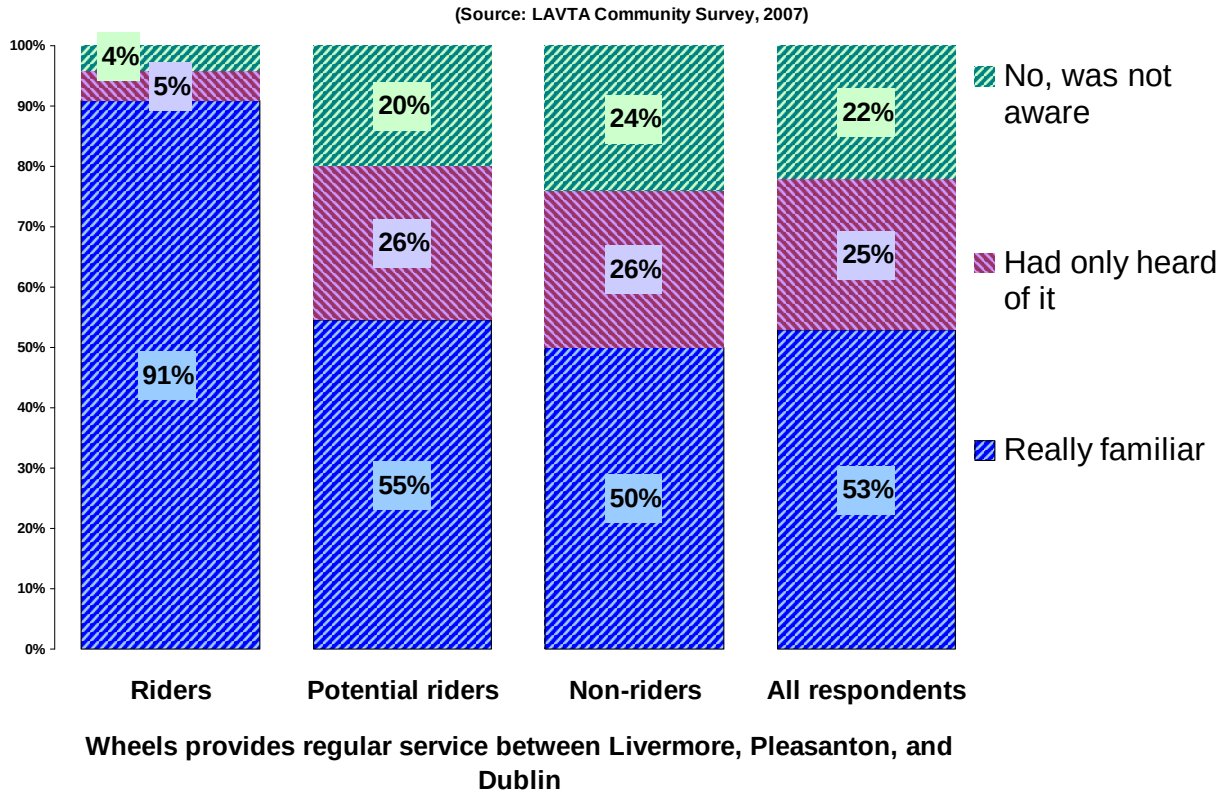


Figure 8 Awareness of Wheels' basic Livermore-Dublin-Pleasanton service

Awareness of basic Livermore-Pleasanton-Dublin service, by market segment

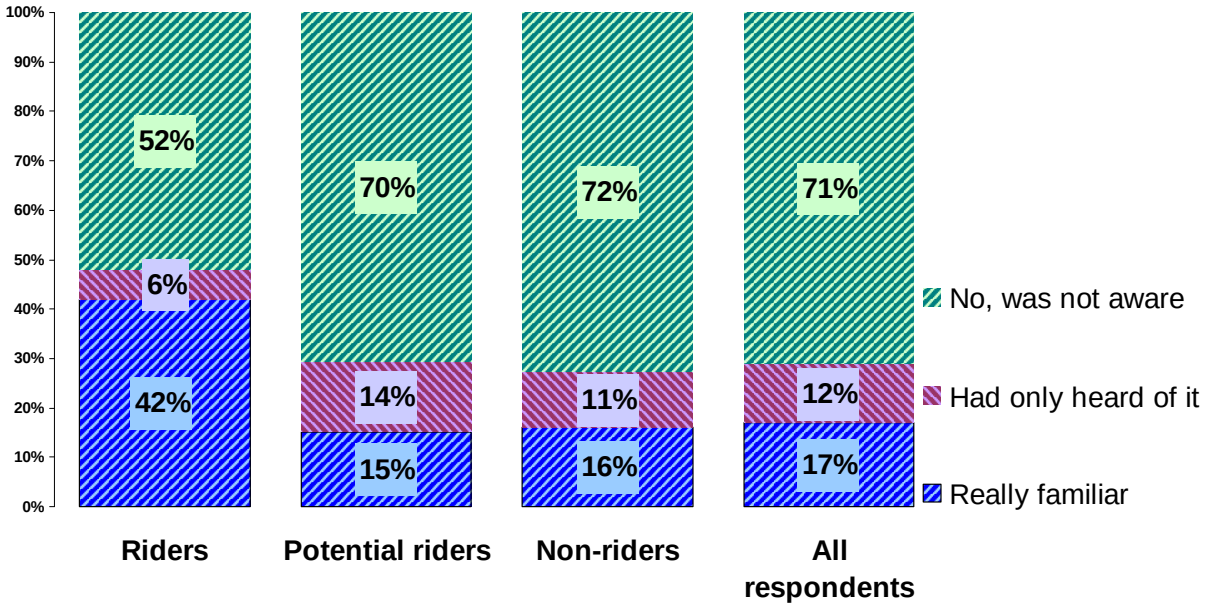
Respondents were asked their awareness of the basic service Wheels provides among the cities of Livermore, Dublin, and Pleasanton. Of the potential riders, more than half (55%) said they were “really familiar” with that service, another 26% said they had “only heard of it,” and only 20% said they were unaware of it. Surprisingly, almost as many staunch non-riders (50%) as potential riders said they were very familiar with that service.

Almost all the very small rider sample, as one would assume, said they were aware of the service.

These are reasonably high percentages of awareness for persons who do not now use the services. However, there is also clearly room for improvement.

Awareness of 24 hour Bayfair service

(Source: LAVTA Community Survey, 2007)



Wheels provides service 24 hours a day, 7 days a week, including service to the Bayfair BART station when BART is closed

Figure 9 Awareness of 24 hour/7 day Wheels service to Bayfair

AWARENESS OF WHEELS 24 HOURS 7 DAY A WEEK BAYFAIR SERVICE, BY MARKET SEGMENT

The 24 hour/7 day service to Bayfair helps riders reach transit in the Bay Area at night, or return from the Bay Area to the Tri-Valley even after BART service to Pleasanton has ceased operating. Very few of the potential riders or staunch non-riders had heard of the all-night service. But, of course, the service is relatively new, and low awareness is to be expected.

Awareness of service to BART

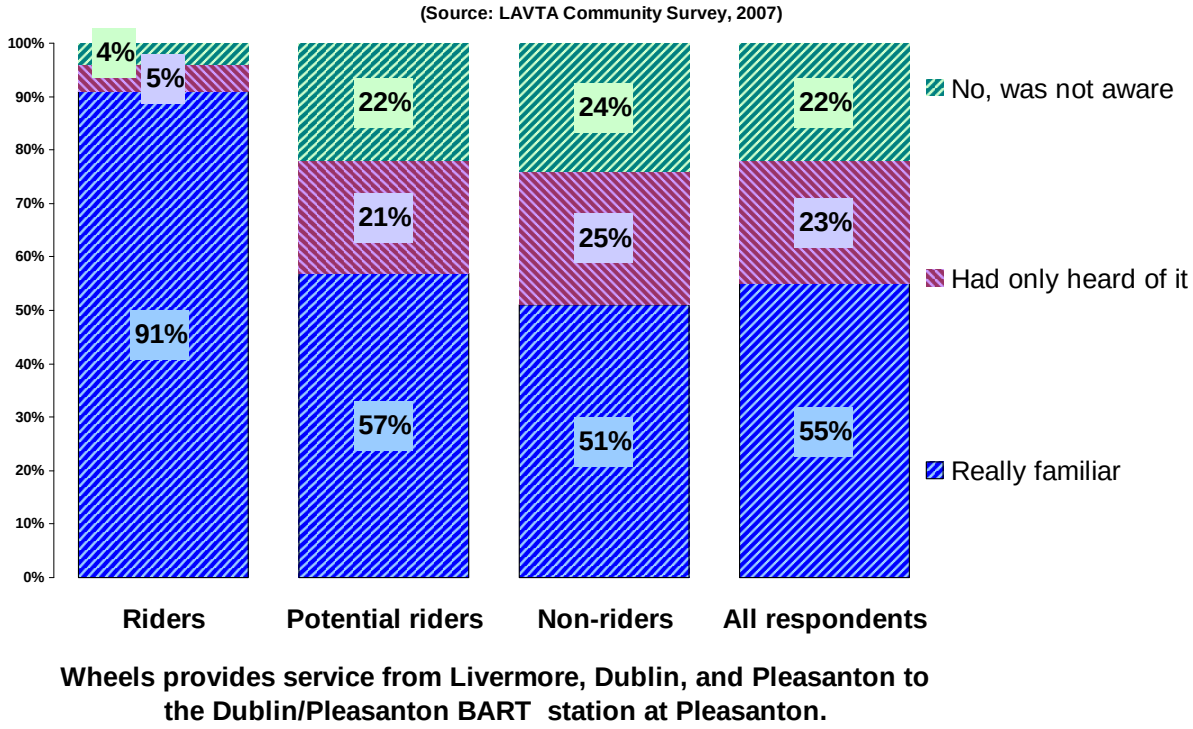


Figure 10 Awareness of service to the Pleasanton BART station

AWARENESS OF WHEELS SERVICE TO PLEASANTON BART STATION

Overall awareness (55%) of Wheels service to the BART station is approximately equal to awareness of the Wheels name (55.8%, see Figure 6). Potential riders tend to be more aware of this aspect of service: 57% say they are "really familiar" with it. Also, almost all of the small sample of current riders (91%) tend to be aware of it, as one would certainly expect.

Commuting

Commuters – Employed persons and students

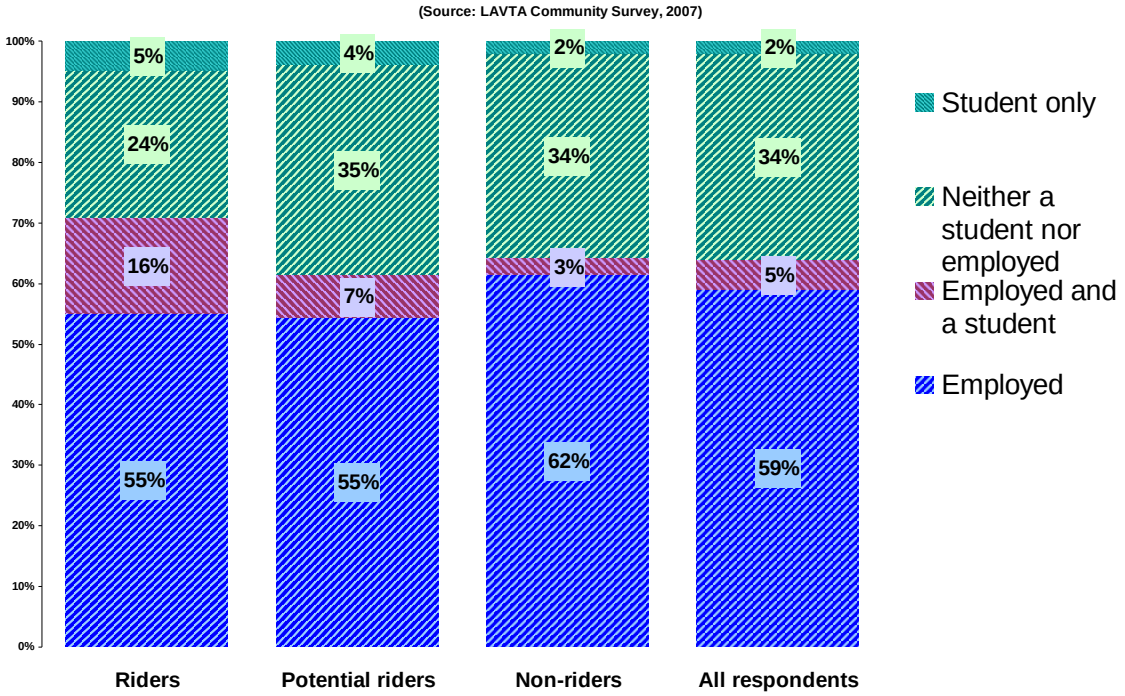


Figure 11 Work and student commuting

Commuter profile

Respondents were asked about their employment and student status because the greatest number of local trips are normally made by those who regularly commute to work or to school. Of all adults in the LAVTA service area, 59% are employed, another 5% are employed and students, and 2% are students only. The balance, 34%, are neither employed nor students.

The total percent of commuters (employed persons and students combined) is almost identical between the potential riders (66%) and non-riders (67%). However, the distribution among the commuter types differs somewhat. Somewhat more of the non-riders are employed (62%) and are not students than among the potential riders (55%). Conversely, 11% of the potential riders are either students who are also employed (7%) or students only (4%).

COMMENT

Students who are also employed are often looking for ways to economize, and this may be part of the reason for their interest in using Wheels. This interest suggests that there may be a real

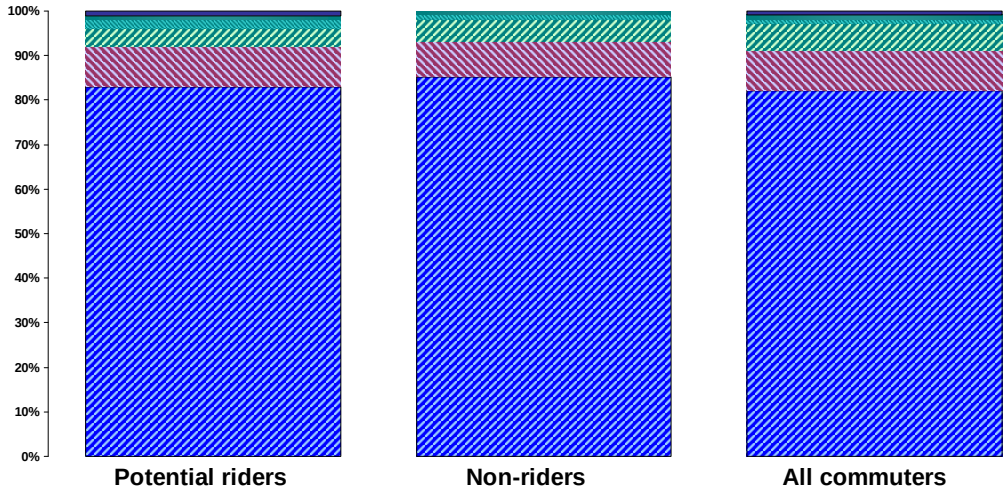
potential to attract more community college and “non-traditional“ (i.e. adult) students to using transit by offering dedicated types of fare media targeted to them.

Throughout the remainder of this section of the report on commuting, the small sample of riders is included in the total (or “All respondents”) column because riders are part of the commuting population. However, they are not shown separately because the sub-sample of commuting riders (n=16 when all respond definitively to a question) is too small to use even as being suggestive.

Commuting mode

(Commuters – Employed persons and students only)

(Source: LAVTA Community Survey, 2007)



Usual commuting mode in past 12 months

	Potential riders	Non-riders	All commuters
Telecommute	1%	0%	1%
Bicycle	1%	1%	1%
Walking	2%	1%	1%
Public transit	4%	5%	6%
Car or van pool	9%	8%	9%
Drive alone	83%	86%	83%

Figure 12 Usual commuting mode (commuters only)

Mode to work or school (commuters only)

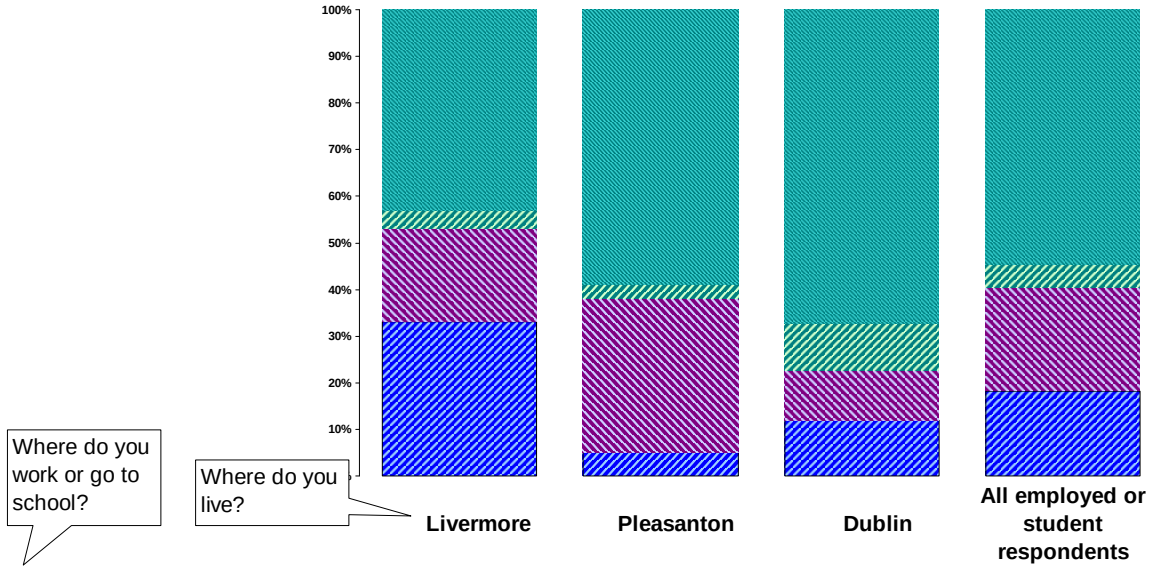
Commuters were asked how they had most often gone to work or school in the previous twelve months. Of all commuters, most, 83% said they had driven alone, while 6% said they had used public transit whether Wheels or other transit providers. The balance, walked, bicycled or telecommuted. The Potential riders and non-riders differ only slightly from each other in these respects.

One aspects of the chart deserves a special note. Both potential riders and non-riders by definition do not use Wheels currently. Yet 4% and 5% (respectively) say that they use public transit to commute. They use BART or ACE, or in a few cases, other transit providers.

Place of residence and of employment

(employed persons and students only)

(Source: LAVTA Community Survey, 2007)



	Livermore	Pleasanton	Dublin	All employed or student respondents
Work/school out of Tri-Valley	43%	59%	68%	54%
Work/school in Dublin or other part of Tri-Valley	4%	3%	10%	5%
Work/school in Pleasanton	20%	33%	11%	22%
Work/school in Livermore	33%	5%	12%	18%

Figure 13 Place of residence and of employment (or school)

Where people live and work: Commuting in or out of the Tri-Valley

More than half (54%) of all adults who are employed or attend school do so outside of the Tri-Valley. The tendency to commute outside of the Valley is stronger in Pleasanton (59%) and Dublin (68%) than in Livermore (43%). Many residents of Livermore (33%) and of Pleasanton (33%), but not of Dublin (10%), live and work in their home communities.

COMMENT

It perhaps goes without saying, but there are two distinct commuting markets in the Tri-Valley. One commutes within the Valley, and the other beyond its borders. They have very different needs and probably require differing marketing approaches.

Barriers to using transit to commute

(Commuters – Employed persons and students only)

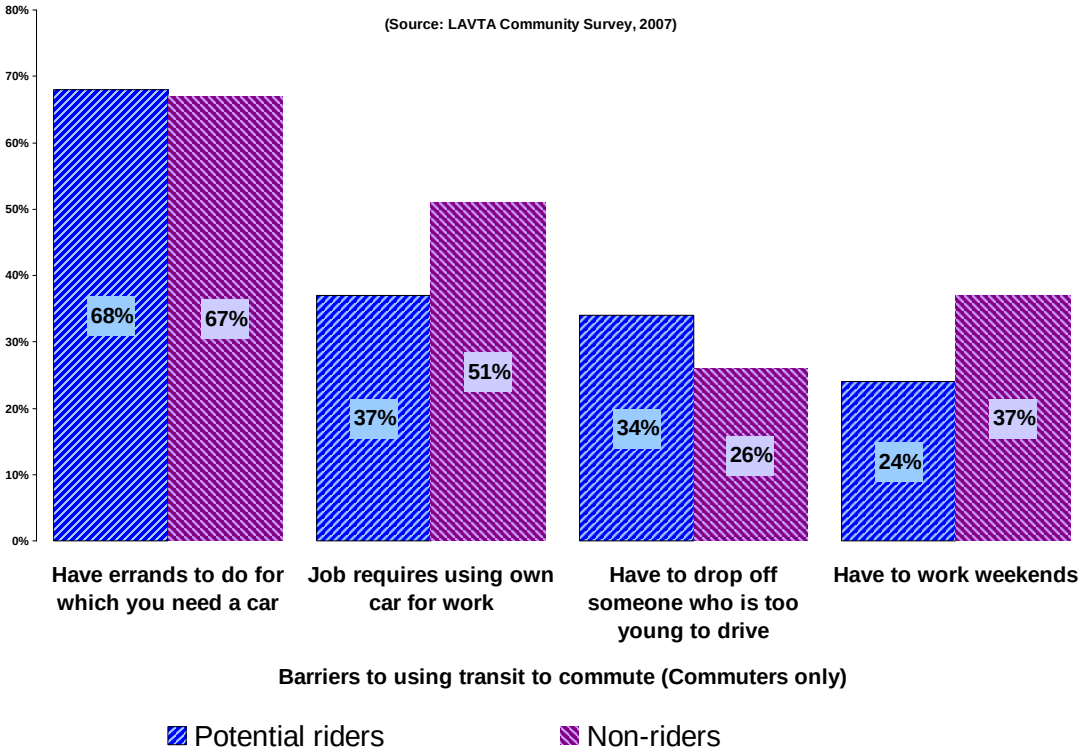


Figure 14 Barriers to using transit to commute

Barriers to using transit to commute

Many commuters have obligations that make it difficult to use transit to commute. Some of these are unavoidable, such as having to drop off a dependent too young to drive (and presumably too young to independently use transit). Others may be optional because they might be able to be done outside of work hours (errands for which one needs a car).

