

WAMPO Future of Transportation Survey Questionnaire Background Information

The following issues were identified as important for decision-making about the future of transportation. These issues or “themes” are included in the survey questionnaire.

Fear & Trust in New Technologies

- Research shows a lack of trust in unmanned vehicles and driverless technologies. Instead, there are mixed opinions about this life-changing technology.
- In a 2017 Brookings study, 51% percent of respondents said they did not think autonomous vehicles (AVs) would help decrease the number of car accidents (West, 2018).
- Approximately 37,000 vehicle crash deaths occur each year on U.S. roadways, 95% of which involve human error (U.S. Department of Transportation, 2017; Brown, 2017). While automated technology would eliminate the human error potential, early glitches received high-profile coverage (Karsten & West, 2017; Tomer, 2018).
- The installation of gunshot sensors in some Wichita neighborhoods prompted concerns about Big Brother-style intrusions on privacy (Finger, 2019).
- Autonomous infrastructure relies on faster-than-human-reaction 5G internet and a network of sensors constantly communicating between people, infrastructure and vehicles (Khosravi, 2018; NHTSA, 2020; Schumann, 2019).

Willingness to Embrace Change

- Changes in transportation technology are already here and being implemented, including a pilot program that synchronized stop lights along Maple Street in Wichita. This pilot project decreased westbound evening commute times by six minutes and eastbound morning commute times by four minutes (Finger, 2019). Another example is the use of technologies designed to be service-oriented and address safety and inefficiency, such as real-time road condition updates or notifications of available parking spaces.
- Early adopters of other transportation technologies are also more likely to embrace autonomous vehicles and perhaps other forms of advanced transportation technologies. People who use car services such as Uber and Lyft are more likely to use or purchase autonomous vehicles (Gartner, 2017).

- Resistance to change focuses specifically on driverless technology, not on a multi-modal transportation system (one that utilizes a mix of transportation options such as buses, bike systems and walking).

Equity considerations

Ride Sharing

- Historical data shows cab drivers in the past were more or less willing to pick up passengers based on skin color. Ride-sharing applications Uber and Lyft were partially created to increase equity by eliminating human bias and providing transportation options to those without adequate means of travel. Discriminatory biases do still exist. A 2013 Washington D.C.-based study found that taxis were 25% less likely to pick up a black rider than a white rider (Bliss, 2018). In 2016, black riders using Uber or Lyft in Seattle reportedly waited about 16-28% longer than white riders did (White, 2016).
- Other data suggests ride-sharing apps create a more equitable transportation model. A 2018 study of Lyft data in L.A. County found no neighborhoods in L.A. County were systematically excluded from the service. The study found that “users living in low-income areas made more Lyft trips per person, compared to middle and high-income communities,” meaning the applications provided a much-needed transportation service for low-income areas (Bliss, 2017).

Enhanced Mobility

- New technologies will help populations that previously could not operate human-operated vehicles. A recent Brookings report found that “42 percent thought AVs would be helpful to senior citizens and 40 percent said they would be helpful to the visually impaired” (West, 2018).
- Solving some of the transportation-related needs for people with disabilities could also save about \$19 billion in healthcare costs from missed medical appointments every year (Bin-Nun, Claypool, Gerlach, 2017:5).

Other Types of Diversity

- A re-envisioning of transportation systems provides an opportunity to remedy existing disparities based on gender, race, age, income and other disparities. Impacts for those in urban core areas versus more rural communities must also be considered. Early literature indicates there could be clear winners and losers. Re-envisioning the transportation system can minimize disparities and more equitably meet multiple types of needs.

Quality of Place

- A community's approach to transportation can tremendously enhance its quality of place, a key in attracting and retaining talent. In his book "The New Urban Crisis," Richard Florida outlines how access to and quality of transportation systems shape development patterns (Florida, 2017, p. 65).
- "Smart Cities" have increased interconnectedness with the goal of making cities more competitive and efficient, as well as improving social and physical infrastructure (Hussain, 2019).
- Project Wichita, a vision plan for greater Wichita, identified guiding principles for the region's 10-year action plan, which include: (1) the community choosing to invest in itself; (2) creating connected community; (3) addressing challenges with a forward-thinking mindset focused on future generations, and; (4) to boldly seize opportunity (Project Wichita, 2018).
- Project Wichita data, from more than 239 focus groups with more than 3,800 participants, fit into eight broad topics, one of which was transportation. Major themes include the need to complete Kellogg and regional expressways, enhancing and improving public transit, air service and connections, passenger trains and bike/walking paths (Project Wichita, 2018).

