U.S. Consumers Expect Transportation Modernization

The future of transportation is coming, but what it looks like is still being shaped. Understanding what transportation users want can help state, local, and federal agencies plan for the future.

U.S. consumers are optimistic about the future of transportation, yet they have reservations about some aspects, including AI. Safety and affordability are also important improvements. A transportation future that is reliable, sustainable, and equitable requires focused investment and collaboration among government and industry.

The priorities and opinions of users can help shape the future of transportation and inform policy decisions by transportation agencies, industry, and researchers as we plan for that future, including:

- Areas with limited budgets
- How to roll out self-driving vehicles
- The need for additional electric vehicle capacity
- How to increase public transit ridership
America’s transportation future is at an inflection point. The decisions we make in the coming years set the course for decades to come. Though users are optimistic, that also means high expectations. We need integrated planning across federal, state, and local governments; industry; academia; and trade groups to achieve these ambitious goals.

Kerry Buckley
Vice President, Center for Integrated Transportation, MITRE
Research Method

This survey was conducted by The Harris Poll on behalf of MITRE via its Harris On Demand omnibus product.

Sample Size: n=2,096

Mode: Online survey

Field Dates: October 10-12, 2023

Qualification Criteria: U.S. residents Adults ages 18+

Weighting: Data weighted to ensure results are projectable to U.S. adults ages 18+

In tables and charts: Percentages may not add up to 100% due to weighting, computer rounding, and/or the acceptance of multiple responses.
Research Findings:
MITRE-Harris Poll Transportation Survey
US consumers are nearly twice as likely to say their transportation experience will get better than worse in the next 10 years. Younger generations, urbanites, and those with more education and income are more likely to think transportation will get better.
Collaboration is Necessary to Meet Transportation Expectations

Broad and wide-ranging priorities show the need to continue to advance and improve our transportation infrastructure. The desire for our streets and skies to be safer underscores the necessity of collaborative safety research among industry, government, and independent third parties. Some of these investments and programs are already underway. PARTS and VOICES are data-sharing agreements among automotive companies to enhance safety.

Working together, the transportation industry can use data to proactively discover potential hazards, implement mitigation, and make our infrastructure safer and more effective.

Greg Tennille
Managing Director, Transportation Safety, MITRE
Safety and cost are the top priority areas where users want to see improvements in transportation over the next 10 years.

3-in-4 say it's important to improve data privacy, predictability/reliability, and environmental sustainability in transportation.

2-in-3 say it's important to improve access, equity, and integration in transportation.

Importance to Make Improvements in Transportation Areas Over the Next 10 Years (% Very/Somewhat Important)

- Increased safety: 90%
- Reduced personal expenses (e.g., gas, tolls, transit fare): 83%
- Increased privacy and trust in how transportation data is used: 79%
- Increased predictability and reliability (e.g., on-time departures and arrivals, predictable commute times): 78%
- Increased environmental sustainability: 77%
- Decreased travel time to destination: 72%
- Increased access to transportation options (e.g., train stations, airports): 68%
- Increased access to and from rural areas: 68%
- Improved equity across regions (e.g., investment in historically underserved areas): 67%
- Increased integration among ways of traveling (e.g., single fare/scheduling for multiple modes of transit): 66%

Source: MITRE-Harris Poll 2023 Transportation Survey

BASE: ALL RESPONDENTS (n=2096)
Most Boomers say its “very important” to improve transportation safety; Millennials say it is “very important” to improve predictability and reliability.