However, slightly more than one-third of the potential riders said that their jobs *required* them to use their car at work (37%) and/or that they had to drop off someone too young to drive (34%). Another 24% said they must work weekends at their workplace, and thus would have to travel during periods of lesser transit service.

Lack of barriers to using transit to commute

(Commuters – Employed persons and students only)

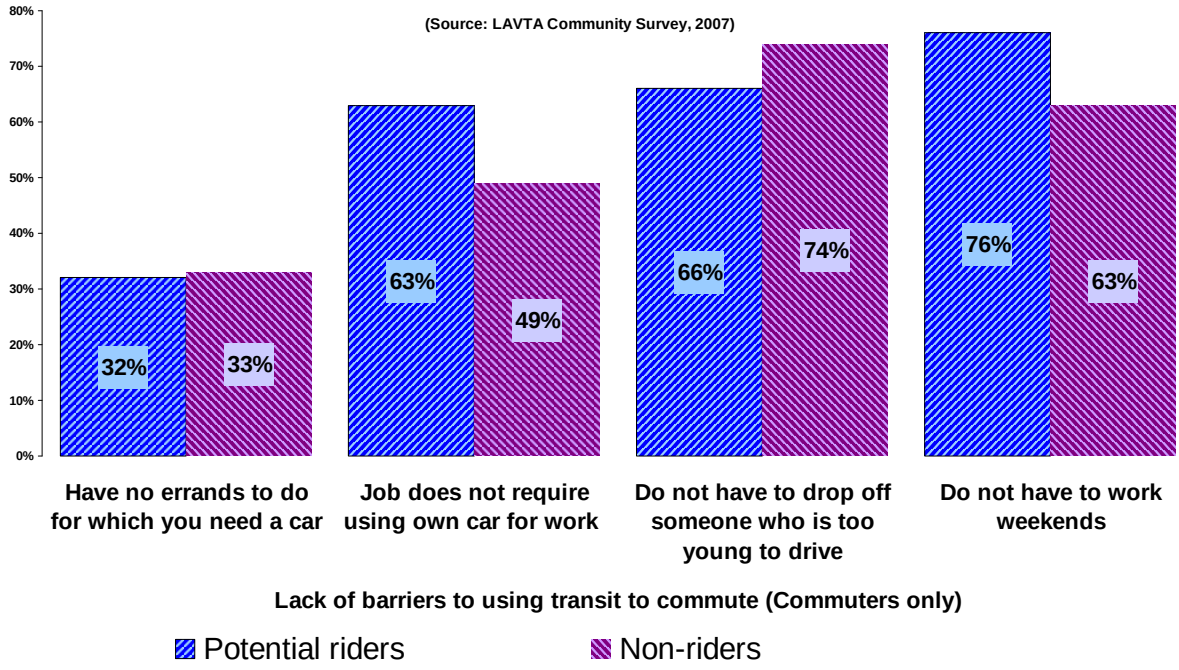


Figure 15 Lack of barriers to using transit

Lack of barriers to using transit to commute

The converse of barriers is, of course, the lack of barriers. The existence of barriers discussed on the previous page is reflected in the reverse – the lack of barriers – shown in the chart above. The most important fact to notice about this chart is that roughly two-thirds of the commuters in the LAVTA service area face neither of the most important barriers to weekday use of Wheels – having to use one's car at work, and having responsibility to drop off (or pick up) someone too young to drive.

Table includes only potential riders who are commuters. Percentages are based on all potential riders.		**Does your job require you to use your own car for work and not just for commuting and personal errands?**	
		Yes Table %	No Table %
Have to drop off someone who is too young to drive	Yes	11%	21%
	No	23%	46%

This means that they comprise a large primary market of people with a need for frequent local travel and relatively few barriers to using alternative modes.

When we examine two of the more important of these items together, we find that 46% (see inset table) of all potential riders who are also commuters do not have to use their cars at work, and do not have to drop off children while commuting. Thus approximately 15% of the public can be considered to be potential riders without these specific barriers.

Work & school in and outside of the Tri-Valley

(Source: LAVTA Onboard survey - 2007)

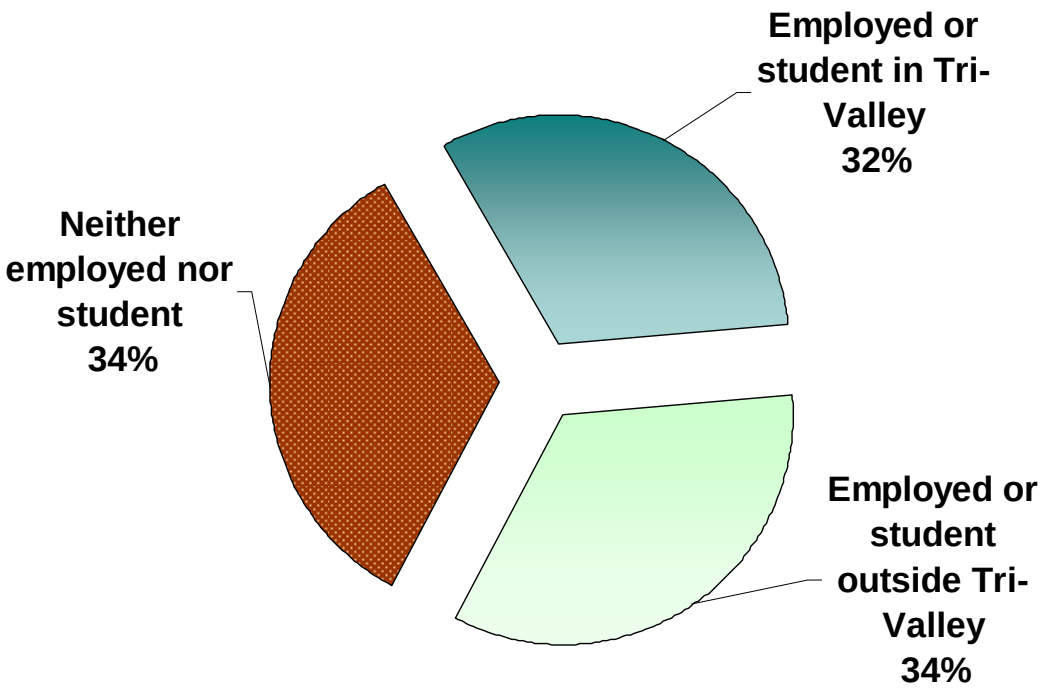


Figure 16 Commuting in or out of the Tri-Valley

Employment, student status, and commuting within and out of the Tri-Valley

Adults in the service area break down into three roughly equal size groups:

- Persons who are neither students nor-employed (and thus who do not commute), 34%
- Persons who are employed or students and whose work or school destinations are in the Tri-Valley, 32%
- Students or employed persons whose work or school destinations are outside of the Tri-Valley (34%).

Work & school in and outside of the Tri-Valley

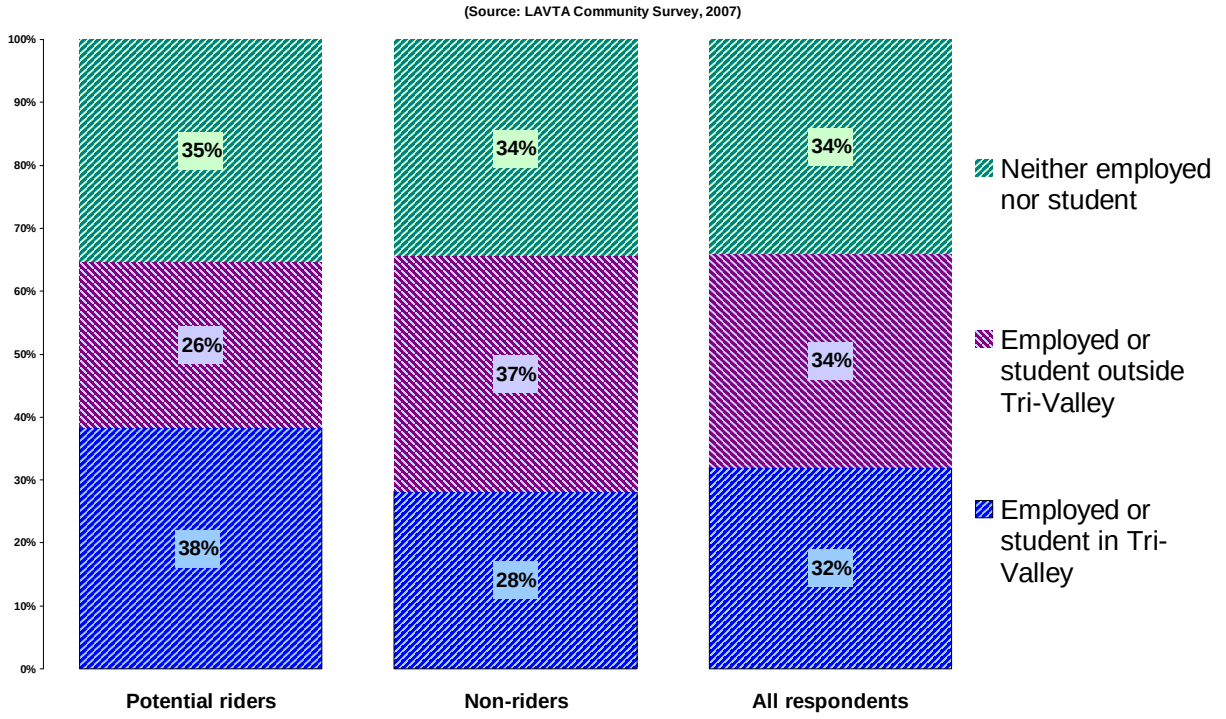


Figure 17 Market segments and working in or outside of Tri-Valley

Commuting within and out of the Tri-Valley, by market segment

Potential riders are more likely (38%) than non-riders (28%) to be employed or students in the Tri-Valley. This is certainly not surprising because potential ridership was defined as interest in using Wheels rather than public transit in general. Notice also that among all area adults, roughly equal numbers commute out of the Valley as commute within the Valley. A third group consists of retired persons, homemakers and others who do not commute at all but have other travel needs, usually less intensive.

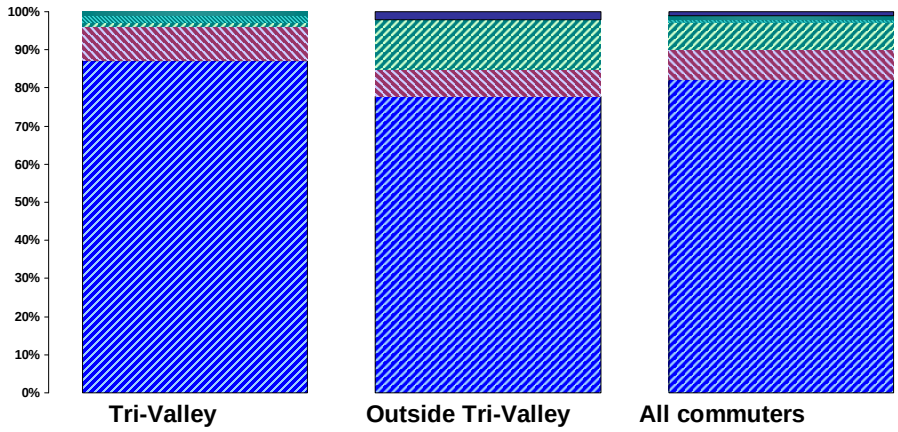
		Employment		
		Employed or student in Tri-Valley	Employed or student outside Tri-Valley	Neither employed nor student
Market segments	Riders	4%	6%	3%
	Potential riders	43%	28%	36%
	Non-riders	53%	66%	60%

Conversely (see inset table at left), we see that among commuters, those who are employed or attend school in the Tri-Valley are more likely to be potential riders (43%) than those who work out of the Tri-Valley (28%).

Mode for commuting in and out of Tri-Valley

(Commuters – Employed persons and students only)

(Source: LAVTA Community Survey, 2007)



Commute trips: How do you usually get to your workplace/school?	Is your (workplace / school) located in the Tri-Valley area or outside the Tri-Valley area?		
	Tri-Valley	Outside Tri-Valley	All commuters
Telecommute	0%	2%	1%
Bicycle	1%	0%	1%
Walk	2%	0%	1%
Public transit	1%	13%	7%
Car pool (or van pool)	9%	7%	8%
Drive alone all the way to work/school	88%	77%	83%

Figure 18 Commuting mode in or out of the Tri-Valley

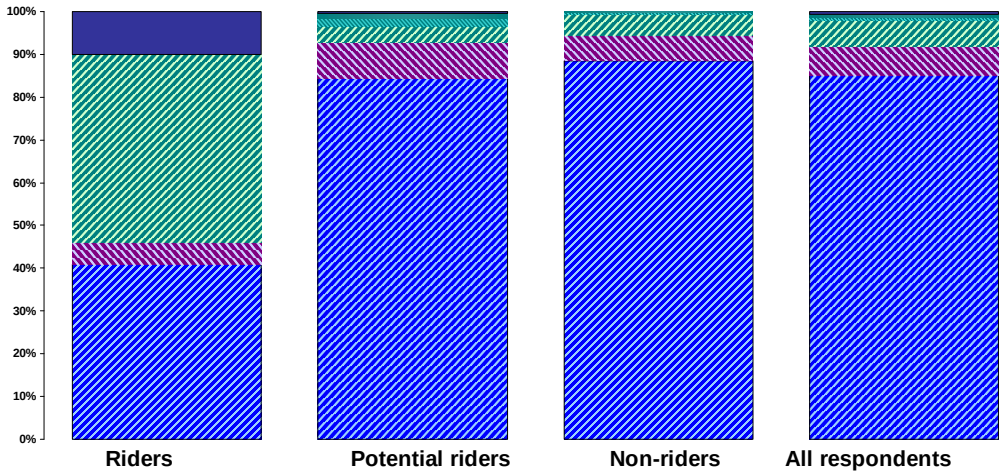
Mode for commuting within and out of the Tri-Valley

Most commuters (83%) drive alone to work or school. A total of 7% use transit. This total includes those who use Wheels but also those who use BART or, in a few cases, ACE. Some (8%) carpool.

Use of public transit as the most frequent mode for commuting is much greater for commuting out of the Tri-Valley (13) than within it (1%). Given that the incidence of using Wheels is 5%, this low percentage for in-Valley commuting seems quite low, and reaffirms that many of the Wheels commuting trips are taken to get to BART.

Mode for all travel including commuting and errands

(Source: LAVTA Community Survey, 2007)



All types of trips, including commuting and other trips:

Mode for all travel (incl commuting or other)

	Riders	Potential riders	Non-riders	All respondents
Telecommute	10%	.5%	.0%	1%
Bicycle	0%	1%	.3%	1%
Walked	0%	2%	.3%	1%
Public transit	44%	4%	5%	6%
Gotten rides/carpool	5%	8%	6%	7%
Driven alone	41%	84%	89%	85%

Figure 19 Mode most frequently used for all local travel, including commuting and errands

Mode for all local travel, including commuting, errands and other purposes

The chart above differs from the previous chart in that it shows all respondents, not just commuters - the 66% who are employed or students.

When we add to the commuting trips those other trips made for any purpose, we find that the total distribution of mode choices is almost identical for all trips as for commute trips, although the tendency to drive alone rises slightly.

In this chart we include the small sample of riders because, since it includes all riders sampled and not only commuters, it is at least sufficient to be suggestive, and it demonstrates that for Wheels riders – defined broadly to include the large proportion of occasional riders found in the general population -- transit is not the primary mode of transportation for local trips for most of them.

Travel out of the Tri-Valley on ACE or BART

Using ACE

(Respondents who commute outside of the Tri-Valley only)

Commuters out of Tri-Valley only
(Source: LAVTA Onboard survey - 2007)

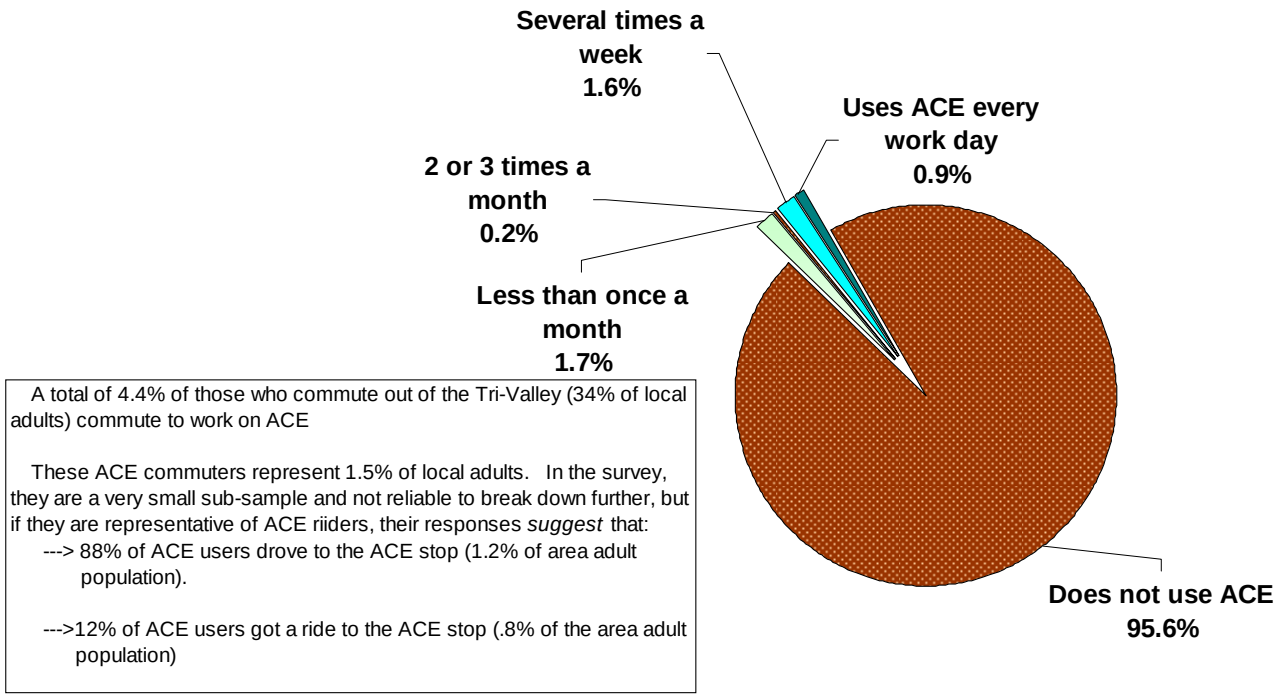


Figure 20 Using ACE

Commuting via ACE

Those who are employed or students – i.e. commuters – and who travel out of the Tri-Valley area were asked about their use of BART or ACE. Only 1.5% of all area adults who are employed or students use ACE to commute, and many of them use it only occasionally. Whatever market there is for Wheels among users of ACE, it is very small indeed.

The sub-sample of ACE users is much too small to break down any further except to suggest possible relationships as shown in the inset in the chart.

Using BART

(All respondents)

(Source: LAVTA Onboard survey - 2007)

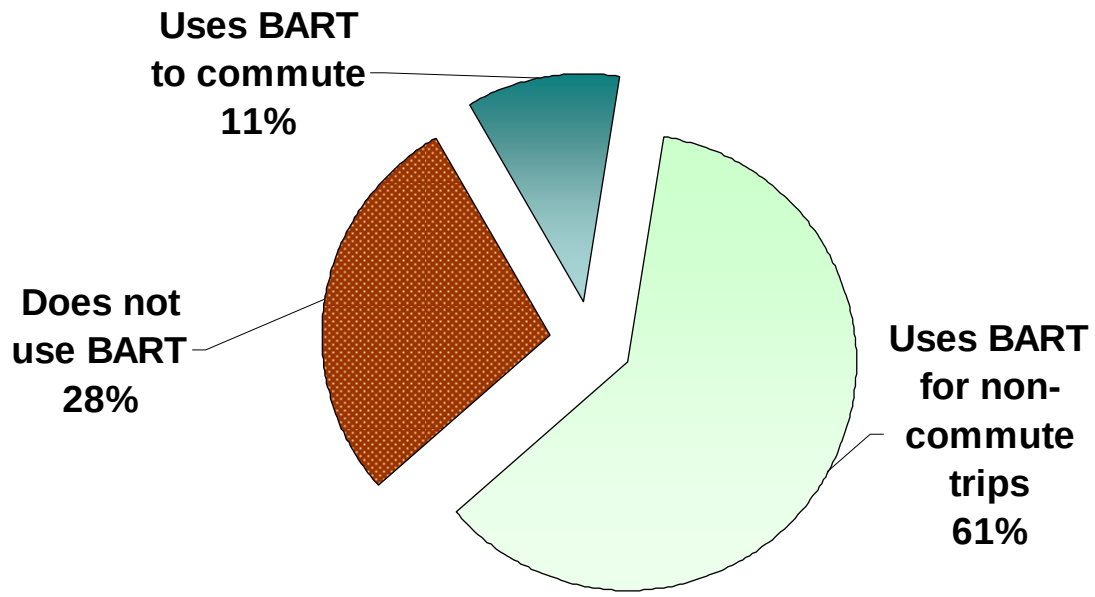


Figure 21 Using BART

Commuting and other local travel via BART

All respondents were asked about their use of BART. Those who are employed or students – i.e. commuters – and who travel out of the Tri-Valley area were asked about their use of BART for commuting, and those who make other area trips outside of the Tri-Valley were asked about their use of BART for those trips.

The chart above shows that a core of 11% of Tri-Valley adults use BART to commute[3] and another 61% use it for non-commute trips.

[3] Some of them may also use BART for non-commute trips.