Talent

- More millennials are choosing to use transit solutions in place of a personal vehicle. As cities and companies grow, ensuring the availability of an adequate multimodal transportation system will be paramount in attracting and retaining talent. For example, the Amazon HQ2 location competition included efficient transportation as one of the most important criteria considered (Schaper, 2018).
- Companies offer transportation as a benefit such as creating custom transportation solutions including company shuttles. These solutions can demonstrate that a firm values their employees' time and wellbeing. Cirrus, located in Austin, Texas, provides custom shuttle programs which helped the company reach a 93% retention rate, 11% higher than the national average (Harrington, 2019).
- Millennials are shifting vehicle ownership patterns. Literature ties this to the lingering effects of the Great Recession and the preference for residing in urban areas, providing alternative transportation options. These trends, coupled with the comprehensive costs of owning and maintaining a private vehicle, have reduced vehicle ownership rates (West, 2019).
- Telecommuting options offer benefits for attracting and retaining talent. Although alternative work arrangements are an increasing trend, the research has not

shown a correlation between telecommuting and decreased traffic congestion (Freemark, 2014).

References

- Bin-Nun, A., Claypool, H., Gerlach, J. (2017, January). Self-Driving Cars: The Impact on People with Disabilities. The Ruderman Family Foundation. Retrieved from https://issuu.com/rudermanfoundation/docs/self_driving_cars - the_impact_on_p_b191266f4baa94.
- Bliss, L. (2017, August 4). "Older People Will Need much Better Transit." City Lab. Retrieved from <https://www.citylab.com/transportation/2017/08/older-people-will-need-much-better-transit/535806/>.
- Brown, B., (2017, October 6). Evidence stacks up in favor of self-driving cars in 2016 NHTSA fatality report. Digital Trends. Retrieved from <https://www.digitaltrends.com/cars/2016-nhtsa-fatality-report/>.
- Finger, S. (2019, October 22). From driverless trolleys to free hot spots, Wichita looks to technology to help residents" *The Wichita Eagle*. Retrieved from <https://www.kansas.com/news/politics-government/article236007323.html>.
- Florida, R. (2017). *The new urban crisis: How our cities are increasing inequality, deepening segregation, and failing the middle class-and what we can do about it.* Basic Books.
- Freemark, Y. (2014, February 4). "Why Telecommuting Really Matters, in 6 Charts." City Lab. Retrieved from <https://www.citylab.com/transportation/2014/02/why-telecommuting-really-matters-6-charts/8227/>.
- Gartner. (2017, August 24). The Gartner Consumer Trends in Automotive online survey. Gartner, Inc. Retrieved from <https://www.gartner.com/en/newsroom/press-releases/2017-08-24-gartner-survey-reveals-55-percent-of-respondents-will-not-ride-in-a-fully-autonomous-vehicle>.
- Harrington, K. (2019, January 29). Austin helps companies attract talent by making it easier to commute without a car. Retrieved from <https://mobilitylab.org/2019/01/29/austin-helps-companies-attract-talent-by-making-it-easier-to-commute-without-a-car/>.
- Karsten, J. & West, D. (2017, January 30). "Semi-autonomous vehicles must watch the road and the driver." Brookings. Retrieved from <https://www.brookings.edu/blog/techtank/2017/01/30/semi-autonomous-vehicles-must-watch-the-road-and-the-driver/>.
- Khosravi, B. (2018, March 25). "Autonomous Cars Won't Work - Until We Have 5G." Forbes. Retrieved from

<https://www.forbes.com/sites/bijankhosravi/2018/03/25/autonomous-cars-wont-work-until-we-have-5g/#22fee42d437e>

NHTSA. (2020). "Automated Vehicles for Safety." Retrieved from
<https://www.nhtsa.gov/technology-innovation>.

Project Wichita. (2018). Project Wichita: A Report to the Community. Retrieved from
<https://www.projectwichita.org/share>.

Schaper, D., (2018, November 29). 'Talent Wants Transit': Companies Near Transportation Gaining The Upper Hand. NPR.

<https://www.npr.org/2018/11/29/671203167/talent-wants-transit-companies-near-transportation-gaining-the-upper-hand>.

Schumann, J. (2019, November 15). 5G and Autonomous Vehicles: Turning Fiction into Reality. Government Technology. Retrieved from
<https://www.govtech.com/products/5G-and-Autonomous-Vehicles-Turning-Fiction-into-Reality.html>.

Tomer, A. & Kane, J. (2018, January). "Localities will deliver the next wave of transportation investment." Brookings. Retrieved from
<https://www.brookings.edu/research/localities-will-deliver-the-next-wave-of-transportation-investment/>.

U.S. Department of Transportation National Highway Traffic Safety Administration. (2017, October). Traffic Safety Facts. Retrieved from
<https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812456>.

West, D. (2018, July 23). Brookings survey finds only 21 percent willing to ride in a self-driving car. Brookings. Retrieved from
<https://www.brookings.edu/blog/techtank/2018/07/23/brookings-survey-finds-only-21-percent-willing-to-ride-in-a-self-driving-car/>.

West, D. (2019, December 18). "Remaking urban transportation and service delivery." Brookings. Retrieved from <https://www.brookings.edu/research/remaking-urban-transportation-and-service-delivery/>.

White, G. (2016, October 31). Uber and Lyft Are Failing Black Riders: Technology was supposed to prevent the racism and sexism that pervade the cab industry. But, surprise, it's not so easy to get rid of discrimination. The Atlantic. Retrieved from:
<https://www.theatlantic.com/business/archive/2016/10/uber-lyft-and-the-false-promise-of-fair-rides/506000/>

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