### Importance to Make Improvements in Transportation Areas Over the Next 10 Years (% Very/Somewhat Important)

<table>
<thead>
<tr>
<th>Area</th>
<th>Total</th>
<th>Gen Z</th>
<th>Millennials</th>
<th>Gen X</th>
<th>Boomers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased safety</td>
<td>55%</td>
<td>55%</td>
<td>53%</td>
<td>46%</td>
<td>49%</td>
</tr>
<tr>
<td>Reduced personal expenses</td>
<td>44%</td>
<td>44%</td>
<td>47%</td>
<td>43%</td>
<td>47%</td>
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<tr>
<td>Increased privacy trust in how transportation data is used</td>
<td>39%</td>
<td>39%</td>
<td>40%</td>
<td>36%</td>
<td>39%</td>
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<tr>
<td>Increased environmental sustainability</td>
<td>36%</td>
<td>38%</td>
<td>40%</td>
<td>41%</td>
<td>38%</td>
</tr>
<tr>
<td>Increased predictability and reliability</td>
<td>34%</td>
<td>30%</td>
<td>40%</td>
<td>32%</td>
<td>40%</td>
</tr>
<tr>
<td>Increased access to transportation options</td>
<td>30%</td>
<td>27%</td>
<td>33%</td>
<td>24%</td>
<td>36%</td>
</tr>
<tr>
<td>Decreased travel time to destination</td>
<td>28%</td>
<td>31%</td>
<td>28%</td>
<td>27%</td>
<td>29%</td>
</tr>
<tr>
<td>Increased access to and from rural areas</td>
<td>27%</td>
<td>31%</td>
<td>31%</td>
<td>19%</td>
<td>30%</td>
</tr>
<tr>
<td>Improved equity across regions</td>
<td>24%</td>
<td>31%</td>
<td>31%</td>
<td>17%</td>
<td>31%</td>
</tr>
<tr>
<td>Increased integration among ways of traveling</td>
<td>23%</td>
<td>19%</td>
<td>22%</td>
<td>26%</td>
<td>30%</td>
</tr>
</tbody>
</table>

Source: MITRE-Harris Poll 2023 Transportation Survey

BASE: ALL RESPONDENTS (n=2096)
24% say Highway driving and 21% say City driving is the #1 priority for safety improvements, while only 5% say Biking is the #1 priority.

#1 Priority for Transportation Safety Improvements

- Highway driving: 24%
- City driving: 21%
- Walking: 14%
- Airplanes: 13%
- Trains: 10%
- Buses: 9%
- Biking (including scootering, skating etc.): 5%
- None of these: 4%

Source: MITRE-Harris Poll 2023 Transportation Survey
BASE: ALL RESPONDENTS (n=2096)
Which of the following transportation options should be the top priorities for safety improvements? Select your top three.
AI and Automation Must Be Deployed Strategically

"U.S. consumers express a willingness to try new technologies and their adoption will dramatically impact the transportation landscape. AI and automation across transportation modes is reshaping our experience. However, the skepticism reflected in these findings shows the importance of getting it right to ensure a safe and secure system. Efforts must remain focused on assurance, reliability, and transparency."

Joseph Kolly
Director, Transportation Innovation Center
More U.S. consumers believe AI and automation will have a beneficial than detrimental impact on transportation over the next 10 years.

Older generations, urbanites, and those with more education and income are more likely to see the benefits of AI in transportation. Gen Z are more wary of AI and automation in transportation than their older counterparts.

Perceived Impact of AI and Automation on Transportation Experience in the Next 10 Years

- **Total**: 44% Get Better, 29% Get Worse, 27% No Impact

### Generation
- Gen Z: 40% Very beneficial, 26% Somewhat beneficial, 10% No Impact, 11% Somewhat detrimental, 18% Very detrimental
- Millennials: 28% Very beneficial, 22% Somewhat beneficial, 10% No Impact, 11% Somewhat detrimental, 26% Very detrimental
- Gen X: 25% Very beneficial, 30% Somewhat beneficial, 10% No Impact, 11% Somewhat detrimental, 24% Very detrimental
- Boomers: 27% Very beneficial, 29% Somewhat beneficial, 10% No Impact, 11% Somewhat detrimental, 27% Very detrimental

### Urbanicity
- Urban: 40% Very beneficial, 23% Somewhat beneficial, 10% No Impact, 11% Somewhat detrimental, 26% Very detrimental
- Suburban: 28% Very beneficial, 26% Somewhat beneficial, 10% No Impact, 11% Somewhat detrimental, 26% Very detrimental
- Rural: 28% Very beneficial, 36% Somewhat beneficial, 10% No Impact, 11% Somewhat detrimental, 36% Very detrimental

### Education
- Less than HS: 28% Very beneficial, 31% Somewhat beneficial, 27% No Impact, 31% Somewhat detrimental, 25% Very detrimental
- Some College: 26% Very beneficial, 29% Somewhat beneficial, 27% No Impact, 29% Somewhat detrimental, 24% Very detrimental
- College Grad +: 26% Very beneficial, 27% Somewhat beneficial, 27% No Impact, 27% Somewhat detrimental, 24% Very detrimental