Using BART

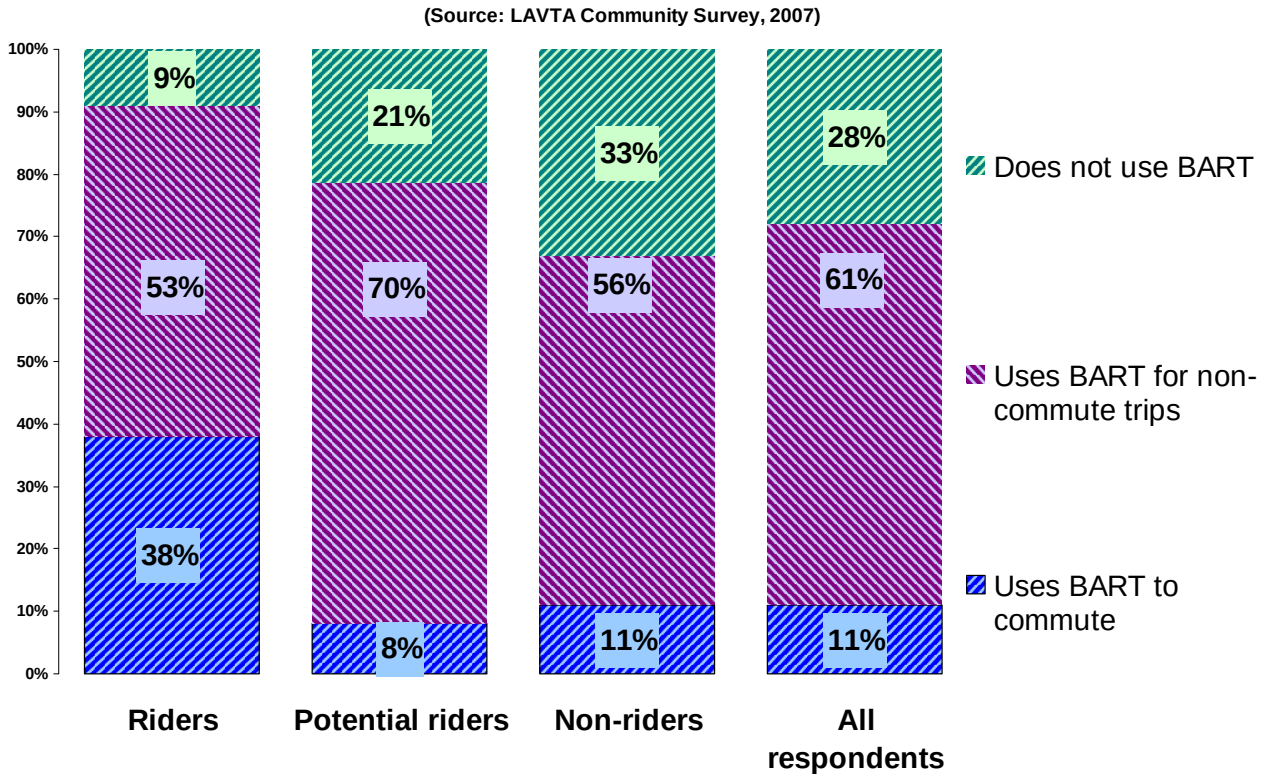


Figure 22 Using BART, by market segment

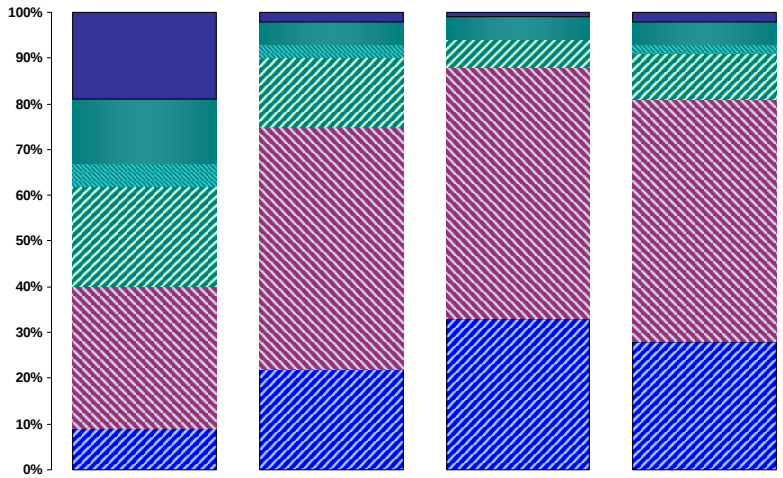
Commuting and other local trips via BART, by market segment

Considering all respondents, we find that 11% said they use BART to commute to work or school, while another 61% said they use BART for non-commute trips. Only 28% indicated they never use BART. Of course, some of the 11% may also use BART for purposes other than commuting. Potential riders (70%) are more likely than non-riders (56%) to say they use BART for non-commute trips.

The riders sample is small and cannot be considered statistically reliable, but the fact that 38% of those who identify themselves as riders of Wheels indicate that they use BART to commute does suggest that there is a relationship between being a regular Wheels rider and using other forms of transit.

Frequency of using BART

(Source: LAVTA Community Survey, 2007)



	Riders	Potential riders	Non-riders	All respondents
Use BART every work day	19%	2%	1%	2%
Several times a week	14%	5%	5%	5%
Once a week	5%	3%	0%	2%
2 or 3 times a month	22%	15%	6%	10%
Less than once a month	31%	53%	55%	53%
Does not use BART	9%	22%	33%	28%

Figure 23 Frequency of using BART, by market segment

Frequency of using BART

Because more people use BART for purposes other than commuting, the frequency of use reflects those other purposes more than it reflects commuting practices. That is, it is less frequent. For example, only 2% say that they used BART every workday, and another 5% use it several times a week, probably also for work.

		Uses of BART	
		Uses BART to commute	Uses BART for non-commute trips
Frequency of using BART	Less than once a month	48%	78%
	2 or 3 times a month	12%	15%
	Once a week	4%	2%
	Several times a week	20%	5%
	Every work day	16%	0%

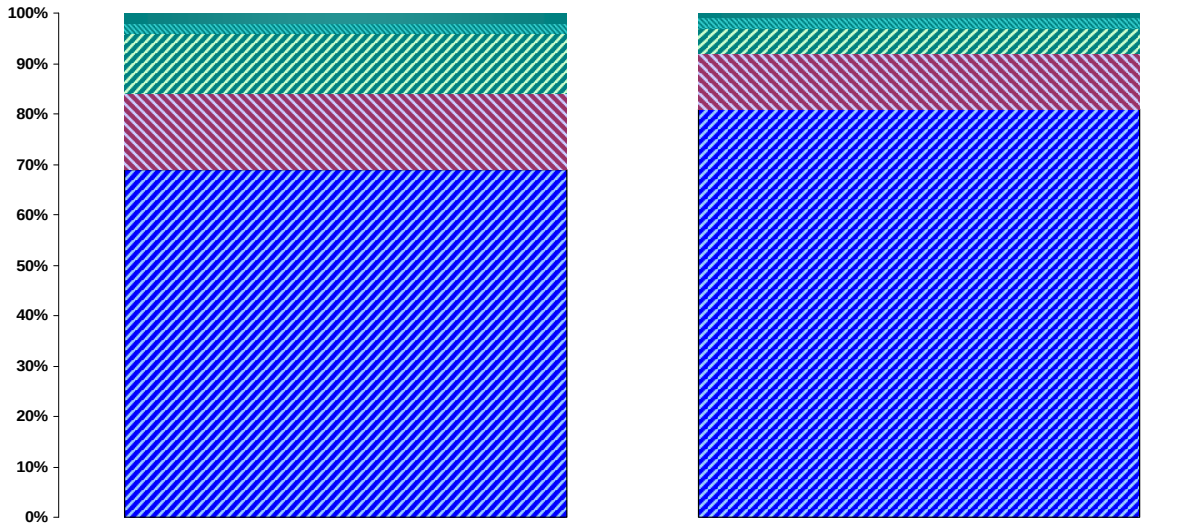
The frequency of using BART is, for obvious reasons, related to the purpose. (See inset table.) Those using BART to commute (11% of all respondents) split into two primary groups – those who use it several times a week or daily (36% total) and those who appear to use it occasionally (60%). Those who use it for non-commuting trips are almost all occasional users.

The frequency of using BART is related to the potential to use Wheels. For example, only 22% of potential riders said that they do not use BART at all, and a total of 25% indicated they use it two or three times a month or more. In contrast more (33%) of the non-riders said that they do not use BART at all, and only 12% indicated they use it as often as two or three times a month.

Mode to BART

(BART Users only)

(Source: LAVTA Community Survey, 2007)



How respondents got to the BART station

	Uses BART to commute	Uses BART for non-commute trips
Bicycle	2%	1%
Walked	2%	2%
Wheels	12%	5%
Got a ride	15%	11%
Drove	69%	81%

Figure 24 Mode to BART and commute v non-commute trips

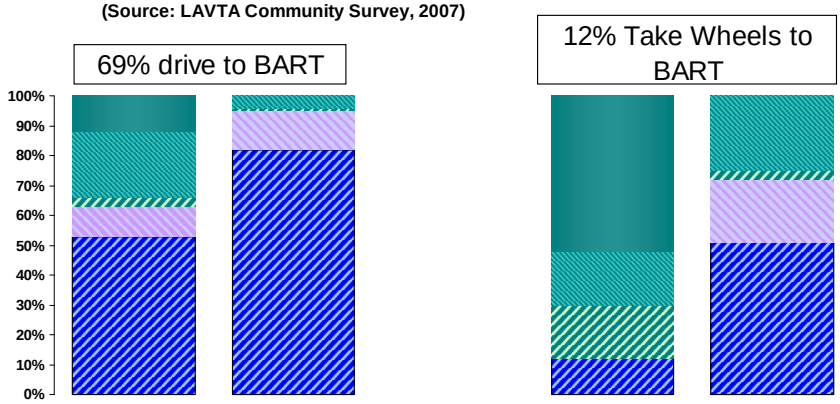
Mode to BART for commute and non-commute trips

Wheels currently wins a 12% share of those who commute by BART and a 5% share of those who use BART for other purposes.

Mode to BART and frequency of using BART

(BART users only)

(Source: LAVTA Community Survey, 2007)



Frequency of using BART each week:	Commute	Non-commute	Commute	Non-commute
Every work day	12%	0%	52%	0%
Several times a week	22%	4%	18%	25%
Once a week	3%	1%	18%	3%
2 or 3 times a month	10%	13%	0%	21%
Less than once a month	53%	81%	12%	51%

Figure 25 Mode to BART and frequency of using BART

Mode to BART and frequency of using BART

More people drive to BART (69%) than take Wheels to BART (12%). However, those who take Wheels to BART are more likely to be frequent BART users and thus would make the trips to BART more often.

		Frequency of using BART (collapsed)	
		Occasional	Frequent
How respondents got to the BART station	Drove	81%	62%
	Got a ride	13%	7%
	Wheels	3%	22%
	Walked	1%	6%
	Bicycle	1%	4%

When we invert the numerator and denominator of the percentages, we find that of frequent (weekly or daily, see inset table) BART users, 22% say they get to BART via Wheels compared to only 3% of the infrequent users.

BART Parking charge

Currently, BART charges $1 per day to park your car. Assuming BART raises the parking fee in the future, at what DAILY parking fee level would you consider taking a Wheels bus from your home to BART to avoid paying parking charges?

Market segments who use BART (excluding riders because of small sub-sample)

BART parking lot fee at which respondents say they would use Wheels to get to BART to avoid parking fee	Potential riders	Non-riders
$3 per day	42%	22%
$4 per day	6%	7%
$5 per day	18%	19%
$6+ per day	11%	22%
Not sure	23%	30%

*** Note: Currently 80% of potential riders and 67% of non-riders use BART to some extent and thus are included in this table.**

Figure 26 BART, the charge to park, and the potential to use Wheels

Parking lot charges at BART

Respondents who use BART were asked at what level of parking fee at the BART station they would cease driving to the BART station and instead take Wheels. Of the potential Wheels riders, 42% indicated that a charge of three dollars per day (up from the one dollar charge now levied) would convince them to use wheels. Others either cited a higher figure or were not sure.

Forty-two percent (42%) of the current potential riders would constitute almost 15% of the adult public and that is three times the number who presently use Wheels. Clearly, that is highly unlikely to occur. The response simply tells us that a substantial number of the potential riders would find an increase in the current parking charge to be a reason to consider using Wheels. It is not a predictor of the specific rate at which people would begin using wheels to reach the BART station.

New services: Direct service on I580 from Livermore to BART

Using I-580

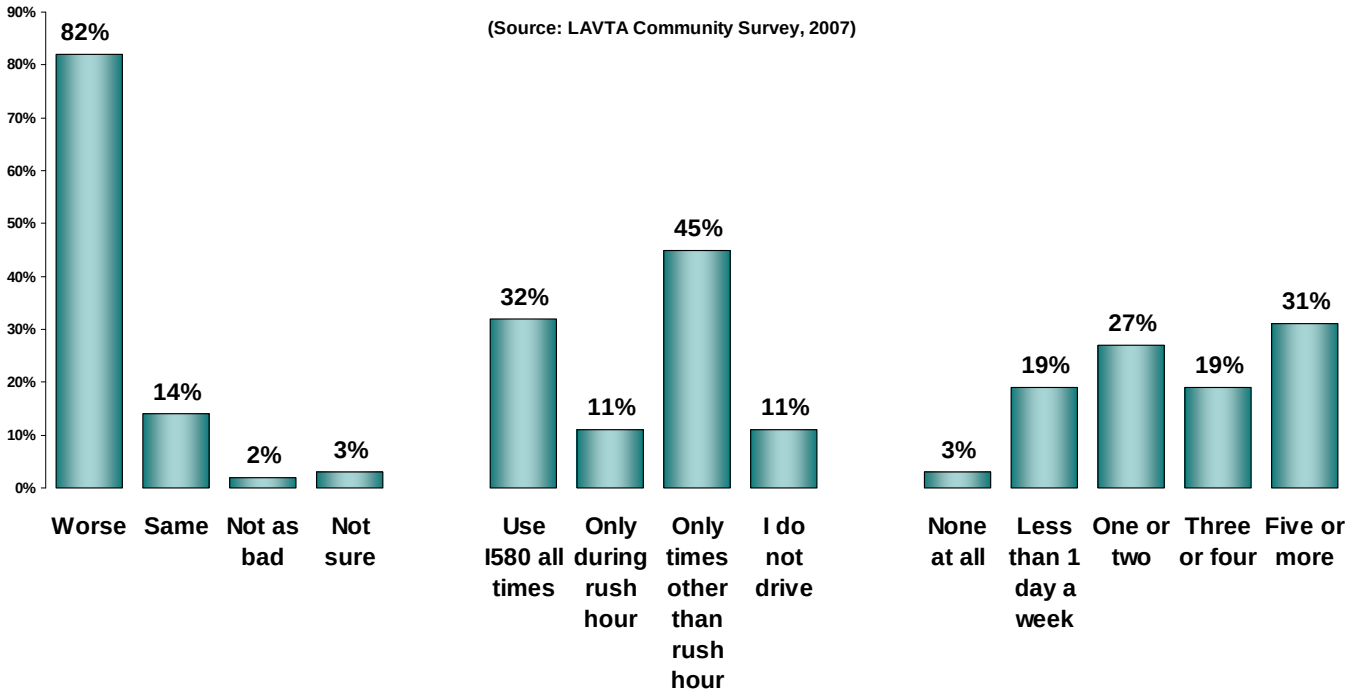


Figure 27 Using I-580

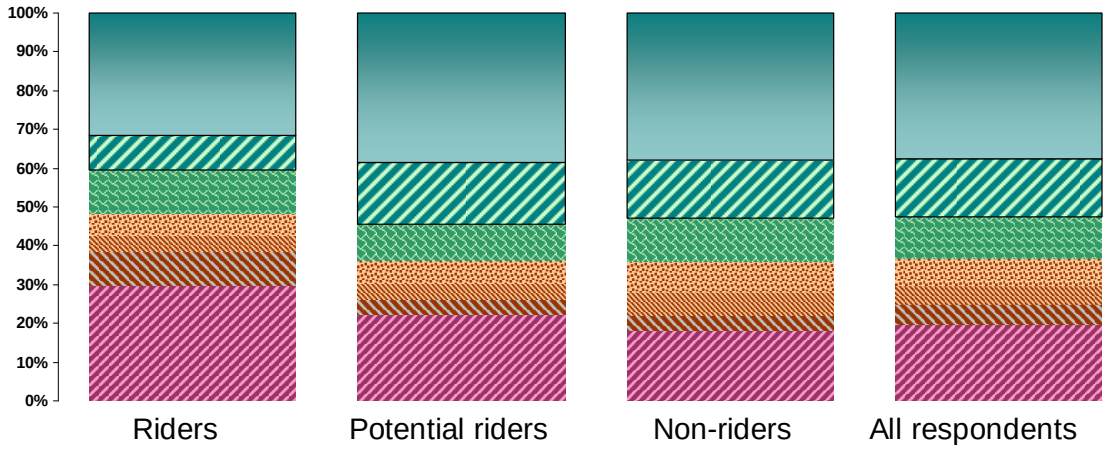
Using freeway I-580

A new service is under consideration which would provide service between Livermore and the BART station at Pleasanton, would have no stops, and would use I580 as the route. Various factors would weigh on a person's decision to use such a service, including their current use of route I-580 and their attitudes toward congestion on that route.

The chart above, reading from right to left, indicates that many people use route I580 frequently. For example 31% indicate that they use it on five or more days a week. Only 3% said they avoid it entirely, and 19% said that they use it less than one day a week. A large number of people said that they use route I580 only at times other than rush-hour (45%). However 11% said that they use it only during rush hour and 32% said that they use it at all times of day, for a total of 43%. Thus the driving public seems to divide fairly equally in terms of avoiding the rush hours, or dealing with them. There is virtually universal agreement (82%) that traffic congestion on the freeway has become worse in the past two or three years.

Perception of traffic congestion on I580

(Source: LAVTA Community Survey, 2007)



Traffic congestion on the freeways in the Tri-Valley is tolerable.

	Riders	Potential riders	Non-riders	All respondents
Disagree strongly	32%	38%	38%	38%
	9%	16%	15%	15%
	11%	9%	11%	11%
Neutral	6%	6%	8%	7%
	4%	4%	6%	5%
	9%	4%	4%	5%
Agree Strongly	30%	22%	18%	20%

Figure 28 Perception of traffic congestion on I-580

Rating the congestion on I580

Respondents were asked to state their level of agreement or disagreement with the statement, "Traffic congestion on the freeways in the Tri-Valley is tolerable." Most people disagree with that statement, and 38% gave the top score indicating that they disagree strongly.

COMMENT

It is interesting that the perception of freeway congestion is so strong, and yet the use of public transportation is so limited. It has been clear in focus groups related to other studies that many people find that their relatively luxurious cars are quite comfortable if they have to wait in freeway traffic. Moreover with the advent of cell phones they are quite able to conduct work while sitting in traffic.

Stated intent to use new direct service between Livermore and BART station

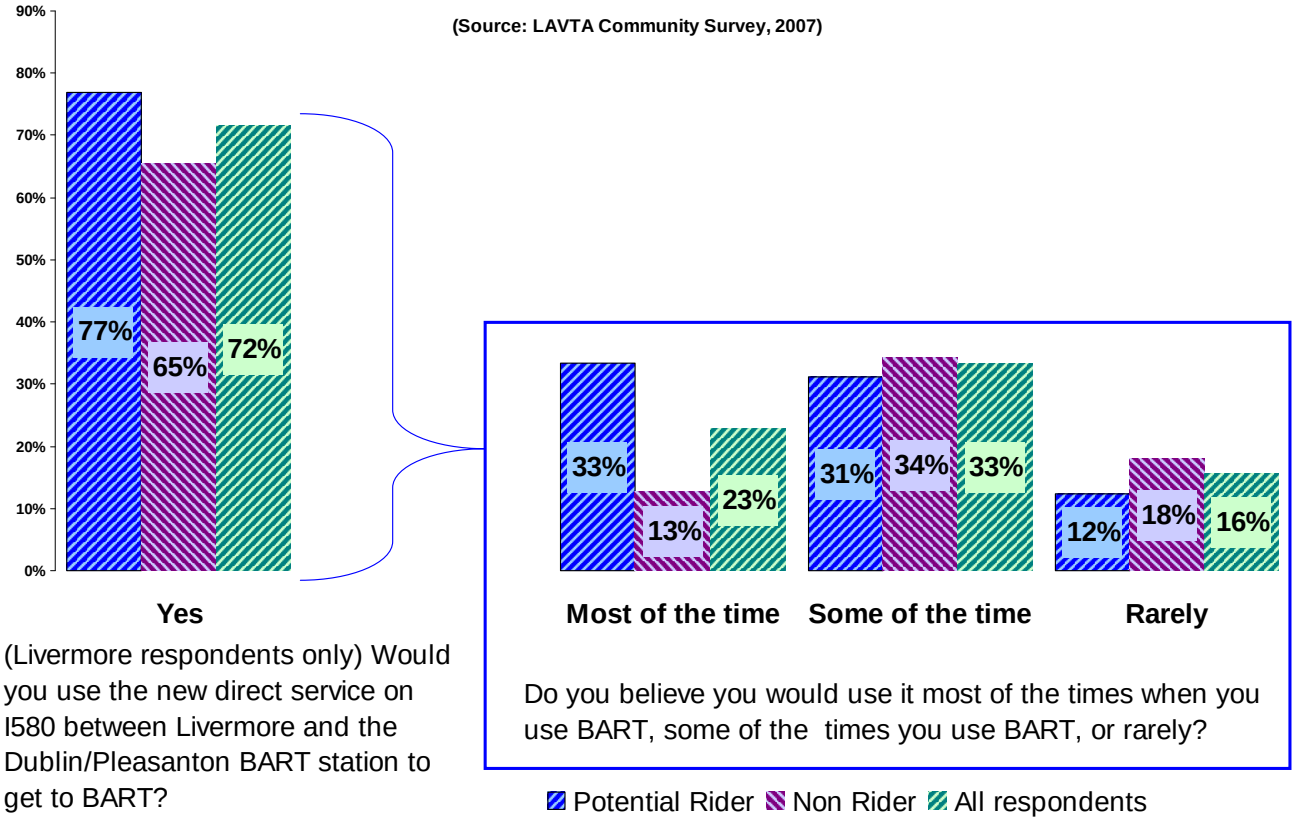


Figure 29 Proposed service between Livermore and BART at Pleasanton

THE MARKET FOR DIRECT WHEEL SERVICE TO BART ON I580

Respondents who live in Livermore were asked whether they would use a new direct service on I580 to get to the BART station at Pleasanton. Of all respondents, 72% said they would do so, and of potential Wheels riders, 77% said they would do so. Within the 77% of potential riders who indicated they would use that service, 33% said they would use it most of the time when they use BART, while another 31% said they would use it some of the time, and 12% said they would rarely use it.

