2019 Origin and Destination Study

EXECUTIVE SUMMARY

Prepared for: Valley Metro and Maricopa Association of Governments (MAG)
Developed by: ETC Institute

DECEMBER 2019
Every three to five years, Valley Metro conducts an Origin and Destination Study (or the “On-Board Survey”) to understand transit riders’ demographics and travel patterns.

In Spring 2019, surveys for the 2019 Origin and Destination Study were collected. The number of completed weekday surveys was 20,565. Of these, 14,949 surveys were of bus riders and 5,616 were of rail riders. For the first time, data collection also included weekend surveys and 1,406 were collected.

This report summarizes the key findings from bus and rail riders.

The information represents total “linked” transit trips in an average weekday in Spring 2019. A linked transit trip is the rider’s full one-way trip from front door of their origin to the front door of their destination, and includes any transfers.

**Trips by transit type**

- **Bus-only**: 74%
- **Rail-only**: 17%
- **Bus + Rail**: 9%

These icons are used throughout this report to indicate comparisons between bus-only riders and rail-only riders.
Rider Demographics

### Bus-only

#### Age
- <18: 8%
- 19 to 24: 18%
- 25 to 34: 24%
- 35 to 44: 22%
- 45 to 54: 15%
- 55 to 64: 9%
- 65+: 5%

#### Race/Ethnicity
- White: 38%
- Hispanic/Latinx: 29%
- Black: 22%
- Native American: 3%
- Asian: 3%
- Two+ Races: 4%
- Any other: 1%

#### Gender
- Male: 57%
- Female: 42%
- Non-binary or identified as other: 1%

### Rail-only

#### Age
- <18: 8%
- 19 to 24: 22%
- 25 to 34: 24%
- 35 to 44: 20%
- 45 to 54: 14%
- 55 to 64: 6%
- 65+: 6%

#### Race/Ethnicity
- White: 49%
- Hispanic/Latinx: 22%
- Black: 16%
- Native American: 4%
- Asian: 4%
- Two+ Races: 4%
- Any other: 1%

#### Gender
- Male: 56%
- Female: 43%
- Non-binary or identified as other: 1%
Rider Demographics

Household income

- Under $15K: 15%
- $15K - $35K: 31%
- $35K - $50K: 17%
- $50K - $100K: 19%
- $100K+: 3%

Employment status

- Full-time: 64%
- Part-time: 13%
- Not Employed: 17%
- Retired: 6%

Smartphone ownership

- Own a smartphone: 91%
- Students: 16%

Student status (K-12 to College)

- Students: 26%
- Not students: 74%

Persons with disability

- Persons with a disability: 9%

Number of cars at home

- Zero car: 53%
- One car: 36%
- Two+ cars: 22%
Travel Patterns of Bus Riders

Top destinations for trips beginning at home

- Work: 47%
- University: 36%
- Other Recreation: 6%
- Social: 11%

How riders get to bus stops

- Walk: 88%
- Bicycle: 4%
- Drive: 6%
- Other: 2%

Type of fare used

- 1-Ride Pass: <12%
- 1-Day Pass: <9%
- 7-Day Pass: <9%
- 15-Day Pass: <6%
- 31-Day Pass: <6%
- Platinum Pass: <7%
- U-Pass/Semester Pass: <4%
- None (free service): <1%
- Other: <8%

How riders get schedule information

- Valley Metro Website: 35%
- Transit Book: 16%
- Ridekick App: 9%
- Customer Service: 10%
- Posted Schedule: 8%
- NextRide: 7%
- Other Mobile Apps (like Google Maps or Transit): 10%
- Other: 5%

Trips by time of day

- 6 - 9 A.M.: 12,000
- 9 AM - 11 AM: 9,000
- 11 AM - 1 PM: 8,000
- 1 PM - 3 PM: 7,000
- 3 PM - 5 PM: 6,000
- 5 PM - 7 PM: 5,000
- 7 PM - 9 PM: 4,000
- 9 PM - 11 PM: 3,000

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Travel Patterns of Rail Riders

Top destinations for trips beginning at home
- Work: 16%
- University: 36%
- Other: 12%

How riders get to stations
- Walk: 73%
- Bicycle: 14%
- Drive: 10%
- Other: 3%

How riders get schedule information
- Valley Metro Website: 35%
- Ridekick App: 16%
- Transit Book: 12%
- NextRide: 10%
- Customer Service: 7%
- Customer Service: 4%
- Customer Service: 10%
- Customer Service: 6%

Type of fare used
- 1-Ride Pass: <10%
- 1-Day Pass: <10%
- 7-Day Pass: <10%
- 15-Day Pass: <10%
- 31-Day Pass: <10%
- Platinum Pass: <10%
- U-Pass/Semester Pass: <10%
- None (free service): <10%
- Other: <10%

Trips by time of day
- 12 AM: 0
- 7 AM: 0
- 9 AM: 0
- 11 AM: 0
- 1 PM: 0
- 3 PM: 0
- 5 PM: 0
- 7 PM: 0
- 9 PM: 0
- 11 PM: 0

2019 ORIGIN AND DESTINATION STUDY
EXECUTIVE SUMMARY

(Chart details and percentages are not fully visible in the image.)
Other Notable Trends

Fewer college students are riding transit daily

55% decrease from 2010 to 2019

<table>
<thead>
<tr>
<th>Year</th>
<th>Work</th>
<th>College</th>
<th>Other</th>
<th>No-Home Based</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>50,000</td>
<td>44,000</td>
<td>30,000</td>
<td>20,000</td>
</tr>
<tr>
<td>2010</td>
<td>29,000</td>
<td>27,000</td>
<td>20,000</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>20,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>20,000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Majority of weekend trips are to OTHER destinations

<table>
<thead>
<tr>
<th>Day</th>
<th>Work</th>
<th>College</th>
<th>Other</th>
<th>Medical</th>
<th>Airpot</th>
<th>Remaining</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekday</td>
<td>45%</td>
<td>7%</td>
<td>37%</td>
<td>12%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weekend</td>
<td>29%</td>
<td>1%</td>
<td>54%</td>
<td>16%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Riders are using online tools for schedule information more

<table>
<thead>
<tr>
<th>Year</th>
<th>Online Tools</th>
<th>Offline Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>Valley Metro Website, Ridekick App and other apps</td>
<td>Transit Book, Customer Service, NextRide and posted signs</td>
</tr>
<tr>
<td>2019</td>
<td>77%</td>
<td>62%</td>
</tr>
</tbody>
</table>

Weekend trips peak in the midday compared to weekdays

<table>
<thead>
<tr>
<th>Time</th>
<th>Weekend</th>
<th>Weekday</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM Peak (6 AM to 9 AM)</td>
<td>10,000</td>
<td></td>
</tr>
<tr>
<td>Midday (9 AM to 2 PM)</td>
<td>20,000</td>
<td></td>
</tr>
<tr>
<td>PM Peak (3 PM to 6 PM)</td>
<td>30,000</td>
<td></td>
</tr>
<tr>
<td>Evening (6 PM to 9 AM)</td>
<td>40,000</td>
<td></td>
</tr>
</tbody>
</table>