### Income
- <$50k: 27% Very beneficial, 22% Somewhat beneficial, 27% No Impact, 27% Somewhat detrimental, 22% Very detrimental
- $50-99.9k: 26% Very beneficial, 27% Somewhat beneficial, 26% No Impact, 27% Somewhat detrimental, 23% Very detrimental
- $100k+: 27% Very beneficial, 22% Somewhat beneficial, 27% No Impact, 27% Somewhat detrimental, 22% Very detrimental

Source: MITRE-Harris Poll 2023 Transportation Survey
BASE: ALL RESPONDENTS (n=2096)
Gen Z’s Priorities are Striking

When looking at the future of transportation, Gen Z stands out from other generations. In terms of transportation priorities, 85% of Gen Z say it is important to increase environmental sustainability over the next 10 years, 11 points higher than other generations. Gen Z is also the most interested in green technology, with 79% saying they expect to use a hybrid or electric vehicle in the next 10 years, 21 points higher than other generations. And while Gen Z is the most optimistic about the future of the transportation experience (48% Gen Z vs. 39% of others say it will get better), they are also the most skeptical about the role of AI and automation in transportation (40% vs. 27% of others say it will have a detrimental impact).

Rob Jekielek
Managing Director, Harris Poll
6-in-10 expect to use hybrid/electric vehicles in their lifetime (12% already do) and about half expect to use ride-hailing apps (21% already do).

Fewer than half expect to use driverless vehicles of any type, and even fewer expect to use vertical takeoff/landing aircraft, e-scooters or bikeshare.

<table>
<thead>
<tr>
<th>Transportation Options</th>
<th>Use / Expect to Use Net</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hybrid/Electric Vehicles</td>
<td>60%</td>
</tr>
<tr>
<td>Ride-Hailing Apps</td>
<td>49%</td>
</tr>
<tr>
<td>Driverless Taxis/Rideshare Vehicles (e.g., Uber, Lyft)</td>
<td>43%</td>
</tr>
<tr>
<td>Driverless Cars</td>
<td>40%</td>
</tr>
<tr>
<td>Driverless Delivery Vehicles</td>
<td>40%</td>
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<tr>
<td>Vertical take-off and landing aircraft</td>
<td>33%</td>
</tr>
<tr>
<td>E-Scooters</td>
<td>33%</td>
</tr>
<tr>
<td>Bikeshare</td>
<td>28%</td>
</tr>
</tbody>
</table>

Source: MITRE-Harris Poll 2023 Transportation Survey
BASE: ALL RESPONDENTS (n=2096)

Which of the following transportation options do you expect to use?
Younger generations—Gen Z in particular—and those living in urban areas are far more likely to use or expect to use all transportation options presented.

Boomers and those in rural settings are much less likely to use or expect to use them.

### Transportation Used / Expect to Use in the Future

<table>
<thead>
<tr>
<th>Transportation Option</th>
<th>Gen Z</th>
<th>Millennials</th>
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<th>Boomers</th>
<th>Urban</th>
<th>Suburban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hybrid/Electric Vehicles</td>
<td>22%</td>
<td>33%</td>
<td>47%</td>
<td>60%</td>
<td>71%</td>
<td>66%</td>
<td>57%</td>
</tr>
<tr>
<td>Ride-Hailing Apps</td>
<td>49%</td>
<td>56%</td>
<td>69%</td>
<td>79%</td>
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<tr>
<td>Driverless Taxis/Rideshare Vehicles (e.g., Uber, Lyft)</td>
<td>22%</td>
<td>39%</td>
<td>57%</td>
<td>74%</td>
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<tr>
<td>Driverless Cars</td>
<td>22%</td>
<td>39%</td>
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Source: MITRE-Harris Poll 2023 Transportation Survey
BASE: ALL RESPONDENTS (n=2096)
Which of the following transportation options do you expect to use?
As we create the future of transportation, understanding what users expect and want is a crucial part of creating a mobility landscape that works for everyone. This MITRE-Harris Poll survey provides vital insight that will help set the stage for the next phase of transportation planning and collaboration among industry, government, and academia.

Kerry Buckley
Vice President, Center for Integrated Transportation
Thank you
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