To repeat a point made earlier in the discussion about parking rates at the BART station, one cannot take at face value the initial rates of projected use of a potential service based only on a single survey question. Both habit and relative convenience weigh on the operational decision a traveler may make. What this does tell us is that one third of the potential riders in Livermore, which amounts to approximately 10% of the adults there, have some interest in the direct service.

The optimum market for this kind of service would be the person who takes BART to work or uses it frequently for other purposes. In addition, that person would have to be free to use transit in the sense that he or she would not have to use a personal vehicle at work and would not have to drop off or pick up children on the way to work (one of the primary inhibitors of transit use).

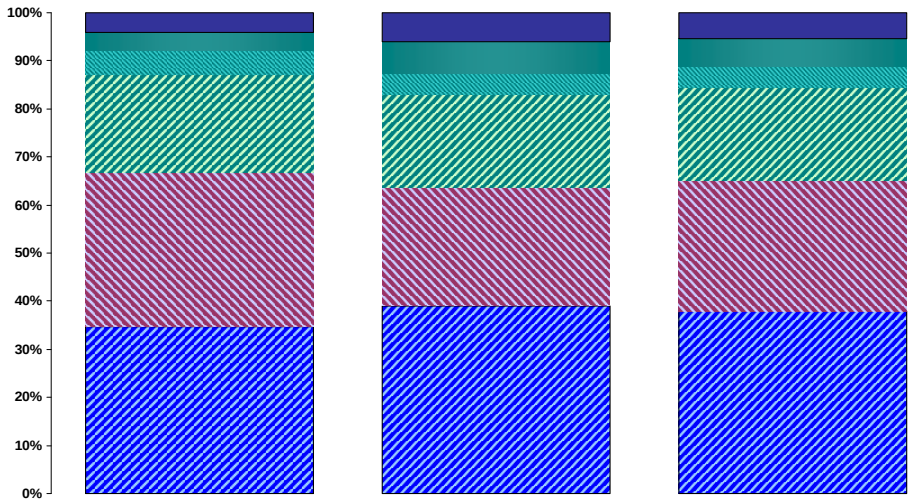
When we use these factors to focus on the likely market for I580 direct service, we estimate that a maximum of 1.5% of the Livermore adults might use this service most of the time when they use BART. These people use BART at least two or three times a month and are free to use transit for their entire trip since they neither drop off children nor have to use their cars at work. We need to keep in mind, however, that this includes potential riders and non-riders none of whom uses Wheels now, and roughly half of them (i.e. the non-riders) initially were quite firm in rejecting the possibility that they would ever use Wheels.

A tiny number (only **.**3%) would meet these criteria except that they must use their car at work or drop off a child. Another 15% of those who said they would use the service never use BART either for work or errands now, and thus cannot be counted on to begin using BART merely because of access via Wheels.

Thus a maximum of 1.5% would be the market for the I580 service. This is a maximum, not a projection because none of these people now uses Wheels, and to begin doing so would require a significant change of routine. However, if the maximum were attained, 1.5% of the adult population of Livermore amounts to about 975 individual people who might use the Wheels service to reach BART. However, only a few of these would be doing so daily. Most would be using the service only occasionally, and at varied times of day.

Preferred point of origin

(Source: LAVTA Community Survey, 2007)



	Potential Rider	Non Rider	All respondents
Not sure	4%	6%	5%
I just never use BART	4%	7%	6%
The exit at I580 and Greenville	5%	4%	4%
The exit at 580 and Vasco	20%	19%	19%
The BART park/ride near Livermore airport	32%	25%	27%
Downtown municipal parking garage	35%	39%	38%

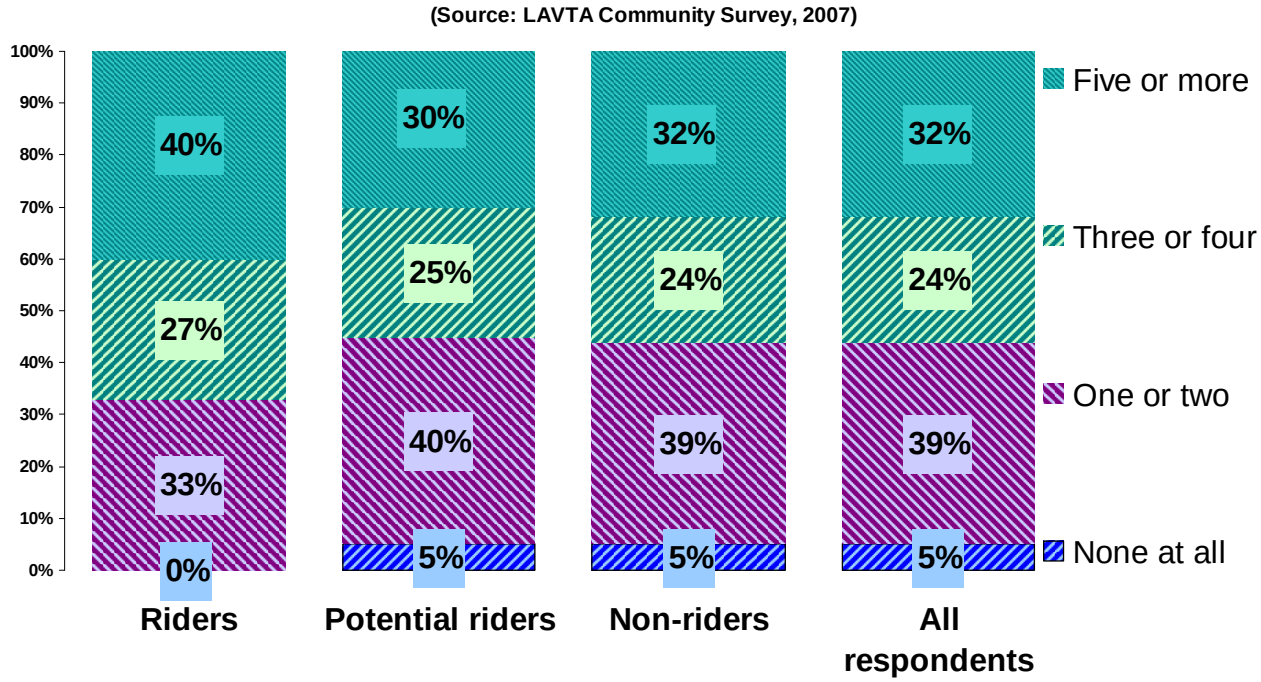
Figure 30 Preferred location of the point of origin of Livermore to BART service

Preferred point of origin if I580 direct service were offered

If a service to BART were offered by Wheels, it would have to have a central starting point in Livermore. Respondents were asked their preference among several starting points. Among all respondents, the downtown municipal parking garage in Livermore was the preferred location by 38% of respondents. However among potential riders the preference was divided between that location (35%) and the BART park and ride lot near the Livermore Airport (32%).

New services: BRT service on Stanley Boulevard

Travel among the three key cities of the Tri-Valley



In the typical week, on how many days do you travel between two or all three of the cities of Dublin, Livermore and Pleasanton for any reason?

Figure 31 Travel among the cities of Livermore, Dublin, and Pleasanton

New bus rapid transit (BRT) service via Stanley Boulevard

The new BRT service via Stanley Boulevard would run from Livermore to Pleasanton and Dublin and would offer new and comfortable vehicles and stops with amenities. The success of such a service would depend in part on the degree to which people in the Tri-Valley currently travel among those cities. The chart above indicates for each market segment the frequency with which people travel among them.

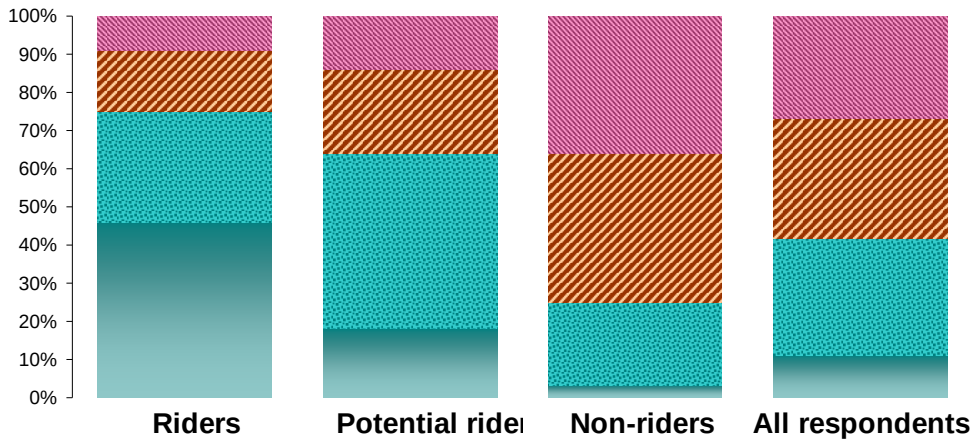
TRAVEL AMONG LIVERMORE, DUBLIN, AND PLEASANTON

Only a small number, 5%, say that they do not travel among the cities. Almost one third, 32%, say they travel among them five or more days a week, and 24% say they travel among them three or four times a week. This suggests that there is a great deal of such travel.

Stated intent to use BRT service

This service would use new, comfortable buses. It would run on Stanley Boulevard to avoid freeway congestion, have attractive shelters for waiting, and have limited stops. A bus would come every fifteen minutes. The trip from Livermore to Dublin – Pleasanton would take about twenty-five minutes. How likely would you be to try using this service on a regular basis?

(Source: LAVTA Community Survey, 2007)



Rapid bus on Stanley Blvd avoiding freeway congestion; attractive shelters, ltd stops, every 15 minutes

	Riders	Potential rider	Non-riders	All respondents
Definitely would not try using it regularly	**9%**	**14%**	**36%**	**27%**
Probably would not try	**16%**	**22%**	**39%**	**32%**
Might try	**29%**	**46%**	**22%**	**31%**
Definitely would try using it regularly	**46%**	**18%**	**3%**	**11%**

Figure 32 Stated intent to use BRT service

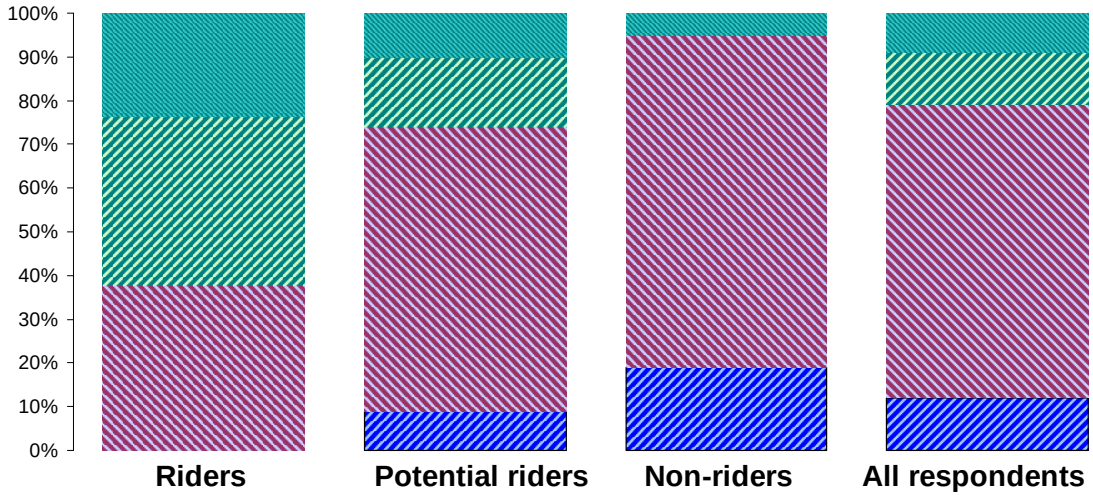
Respondents throughout the service area were asked whether they would try using the BRT service. Of all respondents, 11% said that they would definitely try using it regularly and another 31% said they might try it. Current riders (46%) and potential riders (18%) were far more likely than non-riders (3%) to say that they would definitely try using the BRT service regularly. Among potential riders, another 46% said that they might try it. This type of service clearly addresses some of the concerns that now prevent some potential riders from using Wheels.

Once again we must caution that the initial stated intent to use a service such as this is not equivalent to a prediction that use would attain that level.

Projected frequency of using BRT

(Includes only those who said they would try BRT)

(Source: LAVTA Community Survey, 2007)



How many days a week would you probably use that rapid bus service?

	Riders	Potential riders	Non-riders	All respondents
Five or more	24%	10%	5%	9%
Three or four	39%	16%	0%	12%
One or two	38%	65%	76%	67%
None at all	0%	9%	19%	12%

Figure 33 Projected frequency of using BRT

The projected frequency of using BRT

The 42% of respondents who said they would definitely try or might try using the BRT service were asked a follow-up question regarding how frequently they felt they would use it. The chart above indicates that when faced with this follow-up question 19% of the non-riders and 9% of the potential riders rethought their position and indicated that realistically they would not use the service at all. However, 10% of the potential riders indicated that they would probably use it five or more days a week, and even among non-riders 5% thought that they would use it that often. Among all respondents 9% felt they would use it five or more days a week, and another 12% thought they would use it three or four days a week, thus providing a rather substantial base of potential ridership for the BRT service.

Because this service could be useful to many residents of the area for travel among the three cities without regard to whether they needed to connect to BART, it probably has a considerably larger potential user base than the proposed I580 service. Nevertheless we must take into account various limitations on people's ability to use such a service. For example, 68% of those who said they would definitely try using BRT regularly (i.e. 68% of 11%, or 7%) are employed or

students who must commute. This amounts to roughly 7% of all respondents who are commuters that believe they would definitely use the BRT service regularly. Of that sub-set, one third said that their job required them to use their car at work, and a third said that they have to drop off a child on their way to work. This obviously reduces the possibility that they really would "definitely try" the BRT service. Similarly, among those commuters who said they "might try" the BRT service, 47% must use their car at work and a third have to drop off a child on their way to work.

When all of these conditions are combined, we find that the percent who feel, realistically, that they would definitely try using BRT regularly is reduced from 11% to at best 8%, including both those who would commute and those who would use the service less frequently for other purposes.

Using BRT and current use of I-580

Interest in the BRT on Stanley Blvd. by several measures of travel

Rapid bus on Stanley Blvd avoiding freeway congestion; confortable shelters, ltd stops, every 15 minutes

When you drive out of your home city in the Tri-Valley, do you tend to use I580 at all times of day, only during rush hour, at times other than rush hour, or not at all?

	Use I580 all times	Only during rush hour	Only times other than rush hour	I do not drive
Definitely try using it regularly	10%	10%	10%	15%
Might try	30%	45%	30%	23%
Probably would not try	31%	27%	36%	20%
Definitely would not try using it regularly	29%	17%	24%	43%

How often do you use route I580, less than one day a week, one or three days, four or five days, or six or seven days a week?

	None at all	Less than 1 day a week	One or two	Three or four	Five or more
Definitely try using it regularly	4%	12%	11%	9%	10%
Might try	17%	27%	26%	37%	34%
Probably would not try	17%	36%	39%	26%	27%
Definitely would not try using it regularly	63%	24%	23%	28%	29%

In the typical week, on how many days do you travel between two or all three of the cities of Dublin, Livermore and Pleasanton for any reason? Never, one or two, three or four, or five or more?

	One or two	Three or four	Five or more
Definitely try using it regularly	11%	11%	9%
Might try	28%	36%	31%
Probably would not try	35%	27%	32%
Definitely would not try using it regularly	27%	26%	27%

Figure 34 Relationship of current use of I-580 and intended use of BRT

Interest in using BRT and current patterns of local travel

In the table above we examine three aspects of local travel that might be related to interest in using BRT. The first of the three tables at the top, shows the relationship between current use of route I580 and interest in using BRT. This is based on the assumption that there might be interest on the part of those using I580 in avoiding rush-hour congestion by traveling on Stanley Boulevard. That is not the case. There is no relationship between the time of day of current use of route I580 and interest in BRT.

There is some relationship between the frequency of using I580 and interest in BRT. Specifically, those who do not use route I580 at all are much more likely to say they would definitely not try using BRT regularly than those who use route I580. However, interest in BRT is approximately equal regardless of how frequently I580 is used if it is used at all.

Oddly, interest in using BRT is also unrelated to the frequency with which people travel among the three cities of Dublin, Livermore and Pleasanton.

Attitudes toward use of Wheels by students

Perceptions related to student use of Wheels

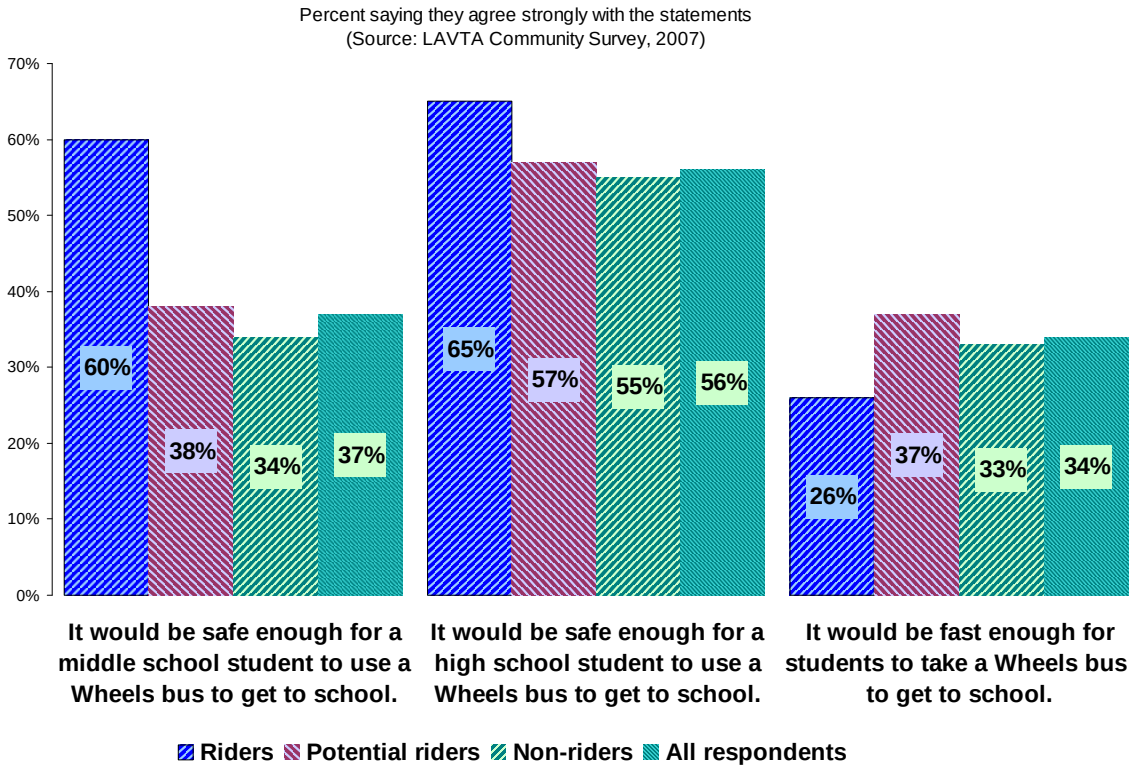


Figure 35 Perceptions of safety and speed of using Wheels for school trips

Use of Wheels by middle and high school students - overview

Respondents were asked to agree or disagree on a seven point Likert scale[4] with several statements about high school and middle school student use of Wheels. Since there is no yellow-bus service for students in Alameda County, there is some demand for student transportation by Wheels. The lack of service is not a problem for students only, but is also a barrier to parents' use of Wheels since many or most of them feel they must drop off and pick up their children at school.

Part of the question is whether people consider the use of Wheels to be safe enough and fast enough for students to use. These issues are explored in the chart above and in several charts which follow.

First note that only about one-third (34%) of all respondents (far right of chart) said that they feel that Wheels would be fast enough to get students to school. Not surprisingly, more people feel it would be "safe enough" for high school students to take a Wheels bus to school (56%) than feel

[4] A scale that uses numeric responses to represent degrees of any measurement that can be expressed in degrees, such as agree/disagree.

it would be safe enough for middle school students (37%) to do so.

Parent/Non-parent perceptions of student use of Wheels

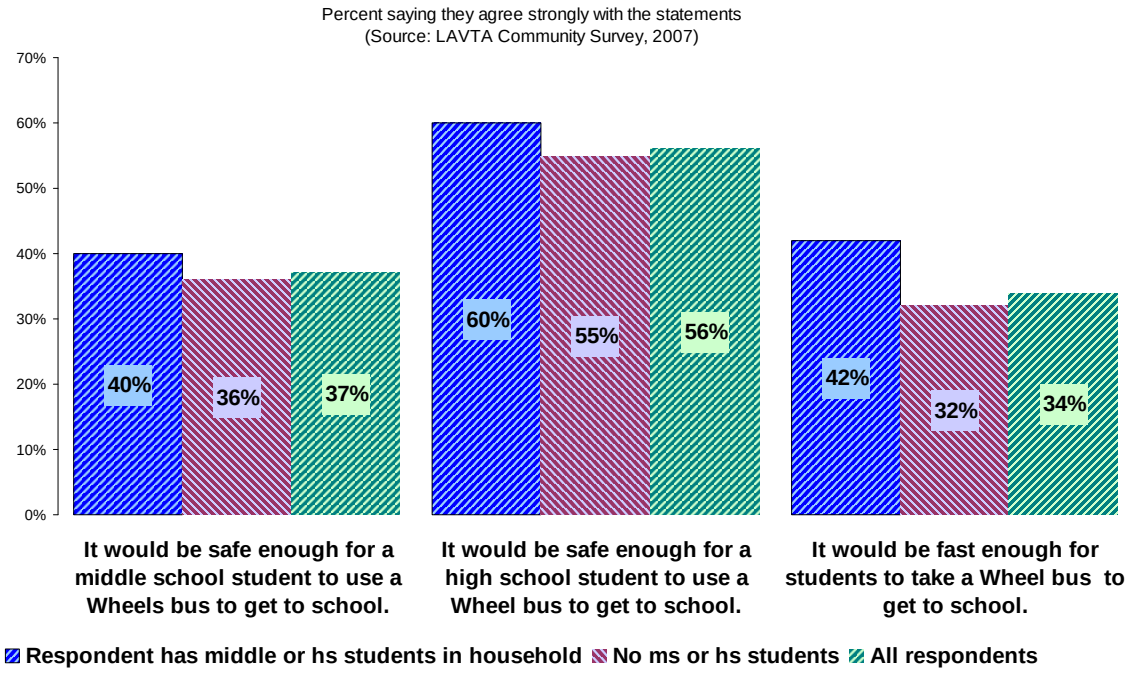


Figure 36 Parent and non-parent perceptions of student use of Wheels

Use of Wheels by middle and high school students – comparing parents and non-parents of current students

When we break the sample into those who will have middle or high school students in their households next year and those that will not, we find that those with such children are a bit more optimistic about use of Wheels than those without such children[5]. For example, 42% of those with children in the household say Wheels would be fast enough compared to only 32% of those without children. Also, 60% of those with children say it would be safe enough for a high school student to get to school by Wheels compared with 55% of those without children in the household. The difference is similar for the safety of middle school students (40% to 36%) respectively.

Clearly there is a substantial component of the public, including parents, who believe that Wheels would be both safe and fast enough for children to use to get to high school, and many who share this view even for middle school students. The speed of the service and the safety for the younger children are, however, clearly at issue with a majority of the public, including parents.

[5] Technically given the wording of the question, the respondent might have been a sibling rather than a parent, but this would be extremely uncommon, so in some cases we will refer to these people in the text as "parents."

Parent/Non-parent perceptions of speed of service for students

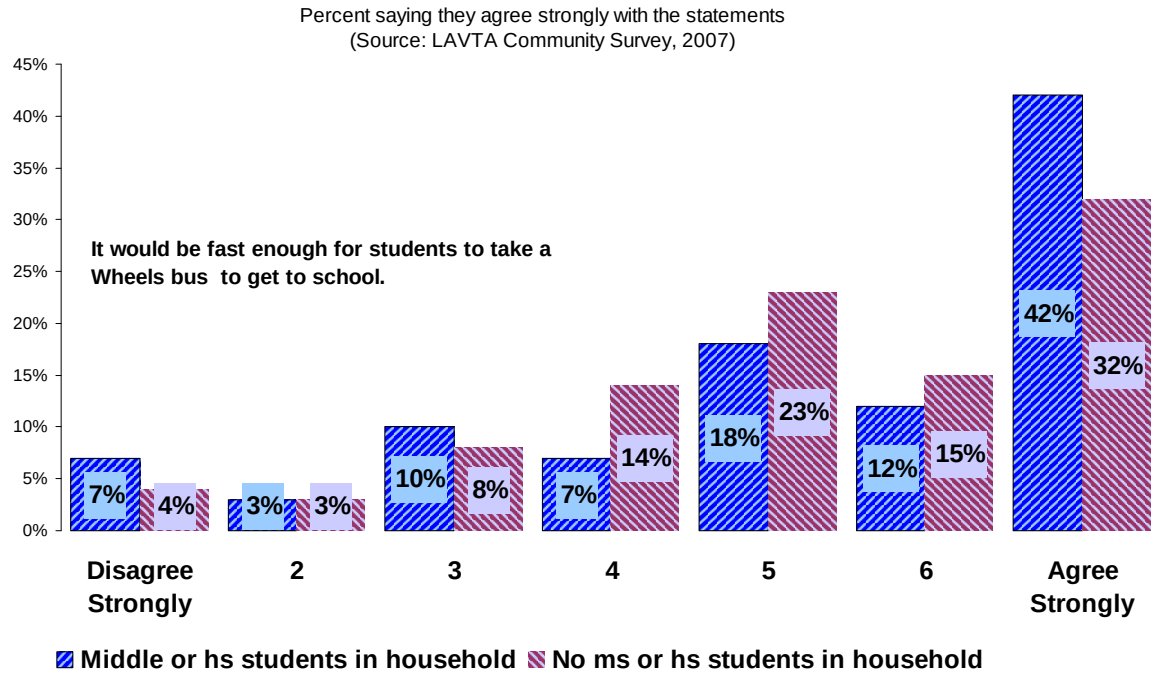


Figure 37 Parent and non-parent perceptions of speed of Wheels for service for students

DETAILS OF DISTRIBUTION OF ATTITUDES TOWARD SPEED OF WHEELS SERVICE FOR STUDENTS

The previous chart indicated the differences in the "strongly agree" category between those with children in middle or high school and those without. The chart above shows the entire distribution so that the reader can observe that very few *disagree* that Wheels would be fast enough. However, significant numbers express slight uncertainty about this by scoring their level of agreement as 5 or 6 rather than as 7, which indicates a definite opinion that Wheels would be "fast enough."

In other words, the public with children in middle or high school tends to agree (total of 72%) that Wheels is fast enough, though some of these parents are a bit uncertain in the endorsement of its speed.

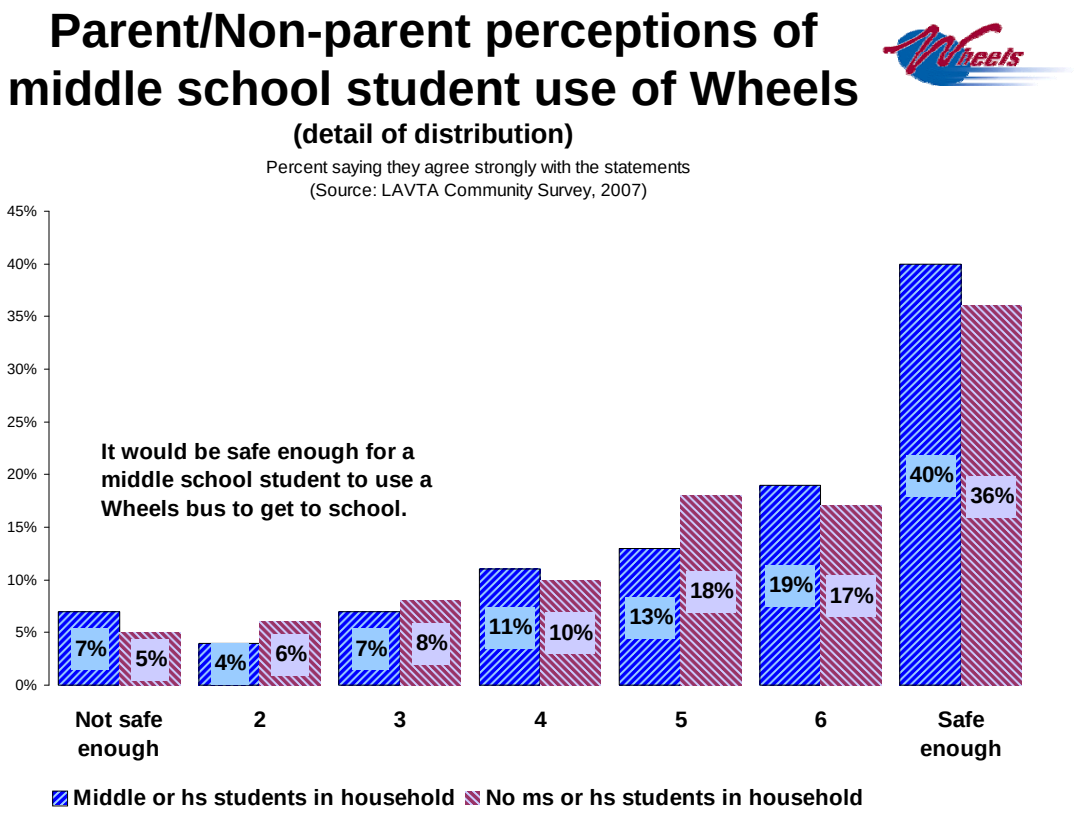


Figure 38 Parent and non-parent perceptions of use of Wheels by middle school students

DETAILS OF DISTRIBUTION OF ATTITUDES TOWARD SAFETY OF WHEELS SERVICE FOR MIDDLE SCHOOL STUDENTS

What was true of parental judgments about speed of Wheels service is also true of their attitudes toward the safety of Wheels service for middle schoolers. Specifically, most of those with a middle or high school student in the household agree that Wheels is safe enough for a middle school student, but some express their level of ambivalence by means of their scores of 5 or 6 on the 7 point scale.

There are two other important things about this chart. First, there is very little sense that Wheels is *not* safe, and second there is no polarization on the issue among parents. What we might have seen in some cities is a large proportion of people, especially parents, defining the transit system as safe and similar numbers declaring that it was unsafe. That is not the case here. The system is judged generally safe.

Parent/Non-parent perceptions of high school student use of Wheels

(detail of distribution)

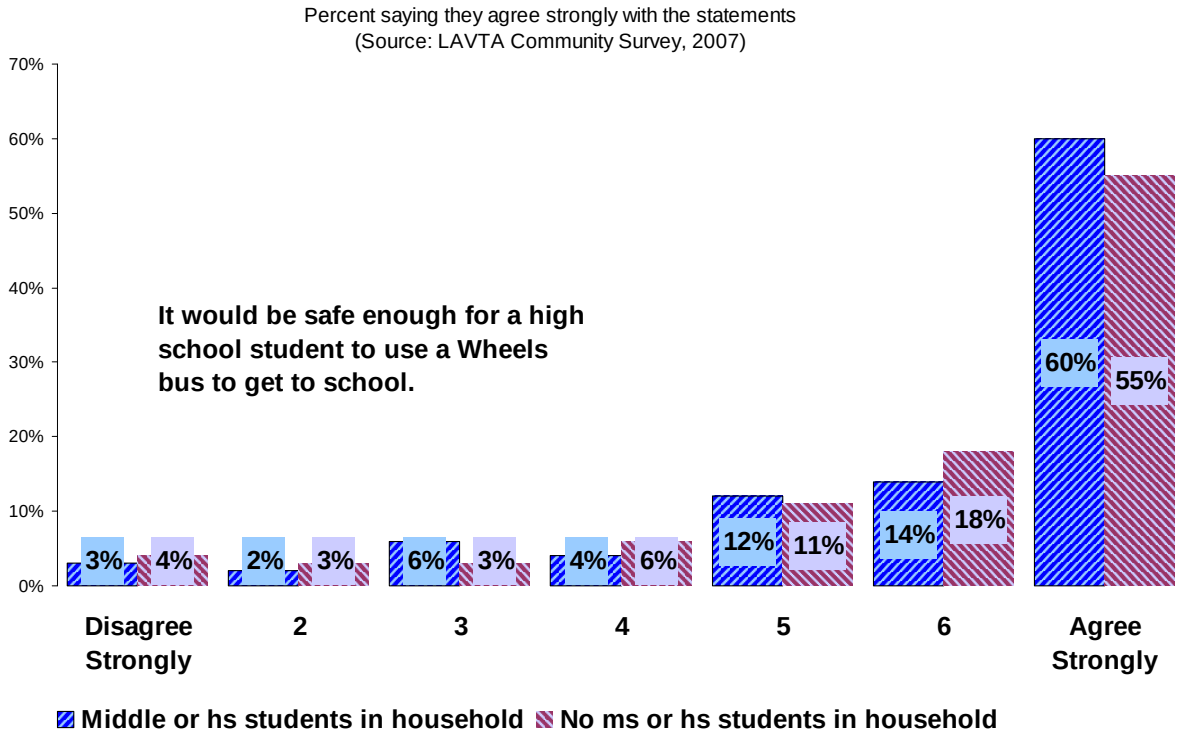


Figure 39 Parent and non-parent perceptions of use of Wheels by high school students

DETAILS OF DISTRIBUTION OF ATTITUDES TOWARD SAFETY OF WHEELS SERVICE FOR HIGH SCHOOL STUDENTS

What was true of attitudes toward Wheels for middle school students is also true – even more so – for high school students. The system is judged safe, and there are very few people, either parents or non-parents who disagree with that judgment.

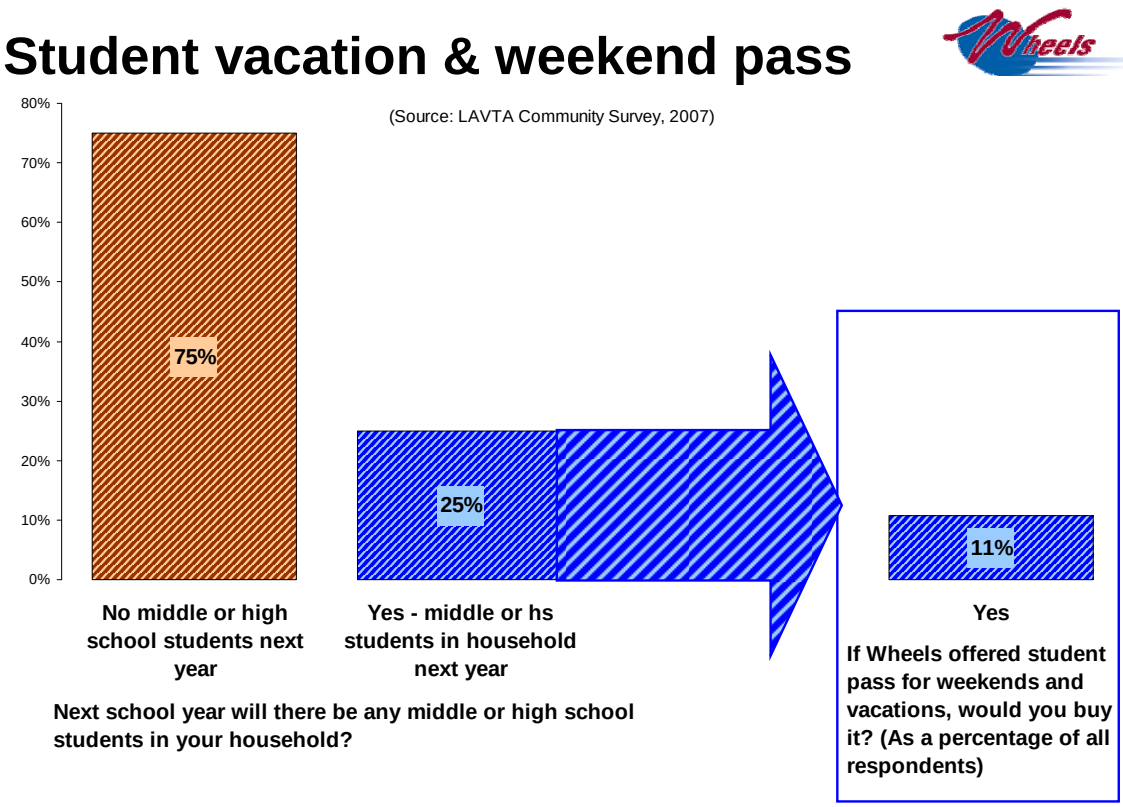


Figure 40 A pass for student weekend and vacation use

Market for a weekend and vacation student pass

Of all area adults, 25% indicated they would have a middle or high school student in the household next year. These 25% include 11% who said they would purchase a Wheels pass to be used by students on weekends and during vacations. The balance, 14%, said they would not do so.

Perceptions of local transportation

Wheels v personal vehicle

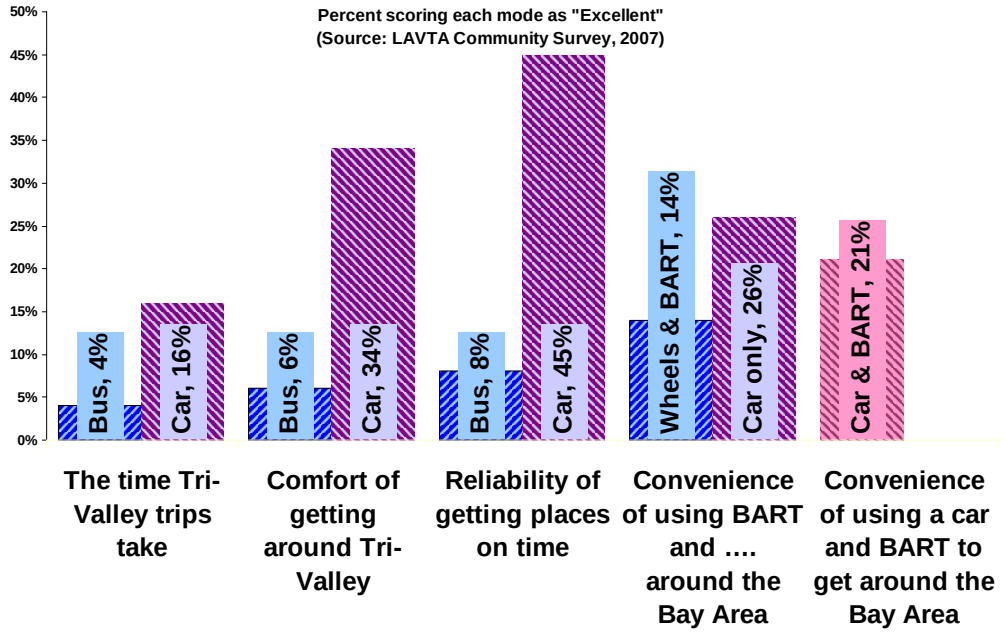


Figure 41 Wheels compared to the personal vehicle

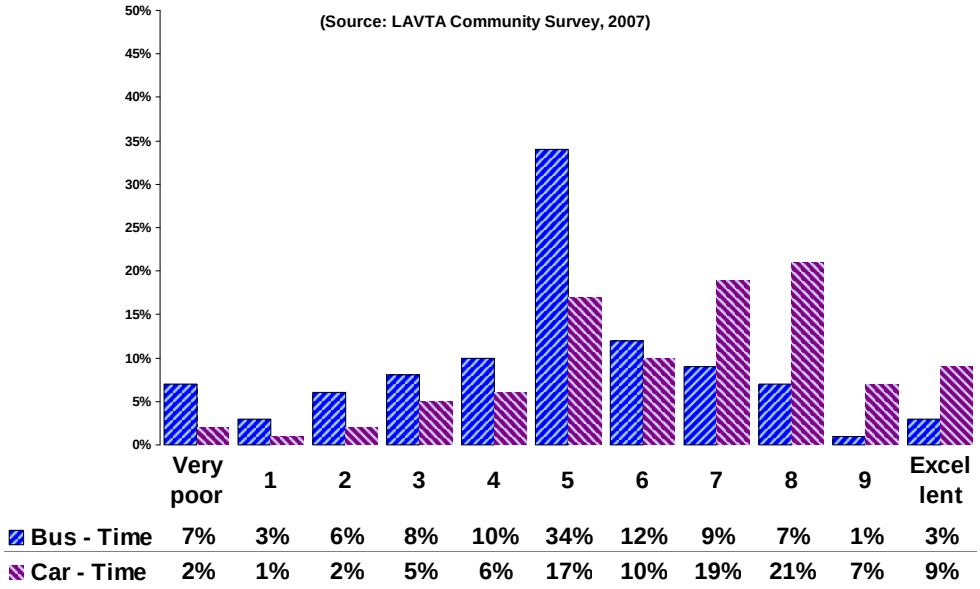
Competing with the private vehicle

Ultimately, the transit system has to compete with the private vehicle on basics. Most people grant that transit would cost less and provide environmental benefits. But ultimately they want brief and convenient trips, comfort, and reliability. In the Tri-Valley, they can move about in the Valley by car or by Wheels, or in the Bay area by car only, or by accessing BART via Wheels or their own vehicles.

The chart above shows the percent rating each aspect of transportation as nine or ten on a scale from zero to ten on which scores of nine or ten mean “excellent” for each mode.

- Very few people rate either Wheels (4%) or their car (16%) as excellent in terms of the time Tri-Valley trips take. This is apparently a reflection of the perceived level of congestion there.
- For comfort, the car is rated as excellent by about one-third of the respondents (34%) while Wheels bus is so-rated by only 6%.
- For reliability, the car is considered reliable by a much greater percentage (45%) compared to 8% for the Wheels bus.
- The convenience of using a combination of Wheels and BART for getting to and around the Bay Area, transit is much less at a disadvantage than on the other dimensions of comparison. For that situation, 14% rate a Wheels/BART combination as excellent and 26% rate a car-only mode as excellent, and 21% a car/BART combination as excellent. That is, the car still holds the advantage but it is much less than on the other dimensions.

Bus/Car comparison: Time for trip



	Very poor	1	2	3	4	5	6	7	8	9	Excellent
Bus - Time	7%	3%	6%	8%	10%	34%	12%	9%	7%	1%	3%
Car - Time	2%	1%	2%	5%	6%	17%	10%	19%	21%	7%	9%

Figure 42 Bus/Car comparison: Time for trip (all respondents)

Detail of distributions of the bus/car comparisons

For the sake of compact presentation in the previous chart we examined only the top scores of each of the four comparison elements. In the series of four charts that follow, we examine the full distribution of scores for the whole sample, and also cite the mean scores for potential riders and non-riders.

Time for trip

Mean

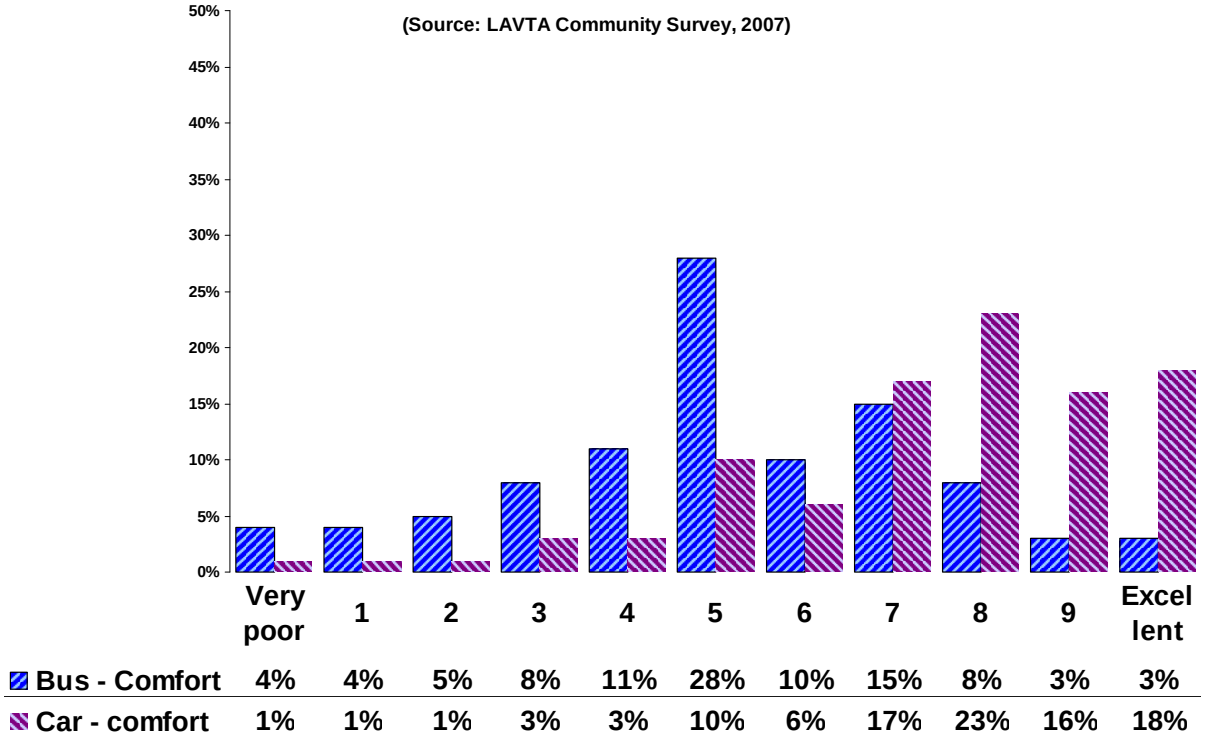
Market segments (excluding riders because of small sub-sample)	The time Tri-Valley trips take by bus	The time Tri-Valley trips take by car
Potential riders	4.96	6.37
Non-riders	4.67	6.50
Total	4.76	6.45

TIME FOR TRIP

When we examine the total market's perceptions of the time it takes to make local trips, we find a pattern which recurs on all of the bus/car comparisons. The low top score of 4% cited in Figure 41 on the previous page is low not because the scores for the bus were negative, but because they tend to be neutral or less positive than scores for the car. In other words, the bus is seen by most people as a *relatively* poor performer in terms of time required for a trip, but not as a very poor performer. The problem is that consumers are seeking superior performance.

Because a numeric scale score was used in the question, we can also compute mean scores as shown in the inset table. Among potential riders, the mean score on time for the trip on the scale from 0-10 is 4.96 and for non-riders is 4.67. The potential rider score for the car is 6.37 and the non-rider score is 6.5. This means that the potential rider's more favorable general view of transit is caused in part by his or her more optimistic rating of the time dimension.

Bus/Car comparison: Comfort



	Very poor	1	2	3	4	5	6	7	8	9	Excel lent
Bus - Comfort	4%	4%	5%	8%	11%	28%	10%	15%	8%	3%	3%
Car - comfort	1%	1%	1%	3%	3%	10%	6%	17%	23%	16%	18%

Figure 43 Bus/Car comparison: Comfort (all respondents)

COMFORT

The comfort dimension is similar to the time dimension. We do find substantial numbers of people that rate comfort of Wheels buses reasonably well (7 or above), but they total only 29% in the range of 7 – 10 compared to 74% for the car. This should increase if the BRT buses become more familiar to people and the appearance of shelters is improved.

Comfort

Mean

Market segments (excluding riders because of small sub-sample)	Comfort of using Wheels bus around Tri-Valley	Comfort of using car around Tri-Valley
Potential riders	5.38	7.32
Non-riders	4.87	7.51
Total	5.05	7.44

The break down of the mean scores between the potential riders and non-riders follows the expected pattern, with potential rider scores being more favorable to the bus than the non-riders' scores and the gap between bus and car narrower for the potential riders than for the non-riders. This is further evidence that they are in fact more persuadable to use transit.

Bus/Car comparison: Reliability

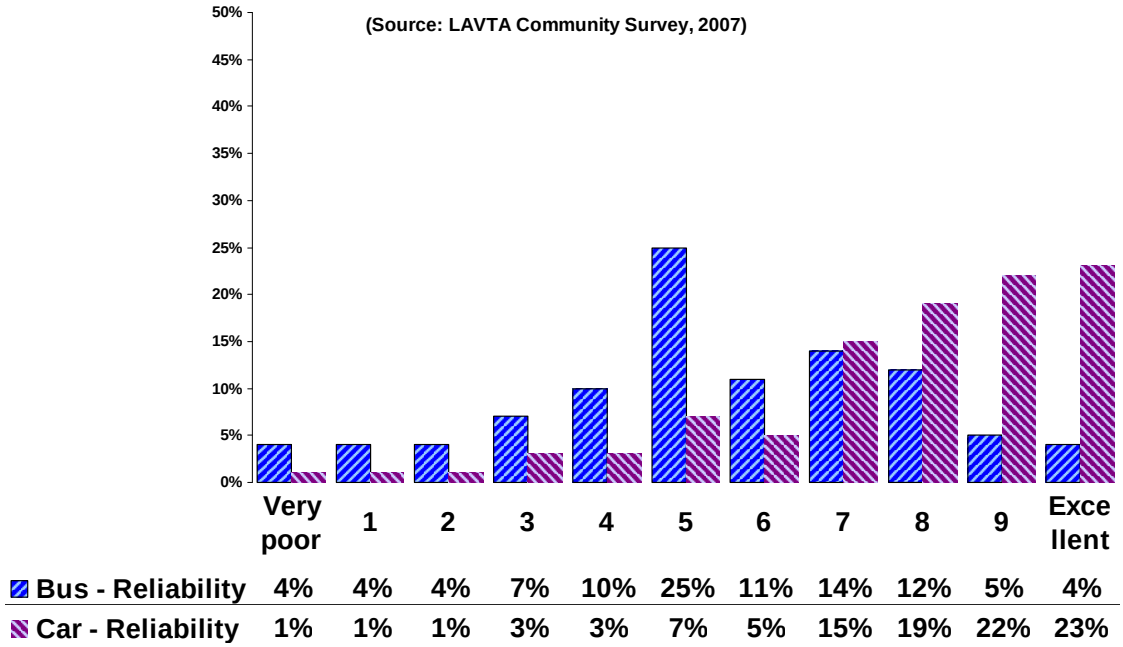


Figure 44 Bus/Car comparison: Reliability (all respondents)

RELIABILITY

Although the bus is not given many really negative scores on reliability, the car is considered much more reliable than the Wheels bus and by more people. For example, the distribution of the scores of 7 – 10 for the bus is almost a mirror image of the scores for the car.

Reliability

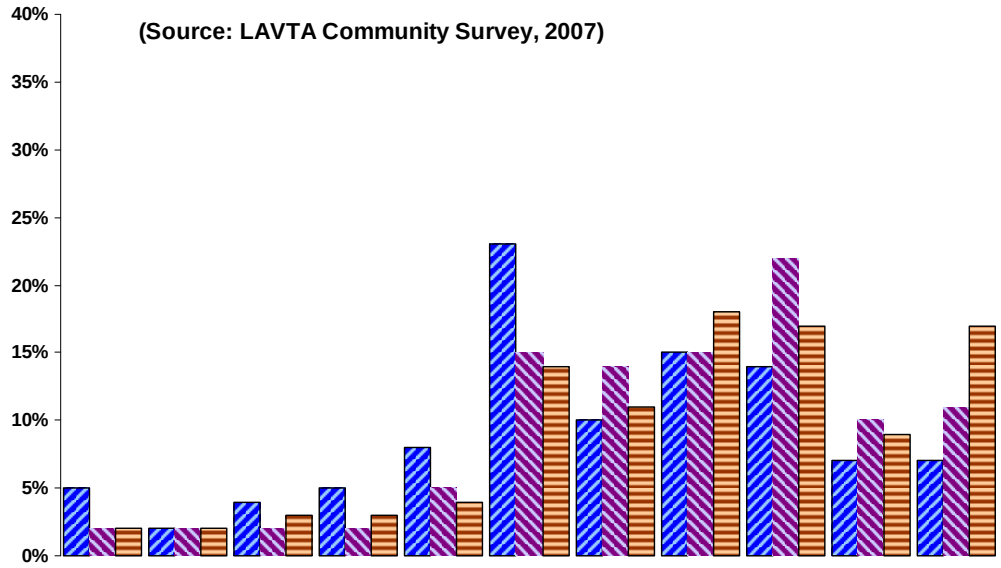
Mean

Market segments (excluding riders because of small sub-sample)	Reliability of getting places on time by Wheels	Reliability of getting places on time by car
Potential riders	5.49	7.81
Non-riders	5.25	7.69
Total	5.33	7.73

As was true for other dimensions, the potential rider score (5.49) is in the neutral range (4 – 6 can be considered "neutral") but is more positive than the reliability score of the non-riders (5.25). The reliability score for the car is much higher for both potential and non-riders.

Reliability in transportation means various things to various people. For transit it means certainty of when the vehicles operate, when a particular vehicle will arrive, where it will go, and so forth. In other words, it means more than on-time performance, though it includes that.

Bus/Car with BART: Convenience



Convenience	Very poor	1	2	3	4	5	6	7	8	9	Excellent
Wheels/BART	5%	2%	4%	5%	8%	23%	10%	15%	14%	7%	7%
Car/BART	2%	2%	2%	2%	5%	15%	14%	15%	22%	10%	11%
CAR - no transit	2%	2%	3%	3%	4%	14%	11%	18%	17%	9%	17%

Figure 45 Bus/Car comparison: Accessing BART via Wheels or car or using car only

COORDINATING WHEELS, A CAR AND BART

The mode comparisons are somewhat more complex when discussing the advantages of Wheels and cars for travel to and within the Bay Area than when discussing only transportation within the Tri-Valley. In this case the possibilities include using Wheels or a car to access BART, or using a car only.

The distribution of the scores for convenience of each option are shown above. As with the other dimensions, the Wheels bus attracts more neutral scores than the other modes. Again we see that the car used alone stands out in most people's minds as the superior choice. However, when we compare the combination of Wheels/BART to a car/BART, the difference narrows slightly.

Mean comparison scores

(Scale of 0 – 10 where 10 is more positive)

Comparing Wheels buses and the car - mean scores

	Potential riders		Non-riders	
	Wheels bus	Car	Wheels bus	Car
Time	5.0	6.4	4.7	6.5
Comfort	5.4	7.3	4.9	7.5
Reliability	5.5	7.8	5.3	7.7
Conveience of bus or car and BART	6.2	6.6	5.4	6.9
Convenience of car only		7.0		6.6

Figure 46 Comparing mean scores for Wheels buses and private cars

Overview of the quality comparison scores

In the table above, the scores reported for all respondents in the previous five charts are expressed as mean scores to show the statistical central tendency, and they are also broken down by potential riders and non-riders.

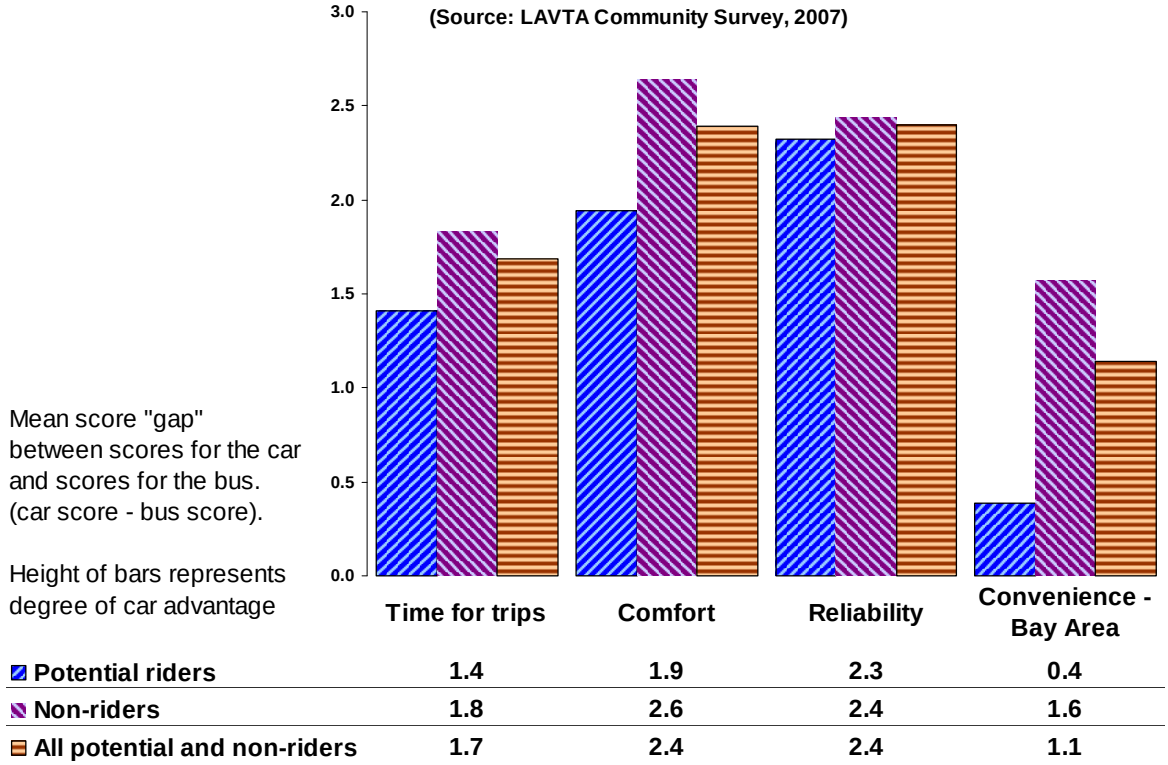
Notice these patterns:

- The scores for the Wheels buses are, as expected, better among the potential riders than among non-riders.
- The scores for the car are, with two important exceptions (reliability and car only for Bay Area travel), lower for the car among potential riders than among non-riders.

Taken together, these characteristics suggest that the potential riders see Wheels as being somewhat closer to what they would like in a local transportation option than do the non-riders. But it also suggests that where this more favorable perception by potential riders breaks down especially is in the perception of the relative *reliability* of a private vehicle. On this dimension, the scores are essentially equal.

These are the primary negative images that need to be mitigated to attract more of the potential riders.

Gap scores
(Car score minus bus score)



	Time for trips	Comfort	Reliability	Convenience - Bay Area
Potential riders	1.4	1.9	2.3	0.4
Non-riders	1.8	2.6	2.4	1.6
All potential and non-riders	1.7	2.4	2.4	1.1

Figure 47 Gap scores

GAP SCORES COMPARING WHEELS BUSES AND CARS

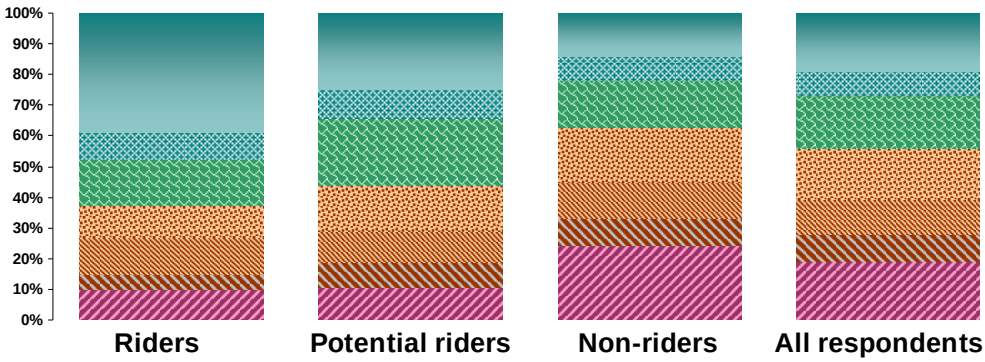
The chart above indicates a "gap" score showing the differences between scores for Wheels buses and private cars. It also shows these differences as computed among potential rider and non-riders. The score is computed as [(mean score for the car) – (mean score for the bus)].

The meaning of the gap score is very simple. Essentially it shows the advantage the car has over the Wheels bus. When we consider all those who do not now use Wheels ("All potential riders and non-riders") we see that the greatest gaps, or car-advantages, are for comfort and reliability. There is a major, but lesser gap for the time required for a trip. Convenience of using Wheels v a car to access BART for travel in the Bay Area also shows a car-advantage, but less than for comfort and reliability.

When we consider the gap scores for the potential riders and non-riders we find that for reliability they are almost the same – an indication that image of greater reliability of the car is a key challenge for marketing Wheels services. For the time trips take and for comfort, although potential riders also give the car an advantage, is it less pronounced than for reliability. It is also very interesting that the potential riders give only a very small advantage (.4) to accessing BART by car rather than by Wheels. This means that they see almost no difference in overall convenience once one is using public transit to access the Bay Area.

Perception of comfort of Wheels trips

(Source: LAVTA Community Survey, 2007)



It would be more comfortable to get through traffic on a Wheels bus than in your car.

	Riders	Potential riders	Non-riders	All respondents
Agree Strongly	39%	25%	14%	19%
	9%	10%	8%	8%
	15%	22%	15%	17%
Neutral	10%	15%	18%	17%
	12%	10%	12%	11%
	5%	8%	9%	9%
Disagree Strongly	10%	11%	24%	19%

Figure 48 Comfort of using Wheels

The comfort dimension

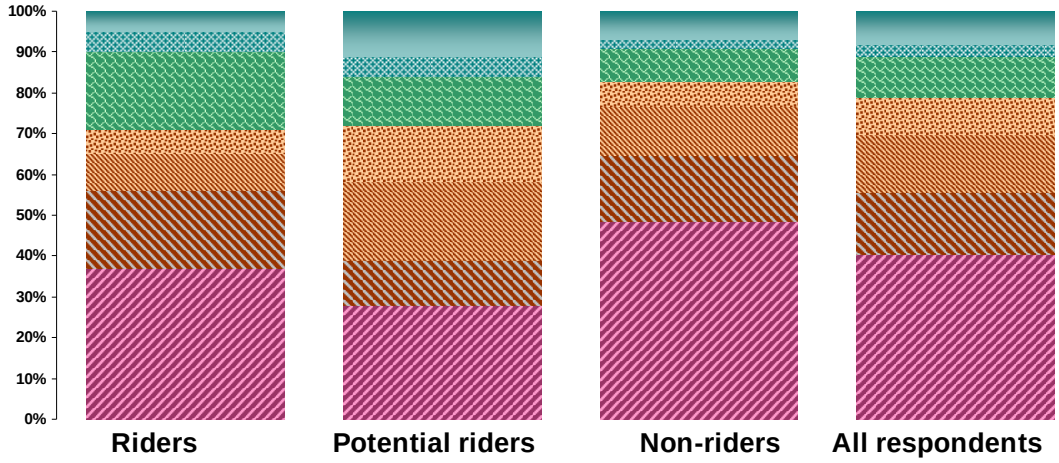
One additional question was asked of respondents concerning comfort. In an era when cars are mobile, air-conditioned entertainment and communications centers, it is difficult to compete with the comfort of a private vehicle. The chart above indicates the fact that there are very different perceptions of the comfort of Wheels buses within the public, and specifically between potential riders and non-riders.

Among all respondents 19% strongly agree that getting through traffic on the bus would be more comfortable, and 19% strongly disagree. The remainder of the score distribution among all respondents is also almost an equal balance of positive and negative views.

The non-riders tend to disagree that the bus would be more comfortable or to be neutral on the matter, while potential riders tend to agree that the bus would be more comfortable, probably simply because they would not have to be driving.

Perception of time required for Wheels trips

(Source: LAVTA Community Survey, 2007)



It seems as if using Wheels buses for the types of trips you make would just take too long.

	Riders	Potential riders	Non-riders	All respondents
Disagree Strongly	5%	11%	7%	8%
2	5%	5%	2%	3%
3	19%	12%	8%	10%
Neutral	6%	14%	6%	9%
5	9%	19%	12%	14%
6	19%	11%	16%	15%
Agree Strongly	37%	28%	48%	40%

Figure 49 Perceived time required for trips by Wheels

TIME REQUIRED FOR TRIPS

There is a tendency for both potential riders and non-riders to agree that using Wheels for their regular local trips would just take too long. The tendency is lesser among potential riders as one would anticipate, but it is nevertheless present, with 28% agreeing strongly with the statement and 30% more also coming down on the agreement side of the scale.

COMMENT

The rider sub-sample is, as we have repeatedly pointed out, too small to be more than suggestive, but it suggests that even among some current riders, that the image of the system is that it is a bit slow for their purposes. Given that virtually all Wheels service currently is local service operating in traffic and with many stops, it is not surprising that this is a widespread perception. However, it is an indication that as the BRT service is rolled out, it ought to be leveraged in terms of image to promote the idea of reliably rapid service.

Estimated minutes by car and by transit for local trips

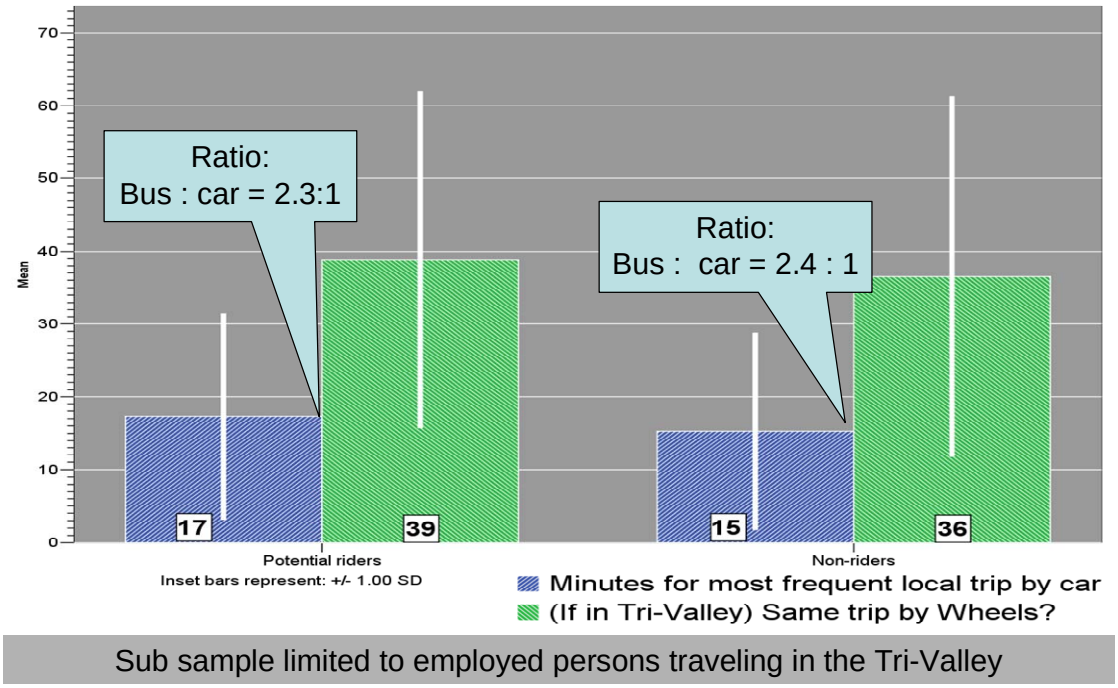


Figure 50 Minutes estimated for travel by car and by Wheels within the Tri-Valley (commuters only)

ESTIMATES OF THE TIME BY BUS AND TIME BY CAR

Respondents were asked to estimate the time it would take by car and by bus to make their most frequent local trips (which, for commuters, are their commute-trips). Their answers were separated by whether the trips were within or out of the Tri-Valley. The chart above shows four separate things about these estimates for those traveling in the Tri-Valley:

(1) The average number of minutes respondents cited for their trip if by car or by Wheels
(2) The ratio of time by bus to time by car. This ratio addresses the question, "How much longer do people perceive it would take by car rather than by bus for their most frequent local trip?"
(3) The standard deviation of the estimated minutes. The length of the vertical inset white line within each bar encompasses one standard deviation and represents the time estimates of roughly two-thirds (actually 68%) of the respondents. This provides a visual idea of the range of time-estimates.
(4) The way these estimates differ between potential riders and non-riders.

The chart demonstrates the following:

- Trip estimates by car average about 15 to 17 minutes for non-riders and potential riders respectively, and most people fall within a range of two minutes to thirty-one minutes.
- The same trip is thought by potential riders to take 39 minutes, more than twice as long as by car (2.3:1). For non-riders, the ratio is roughly the same 2.4:1

Typically we find that for people to begin using transit regularly, they must perceive that their trip by bus will require less than twice the time as by car.

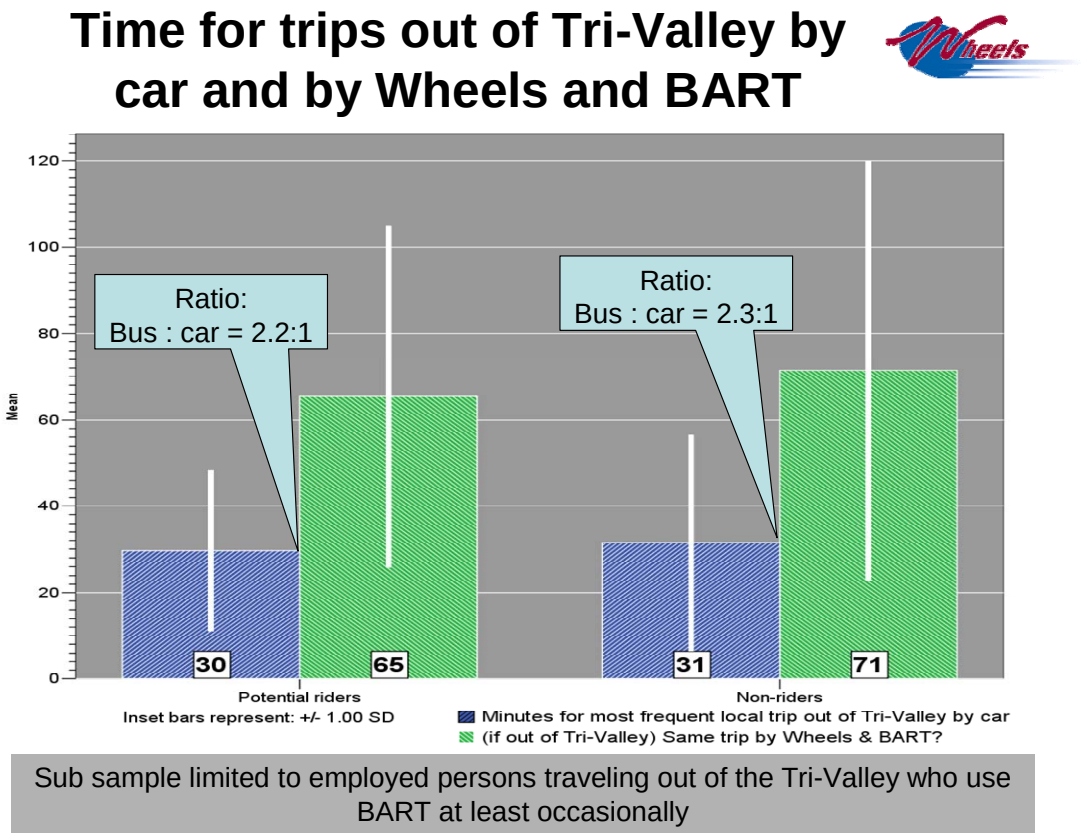


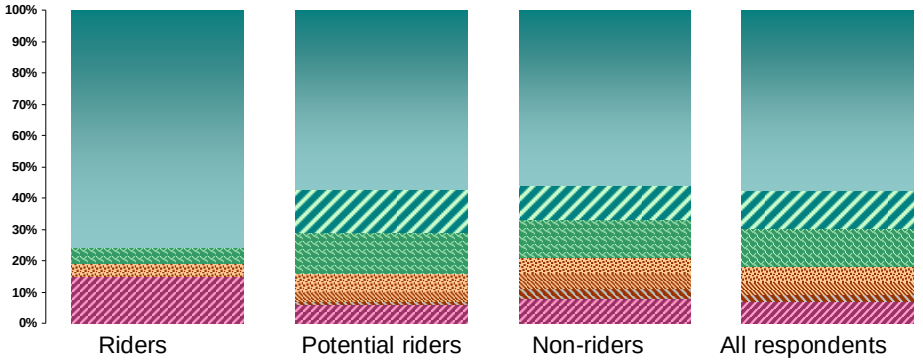
Figure 51 Minutes estimated for travel by car and by Wheels & BART out of the Tri-Valley (commuters only

For those who travel out of the Tri-Valley and use BART, we find longer trips than in the Valley, but very similar ratios.

Tax support

Tax support

(Source: LAVTA Community Survey, 2007)



It is important for the Tri-Valley to have good tax supported public transportation.

	Riders	Potential riders	Non-riders	All respondents
Agree Strongly	76%	57%	56%	57%
6	0%	14%	11%	12%
5	5%	13%	12%	12%
Neutral	4%	6%	5%	5%
3	0%	3%	5%	4%
2	0%	1%	3%	2%
Disagree Strongly	15%	6%	8%	7%

Figure 52 The perceived importance of tax supported public transportation

Tax support for transit in the Tri-Valley

This study was not primarily about community support for a tax for transit service, and thus only one question was asked about it. That one question, however, indicates strong, though diffuse, support for the idea that it is important for the Tri-Valley to have good tax-supported public transit service: 57% strongly agree with this statement, and another 24% offer positive, though less strong endorsement.

This statement is the most general that we use to measure public support. It is a useful benchmark because it identifies seriously negative situations in which a substantial portion of the public rejects this concept.

Oddly in this case riders appear to be more likely than others to oppose the tax subsidy. There are two reasons for this. First, this was not intended to be a rider-oriented study and the rider sub-sample is too small to be reliable, and is only suggestive. Second, *if the data are accurately portraying riders*, they are consistent with findings in focus groups studies of other systems. We find that often riders, who tend to be low in income, feel that fares are high and that the bus system should operate on fares without charging them fares and then taxing them. They rarely even know that the system is tax-subsidized.

Agreement with tax support for public transit within key demographic groups

		Majority/minority ethnic group		Age groups			Income groups		
		Caucasian, non-Hispanic	Minority	Younger than 45	45 - 54	55 or older	Under $50,000	$50-$99,999	$100,000+
		Col %	Col %	Col %	Col %	Col %	Col %	Col %	Col %
It is important for the Tri-Valley to have good tax supported public transportation.	Disagree Strongly	7%	8%	6%	9%	7%	11%	4%	9%
	2	2%	2%	2%	3%	2%	0%	1%	3%
	3	3%	7%	4%	5%	4%	4%	2%	5%
	4	5%	6%	9%	4%	4%	2%	6%	5%
	5	11%	13%	10%	13%	12%	13%	10%	12%
	6	12%	11%	13%	9%	13%	7%	16%	10%
	Agree Strongly	59%	53%	56%	58%	58%	63%	60%	56%

Figure 53 Demographics and attitudes toward tax support

The table above displays the relationships between three demographic characteristics and support for subsidizing transit with tax income. The table indicates that:

- There is no relationship between ethnic self-identification and support for tax support of transit.
- There is no relationship between age and support for tax support of transit.
- There is only a weak relationship between income and support for tax support of transit, and it is inverse – the higher the income, the lower the support. However, even this weak relationship appears only at the levels of "disagree strongly" and at the level of strong agreement where there is a tendency for persons of higher income to be less likely to agree strongly that tax supported transit is important to the Tri-Valley.

This measure is very general, and in polling terms is "soft." It involves only an endorsement of the status quo. If it involved changing the status quo by imposing new taxes, the response would no doubt be different, and the demographics relationships portrayed above would also be different.

Demographics of the transit market segments and potential rider sub-segments

The demographic charts

The demographic charts in the following chapter include data from both surveys conducted as part of this 2007 study, the onboard rider survey and the community telephone survey. As we have pointed out several times in this report, the community survey conducted by telephone had as its priority to identify a potential rider quota, not a quota of riders. Thus the proportion of riders in the sample was 5%, and that is too small a number for further analysis that could be considered definitive.

The rider survey, however, accurately portrays the Wheels ridership. Since the demographic categories are similar for age, ethnicity and income, data from the rider survey is included in the charts for comparison. In the cases of age and income, the rider-data categories had to be adjusted slightly from those presented in the onboard report so that they would be comparable.

Telephone surveys are increasingly difficult to complete because of changes in technology and lifestyle. Cell-phone use, especially among the young, interferes with sampling the young, as do their hectic and highly mobile lifestyles. Thus telephone surveys inherently and increasingly tend to sample more middle age and older persons (45 and older) than their proportion in the population would normally produce and fewer persons under 45. In addition, in a survey like this one in which a quota based on attitudes and preferences has been established (in this case their interest in using transit) it is not possible to set additional *a priori* quotas for age groups since we cannot know in advance how the age groups will break.

We try to deal with this by calling back each randomly sampled telephone number five times at different hours on different days before substituting a different number. However, while this helps greatly, it does not overcome the overrepresentation of older persons completely. Nevertheless, overall the sample provides a reasonable representation of the community and the transit market.

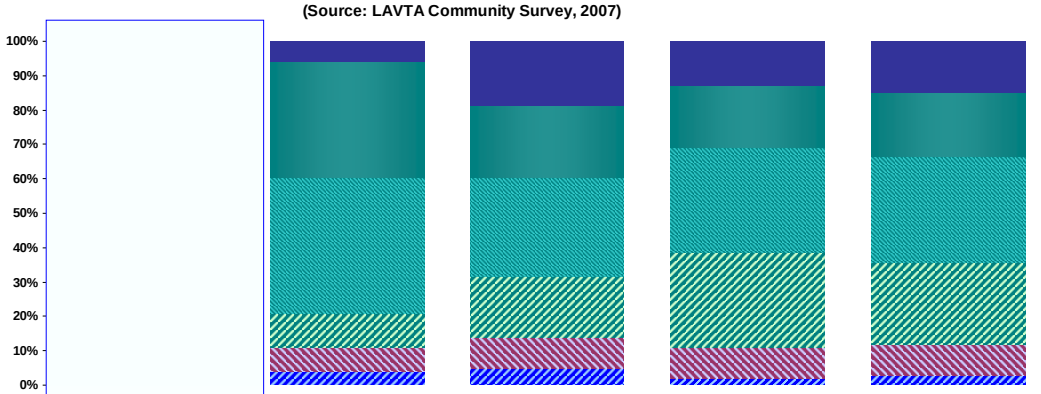
Sample age sets compared to Census

Age sets	Survey age	Census age
20-24	3.0%	6.3%
25-34	9.0%	16.0%
35-44	24.0%	27.8%
45-54	31.0%	26.0%
55-64	19.0%	11.0%
65 and older	15.0%	13.0%

Experimentation with alternative weighting demonstrates that the results would not have differed by more than 1% or 2% on most measures if the sample had been 100% representative of the age groups in the population.

Age

(Source: LAVTA Community Survey, 2007)



	Riders	Potential riders	Non-riders	All respondents
65 and older	6%	19%	13%	15%
55-64	34%	21%	18%	19%
45-54	40%	29%	31%	31%
35-44	10%	18%	28%	24%
25+34	7%	9%	9%	9%
18-24	4%	5%	2%	3%

* In the onboard survey there was a category of riders under 18. In the telephone survey the respondents were all 18 or older. Thus for this table the onboard survey percentages were adjusted to drop the under 18 group for comparability.

Figure 54 Demographics: Age

Age

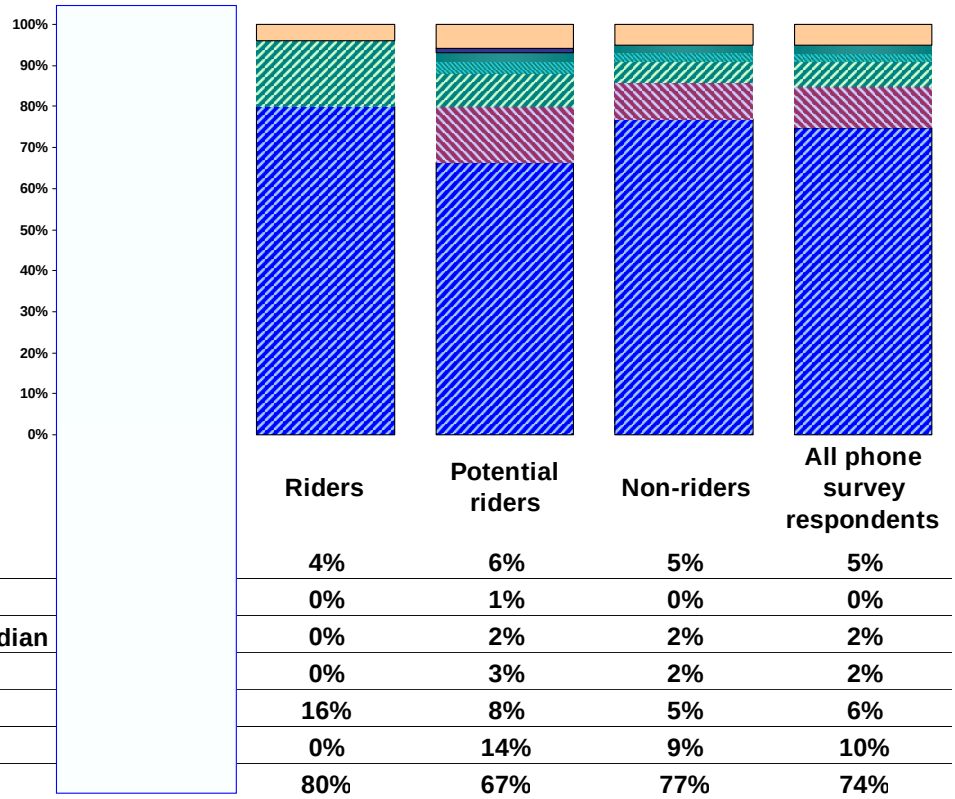
The important messages of the chart above are these:

- Compared to the total adult population, the potential riders include larger percentages of people who are either younger than 24 or older than 65. However, the differences are small, and the larger market is among the more economically active middle age market from 35 – 54.

- The riders, as measured by the on-board survey, are much younger than the population as a whole or than the potential riders. For example, 29% of Wheels riders (excluding trippers) are 24 or younger, compared to only 3% of the adults in the general sample of 6% according to the Census. For this reason, it is apparent that although the middles age portion of the potential rider market is larger, the younger group is “more like” the existing ridership in age, and is thus the market more likely to try Wheels with less prodding.

Ethnic self-identification

(Source: LAVTA Community Survey, 2007)



	Riders	Potential riders	Non-riders	All phone survey respondents
Other	4%	6%	5%	5%
Pacific Islander	0%	1%	0%	0%
Native American Indian	0%	2%	2%	2%
African American	0%	3%	2%	2%
Hispanic	16%	8%	5%	6%
Asian	0%	14%	9%	10%
Caucasian	80%	67%	77%	74%

Figure 55 Demographics: Ethnic / racial self-identification

Ethnic and racial self-identification

TRANSIT MARKET SEGMENTS

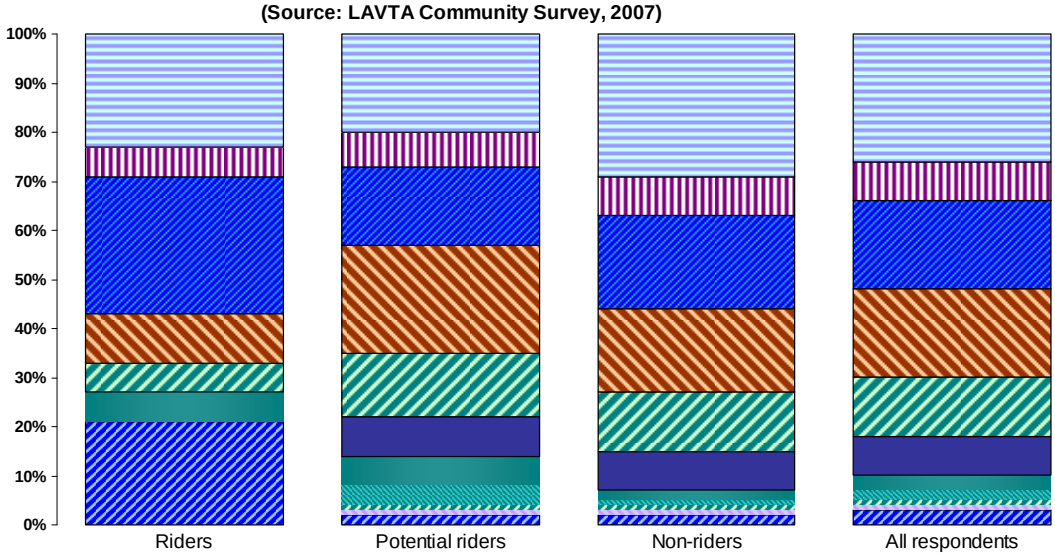
Compared to the general population, current Wheels riders in both surveys, were more likely to identify themselves as Hispanic (50%) in the onboard survey than the potential ridership (8%). Also, compared to the potential riders, the current ridership is less likely to identify as Caucasian (24%) than are the potential riders (67%) Thus, attracting potential riders means attracting a ridership that is culturally quite different from the current ridership. This represents a significant marketing challenge.

	White	Black	Native Am	Asian	Pacific Isl	Other	Hispanic
Census 2000	73%	3%	0%	10%	0%	4%	11%
2007 Survey	74%	2%	2%	10%	0%	5%	6%

The inserted table shows an approximate comparison of the survey profile to the profile found by the Census of 2000, indicating that the two achieved very similar results.

Income

(Source: LAVTA Community Survey, 2007)



	Riders	Potential riders	Non-riders	All respondents
$150,000 or more	23%	20%	29%	26%
$125,000 to $149,999	6%	7%	8%	8%
$100,000 to $124,999	28%	16%	19%	18%
$75,000 to $99,999	10%	22%	17%	18%
$50,000 to $74,999	6%	13%	12%	12%
$35,000 to $49,999	0%	8%	8%	8%
$25,000 to $34,999	6%	6%	2%	3%
$20,000 to $24,999	0%	4%	1%	2%
$15,000 to $19,999	0%	1%	1%	1%
$10,000 to $14,999	0%	1%	1%	1%
Less than $10,000	21%	2%	2%	3%

Figure 56 Demographics: Household income (First of two income charts)

Household income

THE TRANSIT MARKET SEGMENTS

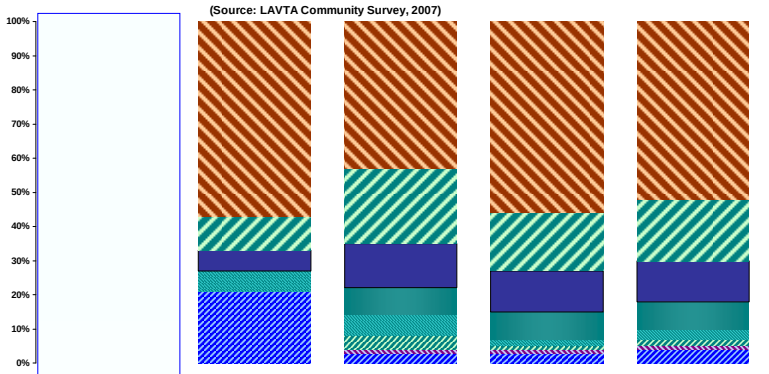
The income chart above is the first of two charts. It shows only the data on income from the community telephone survey. The second (next page) uses slightly different income groupings to compare the onboard rider data to the community survey data.

The rider data, though it is not definitive, does reflect what we will see also in the following chart, that the ridership has lower incomes than the general population.

The chart also shows that the potential rider market segment includes a greater proportion of moderate income people in the income range of $20,000 to $35,000 than the non-riders, a fact that suggests the great importance of economy for the middle income person in the marketing of transit.

It also demonstrates that many people above the median income for Alameda County ($61,000) are interested in the idea of using Wheels. For example, of the potential riders, a total of 65% are in the broad upper income range of $75,000 or more. This is a demanding consumer. The advent of BRT should help attract some of this market, but attracting this upscale segment of the potential market is a challenge given their capacity to insist on comfort and quality, and their concern with using their time effectively.

Income comparison to onboard rider data



	Riders	Potential riders	Non-riders	All respondents
$100,000 or more	57%	43%	56%	52%
$75,000 to $99,999	10%	22%	17%	18%
$50,000 to $74,999	6%	13%	12%	12%
$35,000 to $49,999	0%	8%	8%	8%
$25,000 to $34,999	6%	6%	2%	3%
$20,000 to $24,999	0%	4%	1%	2%
$15,000 to $19,999	0%	1%	1%	1%
Less than $15,000	21%	3%	3%	4%

Figure 57 Demographics: Household income, with comparison to onboard rider survey (second of two income charts)

The rider sub-sample in the community survey suggests that the general body of riders in the overall population includes disproportionate numbers of both persons with lower household incomes (less than $15,000) and upper level incomes ($100,000 or more). Since this is a general population sub-sample this makes sense in that such a sample captures all riders regardless of frequency and thus represents those occasional riders who are numerous but who use transit rarely and slip through the net in an onboard survey.

The larger rider sample of the onboard survey shows rider household incomes as less bifurcated than the telephone survey shows. In fact, the incomes of riders are distributed across the spectrum of levels while the income of the general adult population, and of the potential riders, are concentrated at $75,000 and above.

Conclusions

The market for public transit in the Wheels service area currently consists of 5% current riders, 35% potential riders, and the balance, 60%, staunch non-riders. LAVTA ridership records indicate that ridership is growing somewhat. This appears to be accounted for by population growth and by more intense use of Wheels by existing riders.

- The potential riders tend to have vehicles of their own, and to be older and much more affluent than existing Wheels riders. Thus they are challenging to attract. Many of the potential riders have structural barriers to their use of transit such as having to drop off a child on the way to work or having to use their cars for work-purposes. Approximately 42% do not face these kinds of barriers. Thus, approximately 15% of the population can be considered prime-potentials.

- Adults in the service area break into three approximately equal size groups in terms of commuting. One-third are employed or students who thus must commute and do so within the Tri-Valley, on-third are employed or students who commute outside of the Tri-Valley, and one-third are neither employed nor students. Thus there are three very distinct markets for transportation within the Wheels service area.

- Among the employed segment, there is a small but important market of employed post-secondary students who should be prime targets for a student commuter program.

- After many years of Wheels service to the Tri-Valley, slightly more than half of the public knows the Wheels name. Current service is perceived as much less reliable and comfortable than the car by potential riders and more time-consuming. A name-change may be desirable, but only if it can be connected with a image based on real performance of faster, more comfortable, and highly reliable service. The advent of BRT should be helpful in this respect, though that alone would not alter the perception of the rest of the service. It would, however, require considerable effort to achieve name recognition.

- Awareness of basic Wheels services among the three cities of the Tri-Valley is approximately the same as awareness of the Wheels name itself. However, the relatively new twenty-four hour service to Bayfair is not well known.

- The use of BART is quite extensive. Wheels captures a respectable share of the market for trips to the BART station – especially among frequent BART riders -- and this share should increase with the advent of BRT.

- The suggestion of direct service from Livermore to BART via I580 is initially well received but when reduced to regular ridership among BART users and eliminating those with significant barriers to transit use, we find that it would attract very few

regular riders. If the service were offered on a trial basis, the point of origin should be the municipal parking facility at Livermore.

- The market for Wheels-to-BART will increase somewhat, though not greatly by a parking fee increase to $3.00 It would require a major increase to $5 or $6 to cause present non-Wheels users to change from their cars to Wheels.

- Most people strongly agree that Wheels is safe enough for high school students to use (56%). Only 37% strongly agree it is safe enough for middle-school student to use. Only 35% strongly agree it is fast enough for this purpose. In short, there is limited, but nevertheless considerable interest in the use of Wheels by students for their school trips, although for middle school students it is a minority of the public.

- A total of 11% of adults have a middle or high school student in their households and indicate that they would be interested in buying a vacation and weekend pass for them to use on Wheels.

- There is strong support for the general proposition that is it important for the Tri-Valley area to have good tax supported public transportation.

Appendix: Questionnaire

Foresight Project #27011 Wheels Telephone Survey Questionnaire, 2007

There will be quotas for potential riders and for the total who are gainfully employed to approximate the Census.

SECTION 1: INTRO & BASIC AWARENESS
Hello, We are conducting a survey in the Tri-Valley area concerning community issues. My name is…… , and I am with CJI Research, a professional market research firm. I assure you we are not selling anything, We are strictly interested in your opinions. May I speak with the person in your household eighteen or older who had the most recent birthday? [IF THAT PERSON IS NOT AVAILABLE, ASK FOR ANOTHER ADULT 18 OR OLDER]

1 Interviewer indicate gender by observation
- (1) Male
- (2) Female

2 Do you happen to know the name of the agency that provides local bus service in Tri-Valley area? **[UNAIDED - DO NOT READ RESPONSES]**
- (1) Wheels
- (2) The bus company (a)
- (3) LAVTA (a)
- (4) The city / the municipality / Dublin, / Livermore/ Pleasanton (a)
- (5) Other name given (a)
- (6) Not sure (a)

(a) Just so you'll know while I ask you other questions, the local bus system I want to ask about is called Wheels and it is run by the Livermore Amador Valley Transit Authority

3 Have you personally ridden a Wheels bus at all since 2002?
- (1) Yes (a)
- (2) No (skip to Q4)
- (3) Refused **[TERMINATE]**

(a) Since last year at this time, have you used Wheels at all?
- (1) Yes (b)
- (2) No (c)

(b) Are you now using Wheels several times a week, about once a month or more, or do you use it less than once a month?
- (1) Several times a week (Go to QUOTA ASSIGNMENT)
- (2) Once a month or more (Go to QUOTA ASSIGNMENT)
- (3) Less often (4)

(4) Not sure (4)

(c) What was the most recent year you used Wheels? [ENTER FOUR DIGIT YEAR, THEN ASK QUESTION #d]

(d) When you were using Wheels, did you use Wheels several times a week, about once a month or more, or do you use it less than once a month?
(1) Several times a week
(2) Occasionally
(3) Less often
(4) Do not remember

SECTION 2: INITIAL POTENTIALITY MEASURE

4 Let's say that Wheels' local bus service came within a block or two of your home, ran frequently, and ran directly to a block or two of where you need to go anywhere in Tri-Valley area. Thinking realistically, how likely would you be to use a Wheels Bus once a month or more -- very likely, somewhat likely, not very likely, or definitely would not?
(1) Very likely ("POTENTIAL RIDER")
(2) Somewhat likely ("POTENTIAL RIDER")
(3) Not very likely ("DEFINITE NON-RIDER")
(4) Definitely would not ("DEFINITE NON-RIDER")
(5) Couldn't -- need car at work ("DEFINITE NON-RIDER")
(6) Couldn't -- other problem would prevent it ("DEFINITE NON-RIDER")
(7) Not sure ("DEFINITE NON-RIDER")
(8) Ref **[TERMINATE]**

QUOTA ASSIGNMENT:

Potential Rider:	**Q4 = 1 or 2**	**n=400**	
Rider:	**Q3b = 1 or 2**	**just count**	
Non Rider	**Q4 = 3, 4, 5, 6, 7**	**just count**	**continue**

SECTION 3: AWARENESS / COGNITIVE ELEMENTS

Many people who do not use the buses regularly are not aware of the bus services that are available, while other people are quite aware of them. I'd like to read you a few services the local bus system provides and ask if you were aware of them before I read them to you.

5 First, Wheels provides regular bus service between Livermore, Pleasanton, and Dublin. Were you really familiar with that service before I just read it to you, or had you only heard of it, or were you not aware of it at all?

(1) Really familiar
(2) Had only heard of it
(3) No, was not aware
(4) Not sure

6 Wheels provides service 24 hours a day, including service to the Bayfair BART station when BART is closed so people can still transfer to other bus systems late at night. Were you really familiar with that service before I just read it to you, or had you only heard of it, or were you not aware of it at all?

(1) Really familiar
(2) Had only heard of it
(3) No, was not aware
(4) Not sure

7 Wheels provides service from Livermore, Dublin, and Pleasanton to the Dublin/Pleasanton BART station at Pleasanton.., Were you really familiar with that service before I just read it to you, or had you only heard of it, or were you not aware of it at all?

(1) Really familiar
(2) Had only heard of it
(3) No, was not aware
(4) Not sure

SECTION 4: TRAVEL NEEDS & PATTERNS

8 Are you presently employed outside the home?

(1) Yes
(2) No

9 Are you a student (IF EMPLOYED - also a student?)

(1) Yes
(2) No

10 AUTO-CODES. THERE CODES ARE TO AUTO-FILL BASED ON Q8 AND Q9]
1=EMPLOYED, NOT A STUDENT (11)
2=EMPLOYED AND A STUDENT (11)
3=STUDENT ONLY (11a)
4=NEITHER A STUDENT NOR EMPLOYED (19)

[ASK Q11 to Q18 ONLY IF RESPONDENT IS EMPLOYED OUTSIDE THE HOME OR A STUDENT OR BOTH I.E. IF Q10 = 1,2, OR 3]

To help plan transportation services we need to know several things about people's transportation needs, including where they are going and where they are coming from and how they get there.

11 In the past twelve months have you most often commuted to work by driving alone all the way to work, carpooling with others, using public transit all or part of the way, or by another means of transportation?
- (1) Driving alone all the way to work (12)
- (2) Car pooling (or van pooling) (14)
- (3) Public transit (14)
- (4) [VOL] Walking (18)
- (5) [VOL] Bicycle (18)
- (6) [VOL] Telecommute (14)
- (7) REF

(a) In the past twelve months have you most often commuted to school by driving alone all the way to school, carpooling with others, using public transit all or part of the way, or by another means of transportation?
- (1) Driving alone all the way to school (12)
- (2) Car pooling (or van pooling) (14)
- (3) Public transit (14)
- (4) [VOL] Walking (18)
- (5) [VOL] Bicycle (18)
- (6) [VOL] Telecommute (14)
- (7) REF

12 Does your job require you to use your own car for work and not just for commuting and personal errands?
- (1) Yes (13)
- (2) No (13)

13 With gasoline costs remaining high, many people consider using public transportation for commuting and other trips, but for many reasons they drive instead. Sometimes this is because situations prevent it. Which, if any, of these situations applies to you?

(a) [IF EMPLOYED IN Q5] You have to work on the weekends
- (1) Applies
- (2) Does not apply

(b) You have to drop someone off who is too young to drive
- (1) Applies
- (2) Does not apply

(c) You have other errands you must do using your own car on the way to or from work
- (1) Applies
- (2) Does not apply

14 Is your (workplace / school) located in the Tri-Valley area or outside the Tri-Valley area?

(1) Tri-Valley area (18)
(2) Outside Tri-Valley area (15)
(3) Not sure (18)
(4) REF (18)

15 In the past twelve months, have you ever used BART or the ACE commuter trains to commute to work or work-related purposes? (IF SO: Which, BART or ACE?)
(1) Have not used either for work related purposes (19)
(2) BART (16, then skip to 23)
(3) ACE (17)
(4) BOTH (16 then 17)

16 In the past 12 months, about how many times a month did you use BART to commute or for other work–related purposes? [READ RESPONSES]?

(1) Less than once a month (a)
(2) 2 or 3 times a month (a)
(3) Once a week (a)
(4) Several times a week(a)
(5) Every work day (a)
(6) REF (18)

(a) To get to the BART station, did you drive, get a ride or take the Wheels bus?
(1) Drove
(2) Got a ride
(3) Took the Wheels bus
(4) [VOL] Walked
(5) [VOL] Bicycle

(ASK Q17 AND Q17A ONLY IF Q15 = 3 OR 4; ELSE, SKIP TO Q19)
17 In the past 12 months, about how many times a month did you use the ACE commuter train to get to work [READ RESPONSES]?

(1) Less than once a month (a)
(2) 2 or 3 times a month (a)
(3) Once a week (a)
(4) Several times a week (a)
(5) Every work day (a)
(6) REF (skip to 19)

(a) To get to the ACE train station, did you drive, get a ride or take the Wheels bus?
(1) Drove
(2) Got a ride
(3) Took the Wheels bus
(4) [VOL]: Other

a. _____

18 **[ONLY ASK Q18 IF Q14 = 1]** Which community do you work in, Livermore, Pleasanton, Dublin or another part of the Tri-Valley area?
(1) Livermore
(2) Pleasanton
(3) Dublin
(4) Refused
(5) Other
(a) _____

[ASK ALL]

19 For making local trips in the Tri-Valley for shopping, doctor's visits, and other errands in the past twelve months (not including getting to work), have you most often driven yourself, gotten rides, used the Wheels buses, or some other way?
(1) Driven alone
(2) Gotten rides
(3) Public transit
(4) [VOL] Walking
(5) [VOL] Bicycle
(6) [VOL] Telecommute
(7) REF

20 And for trips out of the Tri-Valley area to the Bay area in the past twelve months, have you ever used BART to make that trip?
(1) Have not traveled out of the Tri-Valley area (SKIP TO 23)
(2) Have used BART
(3) Have not used BART (SKIP TO 23)

21 About how many times a month did you use BART for shopping, entertainment, visiting, and other non-work purposes?

(1) Less than once a month (a)
(2) 2 or 3 times a month (a)
(3) Once a week (a)
(4) Several times a month (a)
(5) Every work day (a)
(6) REF

(a) To get to the BART station, did you drive, get a ride or take the Wheels bus?
(1) Drove (22)
(2) Got a ride (23)
(3) Took the Wheels bus (23)
(4) [VOL] Walked (23)
(5) [VOL] Bicycle (23)

[ASK Q22 IF Q15=2 OR 4 OR IF 21= 1 THRU 5. OTHERWISE SKIP TO Q23]

22 Currently, BART charges $1 per day to park your car. Assuming BART raises the parking fee in the future, at what DAILY parking fee level would you consider taking a Wheels bus from your home to BART to avoid paying parking charges?

(1) $3 per day
(2) $4 per day
(3) $5 per day
(4) $6+ per day
(5) [VOL] Not sure

[ALL RESPONDENTS]

23 For transportation planning we also need to have a rough idea of where people are coming from. For confidentiality please do **not** tell us the address where you live, but would you tell us just the town?

(1) Livermore (24)
(2) Pleasanton (27)
(3) Dublin (27)
(4) Refused (27)
(5) Other
(a) _____ (27)

24 **[ASKED ONLY OF LIVERMORE RESIDENTS]** Wheels is considering offering direct bus service from one or more locations in or near Livermore to the Dublin/Pleasanton BART station. Wheels would have to choose one of four locations where people could be dropped off or could park and ride. Regardless of whether you use BART, we would like to know which location you would prefer if you did use BART. The locations are:

(1) The downtown municipal parking garage (25)
(2) The BART park and ride near the Livermore airport (25)
(3) The exit at 580 and Vasco (25)
(4) The exit at I580 and Greenville (25)
(5) [VOL] I just never use BART (27)
(6) [VOL] Not sure (25)

25 As I said, Wheels is considering offering direct bus service from one of those park and ride locations to the Dublin/Pleasanton BART station with no stops in between. It would run on I580 in regular traffic. If they offered that service, would you ever use it to get to BART?

(1) Yes (26)
(2) No (27)
(3) Not sure (27)

26 Do you believe you would use it most of the times when you use BART, some of the times you use BART, or rarely?

(1) Most of the time
(2) Some of the time
(3) Rarely

27 Now, I would like to ask you about something different. Please think for a moment about the local area trip you take more often than any other local trip, whether it is commuting to work or other reasons. When you make that trip by car, about how long does it normally take? _____ minutes

28 [IF Q14 = 1] If you made that same trip by a Wheels bus, about how long do you think it would normally take? _____ minutes (30)

29 [IF Q14 = 2 OR 3] If you were to make that trip by a combination of a Wheels bus and BART or other transit system how long do you think it would probably take? _____ minutes

30 Since the middle and high schools in the Tri-Valley area have no yellow school bus service, some parents drive their kids and drop them off, and others have them take the Wheels buses. Next school year will there be any middle or high school students in your household?
(1) Yes (31)
(2) No (32)
(3) REF (32)

31 Some bus systems offer special fares to middle and high school students to use only on the weekends and during vacations. If Wheels offered a special student pass like that would you probably purchase such a pass for your middle or high school student or not?
(1) Yes
(2) No
(3) REF

32 In the typical week, on how many days do you travel between two or all three of the cities of Dublin, Livermore and Pleasanton for any reason? Never, one or two, three or four, or five or more?
(1) None at all (35)
(2) One or two (33)
(3) Three or four (33)
(4) Five or more (33)
(5) REF (35)

33 Wheels is planning to offer a new bus rapid transit service between Livermore and Dublin-Pleasanton. I would like to describe it to you briefly and then ask you about it.

Here is the description: This service would use new, comfortable buses. It would run on Stanley Boulevard to avoid freeway congestion, have attractive shelters for waiting, and have limited stops. A bus would come every fifteen minutes. The trip from Livermore to Dublin – Pleasanton would take about twenty-five minutes. How likely would you be to try using this service? on a regular basis? Would you definitely try using it regularly, might try, probably would not try or definitely would not try using it regularly?
(1) definitely try using it regularly (34)
(2) might try (34)
(3) probably would not try (35)

(4) definitely would not try using it regularly (35)

34 How many days a week would you probably use that rapid bus service, less than one day a week, one or three days, four or five days, or six or seven days a week?
(1) None at all
(2) One or two
(3) Three or four
(4) Five or more
(5) REF

[ROTATE] I'd like to know how much you agree or disagree with several statements about public transportation in the Tri-Valley area.		Disagree Strongly						Agree Strongly
35	It seems as if using Wheels buses for the types of trips you make would just take too long	1	2	3	4	5	6	7
36	It is important for the Tri-Valley to have good tax supported public transportation	1	2	3	4	5	6	7
37	Traffic congestion on the freeways in the Tri-Valley is tolerable	1	2	3	4	5	6	7
38	It would be more comfortable to get through traffic on a Wheels bus than in your car	1	2	3	4	5	6	7
39	It would be safe enough for a middle school student to use a Wheels bus to get to school	1	2	3	4	5	6	7
40	It would be safe enough for a high school student to use a Wheel bud to get to school	1	2	3	4	5	6	7
41	It would be fast enough for students to take a Wheel bus to get to school	1	2	3	4	5	6	7

42 In the past two or three years, do you believe traffic congestion on I 580 is becoming worse, staying about the same, or is not as bad as it was?
(1) Worse
(2) Same
(3) Not as bad
(4) Not sure

43 When you drive out of your home city in the Tri-Valley, do you tend to use I580 at all times of day, only during rush hour, at times other than rush hour, or not at all?
(1) Use I580 all times
(2) Only during rush hour
(3) Only times other than rush hour
(4) [VOL] I do not drive

44 How often do you use route I 580, less than one day a week, one or three days, four or five days, or six or seven days a week?
(1) None at all
(2) Less than 1 day a week
(3) One or two
(4) Three or four
(5) Five or more
(6) REF

SECTION 4: RATINGS/PERCEPTIONS OF RELATIVE SERVICE VALUE

[WORDING OF INTRO TO RATING SERIES]
RIDERS: I'd like you to rate Wheels services. For each aspect of service I read you, just tell me if it is excellent, very good, good, fair or poor.
OTHERS: Even though you do not ride Wheels buses regularly, I'd like you to try to rate what you think the services probably are like based on what you may think or have heard.

For each aspect of service I read you, would you rate it on a scale from 0 to 10 on which zero means it is very poor and 10 means it is really excellent, and the numbers in between mean something between excellent and very poor.

[DO NOT ROTATE THESE ITEMS 44 TO 52]											
45 How would you rate the time it takes to get by bus to **where** you need to go most often when traveling in Tri-Valley area?	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
46 How would you rate the **time** it takes to get by car to where you need to go most often when traveling in Tri-Valley area?	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
47 The **comfort** of using the **Wheels bus** to get around Tri-Valley area including getting to and from the bus as well as the bus ride	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
48 The overall comfort of using the **car** to get around Tri-Valley area, including parking and driving as well as the comfort of the car itself	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
49 The **reliability** of getting where you need to go by **Wheels bus on time**	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
50 The **reliability** of getting where you need to go by **car on time**	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
51 The convenience of using a **combination of Wheels and BART** to get around in the Bay area	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
52 The **convenience** of using a **car** to get around the entire Bay area	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
53 The **convenience** of using a **combination of a car and BART** to get around the entire Bay area	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

SECTION 8: DEMOGRAPHICS

54 To end up, I have some background questions that will be used only to help us analyze the results of the study. Like all of your answers, this information will be kept completely confidential. First, how many cars, or other motor vehicles are available for use by drivers in your household?
0 1 2 3 4 or more 9=Refused

55 How many licensed drivers are there in your household?
0 1 2 3 4 or more 9=Refused

56 In what year were you born? 19_____ (999=Refused)

57 Do you consider yourself to be in one or more of the following ethnic groups? (MULTI CHOICE)

(1) African American
(2) Hispanic
(3) Caucasian
(4) Asian
(5) Native American Indian
(6) Pacific Islander
(7) Other
(8) Refused

58 And the final question, which of the following groups does your total annual household income fall into? (read as $10,000 TO LESS THAN $15,000)

(1) Less than $10,000
(2) $10,000 to $14,999
(3) $15,000 to $19,999
(4) $20,000 to $24,999
(5) $25,000 to $34,999
(6) $35,000 to $49,999
(7) $50,000 to $74,999
(8) $75,000 to $100,000
(9) $100,000 to $125,000
(10) $126,000 to $150,000
(11) More than $150,000
(12) REFUSED